BALDWIN COUNTY, ALABAMA
Planning and Zoning Department

May 29, 2024

Melanie N. Ratcliffe
MS4 Section
Stormwater Management Branch, Water Division
Alabama Department of Environmental Management
PO Box 301463
Montgomery, Al 36130-1463

Re: Baldwin County's 2023-2024 Phase II MS4-Annual Report and SWMPP Update

Dear Ms. Ratcliffe,

I have attached the County's 2023/2024 MS4 Phase II Annual Report-Goals and Achievements Compliance Spreadsheets, SWMPP MCM Evaluations and SWMPP Update for your review. If you have any questions, please give me a call.

Sincerely,

Ashley Campbell
Baldwin County Planning & Zoning Department
Natural Resource Planner
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Foley, AL 36535
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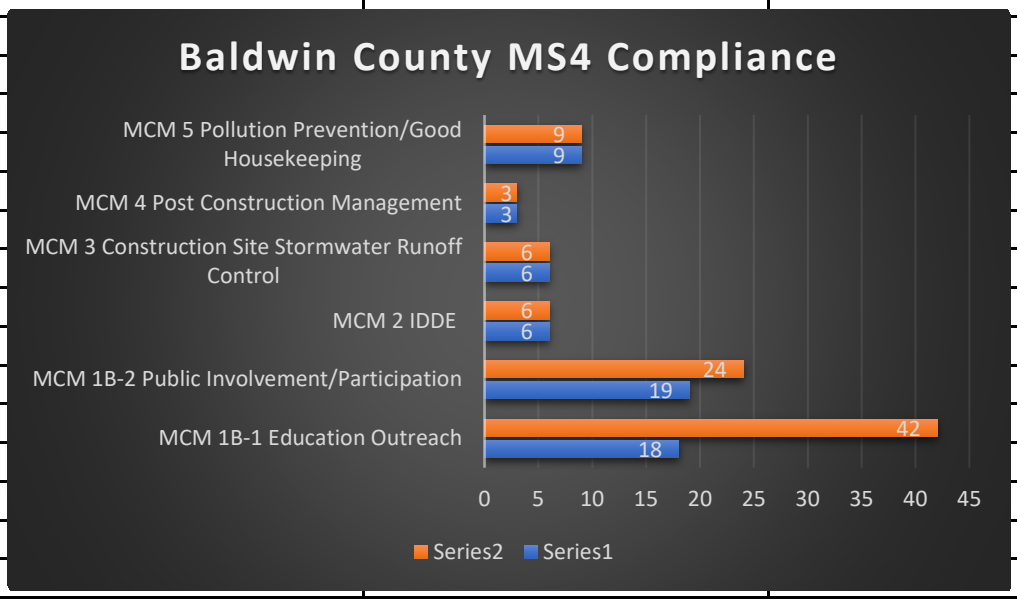
Minmimum Control Measure (MCM)	2023/2024 Goals Proposed	2023/2024 Goals Achieved
MCM 1B-1 Education Outreach	18	42
MCM 1B-2 Public Involvement/Participation	19	24
MCM 2 IDDE	6	6
MCM 3 Construction Site Stormwater Runoff Control	6	6
MCM 4 Post Construction Management	3	3
MCM 5 Pollution Prevention/Good Housekeeping	9	9



2023/2024 Baldwin County SWMP Plan Update

The sections of the County's SWMPP were updated as follows:

Section 1- Program Administration

- Master Plan – Citizen's Guide to Growth Updated (1.2.5)
- Planning Districts updated (Figure 1.1)
- SWMP Revisions updated (1.3)
- SWMP Organization Chart updated (Figure 1.2)

Section 4-Public Education and Outreach

- Local Partnerships updated (4.4.1)

MCM 1-5 Program Strategies and Goals Spreadsheet Tables updated.

Minimum Control Measures Program Evaluation Comments

MCM1-Education Outreach/Public Participation-SWMPP Section 4&5-

The County feels that the strategies and goals established for this MCM are effective in meeting the permit requirements. However, during 2023/2024 permit year, the County was not able to meet the following MCM 1 Goals:

1. ***SWMPP Section 4.4.7.2 Goal Not Met*** - Reduction of Litter, Floatables & Debris-Watershed Signage & Environmental Awareness Signage - In year two (2), partner with Eastern Shore (ES) MS4 to host the community event to install storm drain labels throughout the ES MS4 area. The County had a difficult time ordering customized storm drain labels. The labels have been received and will be installed in the third (3rd) year of the permit cycle. The goal will be updated to reflect the new installation year.
2. ***SWMPP Section 5.2.1 Goal Not Met*** - Litter & Trash Abatement Programs - Baldwin County Clean Sweep- Household Waste Amnesty Day-the County will host one household solid waste amnesty day a year. The County's Solid Waste Department became a Solid Waste Authority. The County no longer has operation control of the Authority, but the County will partner with the SWA to continue the litter and trash abatement programs. This year the SWA began construction of a new Materials Repurposed Facility (MRF). While under construction, the SWA cannot host a Household Hazardous Waste Amnesty Day. The facility is projected to be completed by 2025. The County will update this goal to host one Amnesty Day a permit cycle for the remainder of this permit cycle. The goal will be revisited during the next five-year SWMPP update.

MCM2-Illicit Discharge Detection and Elimination-SWMPP Section 6

The County feels that the strategies and goals established for this MCM are effective in meeting the permit requirements. At this time, the County has no plans to change the efforts. However, Planning and Zoning will continue to work with the Highway Department to streamline the dry weather screening, inspection, and reporting process.

MCM3-Construction Site Runoff Control-SWMPP Section 7

The County feels that the strategies and goals established for this MCM are effective in meeting the permit requirements. At this time, the County has no plans to change the SWMPP strategies or goals.

MCM4-Post Construction Stormwater Management-SWMPP Section 8
The County feels that the strategies and goals established for this MCM are effective in meeting the permit requirements. At this time, the County has no plans to change the efforts.

MCM5-Pollution Prevention/Good House Keeping for Municipal Operations-Section 9
The County feels that the strategies and goals established for this MCM are effective in meeting the permit requirements. At this time, the County has no plans to change the efforts. However, the County will strive to make the tracking of employee training more efficient.

Water Quality Monitoring Plan-Section 10
At this time, the County has no plans to change its Water Quality Monitoring efforts.

TABLE 4-2 BALDWIN COUNTY PHASE II MS4
MCM 1 -Public Education Outreach Strategies and Goals

NPDES Permit Section	SWMPP Section	4-Public Education & Outreach Strategy	Goal	Pollution Targeted	Responsible Departments	2022 Proposed	2022 Achieved	2023 Proposed	2023 Achieved	2024 Proposed	2024 Achieved	2025 Proposed	2025 Achieved	2026 Proposed	2026 Achieved
Part III-B1	4.4.1	Local Partnerships	Throughout the permit cycle, the County will keep an update list of local partnerships with other agencies and organizations	All	P&Z	✓	✓	✓	✓						
Part III-B1bv	4.4.1	Local Partnerships	Coordination with other agencies and groups on environmental efforts, County staff will attend four (4) environmental agency meetings a years	All	P&Z	4	15 🗁	4	17 🗁						
Part III-B1bv	4.4.1	Local Partnerships	In year one (1), the County will seek to partner with USDA/NRCS to educated Livestock Farmers regarding potential pathogen pollution impacts to local streams	Pathogens	P&Z	✓	🗁	©	©	©	©	©	©	©	©
Part III-B1bv	4.4.1	Local Partnerships	Eastern Shore MS4s Meetings In years one (1) through (5), host or attend one meeting a year	All	P&Z	**1**	2 🗁	1	1 🗁						
Part III-B1	4.4.1.1	Local Partnerships-Clean Water Future Campaign	Throughout permit cycle continue to support the Clean Water Future (CWF) Campaign which informs individuals, households, schools, & businesses about steps they can take to reduce storm water pollution	All	P&Z	✓	🗁	✓	✓						
Part III-B1	4.4.2	Articles in Local Media & Brochures	Once per permit cycle, survey Environmental Advisory Committee (EAC) to determine target storm water pollutants and audiences for MS4 Education Outreach Program	All	P&Z	*	*	*	*						
Part III-B1	4.4.2	Articles in Local Media & Brochures	In years one (1)through five (5), create and update a list of local media outlets	All	P&Z	✓	✓	✓	✓						
Part III-B1	4.4.2	Articles in Local Media & Brochures	Throughout the permit cycle, the County will submit or participate in five (5) Stormwater related materials/articles being released to local media outlet or social media per permit cycle	All	P&Z	1	8 🗁	1	16 🗁						
Part III-B1	4.4.2	Articles in Local Media & Brochures	In year one of the permit cycle, the County will compile and update a list of EPA stormwater related education outreach materials	All	P&Z	✓	✓	*	*						
Part III-B1	4.4.2	Articles in Local Media & Brochures	In year one (1), review the county's building locations for brochure distribution and update as needed	All	P&Z	✓	✓	*	*						
Part III-B1	4.4.2	Articles in Local Media & Brochures	In year two, initiate a tracking system for EO Brochures-Pamphlets distribution	All	P&Z	**	**	✓	✓🗀						
Part III-B1bi	4.4.2	Articles in Local Media & Brochures	Create two (2) stormwater education brochures for a targeted pollutant every permit cycle	All	P&Z	1	🗁	1	1 🗁						

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NPDES Permit Section	SWMPP Section	4-Public Education & Outreach Strategy	Goal	Pollution Targeted	Responsible Departments	2022 Proposed	2022 Achieved	2023 Proposed	2023 Achieved	2024 Proposed	2024 Achieved	2025 Proposed	2025 Achieved	2026 Proposed	2026 Achieved
Part III-B1bv	4.4.3	Website P&Z Environmental	In year one (1) of the permit cycle, work with the County's Marketing Department to create & design a separate county environmental web page which will inform and involve individuals and groups on how to participate in storm water programs	All	P&Z & Marketing	✓	🗁	©	©	©	©	©	©	©	©
Part III-B1bv	4.4.3	Web Site P&Z Environmental	In year two (2) of the permit cycle, work with the County's Marketing Department to release the new environmental web page	All	P&Z & Marketing	**	** 🗀	©	©	©	©	©	©	©	©
Part III-B1bii	4.4.4	Environmental Workshops	During the permit cycle, host or sponsor two (2) education outreach workshop with at least one targeting land development community (i.e., construction)	Sediment, ALL	P&Z	2	4 🗀	*	4 🗀						
Part III-B1	4.4.5.1	Classroom Presentations-Master Environmental Education Presentations	During permit cycle, present two (2) MEE lessons to school age classrooms per year	All	P&Z	2	12 🗀	2	8 🗀						
Part III-B-1	4.4.5.2&3	Local Environmental Festivals-Watershed Festivals	Baldwin County Water Festival & Coastal Kids Quiz- The County will participate in two (2) events per permit cycle.	All	P&Z	1	🗁	1	1 🗁						
Part III-B-1	4.4.6.1&2	Local Environmental Festivals-Watershed Festivals	Woods-n-Water, Jubilee Festival & Earth Day-The county will sponsor or participate in one (1) festival a year	All	P&Z	1	1 🗀	1	2 🗁						
Part III-B-1-b-iii-(2)	4.4.7.1	Reduction of Litter, Floatables & Debris-Watershed Signage & Environmental Awareness Signage	In year one of the permit cycle, the County will create an inventory watershed and environmental awareness signage located in the MS4 area.	Trash & Floatable	Highway & P&Z	✓	🗀	©	©	©	©	©	©	©	©
Part III-B-1-b-iii-(2)	4.4.7.1	Reduction of Litter, Floatables & Debris-Watershed Signage & Environmental Awareness Signage	In year one of the permit cycle, install watershed signage in the Magnolia River Watershed	Trash & Floatable	Highway & P&Z	✓	🗀	©	©	©	©	©	©	©	©
Part III-B-1-b-iii-(2)	4.4.7.1	Reduction of Litter, Floatables & Debris-Watershed Signage & Environmental Awareness Signage	In year three of the permit cycle, install or update watershed signage in one additional MS4 Watershed	Trash & Floatable	Highway & P&Z	*	*	*	*						

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Part III-B-1-b-iii-(2)	4.4.7.1	Reduction of Litter, Floatables & Debris-Watershed Signage & Environmental Awareness Signage	Throughout the permit cycle, maintain watershed and environmental awareness signs and inventory	Trash & Floatable	Highway & P&Z	✓	✓	✓	✓						
Part III-B-1-b-iii-(1)	4.4.7.2	Reduction of Littler, Floatables & Debris-Watershed Signage & Environmental Awareness Signage	In year one (1), partner with Eastern Shore (ES) MS4 to plan a community event to install storm drain labels throughout the ES MS4 area.	Trash & Floatable	Solid Waste & P&Z	✓	🗀	©	©	©	©	©	©	©	©
Part III-B-1-b-iii-(1)	4.4.7.2	Reduction of Litter, Floatables & Debris-Watershed Signage & Environmental Awareness Signage	In year three (3) ~~two (2)~~, partner with Eastern Shore (ES) MS4 to host the community event to install storm drain labels throughout the ES MS4 area.	Trash & Floatable	P&Z	*	*	✓	X						
Part III-B-1d	4.6	Program Evaluation	Throughout the permit cycle, evaluate the Education Outreach Minimum Control Measure strategies and goals achieved and submit an annual report	All	P&Z	✓	✓	✓	✓						
					Total Goals	27	58	18	**42**						

	©	**Completed**
	*	**Not Proposed for Permit Year**
	**	**Completed Prior to Proposed Year**
	X	**Not Completed-Goal Not Met**
	🗁	**Attachment Included in Report**
	P&Z	**Planning & Zoning**
	Hwy	**Highway**

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NPDES Permit Section	SWMPP Section	4-Public Education & Outreach Strategy	Goal	Pollution Targeted	Responsible Departments
Part III-B1	*4.4.1*	*Local Partnerships*	*Throughout the permit cycle, the County will keep an update list of local partnerships with other agencies and organizations*	*All*	*P&Z*
		Local Partnerships - 2023/2024 - No Updates			
		Alabama Department of Environmental Management			
		Alabama Coastal Foundation			
		Alabama Clean Water Partnership			
		Alabama Water Watch (AWW)			
		Baldwin County Cities & Towns			
		Baldwin County Emergency Management Agency			
		Baldwin County Community Rating System			
		Clean Water Alabama			
		Clean Water Future Campaign			
		Coastal Foundation			
		Weeks Bay Preserve			
		Weeks Bay Watershed Project			
		Mobile Bay National Estuary Program (MBNEP)			
		Wolf Bay Watershed Watch			
		Pensacola-Perdido Bay Estuary Program			
		Baldwin County Environmental Advisory Committee			
		People Against a Littered State (PALS)			
		U.S. Corps of Engineers			

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NPDES Permit Section	SWMPP Section	4-Public Education & Outreach Strategy	Goal	Pollution Targeted	Responsible Departments
Part III-B1bv	*4.4.1*	*Local Partnerships*	*Coordination with other agencies and groups on environmental efforts, County staff will attend four (4) Environmental agency meetings a year*	*All*	*P&Z*
2023/2024		***Meeting Proposed-4***	***Meetings Attended-17***		
Partners					

Alabama Stormwater Association		
Date	**Meeting**	**Meeting Topic**
4/11/2023	ASA Quarterly Meeting	ASA Organization & Events
7/25/2023	ASA Quarterly Meeting	ASA Organization & Events
10/23/2023	ASA Quarterly Meeting	ASA Organization & Events
1/16/2024	ASA Quarterly Meeting	ASA Organization & Events
MBNEP-Committees		
Date	**Meeting**	**Meeting Topic**
6/15/2023	MBNEP PIC	Project Updates, Member Updates
6/16/2023	MBNEP GNC	Project Updates, Member Updates
9/28/2023	MBNEP PIC	Management Conference
9/29/2023	MBNEP GNC	MBNEP Update-Billie Jo Underwood
3/21/2024	MBNEP PIC	Management Conference
3/22/2024	MBNEP GNC	MBNEP Updates-Campbell
Weeks Bay Advisory Committee		
Date	**Meeting**	**Meeting Topic**
5/10/2023	WBAC	Manager Report & Updates
7/5/2023	WBAC	Manager Report & Updates
9/20/2023	WBAC	Manager Report & Updates
12/13/2023	WBAC	Manager Report & Updates
3/13/2024	WBAC	Manager Report & Updates
Other Committees/Meetings		
Date	**Meeting**	**Meeting Topic**
4/17/2023	CIROH	Assessing NBS to Mitigate Flood Impacts & Enhance Resilience
2/29/2024	PPBEP	Comprehensive Monitoring Workshop

MINUTES

Alabama Stormwater Association

Alabama Stormwater Association
Board of Directors

MEETING DETAILS

DATE: **April 11, 2023**
TIME: **10:00am – 2:00pm**
MINUTES TAKEN AND SUBMITTED BY: **Barry Fagan, 4/11/2023**

MEETING PURPOSE: Board of Directors Meeting – regular (quarterly)

MEETING LOCATION: **Hybrid - ALDOT Central Office/Teams (Rogers hosting)**

ATTENDEES

PRESENT (Quorum: simple majority = 6 Directors):

- Brantley (virtual)
- Campbell
- Fagan
- Harris (virtual)
- Henderson
- Henry
- McCauley
- Hofer (virtual)
- O'Dell
- Rogers
- Romine

NOT PRESENT:

- All in attendance

GUESTS:

- Jerri Hall, association formation and management consultant
- Megan Armstrong, AU graduate research assistant

MEETING DISCUSSION

A. Administration

1. Quorum recognized.
2. Approved agenda.
3. Approved previous meeting minutes.

B. General Discussion Topics:

1. Past events debrief -
    a. ASA Table Talks – Understanding Local Stormwater Challenges and Opportunities (Jefferson County watersheds, March 22, 2023) - update by Brantley, Hofer, Rogers, and Fagan; partnered with Laura Bell Cooley of AU Water Resources Center and Alabama Watershed Stewards. Positive event with positive results. Will share report with BOD when available and will begin planning the next ASA Table Talks Event. Director Campbell showing interest for Baldwin County in the Spring of 2024.

2. ASA Student Chapter presentation by guest Megan Armstrong – At least 15 AU students and potential faculty sponsor interested in forming a stormwater-related student organization. Much Board interest in the concept of engaging students at AU and other universities. Director Brantley will work with Megan and Dr. Mike Perez to further explore the potential for ASA

student chapter establishment and/or collaboration with other existing water-related AU student organizations. Brantley will report collaboration potential and needs.

C. Upcoming ASA events:

1. 2023 ASA Research Forum – Brantley update. Forum will be delayed until 2024.
2. Clear Water Alabama – Henderson update and discussion. Henderson will propose to Clear Water Planners:
    a. "ASA Breakfast and Symposium" 8:00 – 10:30
        i. Water-based background music playlist - Fagan
        ii. Litter Quitter videos may play before each speaker.
    b. Potential Speakers/topics/BOD champions:
        i. Alabama Water Watch/TBD/Brantley
        ii. Planning for Urban Water Quality/planner or landscape architect/Fagan
        iii. Litter Gitter (Osprey Initiative)/Rosemary Ginn, Don Bates, Leslie Gahagan/Campbell
        iv. Litter Quitter/TBD/Hofer
3. Late Fall webinar possibility: Trash Free Waters Initiative; potential speakers - Romell Nandi (EPA), other locals (Rosemary Ginn, Mobile); BOD champion – Rogers
4. Next BOD meeting – July 11, 10:00 – 2:00 (hybrid: in-person at ALDOT and virtual). Rogers to reserve room and send invitations (Board meetings recur on the 3rd Tuesday of the first month of each quarter if possible). Location may change to ALSWCC office.

D. Organization and Business updates:

1. Financial Report by Henderson – no change in balance.
    a. ASA will receive $1,500 for professional services provided to support the March ASA Table Talks event.
2. ALSWCC/ASA Formation Assistance update and discussion – Fagan and guest Jerri Hall.
    a. Bylaws (attached) –
        i. Discussion led by Fagan.
        ii. Motion and second for adoption with modifications as discussed.
            1. Motion carried unanimously.
    b. Conflict of Interest Policy (attached) -
        i. Discussion led by Fagan.
        ii. Motion and second for adoption with modifications as discussed.
            1. Motion carried unanimously.
    c. Executive Committee Discussion, Officer Nomination, Elections -
        i. Discussion led by Fagan.
        ii. Nomination, motion, and second for **Ashley Henderson as Treasurer**.
            1. Motion carried unanimously.
        iii. Nomination, motion, and second for **Barry Fagan as Secretary**.
            1. Motion carried unanimously.
        iv. Nomination, motion, and second for **Scott Rogers as Chairperson**.
            1. Motion carried unanimously.
        v. Nomination, motion, and second for **Scott Hofer as Vice-Chairperson**.

vi. Motion and second for adoption of a progressive leadership rotation model where each year officers are promoted from Treasurer to Secretary to Vice-Chair to Chairperson. Each year the Chairperson will be replaced, and a new Treasurer will be elected along with confirmation of the other officer positions.
    1. Motion carried unanimously.
vii. Agreed that initially elected officers should serve through September 30, 2024.

d. ASA Bank Account -
    i. Discussion led by Fagan.
    ii. Agreement that the selected bank should be one with branches in Montgomery, Huntsville, Birmingham, and Mobile.
    iii. Motion and second for naming all current officers on the ASA bank account.
        1. Motion carried unanimously.
    iv. Motion and second for requiring written approval and/or signatures of at least two sitting officers for all expenditures and checks written by ASA.
        1. Motion carried unanimously.
e. Membership Structure and Dues –
    i. Discussion led by Fagan.
    ii. Fagan will consider discussion and incorporate requested changes into a revised draft membership level and dues structure.

E. Other Business:

1. Aspirational event goals: 3 events minimum per year –
    a. Spring – local, in-person
        i. ASA Table Talks.
        ii. Technical workshop offered in north and south Alabama.
    b. Fall – Clear Water Alabama
    c. Late Fall (±November) – webinar
    d. Add more technical training offerings.

	ACTION ITEM	ASSIGNED TO	TO BE COMPLETED BY
B.1.	Share Jefferson County Table Talks report with BOD and initiate a meeting with Campbell for 2024 Baldwin County event.	Fagan	When report is complete
B.2.	Explore AU ASA student chapter potential with Megan Armstrong and Dr. Mike Perez.	Brantley	ASAP
C.2.	Contact speakers and secure topics for Clear Water Alabama ASA Breakfast and Symposium.	Brantley/Fagan/Hofer/Campbell	ASAP
C.2.	Communicate discussion and needs with Clear Water planning committee.	Henderson	Next Clear Water planning meeting
C.3.	Contact speaker and begin planning late fall webinar.	Rogers	Before next board meeting
C.4.	Send invitation for next BOD meeting.	Rogers	ASAP
D.2.	Revised draft membership level and dues structure for discussion.	Fagan	ASAP

MINUTES

Alabama Stormwater Association

ALABAMA STORMWATER ASSOCIATION
BOARD OF DIRECTORS MEETING

MEETING DETAILS

DATE: **July 25, 2023**
TIME: **10:00am – 2:00pm**
MINUTES TAKEN AND SUBMITTED BY: **Barry Fagan, 7/28/2023**

MEETING PURPOSE: Board of Directors Meeting – regular (quarterly)

MEETING LOCATION: **Hybrid - ALSWCC Office/Teams (Henderson hosting)**

ATTENDEES

PRESENT (Quorum: simple majority = 6 Directors):

- Brantley (virtual)
- Campbell (virtual)
- Fagan
- Harris
- Henderson
- O'Dell
- Rogers

NOT PRESENT:

- Henry
- Hofer
- McCauley
- Romine

GUESTS:

- None

MEETING AGENDA AND DISCUSSION

A. Administration

1. Quorum recognized.
2. Agenda approved.
3. Previous meeting minutes approved.

B. General Discussion Topics:

1. Past events debrief -
    a. IECA SE Municipal Wet Weather (MS4) Stormwater Conference, Chattanooga, TN, - Rogers: ASA discussed in meeting by Alabama delegates.
    b. AU ESC Installer Training and Field Day May 16-18 – Fagan: attendees – 70 installer, 200 field day; 14 states represented, 20 sponsors; ASA will be more involved in 2024 (see 2.b. below).
2. Relevant industry news, events, and potential ASA opportunities ad impacts –
    a. CPESC issues and potential certification program potential – Fagan: EnviroCert no longer recognizes CPESCs as being qualified to perform construction stormwater inspections. Potential for ADEM to remove CPESC from general permit in March 31, 2026. Opportunity for ASA to serve non-degreed professionals, elevate the state of practice in Alabama, and create an income stream by developing and administering and Alabama-

specific professional certification to meet the ADEM definition of qualified credentialed professional (QCP). Fagan to chair an exploratory committee. Non-ASA BOD initial invited committee members to consider include: Earl Norton, Perry Oakes, Mike Perez, Richard Klinger, ADEM representatives, and possibly others. Committee will also consult Clemson/SC DEHEC CEPSCI program.

3. General ASA, Director, member happenings –
    a. ASA Student Chapter discussion and update – Brantley: several related groups on campus, Brantley will follow up with Dr. Perez and Magan Armstrong.

C. Upcoming ASA events (goal - 3/year minimum):

1. Near-future events –
    a. Clear Water Alabama, October 20-21, 2023 – Henderson; ASA symposium agenda and speakers set; ASA to receive $25/registrant (±$3,125 @ 125 persons) + secured sponsorships ($900 current), breakfast buffet set ($30/person option, ±$3,750); individual directors should assist with securing sponsorship (O'Dell to reach out to Schoel and GMC).
    b. Late Fall webinar – Rogers; Trash Free Waters idea did not pan out; contacted and secured Seth Brown to discuss NMSA, the state of stormwater regulation and other national stormwater updates; date TBD (early Dec likely).
    c. ASA Table Talks, Baldwin County mid-April 2024 – Campbell: Looking to hold a few weeks prior to SWCS meeting below; planning meeting will be scheduled for this fall (Campbell, Hofer, Brantley, Rogers, Fagan, Laure Cooley (lmb0097@auburn.edu).
    d. SWCS annual meeting in Baldwin County, May 1-3, 2024 – Campbell: will commit ASA to partner; will reserve an agenda spot to discuss previously held Baldwin County ASA Table Talks event and discussion.
    e. ASA a potential supporting partner - AUSRF Installer Training, SE MS4 conference, Field Day - May 13-17, 2024 – Fagan: will notify IECA of ASDA's commitment to partner.
2. Ideas for distant-future events –
    a. EPA Phase II update/census language impact – Mary Quo – Rogers to keep on radar
    b. Joint event with SESWA – Hofer to explore.
3. Next BOD meeting – October 17, 10:00 – 2:00 (hybrid: in-person at SWCC office and virtual). Henderson to reserve room and send virtual meeting link; (Board meetings recur on the 3rd Tuesday of the first month of each quarter if possible).

D. Organization and Business updates:

1. Financial report and discussion by Treasurer – Henderson
    a. Bank account established at Regions Bank.
    b. Collected all funds from AACD; ASA no longer has or needs fiscal sponsorship.
    c. Discussed financial summary (attached).
2. Upcoming organizational and administrative needs discussion by Secretary - Fagan
    a. ALSWCC/ASA Formation Assistance update and discussion – Fagan:
        i. Fagan Consulting progress report. See attached.
        ii. Membership structure and dues discussion –
            1. attached structure and dues summary updated based on discussion.

iii. Board Director and Officer Policy discussion -
   1. Decision made to set director terms expirations either one or two years after October 1, 2023. Staggering will be decided prior to October 1 (1 year or 2 year terms).
   2. Current officer terms to expire on October 1, 2023, then go to annual terms (decided upon in April BOD meeting).
   3. Minor edits discussed.

iv. ASA Website discussion –
   1. Consensus reached on updating needs and removing the News portion of the site.
   2. Fagan will lead a voluntary BOD group to further evaluate and provide recommendations to enhance effectiveness and reach of the site.

3. Association direction, leadership, and management discussion by Chairperson – Rogers
   a. Positive momentum and productive meeting.

E. Other Business:

1. Past action items not addressed above (past action items list provided below).

a. Most addressed. See action items below.

	ACTION ITEM	ASSIGNED TO	TO BE COMPLETED BY
B.2.	Form an Alabama QCP exploratory committee to answer – *Is there an opportunity for ASA to help develop a professional construction stormwater certification program in Alabama?*	Fagan to chair committee	ASAP
B.3.	Explore AU ASA student chapter potential with Megan Armstrong and Dr. Mike Perez.	Brantley	ASAP
C.1.a.	Identify and reach out to potential Clear Water Alabama sponsors	All	ASAP
C.1.b.	Set date for Fall webinar and Coordinate with speaker.	Rogers	ASAP
C.1.c.	Set planning meeting date for Baldwin County ASA Table Talks event.	Campbell	ASAP
C.1.c.	Share Jefferson County Table Talks report with BOD and initiate a meeting with Campbell for 2024 Baldwin County event. [hold over from April meeting]	Fagan	When report is complete
C.1.d.	Commit to SWCS meeting planners ASA contribution and partnership;	Campbell	ASAP

	request spot on agenda for table talks summary.		
D.2.	Update draft membership level and dues structure for discussion; update director and officer policy; review website and compile group for discussion	Fagan	ASAP

Attachments:

- Financial summary
- Fagan Consulting progress report
- Draft membership structure and fees document

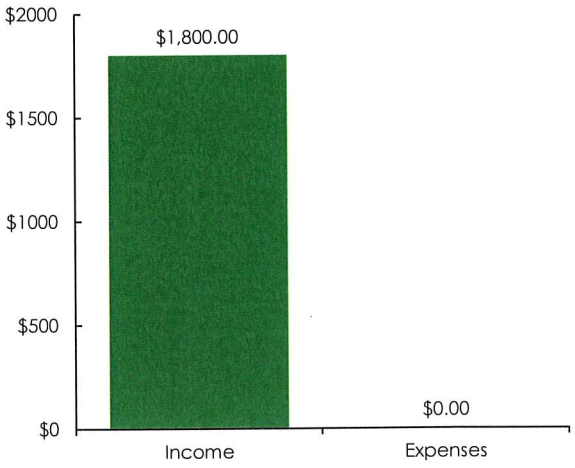
Balance to date

2023

PERCENTAGE OF INCOME SPENT	
	0%

Updated 7/24/2023

SUMMARY	
Total 2023 Income	$1,800.00
Total 2023 Expenses	$0.00
BALANCE	**$1,800.00**



ACTUAL INCOME		
Date	**Item**	**Amount**
7/24/2023	Balance From AACD	$300.00
6/1/2023	Auburn University - Table talk forum	$1,500.00

FAGAN CONSULTING ASA FORMATION ASSISTANCE PROGRESS TABLE	
ACTIVITY	**% COMPLETE**
Establish ASA as a fiscally self-sustaining Domestic Nonprofit Corporation	
Review and compile all past efforts and actions toward setting up the legal structure of ASA.	100%
Secure an Employer Identification Number (EIN) from the IRS.	100%
Develop the ASA Articles of Incorporation.	100%
Apply to the IRS for recognition as a Charitable Organization for tax-exempt status.	100%
Open an ASA bank account.	100%
Prepare for and follow the process to file and receive approval of the Domestic Nonprofit Corporation Certificate of Formation in the State of Alabama.	100%
Complete registration as a Charitable Organization with the State Attorney General's Office to allow donation solicitation.	0%
Formally close fiscal sponsorship agreements with the Alabama Association of Conservation Districts (AACD).	100%
Develop a checklist of future ASA financial accounting and reporting obligations.	50%
Develop a complete and adoptable draft of the ASA Bylaws.	100%
Develop a draft structure for financial sustainability that includes draft membership and dues policies and estimates for support resources.	30%
Establish a formal structure for the ASA Board of Directors	
Facilitate nomination and selection of Directors to fill Board positions.	100%
Develop a Board of Directors Responsibilities and Requirements document that describes the duties of Board and includes eligibility requirements and nomination and selection processes.	100%
Formalize rules regarding Board and membership meetings.	80%
Research, secure quotes, and make recommendations for General Liability insurance and Directors and Officers (D&O) insurance.	50%
Develop a strategic planning process for ASA	
Develop an implementable custom roadmap to help guide a future strategic planning effort.	15%
Develop a structure for policy and document development, naming, and storage.	50%
Develop and provide recommendations to enhance the effectiveness and reach of the ASA website and calendar	45%

Membership Level	Sustaining Partner	Supporting Organization - River Level	Supporting Organization - Creek Level	Supporting Organization - Branch Level	Stormwater Professional	Student
Annual Membership Fee	$5,000	$1,500	$750	$500	$50	$0*
BENEFITS						
Recognition as an ASA Sustaining Partner and logo on ASA membership correspondence	✓					
Recognition as an ASA Sustaining Partner and logo on ASA marketing materials	✓					
Recognition as an ASA Sustaining Partner and logo on ASA website	✓					
Recognition as an ASA Sustaining Partner and logo at all ASA events	✓					
Recognition as ASA Supporting Organization Member with level and logo on ASA website	✓	✓				
First notice of ASA event sponsorship and booth opportunities	✓	✓				
Free registration for ASA virtual events	✓	✓				
Stormwater Professional Membership for up to 15 employees	✓	✓				
Stormwater Professional Membership for up to 10 employees	✓		✓			
Stormwater Professional Membership for up to 3 employees	✓			✓		
Recognition as ASA Supporting Organization Member with level and name listing on ASA website	✓	✓	✓	✓		
Discounted registration (above professional membership discount) for ASA in-person events	✓	✓	✓	✓		
ASA written acknowledgement of support for Public Engagement and Outreach (for MS4s)	✓	✓	✓	✓		
ASA job board posting privileges	✓	✓	✓	✓		
Member access to ASA technical library	✓	✓	✓	✓		
Member access to ASA training materials	✓	✓	✓	✓	✓	
ASA Member voting privileges	✓	✓	✓	✓	✓	
Discounted registration for ASA in-person and virtual events	✓	✓	✓	✓	✓	✓
Member access to the ASA job board	✓	✓	✓	✓	✓	✓
Member access to the ASA membership directory (not to be used for mass marketing)	✓	✓	✓	✓	✓	✓
Listing in the ASA membership directory (if desired)	✓	✓	✓	✓	✓	✓
Receive ASA updates, notifications, and invitations to stormwater-related events	✓	✓	✓	✓	✓	✓

MINUTES

Alabama Stormwater Association

ALABAMA STORMWATER ASSOCIATION
BOARD OF DIRECTORS MEETING

MEETING DETAILS

DATE: **October 23, 2023**
TIME: **10:00am – 2:00pm**
MINUTES TAKEN AND SUBMITTED BY: **Barry Fagan, 7/28/2023**

MEETING PURPOSE: Board of Directors Meeting – regular (quarterly)

MEETING LOCATION: **Hybrid - ALSWCC Office/Teams (Henderson hosting)**

ATTENDEES

PRESENT (Quorum: simple majority = 6 Directors):

- Brantley
- Campbell
- Fagan
- Harris
- Henderson
- Henry
- Hofer (virtual)
- McCauley
- Rogers

NOT PRESENT:

- O'Dell
- Romine

GUESTS:

- None

MEETING AGENDA AND DISCUSSION

A. Administration

1. Quorum recognized.
2. Agenda approved.
3. Previous meeting minutes approved.

B. Officer and Committee Reports.

1. Chairperson – ASA direction, leadership, and management.
    a. 2023 Clear Water Alabama
2. Vice-Chairperson – Membership, past events debriefing.
3. Treasurer - Financial report.
4. Secretary - Administrative report.
    a. ASA Formation Assistance contract update and summary
        i. Developed policies and procedures.
            - FIN1001Pro (presented/discussed)
            - BOD1002 (adoption vote)
        ii. Developed financial sustainability structure.
            - ASA Income Structure and Membership Levels and Dues (previously discussed)
        iii. Directors and Officers Insurance research statement presented/discussed)
        iv. Developed strategic planning roadmap (presented/discussed)

v. Website and membership management software (MMS)
- MMS progress update and needs presented (by Vice Chair)

b. Alabama QCP Exploratory Committee
i. Update given by Secretary on progress, findings, and next steps.

C. Unfinished and Ongoing Business.

a. After ample discussion, on 9/14/2023 the following motion was presented by Fagan and seconded by Rogers of the ASA Executive Committee: *After proper review of contract language, ASA will enter into a contract with MemberClicks (MC) to provide membership services as described by MC to ASA for described and agreed upon prices.* The motion was presented to the BOD by email and passed unanimously by email vote.
b. ASA student chapter exploration - Brantley

D. New Business - events.

1. Discussion of details and needs for confirmed near-future events.
   a. ASA Fall webinar (Seth Brown, NMSA; Nov 30; 1:30-3:00) – report by Rogers
   b. ASA Table Talks (Baldwin County; May 2024) – report by Campbell
2. Discussion of unconfirmed but planned future events.
   a. IECA SE Chapter/EPA Wet weather combined with AUSRF installer training and field day May 13-17, 2024)
3. Ideas for distant-future events.
   a. EPA Phase II update/census language impact – Mary Quo – Rogers to keep on radar
   b. Joint event with SESWA – Hofer to explore.
   c.

E. Other New Business.

1. Past action items not addressed above (past action items list provided below).

F. Announcements.

1. Relevant board happenings, industry news, events, and potential ASA opportunities and impacts.
   a. Next BOD meeting – January 16, 10:00 – 2:00 (hybrid: in-person at SWCC office and virtual). Henderson to reserve room and send virtual meeting link; (Board meetings recur on the 3rd Tuesday of the first month of each quarter if possible).
2. Association direction, leadership, and management discussion by Chairperson – Rogers
   a. Positive momentum and productive meeting.

G. Other Business:

a. Most addressed. See action items below.

	ACTION ITEM	ASSIGNED TO	TO BE COMPLETED BY
B.2.	Form an Alabama QCP exploratory committee to answer – *Is there an opportunity for ASA to help develop a professional construction stormwater certification program in Alabama?*	Fagan to chair committee	ASAP

B.3.	Explore AU ASA student chapter potential with Megan Armstrong and Dr. Mike Perez.	Brantley	ASAP
C.1.a.	Identify and reach out to potential Clear Water Alabama sponsors	All	ASAP
C.1.b.	Set date for Fall webinar and Coordinate with speaker.	Rogers	ASAP
C.1.c.	Set planning meeting date for Baldwin County ASA Table Talks event.	Campbell	ASAP
C.1.c.	Share Jefferson County Table Talks report with BOD and initiate a meeting with Campbell for 2024 Baldwin County event. [hold over from April meeting]	Fagan	When report is complete
C.1.d.	Commit to SWCS meeting planners ASA contribution and partnership; request spot on agenda for table talks summary.	Campbell	ASAP
D.2.	Update draft membership level and dues structure for discussion; update director and officer policy; review website and compile group for discussion	Fagan	ASAP

Attachments:

- ASA Formation Progress Table
- FIN1001Pro (draft)
- BOD1002 (for vote)
- D&O Insurance statement
- Strategic Planning Roadmap

MINUTES

Alabama Stormwater Association

ALABAMA STORMWATER ASSOCIATION
BOARD OF DIRECTORS MEETING

MEETING DETAILS

DATE: **January 16, 2024**
TIME: **10:00am – 2:00pm**
MINUTES TAKEN AND SUBMITTED BY: **Barry Fagan, 3/25/24**

MEETING PURPOSE: Board of Directors Meeting – regular (quarterly)

MEETING LOCATION: **Virtual/Webex due to weather (Henderson hosting)**

ATTENDEES

PRESENT (Quorum: simple majority = 7 Directors):

- Brantley (virtual)
- Campbell (virtual)
- Carlson(virtual)
- Fagan(virtual)
- Harris (virtual)
- Henderson (virtual)
- Henry (virtual)
- Hofer (virtual)
- McCauley (virtual)
- O'Dell (virtual)
- Rogers(virtual)

NOT PRESENT:

- Romine (virtual)

GUESTS:

- None

MEETING AGENDA AND DISCUSSION

A. Administration

1. Quorum recognized.
2. Agenda approved by unanimous consent.
3. Previous meeting minutes approved by unanimous consent.

B. Officer and Committee Reports.

1. Chairperson – ASA direction, leadership, and management.
    a. 2024 Thoughts.
    b. 2023 fall webinar debrief – Seth Brown (NMSA) gave update on national stormwater issues; 101 attendee registered.
2. Vice-Chairperson – membership management service (general update, more discussion below)
3. Treasurer - Financial report.
    a. See attached 2023 4th quarter report and 2024 budget.
    b. Sustaining Partner commitment by ALSWCC. Need to generate invoice from ASA to receive payment. Henderson will work with Fagan; Board authorized Henderson to set ASA up in state payment system to receive payment from ALSWCC.

4. Secretary - Administrative report.
    a. Alabama QCP Exploratory Committee
        i. Summary of findings report presented.
        ii. Potential ADEM and ALDOT funding.
        iii. Next steps – AU to submit proposals for funding. May need ASA assistance.

C. Unfinished and Ongoing Business.

1. Jimbo Carlson accepted an invitation from the ASA Board to Jimbo Carlson to become a board director. Jimbo was selected due to his expertise, reputation, and his connections to the ASA membership, board of directors and other stakeholders. Motion was made and seconded to officially accept Jimbo as a board director. Discussion was held and the vote was unanimous among directors present.
2. Membership management service, membership structure, and dues collection next steps (Hofer/Fagan to lead)
3. Review BOD1002 Board Director and Officer Policy. Motion made and seconded to adopt the policy. Discussion was held and the vote was unanimous among directors present.

D. New Business - events.

1. Discussion of details and needs for confirmed near-future events.
    a. ASA Table Talks, Baldwin County (Campbell) - April 17, 2024
    b. Clear Water Alabama (Henderson) – Dothan, Sept 2024, planning underway - ASA will partner with ESC committee again: ASA keynote breakfast, keynote speaker; ASA fireside chat (focus on green infrastructure implementation);
    c. IECA SE Chapter/EPA Wet weather combined with AUSRF installer training and field day May 13-17, 2024 (Fagan) – ASA is partner and supporter of IECA and AU events.
2. Discussion of unconfirmed but planned future events.
    a. Spring webinar under consideration; post-construction BMP maintenance a potential topic; Ryan Winston, Anthony Kendrick; Case O'dell potential speakers.
3. Ideas for distant-future events.
    a. Co-event to be explored with AFPM (O'Dell)
    b. EPA Phase II update/census language impact – Mary Quo – Rogers to keep on radar
    c. Joint event with SESWA (next time in AL) – Hofer to explore.

E. Other New Business.

1. Past action items not addressed above (past action items list provided below).

F. Announcements.

1. Relevant board happenings, industry news, events, and potential ASA opportunities and impacts.
    a. Next BOD meeting – April 9, 10:00 – 2:00 (hybrid: in-person at SWCC office and virtual). Henderson to reserve room and send virtual meeting link; (Board meetings recur on the 3rd Tuesday of the first month of each quarter if possible).
2. Association direction, leadership, and management discussion by Chairperson – Rogers

G. Other Business:

    a. Discussion of producing ASA gear for sale and for board director identification at events.
        i. Hats, shirts, lapel pins, badges, ASA lanyards (Henderson, Henry to explore)

	ACTION ITEM	ASSIGNED TO	TO BE COMPLETED BY
C.2.	Complete MMS implementation/website	Fagan/Hofer	ASAP
C.2.	Review website, contribute content	All	ASAP

Attachments:

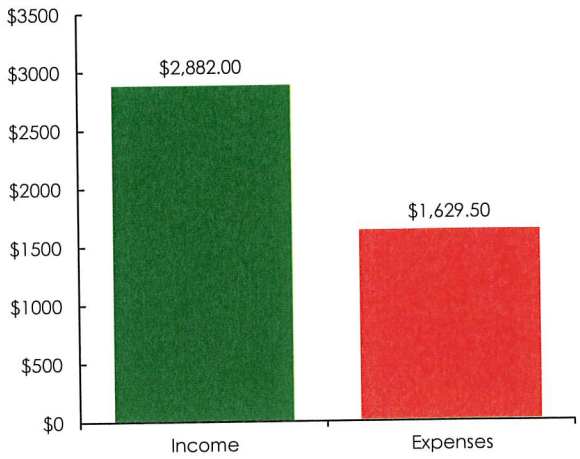
- 2023 4th Quarter Financial Report
- 2024 Budget
- Executed BOD1002 Board Director and Officer Policy
- AL QCP Exploratory Committee Findings Summary

2023

PERCENTAGE OF INCOME SPENT	
	57%

Updated 12/31/2023

SUMMARY	
Total 2023 Income	$2,882.00
Total 2023 Expenses	$1,629.50
BALANCE	**$1,252.50**



ACTUAL EXPENSES		
Date	**Item**	**Amount**
12/28/2023	Member Clicks	$379.50
11/2/2023	Member Clicks	$1,250.00

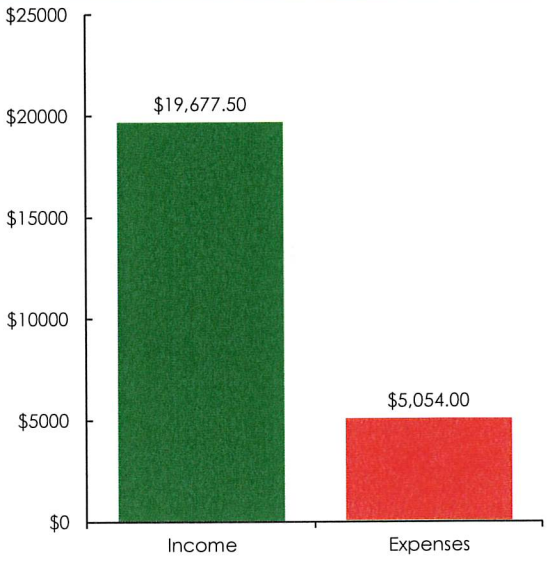
ACTUAL INCOME		
Date	Item	Amount
10/25/2023	Clear Water Alabama	$1,082.00
7/24/2023	Balance From AACD	$300.00
6/1/2023	Auburn University - Table talk forum	$1,500.00

Budget

2024

Presented 1/16/2024

SUMMARY	
Budgeted 2024 Income	$19,677.50
Budgeted 2024 Expenses	$5,054.00
BALANCE	**$14,623.50**



BUDGETED INCOME		
Date	Item	Amount
	Carryover from 2023	$1,252.50
	Membership-Individual	$4,425.00
	Membership-Group	$12,750.00
	Clear Water Alabama	$1,250.00

BUDGETED EXPENSES	
Item	**Amount**
Member Clicks	$4,554.00
Liability Insurance	$500.00

Alabama Stormwater Association

BOARD DIRECTOR AND OFFICER POLICY

Title:	BOARD DIRECTOR AND OFFICER POLICY		
Document ID:	BOD1002	**Date Established:**	1/16/2024
Revision:	0.00	**Date Last Revised:**	1/16/2024
Committee:	BOD	**Next Revision Review:**	1/16/25
Written by:	B. Fagan	**Approved by:**	BOD

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Alabama Stormwater Association

POLICY

Article I. Overview

Section 1.01 Purpose.

ASA Board Directors have a duty to act in an organized and collaborative manner that advances the mission, vision, and values of ASA. The purpose of this Board Director and Officer Policy (Policy) is to formalize the organizational structure and guide the actions of the leadership of the Alabama Stormwater Association, which may be referred to in this Policy as "ASA". ASA is governed by a Board of Directors. The ASA Board Directors may be referred to in these Bylaws collectively as "the Board" and individually as "Director."

This Policy should be referenced by the Board and Directors and considered when ASA is populating its Board of Directors and the Officer positions of the Executive Committee of the Board of Directors.

Some of the information provided in this Policy may also be contained in the ASA Articles of Incorporation and/or the ASA Bylaws. This Policy is not intended to and does not modify those documents.

Section 1.02 Need.

As a nonprofit organization, ASA is accountable to its membership, government agencies, and the public for responsible leadership. A formal leadership structure and guiding policy is necessary for accountability in terms of effectiveness and remaining in compliance with government reporting.

Section 1.03 Application.

This policy applies to the ASA Board of Directors and all current individual ASA Board Directors.

Section 1.04 Definitions.

Conflict of Interest - A situation that arises when a Board member or officer, or that person's relative or business: stands to gain a financial benefit from an action the ASA takes or a transaction into which the ASA enters; or has another interest that impairs, or could be seen to impair, the independence or objectivity of the Board member or officer in discharging their duties to the ASA.

Fiduciary Duty - The legal responsibility to act solely in the best interest of another party.

Section 1.05 Responsibility.

Board of Directors:

a) Maintain this policy by revising it when necessary.
b) Bring awareness and observation to ensure that this policy is followed.

Individual Directors:

a) Follow this policy.
b) Notify the Board when this policy is not adhered to.

Section 1.06 Updates.

This policy shall be reviewed by the Board of Directors every two years and revised if necessary.

Article II. Director Responsibilities

Section 2.01 General Powers and Responsibilities of the Board of Directors.

The Board of Directors supervise and control the business and affairs of the ASA and makes all rules, policies, and procedures, consistent with the laws of the State of Alabama or with the Articles of Incorporation or these Bylaws, for the operation of the organization and the guidance of the Members, Officers, employees, and agents of the ASA.

All corporate powers and authority are exercised by the Board of Directors. All functions, business transactions, and affairs of the corporation are managed by or under the sole direction of the Board. The Board is responsible for overall policy and direction of the organization and may delegate responsibility for day-to-day operations to appropriate Staff and Committees, as it deems necessary.

Primary responsibilities of Board Directors include the following.

a) **Mission and Purpose** - Directors confirm the ASA mission statement and review it periodically for accuracy and validity.
b) **Fiduciary Duty –** Directors have a fiduciary duty to act in the best interests of ASA, exercising due care, loyalty, and good faith.
c) **Strategic Planning –** Directors participate in strategic planning activities, including setting organizational goals, reviewing programs, and evaluating performance.
d) **Policy Development and Oversight -** Directors contribute to the development, review, and approval of policies that guide the organization's operations and governance.
e) **Financial Stewardship -** Directors monitor the organization's financial health, develop, review, and approve budgets, and ensure appropriate financial controls are in place.
f) **Board Director and Member Recruiting and Orientation**– Directors determine the necessary requirements and procedures to become an ASA member and Board Director. Directors actively support and participate in efforts to increase membership and fill director vacancies. The Board orients new directors to the responsibilities of the Board, officers, committees, and other appropriate positions, and to the history, needs and challenges of ASA.
g) **Fundraising and Resource Development -** Directors actively support and participate in fundraising efforts, leveraging their networks, and providing guidance on resource development strategies.
h) **Board Governance** – Directors fulfill their governance responsibilities, attend board meetings, and promote effective board practices. Directors lead by example and support others leading ASA and its Board, serving as officers and leading committees and other initiatives and work of ASA and the Board.
i) **Compliance and Ethics** - Directors ensure compliance with legal and regulatory requirements, promote ethical conduct, and address conflicts of interest appropriately.
j) **External Relations** – Directors articulate ASA's mission, accomplishments, and goals to the membership and to the public. They also gather and leverage support from appropriate affiliated groups and individuals.
k) **Executive Director and Administrative Staff Support** – When needed, the Board selects the most qualified candidates for leadership and administrative positions. The Board evaluates staff performance and ensures that ASA staff has the necessary support to advance the goals of the organization.

Section 2.02 Records Inspection.

Each Director has the absolute right at any reasonable time to inspect ASA's books, records, documents of every kind, and physical properties. The inspection may be made by the director or by the director's agent or attorney. The right of inspection includes the right to copy documents.

Section 2.03 Conflict of Interest.

The Board has developed and maintains a Conflict of Interest Policy for Directors that each Director must adhere to.

Article III. Officer Responsibilities

Section 3.01 General Powers and Responsibilities of the Executive Committee.

The Executive Committee of the ASA Board of Directors is made up of four officers**:** Chairperson, Vice Chairperson, Secretary, and Treasurer. To be considered for the office of Chairperson, one must have served one year as a Director. Excluding the office of Chairperson, the same individual may simultaneously hold more than one office within the Executive Committee.

Primary responsibilities and functions of each officer are provided below.

a) **Chairperson.** The Chairperson, or Chair is the Chief Executive Officer of the Board. The Chairperson presides as Chair of both Board and Executive Committee meetings, appoints other committee chairs and members, and is the primary spokesperson for the organization to the media and external groups. The Chair ensures the Board's actions are in line with the organization's bylaws, mission, vision, character, and values.

b) **Vice Chairperson.** The Vice-Chairperson, or Vice-Chair is next in command to the Chair. The main responsibility of the Vice-Chair is assisting the Chair with their duties and filling in during Board and executive committee meetings when the Chair isn't present. This Officer may take on other roles such as chairing committees. The Vice-Chair presides as Chair of the Board Director Nomination Committee and the Membership Committee.

c) **Secretary.** The Secretary is primarily charged with maintaining ASA documentation. This includes recording minutes at Board and Executive Committee meetings, assuring all Members can access key documents, and maintaining a calendar of events for Board Directors. This Officer may also be charged with leading the development and maintenance of administrative policies and committees, tracking the terms of Directors and Officers, and holding the Board responsible for exercising good governance. The Secretary presides as Chair of the Administration Committee and the Communications Committee.

d) **Treasurer.** The Treasurer manages ASA's financial information and leads the development and maintenance of financial policies and committees. Treasurer responsibilities also include reconciling bank accounts, ensuring tax-related forms are filed on time, and leading the preparation and presentation of financial reports. The Treasurer presides as Chair of the Finance Committee.

Article IV. Nomination, Election, and Termination of Board Directors and Officers

Section 4.01 Eligibility and Numeration of Directors and Composition of Board.

Board directors must be members of ASA in good standing, be nominated by the ASA Board Director Nominating Committee, presentation made to ASA membership, and if no objection, confirmed by the Board. If an objection is presented, the nominating committee will reconsider the nomination and objections and may confirm or renominate for presentation to the membership.

The Board consists of a minimum of five (5) and, at the most, fifteen (15) Directors.

The Board is composed of a diverse group of directors with varied experience and expertise representing the geographic extent of the State of Alabama and representing the following types of groups:

a) Municipal Separate Stormwater Sewer System (MS4) - Municipal Phase I
b) MS4 - Municipal Phase II
c) MS4 University/Federal Government
d) MS4 or Other Stormwater Management Consultant

e) Alabama Department of Transportation (ALDOT)
f) Soil and Water Conservation Professionals
g) General Water/Stormwater Engineering Professionals
h) Knowledge-Sharing Organizations

All Officers must be board directors.

Section 4.02 Nomination and Election of Board Directors and Officers.

At times appropriate for the terms dictated in the ASA Bylaws, potential board directors are nominated by the ASA Board Director Nominating Committee. The nominating committee will solicit suggestions for nomination from ASA membership and will attempt to diversify director makeup in areas of geographic and industry representation and other social demographics.

Nominees and their qualifications will be announced to ASA membership for voting. The results of voting and election of new directors will be confirmed and formally accepted by the Board by a two-thirds (2/3) majority vote.

The Board may decide to fill or to not immediately fill vacated director positions. The Board may choose to fill positions vacated prior to term fulfillment for the remainder of a partial term or for a new full term.

Officer selection occurs on an annual basis at a regular meeting of the Board of Directors. To be elected as an officer, a director must receive the affirmative vote of a simple majority of the directors present.

Section 4.03 Term of Directors and Officers.

Directors are elected for one (1) two (2) year term, rotating on a staggered schedule. Each director who is eligible for renewal may be re-elected to additional consecutive two (2) year terms. Eligible past directors may seek additional non-consecutive terms on the Board. Initial director selection and term staggering will be determined by the Board prior to or with formal legal formation of ASA. These selections remain in place until pre-determined terms have been completed or the director resigns or is removed.

Officers hold office for a period of one year. Officer's terms will continue until their respective successors are installed.

Section 4.04 Resignation and Removal of Directors and Officers.

Any director may resign at any time by giving written notice to the Board. Such resignation will take effect on the date of receipt of such notice, or at any later time specified therein. Unless otherwise specified therein, the acceptance of such resignation will not be necessary to make it effective.

Any director can be removed from the Board when a good faith determination is made by the Board that the director has acted in a material and serious degree in a manner contrary to the character or values of ASA or has engaged in conduct materially and seriously prejudicial to ASA's purposes and interests to the extent that termination is warranted. A two-thirds (2/3) majority vote is required to remove a director from the Board.

An officer may resign at any time by delivering written notice to the Board. Resignation as officer does not require resignation as director. Director resignation requires officer resignation. The resignation will be effective on the date such notice is delivered or on the date specified in the notice.

The Board may, by a two-thirds (2/3) majority vote of the entire Board, remove any officer at any time. Such removal becomes effective on the date specified by the Board. Removal as officer does not require removal as director. Removal as director requires removal as officer. Unless otherwise specified therein, the acceptance of such removal by the officer will not be necessary to make it effective.

Section 4.05 Director and Officer Vacancies.

In the case of a director vacancy created mid-term, remaining directors may nominate and elect a successor member from a slate of eligible potential directors nominated by the Board Director Nomination Committee to hold membership until the next annual meeting. The Board may also decide to hold a vacancy open indefinitely or until such time that filling the vacancy is determined to be necessary.

Executive Committee vacancies in any office arising from any cause may be filled by a two-thirds (2/3) majority vote of the Board at any regular or special meeting of the Board. Vacancies may be filled for partial remaining terms or for full terms.

Article V. Meetings

Section 5.01 Board Meeting Forum and Format.

Regular and special meetings of the Board will be called by the Chairperson as often as necessary to address and manage the business of ASA. At a minimum, the Board will meet at least 3 times in any calendar year. Meetings will be called by the Chairperson or by any two officers of the Executive Committee, providing that at least seven (7) days' notice has been given to all directors, stating the time, place, and primary purpose(s) of the meeting. If possible, regular Board meetings recur on the 3rd Tuesday of the first month of each quarter. Schedule adjustments are expected and may be allowed by the Chairperson.

In-person, virtual, or hybrid meeting format of Board meetings are acceptable. The quorum requirements set forth in the Bylaws apply for all virtual meetings (simple majority of current directors). A director's participation by virtual platform will constitute attendance for quorum purposes.

A simple majority of the directors present when a meeting is called to order or when official action of the Board is required will constitute a quorum. Each director entitled to vote will have one (1) vote for each matter brought before the Board for consideration. A majority vote will constitute an act of the Board. There is no provision for proxy attendance or voting.

The format and order of the meeting will be managed by the Secretary with a basis in applicable provisions of Robert's Rule of Order.

Section 5.02 Board Meeting Agenda.

The agenda for each meeting will be set by the Board Chairperson and shared with directors at least 5 days prior to each meeting. At a minimum, the following topics will be discussed at each meeting of the Board. Other topics may be discussed during the meeting as requested by the Directors and allowed by the Chairperson.

A. Administration.
    1. Quorum recognized.
    2. Approved agenda.
    3. Approved previous meeting minutes.
B. Officer and Committee Reports.
    1. Chairperson – ASA direction, leadership, and management.
    2. Vice-Chairperson – Membership, past events debriefing.
    3. Treasurer - Financial report.
    4. Secretary - Administrative report.
C. Unfinished and Ongoing Business.
D. New Business - events.
    1. Discussion of details and needs for confirmed near-future events.
    2. Discussion of unconfirmed but planned future events.

3. Ideas for distant-future events.

E. Other New Business.

F. Announcements.

1. Relevant board happenings, industry news, events, and potential ASA opportunities and impacts.

Board meeting minutes will be recorded by the Secretary or other designee for each meeting. Minutes will include the following:

a) The meeting date and time (beginning/ending).
b) Name of person taking minutes and date of submittal to Board for review.
c) Meeting location (indicating if in-person, virtual, or hybrid).
d) Number of attending directors required for a quorum (simple majority of current directors).
e) Number and names of attendees (directors and guests).
f) General and/or specific notes for each topic discussed.
g) Action items with assigned director and expected completion date if applicable.

Section 5.03 Board Action and Decision-Making.

Board action and decision-making requiring formal vote will begin with a motion that is seconded and proper vote and debate. The types of decisions that will require formal vote include the following.

h) Adoption and amendment of bylaws.
i) Approval of the annual budget.
j) Election of officers.
k) Hiring or termination of the executive director.
l) Strategic planning decisions.
m) Adoption of major policies.
n) Approval of major contracts and agreements.
o) Approval of adoption or changes to major programs or initiatives.
p) Selection of auditors or legal counsel.
q) Dissolution or merger decisions.

Decisions related to routine procedural and administrative matters such as meeting scheduling and agenda-setting, assignment of tasks, approval of meeting minutes, and minor budget adjustments may be addressed through general consensus and established protocols where no objections are raised. No formal voting is required for these types of decisions and actions.

Section 5.04 Meeting Conduct.

The Board Chairperson presides over meetings of the Board of Directors, ensuring that the agenda is followed, and time is managed effectively. All directors are expected to conduct themselves in a professional and respectful manner, allowing everyone to express their opinions and concerns. The Chairperson may establish reasonable time limits for each agenda item to ensure a productive and efficient meeting.

Directors should disclose any potential or actual conflicts of interest regarding matters discussed during the meeting. Directors with a conflict of interest should abstain from voting or participating in discussions related to the conflicting matter, as required by the organization's conflict of interest policy.

Section 5.05 Guest Attendance.

The board may invite guests, such as staff members, external experts, or stakeholders, to attend and present information during board meetings. Guests may be provided an opportunity to speak and present

their views but do not have voting rights.

Section 5.06 Executive Session.

The board may occasionally hold executive sessions, excluding staff and guests, to discuss sensitive matters such as personnel issues, legal matters, or strategic planning. Minutes from executive sessions are documented separately and may be restricted to board members only.

Section 5.07 Executive Committee Meetings.

The board may occasionally hold Executive Committee meetings and discussions. These may be formal gatherings or informal correspondence. It is expected that the general nature of these discussions and any decisions reached by the Executive Committee be shared with the Board. The Executive Committee cannot unilaterally make decisions regarding matters requiring Board action without proper Board discussion and vote.

Article VI. Committees and Policies

Section 6.01 Committees.

By majority vote, the Board will create one or more committees to serve at the pleasure of the Board and to have such authority as the Board, by resolution, will provide subject to limitations contained in the ASA Bylaws. The Board maintains a listing of all committees with descriptions and leadership position titles and holders. The list is updated at regular or special meetings of the Board as needed to reflect any changes. Each committee keeps a written record of each meeting and provides committee reports to the Board.

At a minimum, the following committees will be established and maintained by the Board. An officer of the Executive Committee will lead each of these as Committee Chairperson as noted.

a) Executive Committee (Chair: Executive Committee Chairperson)
b) Finance Committee (Chair: Executive Committee Treasurer)
c) Administrative Committee (Chair: Executive Committee Secretary)
d) Membership Committee (Chair: Executive Committee Vice Chairperson)
e) Board Director Nomination Committee (Chair: Executive Committee Vice-Chairperson)

The Vice-Chairperson(s) for each of these committees is selected from the Board of Directors. All other established committees are chaired by Board Directors but may include non-director members as Vice-Chairperson(s).

Committees are responsible for developing and maintaining policies as listed and described in the ASA Bylaws. Policies and responsible committees include the following.

a) Conflict of Interest Policy (Executive Committee)
b) Board Director and Officer Policy (Executive Committee)
c) Financial Policy (Finance Committee)
d) Membership Policy (Membership Committee)
e) Administrative Policy (Administrative Committee)

Article VII. Risk Oversight

Section 7.01 Risk Oversight Responsibilities of the Board of Directors.

The Board has the ultimate responsibility for overseeing the organization's risk management efforts and ensuring the establishment of an effective risk management framework. The Board will regularly review and assess the organization's risk profile, including both internal and external risks. The review is to identify potential threats to the organization's mission, reputation, financial stability, and operations. The Board will work in collaboration with relevant committees and staff members to establish risk management

strategies, controls, and policies to mitigate identified risks.

The Board may choose to secure general liability insurance and directors and officers (D&O) insurance as needs arise and funds become available.

Section 7.02 Risk Oversight Responsibilities of Individual Directors.

Each director has a responsibility to actively participate in the organization's risk management efforts and contribute to the identification and management of risks within their areas of expertise and influence. Directors will exercise due care and diligence in identifying and assessing risks, considering the potential impact on the organization's mission, stakeholders, and reputation. Directors will support the establishment and implementation of risk mitigation strategies and controls, including the development and adherence to relevant policies and procedures. Directors will disclose any conflicts of interest that may impact their ability to objectively evaluate risks or make decisions related to risk management. Directors will stay informed about applicable laws, regulations, and industry best practices related to risk management and actively seek opportunities for professional development in this area.

Article VII. Training and Development

Section 8.01 Continual Learning and Training Opportunities.

Directors and officers are encouraged to enhance their knowledge and skills relevant to their roles, staying updated on nonprofit governance practices, legal requirements, and industry trends. ASA may provide training resources, workshops, or access to external professional development programs to support directors and officers in their roles.

RELATED DOCUMENTS

Administrative Policy, ADM-1001
Conflict of Interest Policy, BOD-1001
Financial Policy, FIN-1001
Membership Policy, MEM-1001

APPENDIX

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Alabama Stormwater Association

January 14, 2024

Alabama QCP Certification Exploration Report

This report provides a summary of findings of an exploratory committee formed by the Alabama Stormwater Association (ASA) to investigate the feasibility of a state-specific professional certification for stormwater professionals practicing in Alabama. The work of the committee was prompted by a recognized need for reinforcing the expertise of practicing stormwater professionals for enhanced protection of Alabama's water resources. This report includes the following topics.

- The Exploratory Committee
- Regulatory Background
- Recognized Opportunity and Impetus for Exploration
- Exploration Objectives and Steps Toward Program Development
- Conclusions

The Exploratory Committee

The exploratory committee was made up of a group of stormwater professionals and practitioners with diverse backgrounds and experiences related to construction stormwater management. Committee members were selected based on their expressed interest in the topic and/or their current contributing position within the Alabama stormwater management community. Committee members are listed below.

- Eve Brantley (Alabama Cooperative Extension Service and ASA)
- Louise Brown (Home Builders Association of Alabama)
- Ashley Campbell (Baldwin County and ASA)
- Talbert Essary (Essary Environmental, LLC)
- Barry Fagan (Fagan Consulting and ASA) - committee chair
- Wilson Folmar (Thompson Engineering)
- Richard Klinger (Alabama Department of Transportation)
- Steve Newton (TTL, Inc. and Home Builders Association of Alabama)
- Earl Norton (Alabama Soil and Water Conservation Committee)
- Perry Oakes (Alabama Soil and Water Conservation Committee)
- Case O'Dell (City of Tuscaloosa and ASA)
- Mike Perez (Auburn University Civil and Environmental Engineering Department)
- Scott Rogers (Alabama Department of Transportation and ASA)
- Cindy Roton (Thompson Engineering)
- Joel Seawell (Erosion Pros, LLC)

A total of five virtual committee meetings were held in the Fall of 2023. Meeting discussion topics included current regulation and pathways to professional credentialing, identified Alabama needs, opportunities presented, best practices of certifying bodies, and potential benefits and required effort of developing a certification program. Special guests were invited to meetings that had program development and maintenance experience and potential funding ideas. Supplemental research and investigation were undertaken by individual members as opportunities for learning were presented. The committee chair also had conversations with regulatory representatives as the exploration advanced.

The work of several successful programs across the US were investigated. One particularly successful certification program was developed by Clemson University in coordination with the South Carolina Department of Health and Environmental Control (SCDHEC). Cal Sawyer of Clemson joined a meeting to present the SC program and answer questions of the committee.

Some of the committee members relied on other committee members to communicate committee work and progress. Some were unable or chose not to participate directly in the work of the committee. All members were included on committee correspondence and were provided an opportunity to review and contribute to this report prior to its finalization.

Regulatory Background

The Alabama Department of Environmental Management (ADEM) defined the terms Qualified Credentialed Professional (QCP) and Qualified Credentialed Inspector (QCI) in the 2003 modification of ADEM Admin. Code Chapter 335-6-12-.02 and subsequently incorporated them into the 2011 General NPDES Permit No. ALR100000 (construction general permit or CGP) for regulated construction activities.

A QCP is defined in the current CGP as a licensed (in the State of Alabama) professional engineer (PE) or a Certified Professional in Erosion and Sediment Control (CPESC) as determined by EnviroCert International. Other registered or certified professionals eligible to be classified as a QCP include registered landscape architect, licensed land surveyor, registered geologist, registered forester, Registered Environmental Manager as determined by the National Registry of Environmental Professionals (NREP), or Certified Professional and Soil Scientist (CPSS) as determined by the Soil Science Society of America. The QCP shall be in good standing with the authority granting the registration or designation. The design and implementation of certain structural BMPs may involve the practice of engineering and require the certification of a professional engineer pursuant to Alabama law.

QCP is defined a bit differently in the Alabama Code (335-6-12.02(r)) (this discrepancy will be resolved with the next CGP update). Current regulation adds to the listing of credentials professionals, "…and other Department accepted professional designations, certifications, and/or accredited university programs that can document requirements regarding proven training, relevant experience, and continuing education, that enable recognized individuals to prepare CBMPPs, to make sound professional judgments regarding Alabama NPDES rules, the requirements of this Chapter, planning, design, implementation, maintenance, and inspection of construction sites, receiving waters, BMPs, remediation/cleanup of accumulated offsite pollutants from the regulated site, and reclamation or effective stormwater quality remediation of construction associated land disturbances, that meet or exceed recognized technical standards and guidelines, effective industry standard practices, and the requirements of this Chapter" (emphasis on inspection added).

A QCI is defined as a permittee, permittee employee, or permittee designated qualified person who has successfully completed initial training and annual refresher Qualified Credentialed Inspection Program (QCIP) training and holds a valid certification from an ADEM-approved cooperating training entity. A QCI is familiar with current industry standards for erosion and sediment controls and able to inspect and assure that BMPs or other pollution control devices (silt fences, erosion control fabric, rock check devices, etc.) and erosion control efforts (grading, mulching, seeding, growth management, etc.) or management strategies have been properly implemented and regularly maintained. Such individual may not certify the CBMPP or modifications to the CBMPP.

A Construction Best Management Practices Plan (CBMPP) is defined as any research, planning considerations, systems, procedures, processes, activities, and practices implemented for the prevention and/or minimization of pollutants in stormwater to the maximum extent practicable, and collection, storage, treatment, handling, transport, distribution, land application, or disposal of construction stormwater and onsite management of construction waste generated by the construction activity, and to comply with the requirements of this permit. The CBMPP shall be prepared and certified, and when necessary updated by a (QCP) in accordance with the requirements of the CGP.

QCIP is defined as [an ADEM] approved program conducted by a cooperating training entity. Approved programs provide training in the requirements of the Alabama NPDES rules and regulations

to ensure that QCP designed and certified BMPs detailed in a CBMPP are effectively implemented and maintained, and evaluation of conveyance structures, receiving waters and adjacent impacted offsite areas to ensure the protection of water quality and compliance with the requirements of the CGP.

The need for QCP training and additional qualification has been recognized in the stormwater management community since the introduction of the term, QCP. **There is currently no similar QCP training or certification program overseen by ADEM.**

CPESC is the only credential listed in the definition of QCP that is dedicated to the preparation of a CBMPP. As stated above, individuals credentialed as a CPESC in good standing with EnviroCert International automatically meet the qualifications of QCP.

In addition to CBMPP development and certification, the CGP describes specific types and frequencies of site inspections and CBMPP evaluations that are required to be performed by a QCP and/or qualified persons under the direct supervision of a QCP. The QCP must conduct or supervise regular weekly and rainfall inspections, and also perform the preconstruction observation, a monthly CBMPP review inspection, and a voluntary termination inspection, which requires certification of temporary BMP removal and final stabilization at the completion of a construction project. QCP responsibilities may also include notification of non-compliance and determination of upset conditions, both requiring inspection qualification. In the event of violation, site evaluation including soil loss analysis, response and remediation planning, and compliance certification may be expected of the QCP.

An inferred expectation exists that an individual credentialed as a CPESC is qualified to perform site inspections.

Recognized Opportunity and Impetus for Exploration

In May of 2023 EnviroCert International (ECI) provided a notice *of an exhaustive review of the CPESC Scope of Practice to determine if inspection is an integral part of the scope for CPESCs* to all active CPESCs. It stated that ***ECI has concluded that the historic Scope of Practice of a CPESC is that of a planner and designer and does not explicitly give the CPESC authority to perform professional field inspections.***

In the notice ECI recognized that "many CPESCs routinely perform inspection services." ECI stated its determination that this [inspection] authority is founded under the CESSWI certification (another certification offered by ECI). ECI reiterated its code of ethics which prohibits certified professionals from practicing outside of their area of expertise. ECI provided details for "transition plan" and waivers of professional development requirements and fees for the additional certification.

Per ECI policy and clarification from its executive director, CPESCs will not be required by ECI to obtain the additional CESSWI certification in states "where CPESC is written into the regulations." As stated above, CPESC is currently written into Alabama regulations with an expectation that CPESCs are qualified to perform inspections.

The ECI executive director pointed to the EPA's 2022 CGP as the reason for ECI's evaluation and determination. In that CGP EPA requires that inspections only be *conducted by a qualified person who has either: (1) completed the EPA construction inspection course and passed the exam, or (2) holds a current construction inspection certification or license from a program that covers the same core material as EPA's inspection course.* EPA maintains a list of recognized programs that offer certifications or licenses that meet these criteria.

CPESC is not on the listing of Non-EPA Inspector Trainings and given ECI's determinations and position statements on the matter, CPESCs may not ever be considered "qualified persons" by EPA or ECI as the term relates to site inspection.

This presents a challenge for ADEM and for those in Alabama who are actively performing inspections as a QCP based on their CPESC credentialing. It is anticipated that ADEM will need to address the discrepancy between its definition of QCP and the lack of qualification determinations made by ECI and EPA. This may be addressed with a solution similar to ECI's - simply require all QCPs to obtain additional inspection training or certification through an ADEM- or EPA- recognized provider. This could help to ensure proper inspection qualification for professionals, but would also likely present a burden for both ADEM and current QCIP providers.

These circumstances also present an opportunity for Alabama. This opportunity was recognized by ASA who directed the formation of the exploratory committee. The opportunity has gained interest in both addressing a long-time need for Alabama-specific construction stormwater professional qualification and satisfying the expectations of current EPA requirements and potential future ADEM expectations. The opportunity has the potential to enhance protection of Alabama waters, increase the performance of Alabama construction stormwater professionals, and lessen the economic burdens of certification through national and international bodies.

Exploration Objectives and Steps Toward Program Development

The primary objective of the ASA exploratory committee was to answer the question - *Could a sustainable professional construction stormwater management certification program be developed in Alabama with the following characteristics?*

1. Compliments and supplements, rather than competes with Alabama's current QCIP.
2. Meets expectations for the level of expertise and qualification of other ADEM-recognized credentials currently listed in the regulatory definition of QCP.
3. Meets expectations for the level of expertise and qualification for a "qualified person" as recognized by EPA in the context referenced above.
4. Ensures levels of program integrity, control, and quality that can withstand scrutiny by ADEM, EPA, and other interested stakeholders.
5. Focuses on Alabama's unique aquatic resources, precipitation, soils, topography, regulations, and published guidance.
6. Elevates the state of design and implementation for construction stormwater management in Alabama.
7. Can be relied on by land development project owners and developers, and other interested stakeholders to help ensure that qualified stormwater professionals are performing construction stormwater management related planning, design, implementation, and quality and compliance assurance to help ensure regulatory compliance and protection of Alabama aquatic resources.
8. Addresses planning, design, implementation, and inspection of construction stormwater management measures and practices.
9. Provides a path to professional credentialing for non-degreed and not-otherwise-credentialed stormwater professionals.
10. Requires a path to certification that includes relevant and sufficient education and experience, rigorous examination, and continuing professional development requirements.

Identified initial steps for program development included the following (steps completed at the date of this report are highlighted):

1. Findings from the exploratory committee are drafted.
    a. Discuss draft findings with the Alabama Stormwater Association (ASA) Board of Directors.
    b. Discuss draft findings with ADEM - offer to coordinate a call with SCDEHC/Clemson and ADEM/ASA.
2. ADEM provides informal but positive indication of certification inclusion at next permit renewal.
    a. Current permit expires March 31, 2026.

b. Requires additional demonstration of certification rigor and program sustainability.

3. Independent nonprofit certification program administrator selected.
    a. Auburn University has accepted the lead as the initial program administrator.
    b. ASA will provide support and possibly a more significant role as resources become available.
4. Potential funding sources are explored.
    a. Auburn has submitted a proposal to ADEM for funding of initial administrative and management components of program development.
    b. ALDOT has indicated that it may be able to fund some of the technical development aspects of the program.
5. Select an appropriate name for the certification. Suggested names are provided below.
    a. ACSP - Alabama Construction Stormwater Professional
    b. APCS - Alabama Professional in Construction Stormwater
    c. CPACS - Certified Professional in Alabama Construction Stormwater
    d. ACCSP - Alabama Certified Construction Stormwater Professional
    e. AQCP – Alabama Qualified Credentialed Professional
6. Certification qualifications to be developed by program administrator.
    a. Experience.
    b. Education.
    c. Additional training (Alabama QCI).
    d. Credit for prior credentialing (current AL QCPs, including CPESC).
    e. Continuing education and professional development.
    f. Recertification/renewal requirements developed.
7. Certification application and review process to be developed by program administrator.
    a. Recertification and/or professional development requirements developed.
8. Independent certification technical provider to be selected to develop technical elements of certification.
    a. Auburn University Civil and Environmental Engineering Department suggested.
    b. Payment agreement executed between the program administrator and technical provider for initial development and maintenance of scope of practice, exam, and review course materials.
9. Technical scope of practice to be developed by technical provider and program administrator. Technical elements reference the following for content:
    a. Alabama Handbook for Erosion Control, Sediment Control, and Stormwater Management on Construction Sites and Urban Areas (Alabama Blue Book).
    b. The current Alabama Construction General Permit.
    c. Ethics, planning, design, maintenance, inspection, and troubleshooting (inspection could be addressed by requiring QCI certification).
10. Exam material to be developed by the technical provider.
11. Certification review course materials to be developed by the technical provider.
12. Trainer qualifications to be developed.
13. Program administrator reviews and approves trainers.
14. Review courses offered by approved trainers.
    a. Audits by technical provider and program administrator.
15. Exam applications reviewed by program administrator.
16. Certification exam offered.
    a. In-person and virtual.
    b. Proctor by technical provider.
    c. Oversight by program administrator.
17. Certifications issued by program administrator.
18. Certification is maintained.
    a. Renewal by fee and proof of professional development.

b. Verified by program administrator.

Conclusions

The ASA exploratory committee met its stated objective by answering the question - *Could a sustainable professional construction stormwater management certification program be developed in Alabama with the characteristics stated above.*

The answer was a resounding YES.

However, the exploratory committee, ASA, and Auburn University all recognize that developing a sustainable certification program requires work. It requires paid and volunteer resources, it requires time, and it requires funding above the seed investment described above.

Other significant conclusions (repeated from above) include:

- ADEM is informally in favor of the concept and will likely endorse the certification if certification rigor and program sustainability can be demonstrated prior to reissuance of the CGP (in April of 2026).
- Auburn University will take the lead on initial administration and development of technical content.
- ASA will support initial program development and will increase its participation as resources become available.

Regardless of the work required and the inevitable challenges that developing a new program presents, the exploratory committee, the ASA Board of Directors, and Auburn University firmly believe that this will be a solid step forward in the enhancement of protections for Alabama's waters and enhancement of their protections.

This report is presented to the ASA Board of Directors by Barry Fagan, Committee Chair on January 16, 2024.

Mobile Bay National Estuary Program
Project Implementation Committee

June 15, 2023, 1:00 pm – 3:00 pm
Five Rivers Tensaw Theater

Agenda

Meeting Objectives:

a) Share updates on ongoing and proposed restoration and monitoring activities in coastal Alabama

1. **Welcome and Introductions**
   PIC Co-Chairs:
   Judy Haner, The Nature Conservancy
   Patric Harper, U.S. Fish & Wildlife Service

2. **Review and Approval of Minutes**

3. **Old Business**
   a) Management Conference Committee Status Updates

4. **New Business**
   a) Committee Member Updates
      a. Watershed Management Plan Assessment Results – Christian Miller, MBNEP
      b. Point Aux Pines Living Shoreline Monitoring – Carl Ferraro, Stantec
      c. Little Lagoon Living Shoreline – Carl Ferraro, Stantec
      d. Perdido Watershed Management Plan Management Measures – Wade Burcham, 50 20 Engineering
      e. Shoreline Projects – Contractor Procurement Discussion (if time allows)
   b) MBNEP Restoration Update (if time allows)
   c) Other partner updates
   d) Off-cycle topical meeting – scheduling October oyster management with MRD
   e) Next meeting **TBD**

5. **Adjourn**

This presentation provides minutes of the June 15, 2023, Project Implementation Committee. Additional notes are included with each slide as needed.

Attendees In Person: Cade Burgin, Wade Burcham, Herb Bullock, Ashley Campbell, Jannell Clampett, Emma Cochran, Walter Ernest, Jay Estes, Carl Ferraro, Casey Fulford, Judy Haner, Rob Howell, Patric Harper, Webb Jackson, Andy James, Jeremiah Kolb, Cody Ledet, Ken Leslie, Eliska Morgan, Chris Nix, Steve O'Hearn, Ray Richardson, Sawyer Shotts, Lance Slater, Suzanne Sweetser, William Walker, Lee Walters, Jesi Ward, Connie Whitaker, Lee Yokel

Virtual Attendees: Mark Berte, Mike Eubanks, Amy Hunter, Shannon McGlynn, Leslie Lott, Ryne Smith, Tim Thibaut, Chris Warn

MBNEP Staff: Bethany Hudson, Jason Kudulis, Marti Messick, Christian Miller, Blair Morrison, Vanessa Romero, Roberta Swann

Project Implementation Committee Agenda

Welcome and Call to Order:
Co-Chairs: Judy Haner, The Nature Conservancy, & Patric Harper, U.S. Fish and Wildlife Service

Review and approval of March 2023 minutes

Old Business:
Management Conference Committee Updates

New Business:
- Project Updates and Discussion
- MBNEP Watershed Planning and Project Implementation Updates
- Next Meeting TBD

The meeting was called to order at 1:03pm.

Minutes from the March 2023 meeting were distributed for review prior to the meeting. Andy James motioned to accept the minutes; Lance Slater seconded the motion.

Old Business: MBNEP staff provided updates for the other Management Conference committees.

- The Community Action Committee met on March 22. They discussed goals and objectives of CAC and methods to increase committee growth as well as retention of new and current members. The committee talked about bringing in fresh ideas for meetings and not focusing solely on water monitoring.
- The Business Resources Committee toured Admiral Oyster Company recently to learn more about the aquaculture industry and the potential to become a major sustainable seafood industry on the coast.
- The Science Advisory Committee is scheduled to meet April 6.
    - Wrapping up and summarizing changes in responses to the stressor matrix (2012-2022)
    - Discussing 20 Questions feedback from Bays and Bayous
    - Launching into *State of the Bay*
    - Evaluating indicators used in the 2008 publication and discussing emerging topics

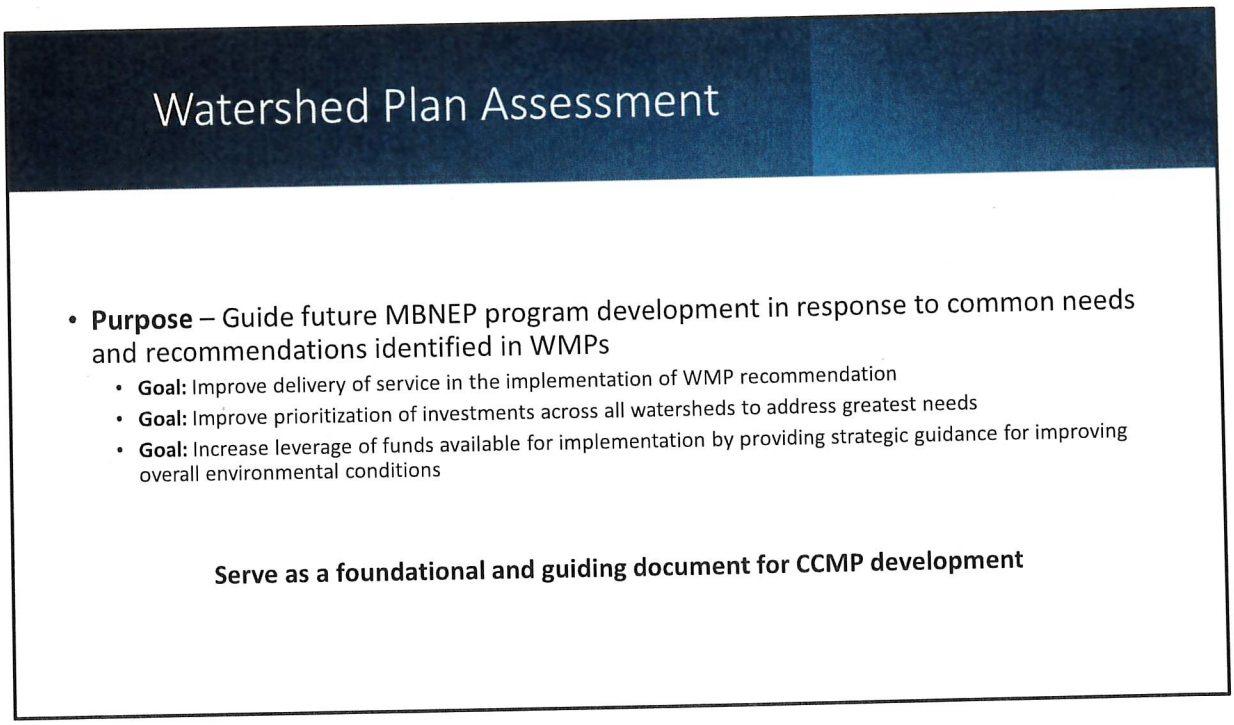
to include in this iteration of the document

- The Government Network Committee will meet on March 31.

New Business:
Presentations focused on monitoring, planning, and restoration activities on the Eastern Shore. This continues our theme of focusing on different geographic sectors around coastal Alabama. Slides from presentations follow and supplemental notes are included as needed.

Project Implementation Committee Agenda

- Watershed Management Plan Assessment Results – Christian Miller, MBNEP
- Point Aux Pines Living Shoreline Monitoring – Carl Ferraro, Stantec
- Little Lagoon Living Shoreline – Carl Ferraro, Stantec
- Perdido Watershed Management Plan Management Measures – Wade Burcham, 50 20 Engineering
- Shoreline Project Contractor Discussion (if time allows)



Mr. Christian Miller with the MBNEP share an update on the Watershed Plan Assessment currently underway.

Recall that ten years ago the PIC and partners charged MBNEP with completing comprehensive watershed management plans for all intertidal watersheds. Now that nearly all watershed plans have been completed, this assessment process is to synthesize individual plans and the voluminous information produced into one report. This summary will be a technical report to reference and guide the next Comprehensive Conservation Management Plan.

TABLE 3-2
PRIORITY WATERSHED IMPAIRMENTS AND ISSUES

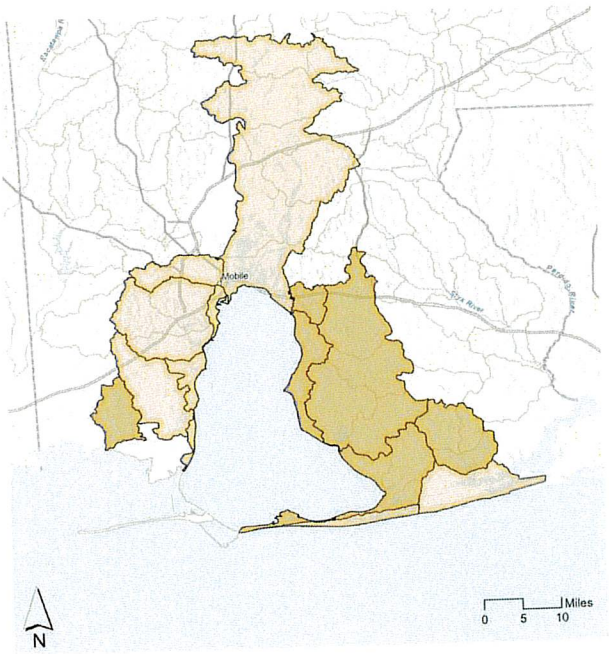
Watershed	Water Quality Impairments				Habitat Degradation Issues			
	Sediments	Nutrients	Pathogens	Litter	Habitat Loss	Degraded Streams	Invasive Species	Shoreline Erosion
D'Olive	P	√	P	√	√	P	√	√
Three Mile Creek	√	P	P	P		√	√	
Bon Secour	P	√	P	√	√		√	P
Dog River	√	P	P	P	√	√	√	√
Fowl River	√	P	P	√	P	√	√	√
Weeks Bay	P	√	P		√	P	√	√
Bayou La Batre	P	√	P	√		P	√	√
West Fowl River			P	P		√	√	P
Wolf Bay	P	√	P	√	√	P	P	√
Western Shore	√	√	√	√	√	√	√	P
Gulf Frontal	√	P	P	√	√		√	P
Mobile Tensaw Delta	√	P		√	P	√	P	P
Dauphin Island			√	√	P	√	√	P
Eastern Shore	P		P		√	√	√	P
Western Perdido Bay		√	P		P		√	P

NOTE: P = Identified as priority issue in watershed management plan (WMP)

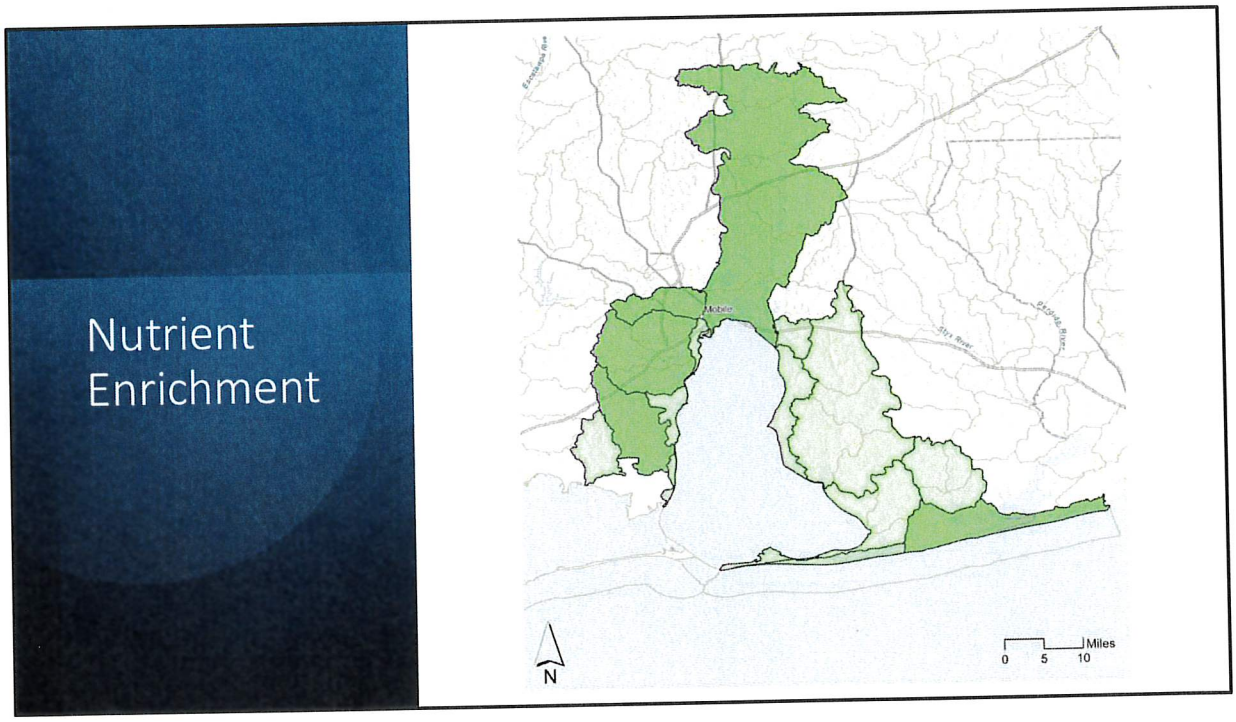
This table boils down each watershed to three priority issues per watershed. Three is difficult considering some have a multitude of issues but focus areas are critical.

*this table and the following maps are drafts and have not been finalized.

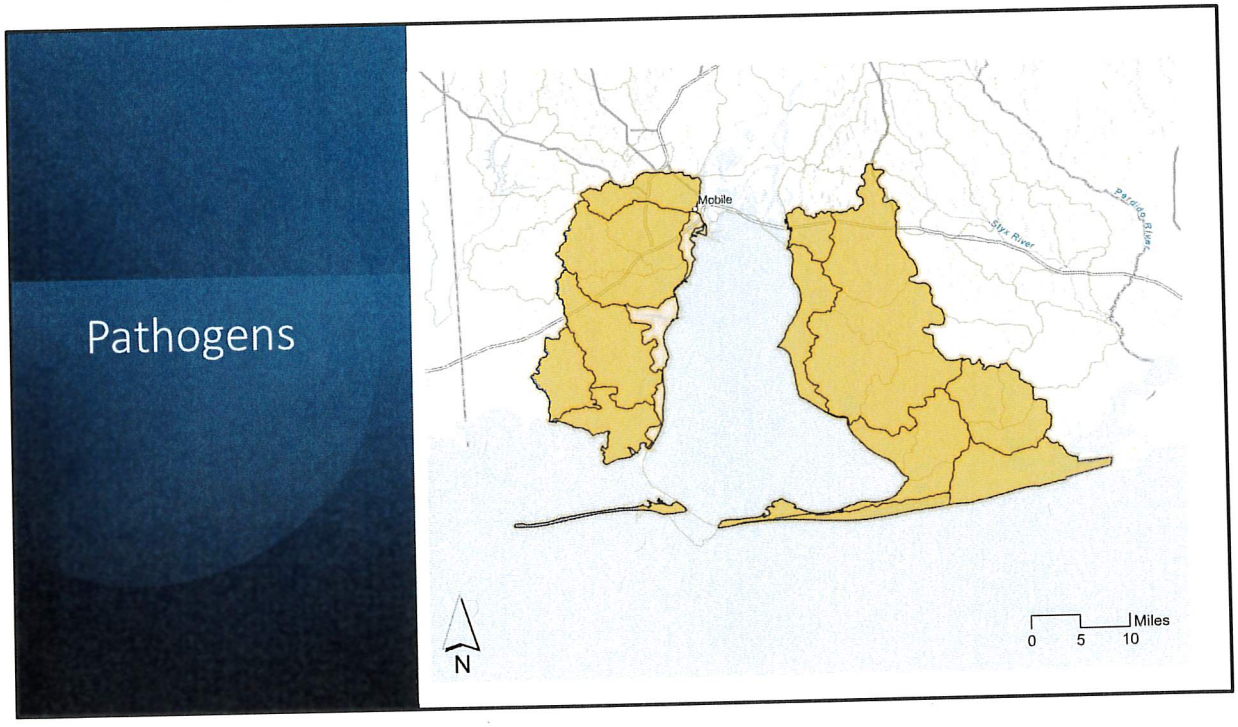
Sedimentation



Dark shading the watershed ranked as a top three priority
Light shading the issue was identified in the watershed management plan

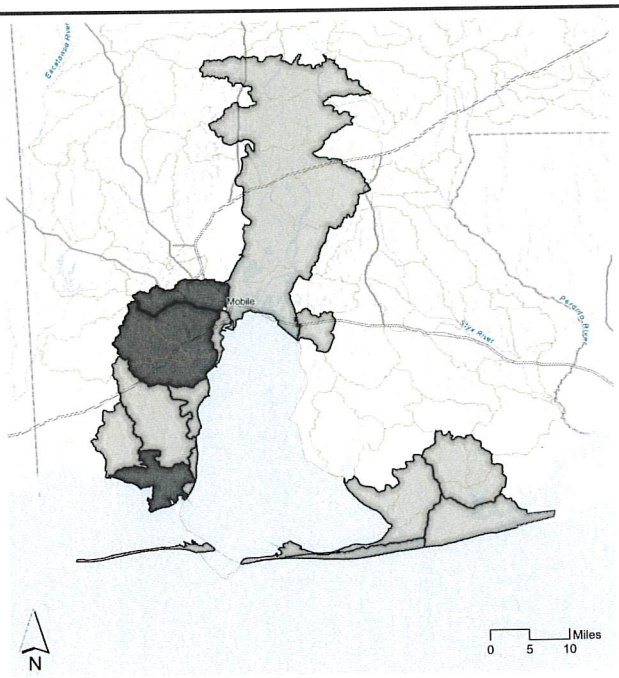


Dark shading: the watershed ranked as a top three priority
Light shading: the issue was identified in the watershed management plan



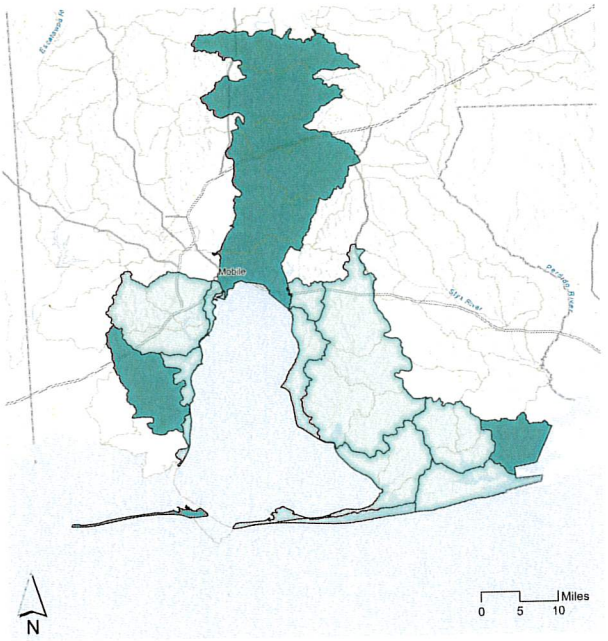
Dark shading: the watershed ranked as a top three priority
Light shading: the issue was identified in the watershed management plan

Litter



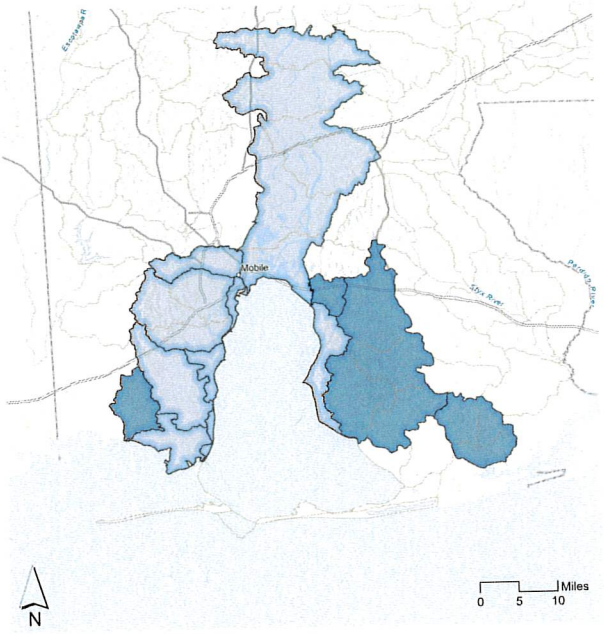
Dark shading: the watershed ranked as a top three priority
Light shading: the issue was identified in the watershed management plan

Habitat Loss



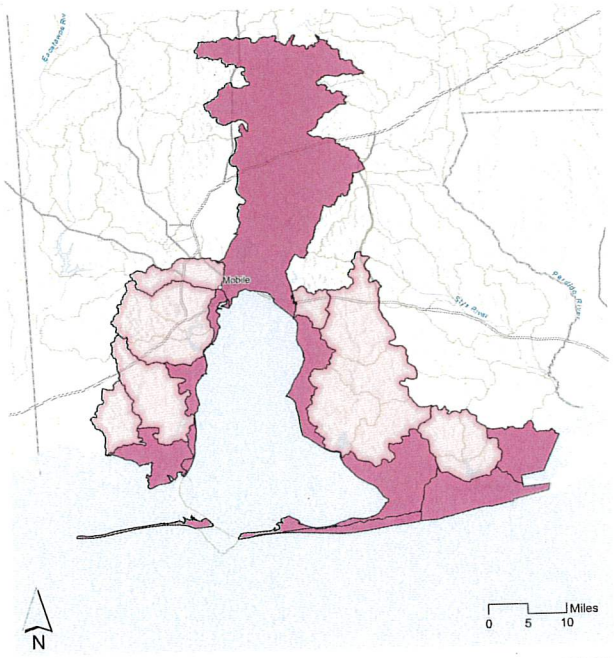
Dark shading: the watershed ranked as a top three priority
Light shading: the issue was identified in the watershed management plan

Stream, Riparian, Wetland Degradation

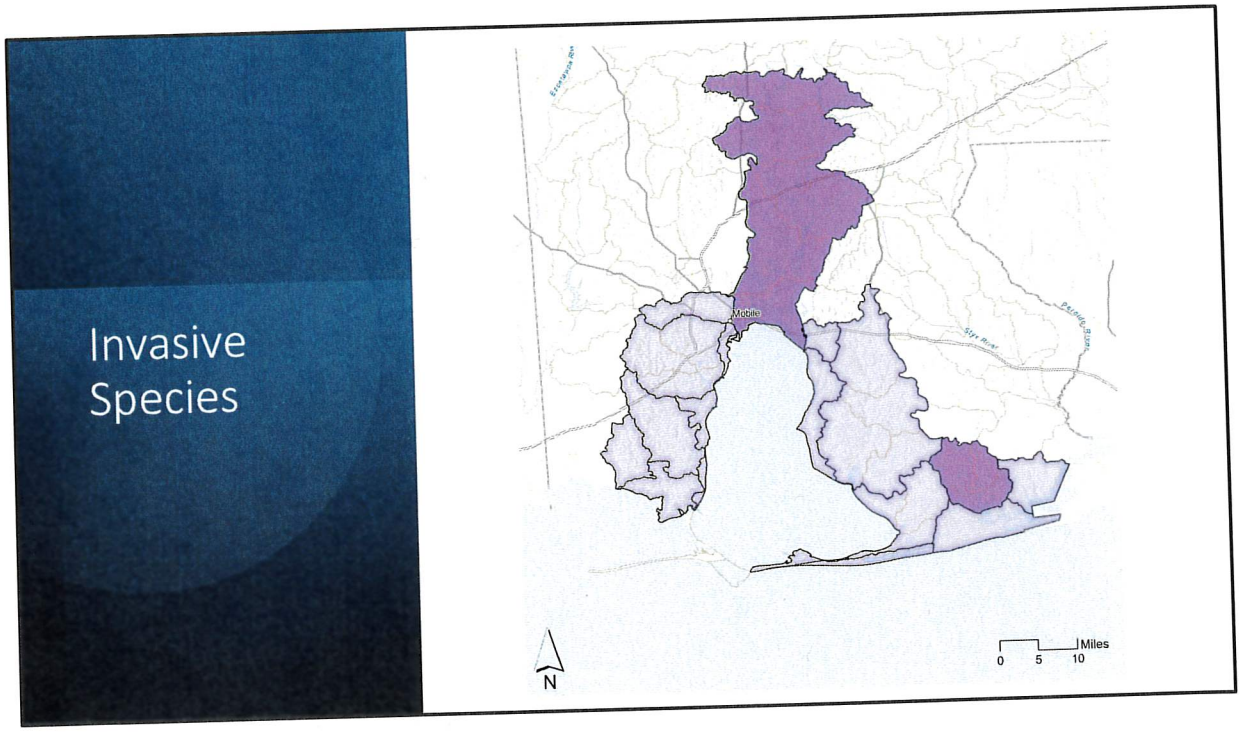


Dark shading: the watershed ranked as a top three priority
Light shading: the issue was identified in the watershed management plan

Shoreline Erosion



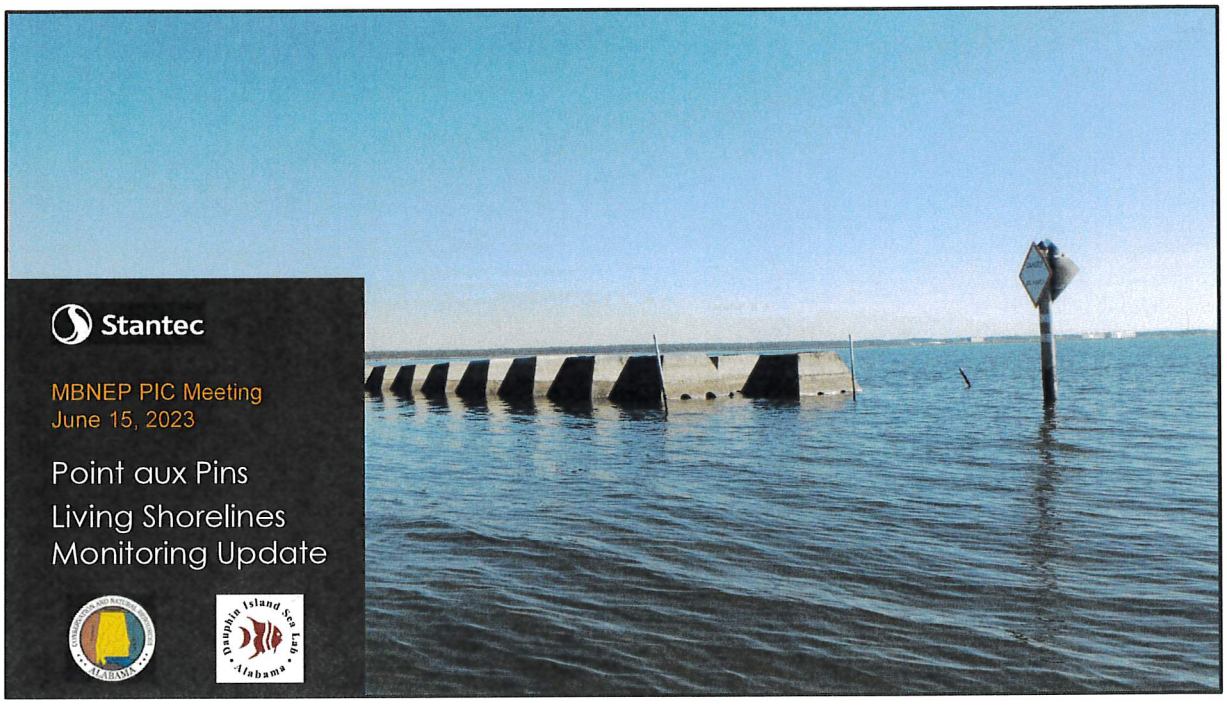
Dark shading: the watershed ranked as a top three priority
Light shading: the issue was identified in the watershed management plan



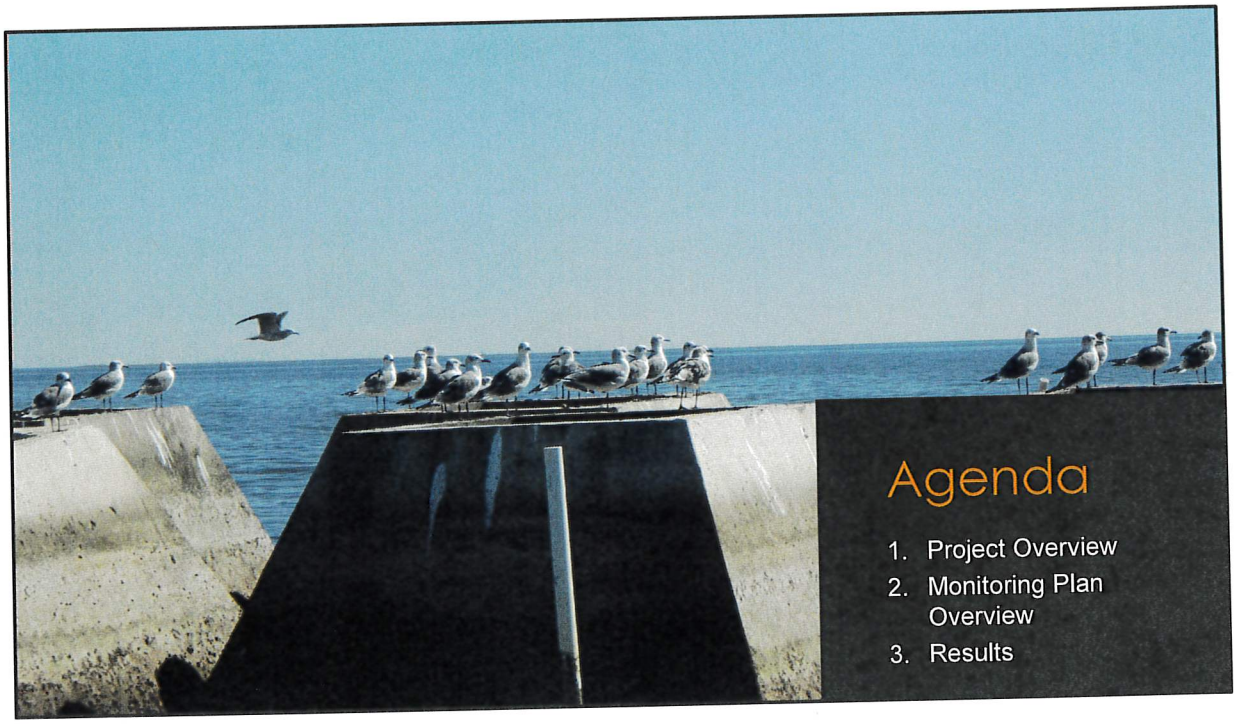
Dark shading: the watershed ranked as a top three priority
Light shading: the issue was identified in the watershed management plan

At this time, the committee participated in a feedback exercise using menti-meter virtual polling.

Participants were asked a series of questions to evaluate effort versus impact of addressing each impairment/issue from the previous slides (e.g.., shoreline erosion, habitat loss, litter, etc.) ; rank mitigation efforts that would be the most impactful over the next ten year (e.g., stream degradation: policy, outreach and education, additional data, in-field projects); rank water quality and habitat impairments based on the PIC's ability to reduce pollutions loads over the next 10 years (e.g., sedimentation, litter, pathogens, nutrients);



Mr. Carl Ferraro with Stantec provided an update on monitoring activities at Point aux Pins and a forthcoming little lagoon restoration project.

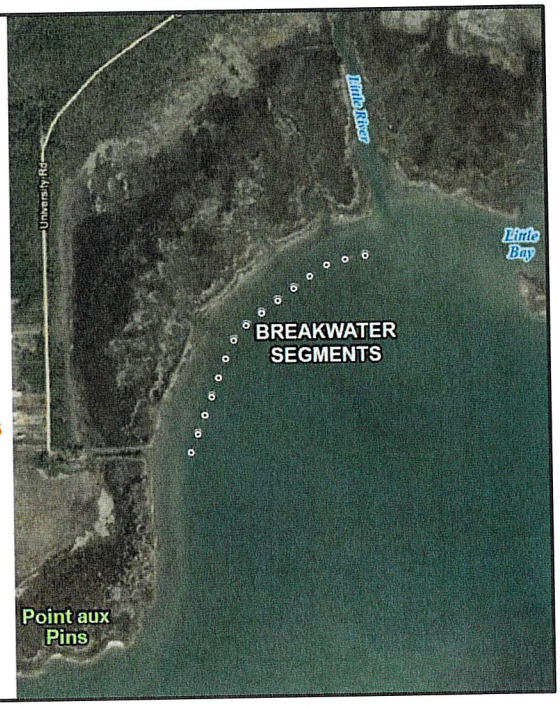

Agenda
1. Project Overview
2. Monitoring Plan Overview
3. Results

Project Overview

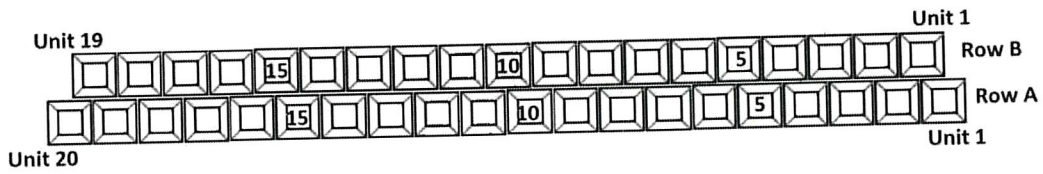
- ADCNR Sponsored
- DWH-NRDA Early Restoration Framework Funded

- Primary Goal: Offset injuries to salt marsh habitat and benthic secondary productivity (and in particular, the net production of mobile and sessile invertebrate infauna and epifauna).

- Located along Northeastern Shoreline of Point aux Pins
- 15 Breakwater Segments
- 39 Wave Attenuation Units (WAUs) per Segment
- WAUs are 10 ft x 10 ft (3 m x 3 m) with 6" thick walls, weighing 12,500 pounds.
- Installed by Gulf Equipment corporation in the Fall of 2020



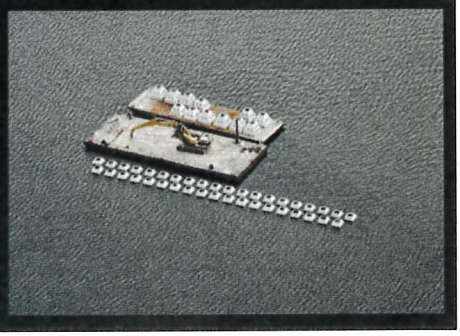
Segment Layout



Not to Scale

Dauphin Island Sea Lab is a partner on this project.

Constructed Project



Monitoring Plan Overview

Project Objectives:

Objective 1 - Support habitat utilization of breakwater segments by bivalves and other invertebrate epifauna.

- Performance Criterion: At year 5, 90% of breakwater segments have invertebrate epifauna present

Objective 2 - Support habitat utilization of nearby breakwater segments of invertebrate infauna.

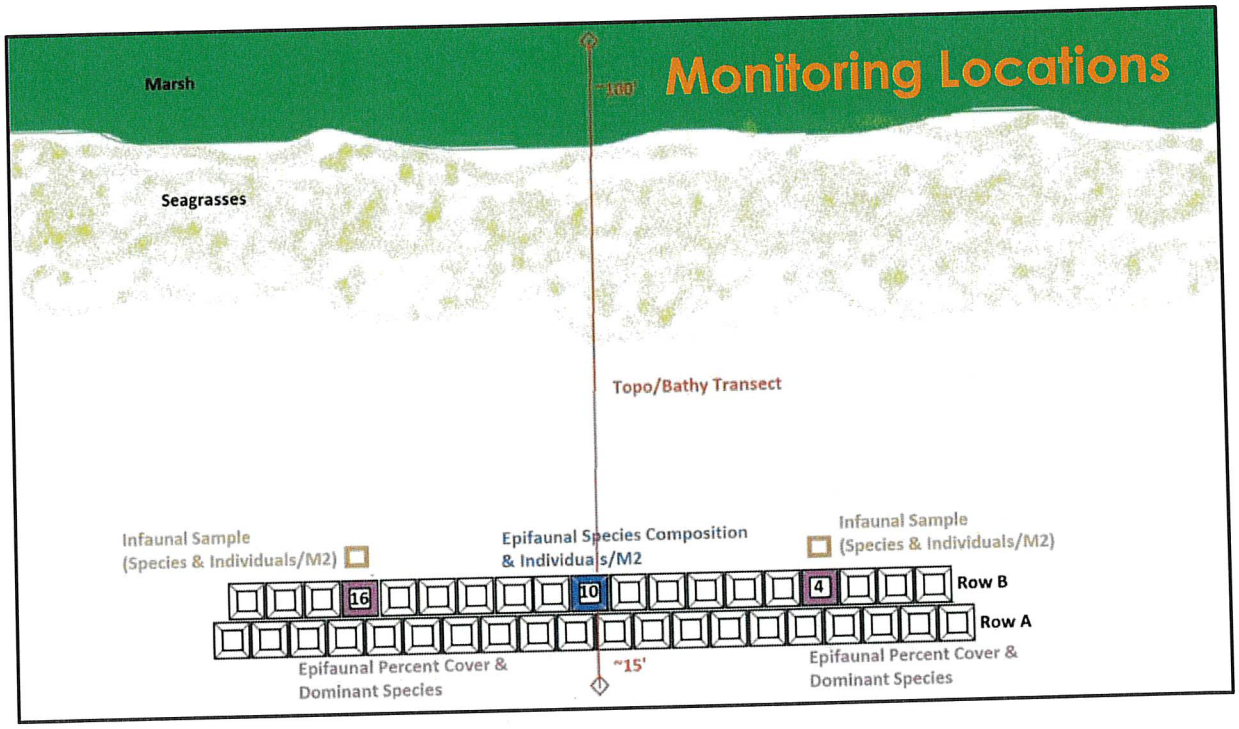
- Performance criterion: Over 5 years, collect data on invertebrate infauna density and composition.

Objective 3 - Reduce shoreline erosion.

- Performance Criterion: Over 5 years, the cumulative shoreline loss is less than pre-project average loss per year.

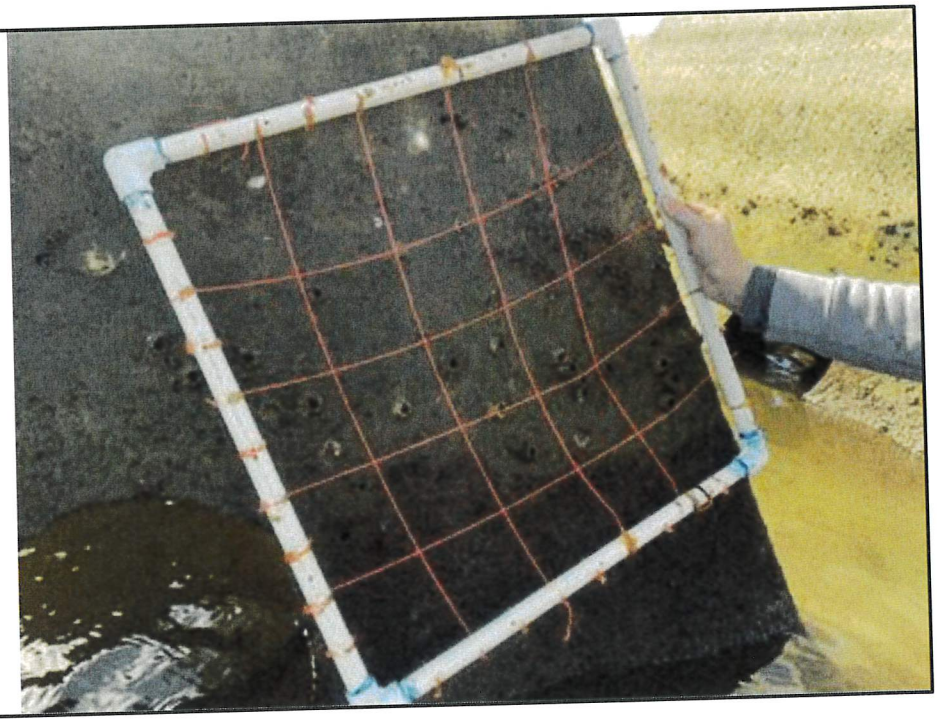
Monitoring Plan Field Data Collection Parameters

- Epifuana
  - 0.25 m^2 quadrats on selected WAUs
  - Species Composition and Abundance
  - Percent Cover and Dominant Species
- Infauna
  - 0.25 m^2 quadrats, 2 – 7.4 cm cores (10cm deep) per quadrat
  - Density, Dry Weight and Dominant Species
- Bathymetric/Topographic Profiles
  - RTK –Survey of Center Point of Each Segment
  - Offshore to Onshore Profile
  - Shoreline Position

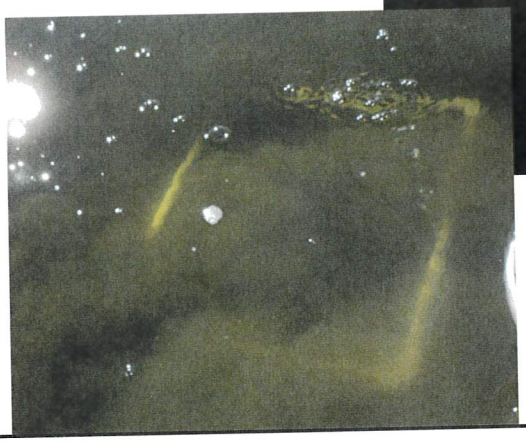

Monitoring Locations
Marsh
~100'
Seagrasses
Topo/Bathy Transect
Infaunal Sample
(Species & Individuals/M2)
Epifaunal Species Composition
& Individuals/M2
Infaunal Sample
(Species & Individuals/M2)
16
10
4
Row B
Row A
Epifaunal Percent Cover &
Dominant Species
~15'
Epifaunal Percent Cover &
Dominant Species

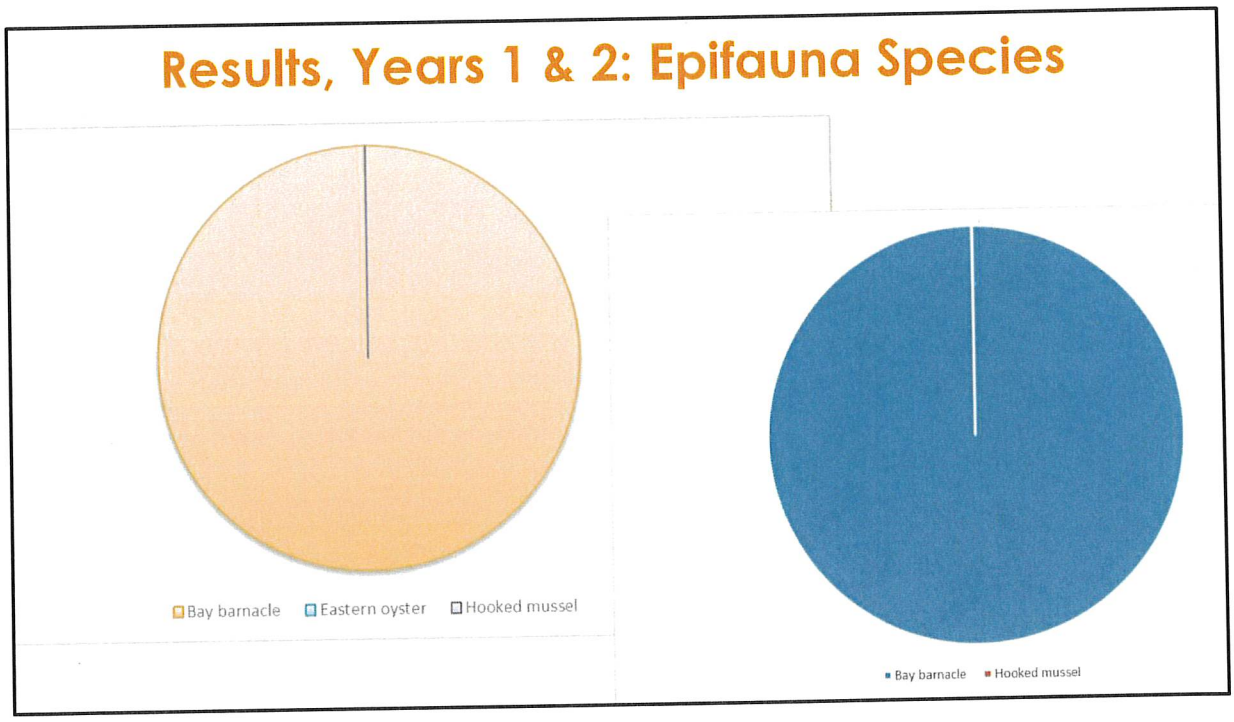
Sample Epifauna Quadrat

Sample Epifauna Quadrat



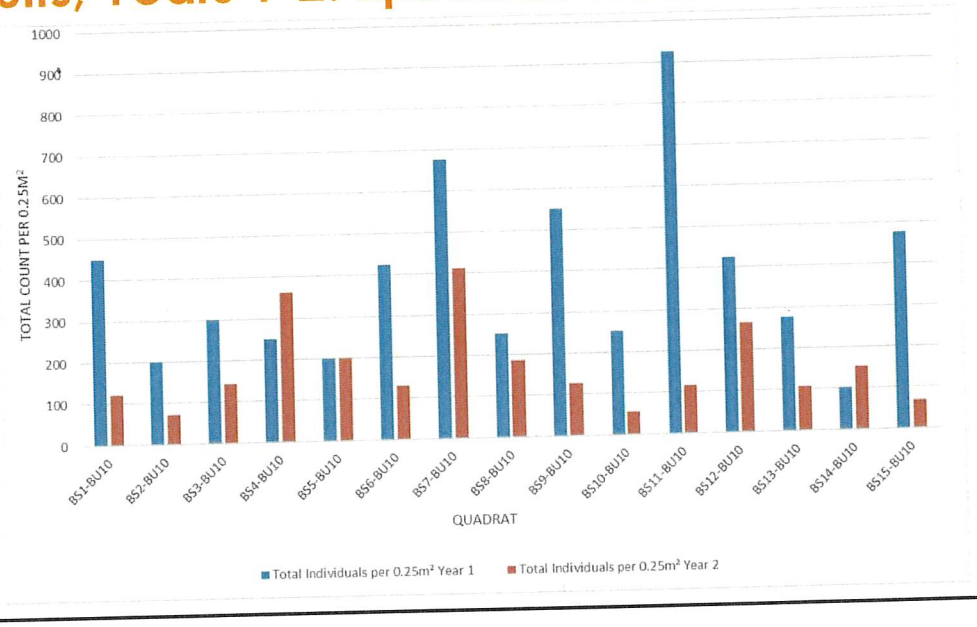
Sample Infauna Quadrat





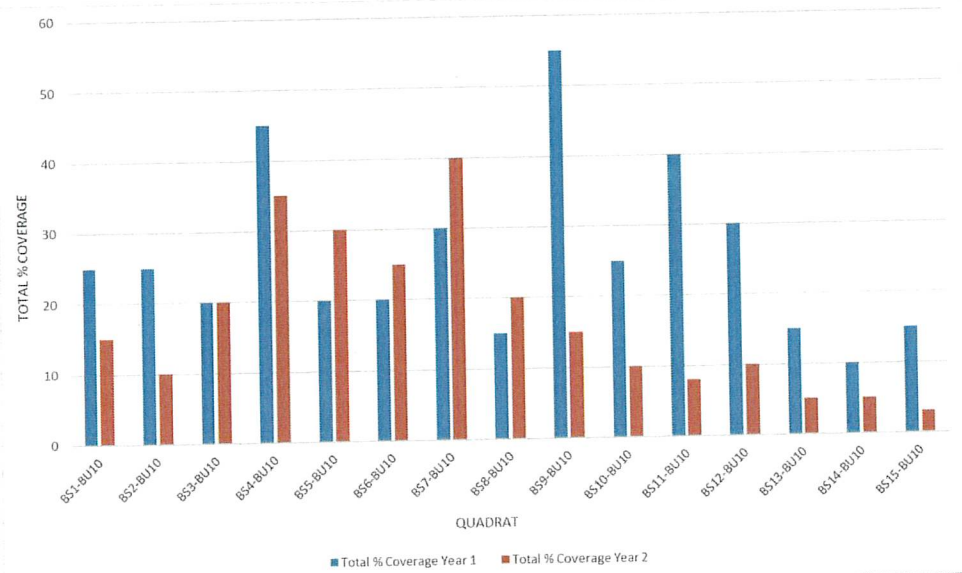
Not sure why, but vast majority of results indicate only barnacles are recruiting.

Results, Years 1-2: Epifauna Total Individuals



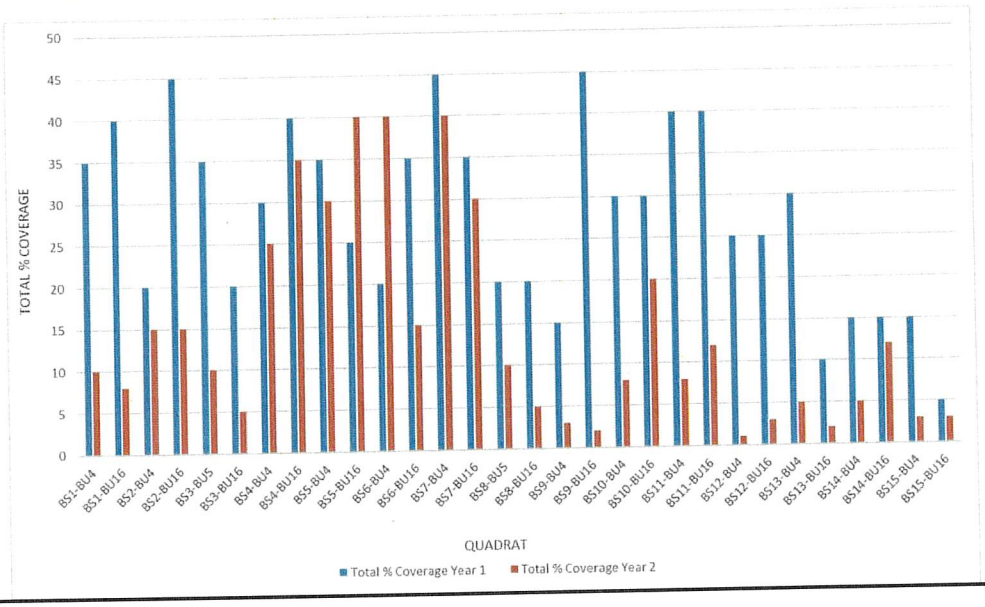
Consistent drop from Year 1 to Year 2.

Results, Years 1-2: Epifauna % Cover

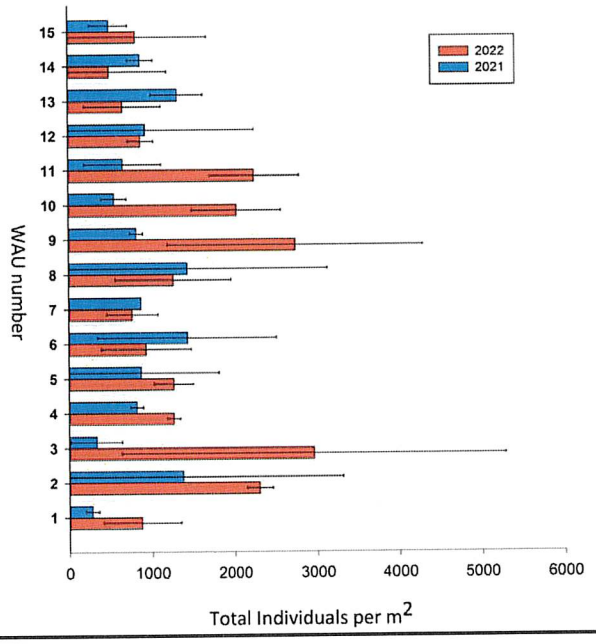


Consistent drop from Year 1 to Year 2.

Results, Years 1-2: Epifauna % Cover

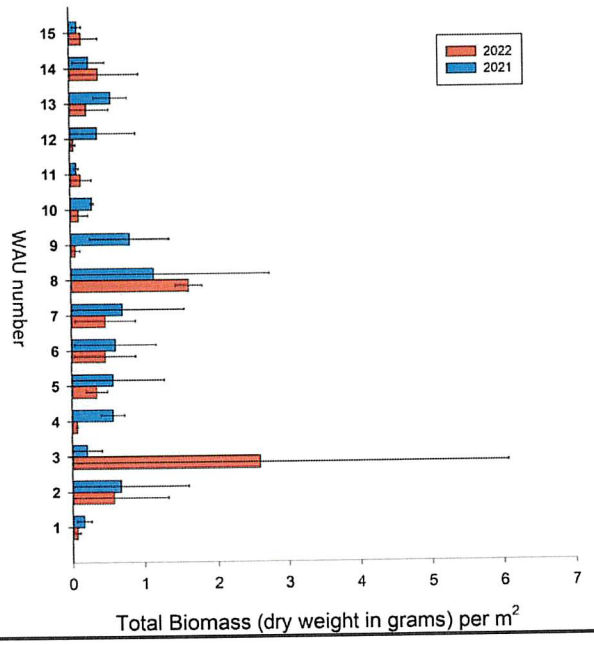


Results, Years 1-2: Infauna Total Individuals

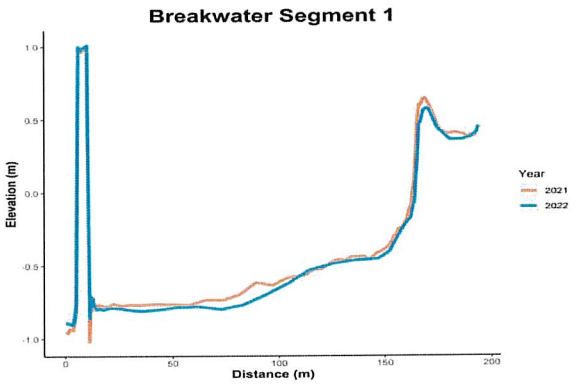


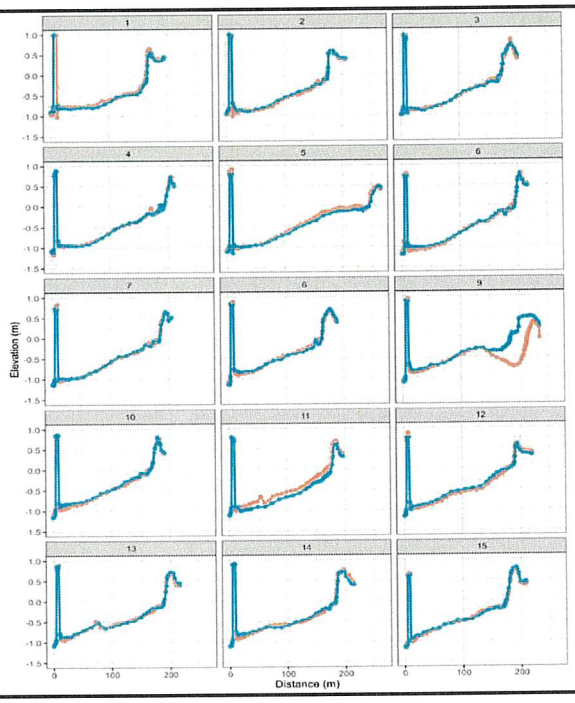
Infauna was opposite of epifauna. Most in Year 2.

Results, Years 1-2: Infauna Total Biomass



Results, Years 1-2: Topo/Bathy Profiles



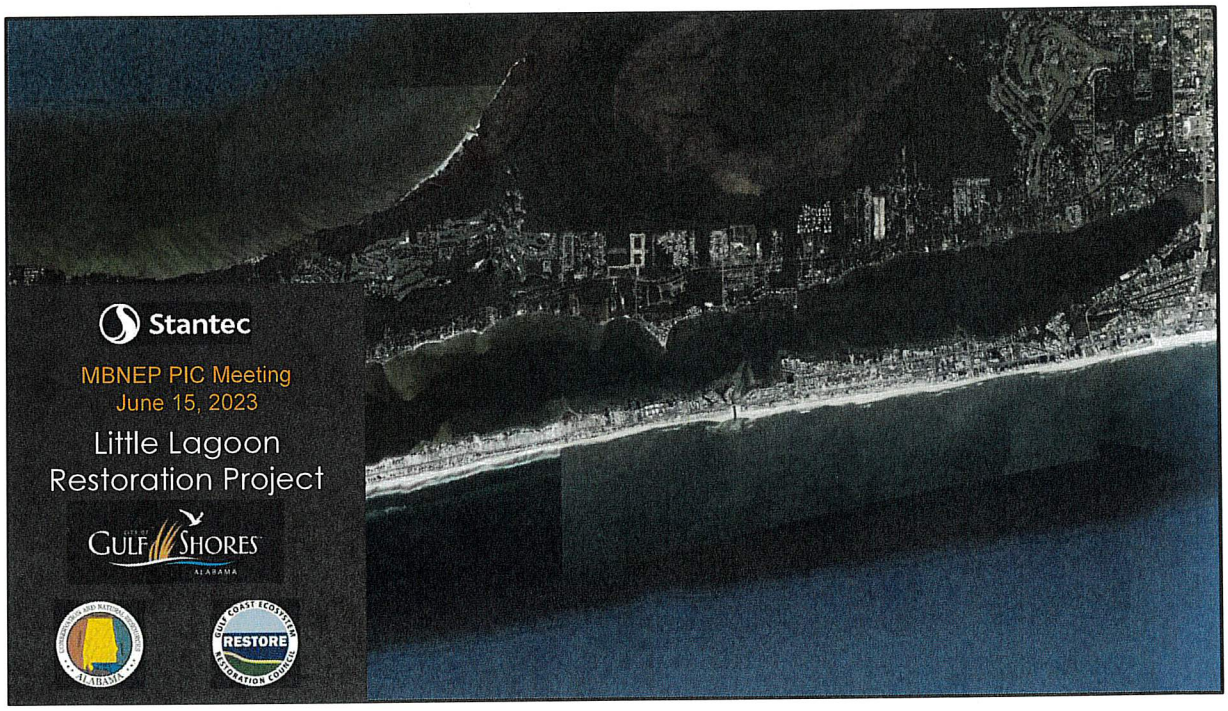


Results, Years 1-2: Summary

- Epifuana
  - All WAUs have Epifauna Present
  - Dominated by Barnacles
  - Lower % Cover & No. of Individuals in Year 2 vs, Year 1.
- Infauna
  - Number of Individuals Increased 1.5-fold Year 2 vs. Year 1.
- Bathymetric/Topographic Profiles
  - Some Settlement of WAUs
  - Apparent Issue with Alignment of Transect 9
  - Some Areas of Accretion and Some Areas of Erosion
  - No Apparent Shoreline Position Change
- 3 More Years to Go! (2 point make a line, 3 points make a trend)

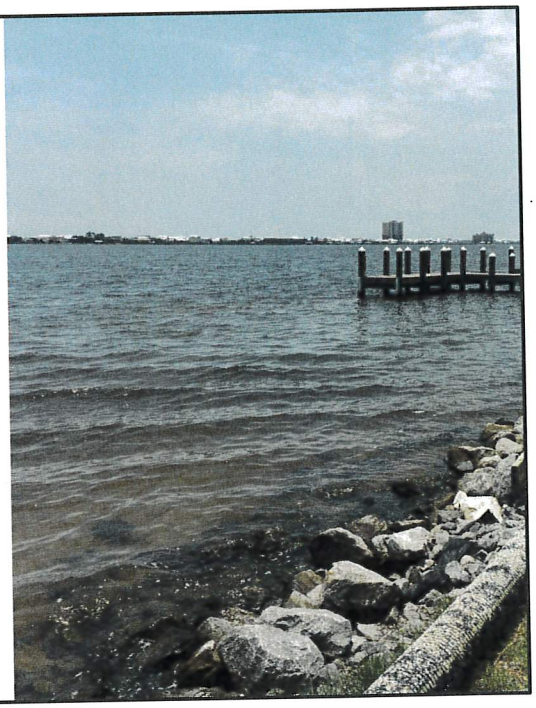
Remembering
Sharon "Cissie" Havard

Stantec
Dauphin Island Sea Lab
Alabama
Carl Ferraro, Senior Associate
Stantec Consulting Services Inc.
Carl.Ferraro@stantec.com
Jeremiah Kolb, Biologist III
ADCNR State Lands Division
Jeremiah.Kolb@dcnr.alabama.gov


Stantec
MBNEP PIC Meeting
June 15, 2023
Little Lagoon
Restoration Project
GULF SHORES
ALABAMA
RESTORE

Project Overview

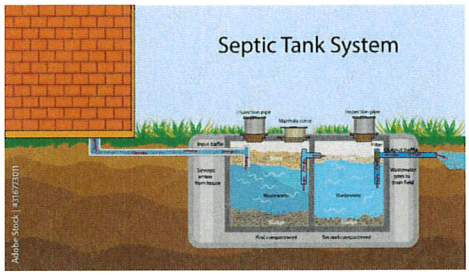
- AL RESTORE Funded
- Overall Objectives:
  - Construct 1,000 feet of living shorelines;
  - Improve hydrologic connectivity of the existing canal system;
  - Convert approximately 200 individual septic systems to city sewer;
  - Create shellfish restoration programs;
  - Restore marsh and seagrass;
  - Create fish habitat structures; and
  - Conduct baseline surveys, hydrodynamic modeling, ecological research, and long-term monitoring.
- Other Project Partners include Auburn University, MS State, DISL and MS/AL Sea Grant
- Stantec will handle 3 project components for the City.

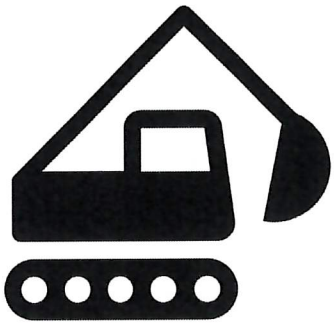


Multi-prong restoration effort – this presentation covers the three components Stantec is handling for the City of Gulf Shores - living shoreline; septic tank conversion; hydrologic re-connectivity.

Septic to Sewer Program

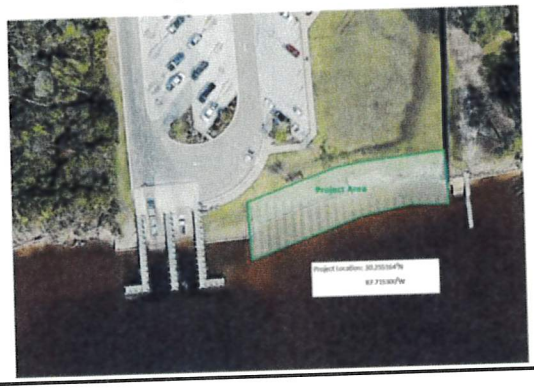
- Connect existing homes w/septic systems to existing sewer mains
- Funding for up to 200 StS conversions
- Overarching goal is to reduce nutrient inputs into the canals and the Lagoon.

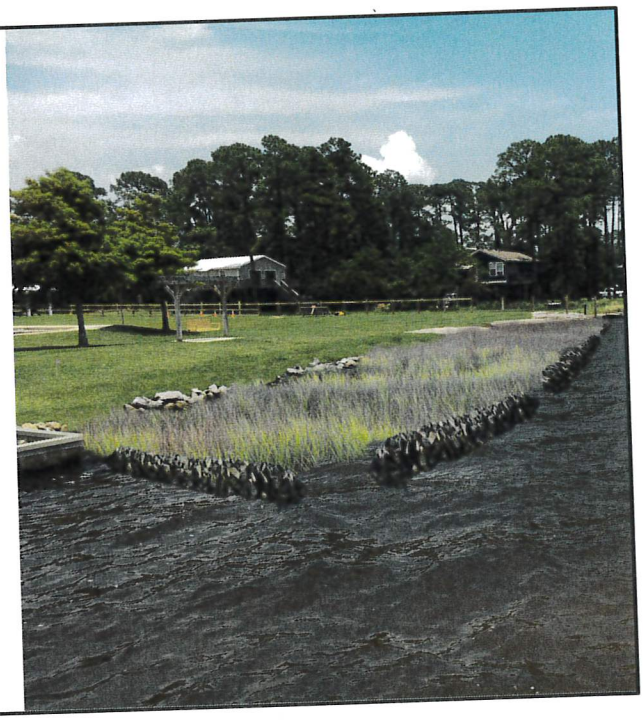




Living Shorelines Demonstration Project

- Shoreline Restoration at Mo's Landing
- Anticipate around 200 linear feet of breakwater, sandy fill and plantings.
- Education Signage & Observation Pier

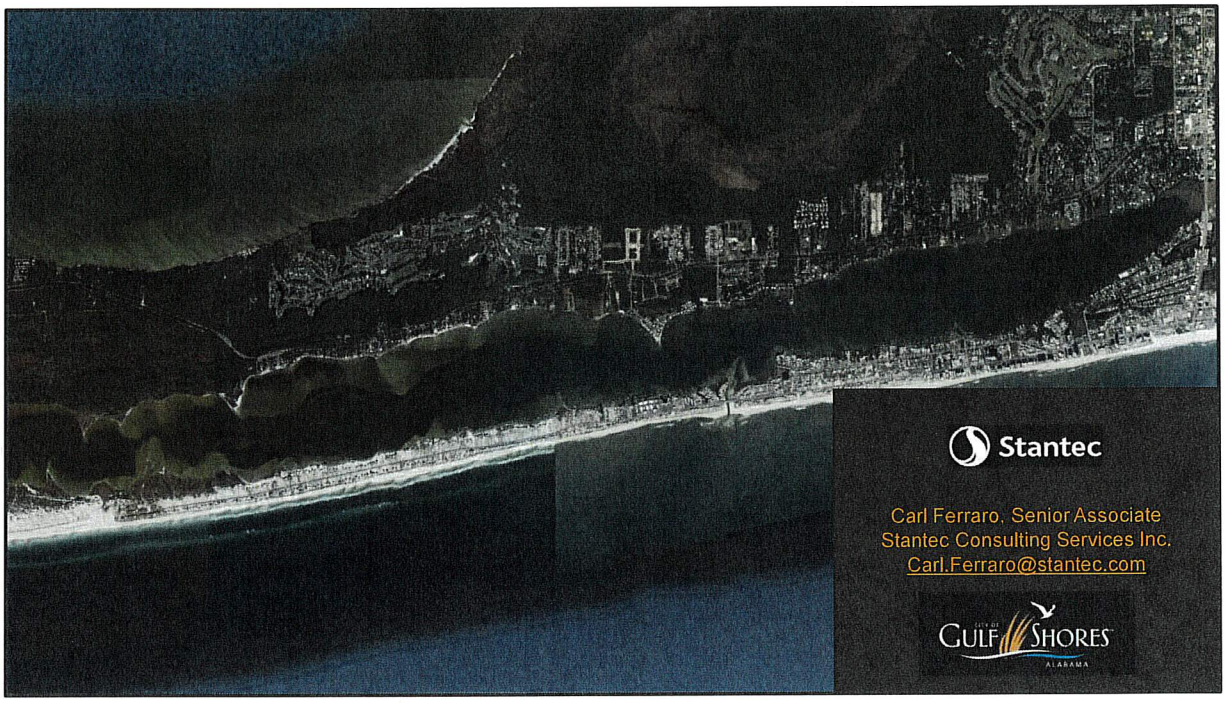




Hydrological Restoration Project

- Replace failed culverts at 6 locations
- Improve water circulation in east-end canals

Construction timing with anticipated road closures will be critical.



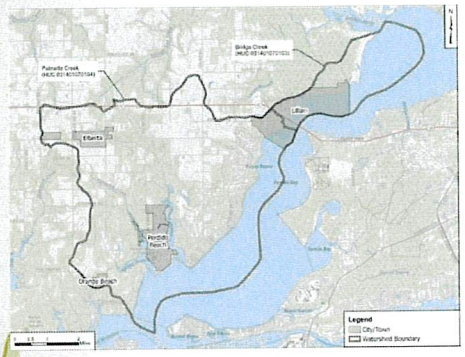
Stantec

Carl Ferraro, Senior Associate
Stantec Consulting Services Inc.
Carl.Ferraro@stantec.com

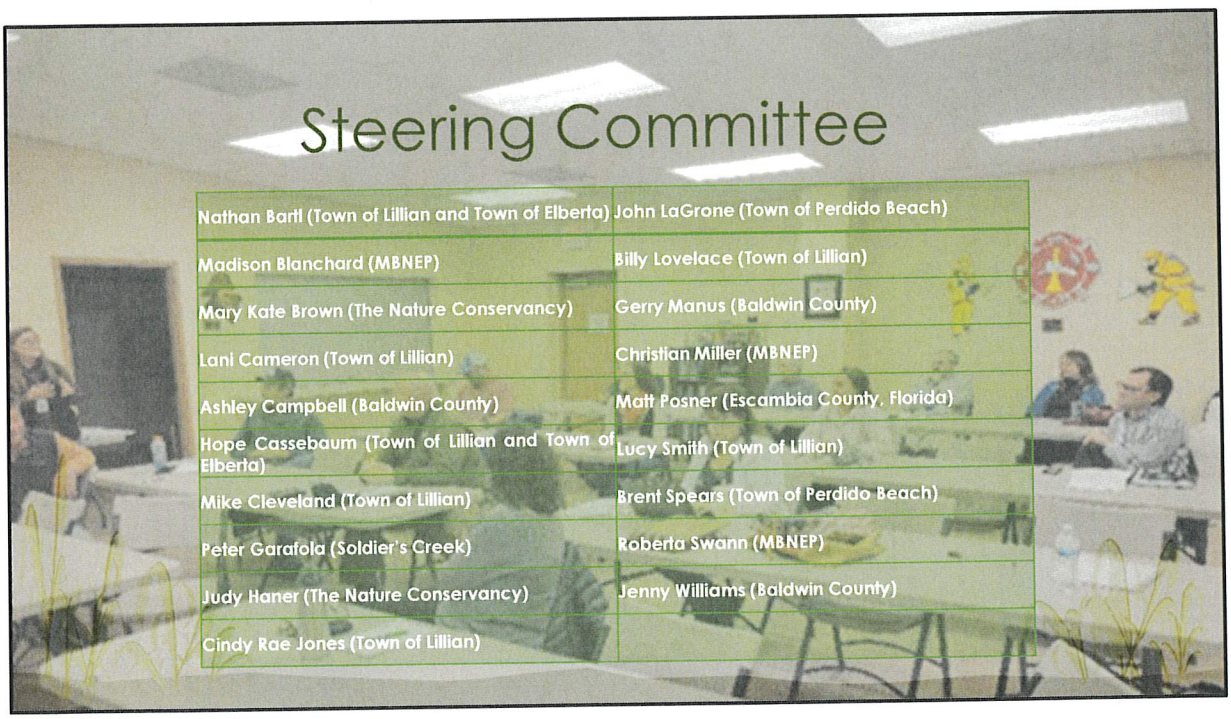
CITY OF GULF SHORES ALABAMA

Mr. Wade Burcham with 50-20 Engineering provided an update on watershed management plan activities in the Western Perdido Watershed (Bridge and Palmetto Creek HUC 12).

Bridge and Palmetto Creek HUC



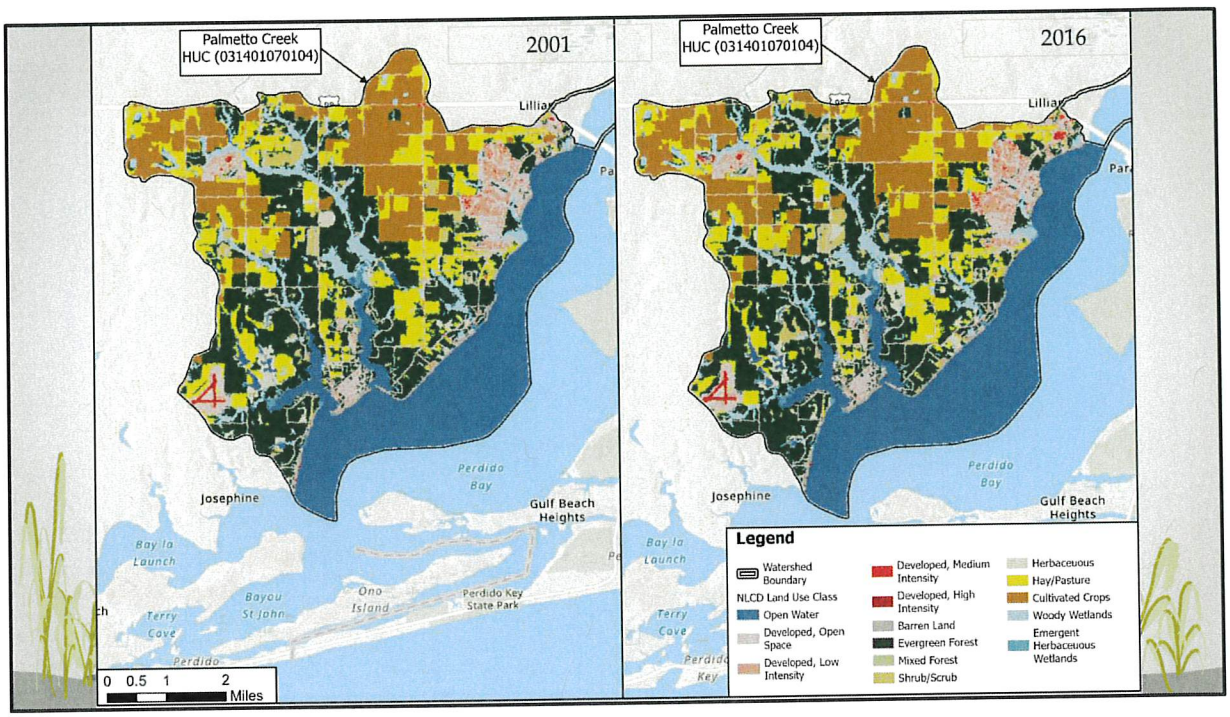
- Primarily Baldwin County, Town of Perdido Beach, and the Community of Lillian
- Currently in draft form by Geosyntec
- This project was supported wholly or in part by the Mobile Bay National Estuary Program as part of a grant from the Alabama Department of Conservation and Natural Resources (ADCNR)

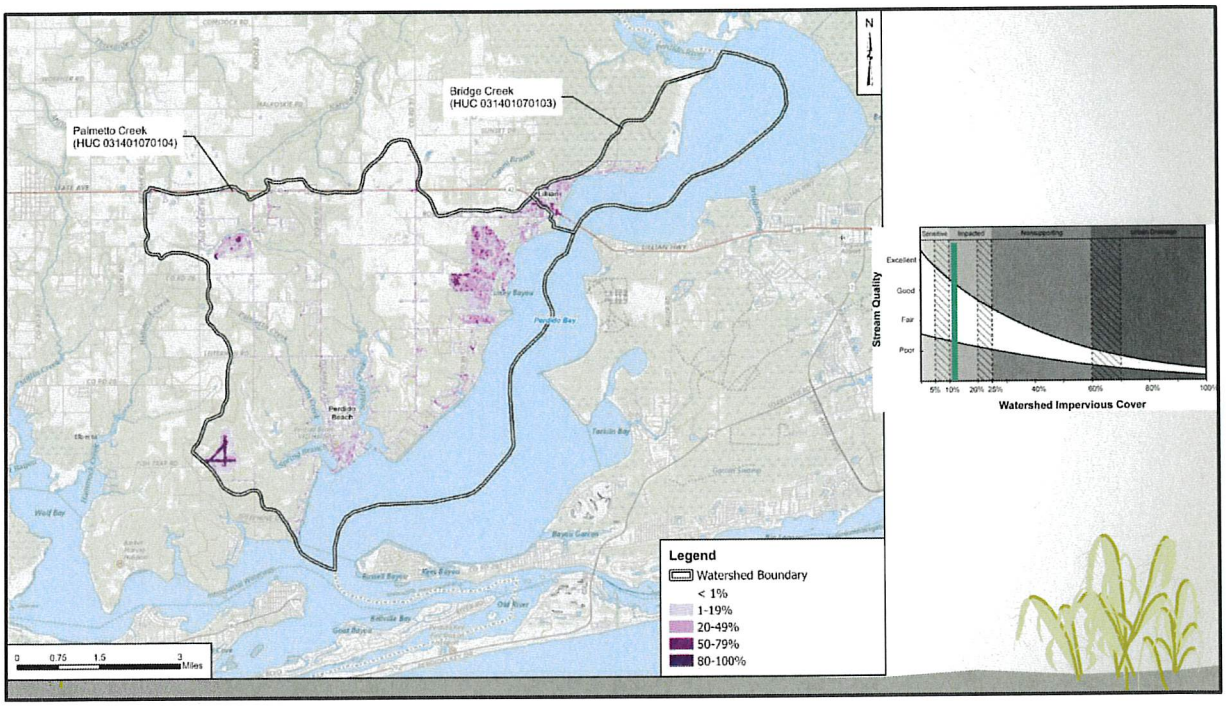

Steering Committee
Nathan Bartl (Town of Lillian and Town of Elberta)
Madison Blanchard (MBNEP)
Mary Kate Brown (The Nature Conservancy)
Lani Cameron (Town of Lillian)
Ashley Campbell (Baldwin County)
Hope Cassebaum (Town of Lillian and Town of Elberta)
Mike Cleveland (Town of Lillian)
Peter Garafola (Soldier's Creek)
Judy Haner (The Nature Conservancy)
Cindy Rae Jones (Town of Lillian)
John LaGrone (Town of Perdido Beach)
Billy Lovelace (Town of Lillian)
Gerry Manus (Baldwin County)
Christian Miller (MBNEP)
Matt Posner (Escambia County, Florida)
Lucy Smith (Town of Lillian)
Brent Spears (Town of Perdido Beach)
Roberta Swann (MBNEP)
Jenny Williams (Baldwin County)

Grass Root Organization

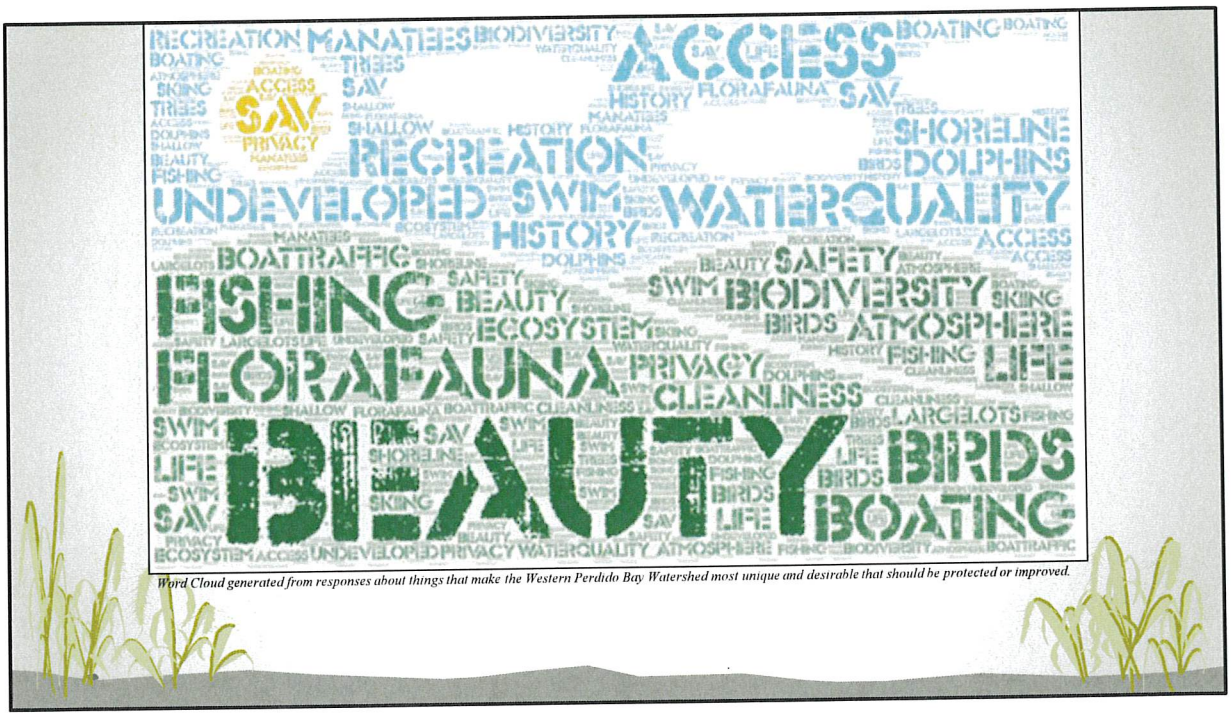
- First Public Meeting
- August 28th, 2023
- Lillian Volunteer Fire
- 6:00 PM

The community started a grassroots organization. They are meeting regularly and could use additional support from partners to elevate their capacity.


Palmetto Creek
HUC (031401070104)
2001
Palmetto Creek
HUC (031401070104)
2016
Josephine
Gulf Beach Heights
Perdido Bay
Bay la Launch
Terry Cove
Bayou St John
Ono Island
Perdido Key State Park
0 0.5 1 2
Miles
Legend
Watershed Boundary
NLCD Land Use Class
Open Water
Developed, Open Space
Developed, Low Intensity
Developed, Medium Intensity
Developed, High Intensity
Barren Land
Evergreen Forest
Mixed Forest
Shrub/Scrub
Herbaceuous
Hay/Pasture
Cultivated Crops
Woody Wetlands
Emergent Herbaceuous Wetlands



Measure of imperviousness in the watershed.



Word Cloud generated from responses about things that make the Western Perdido Bay Watershed most unique and desirable that should be protected or improved.

Ask people what is important there.

Word Cloud generated from responses about things which threaten the Western Perdido Bay Watershed.

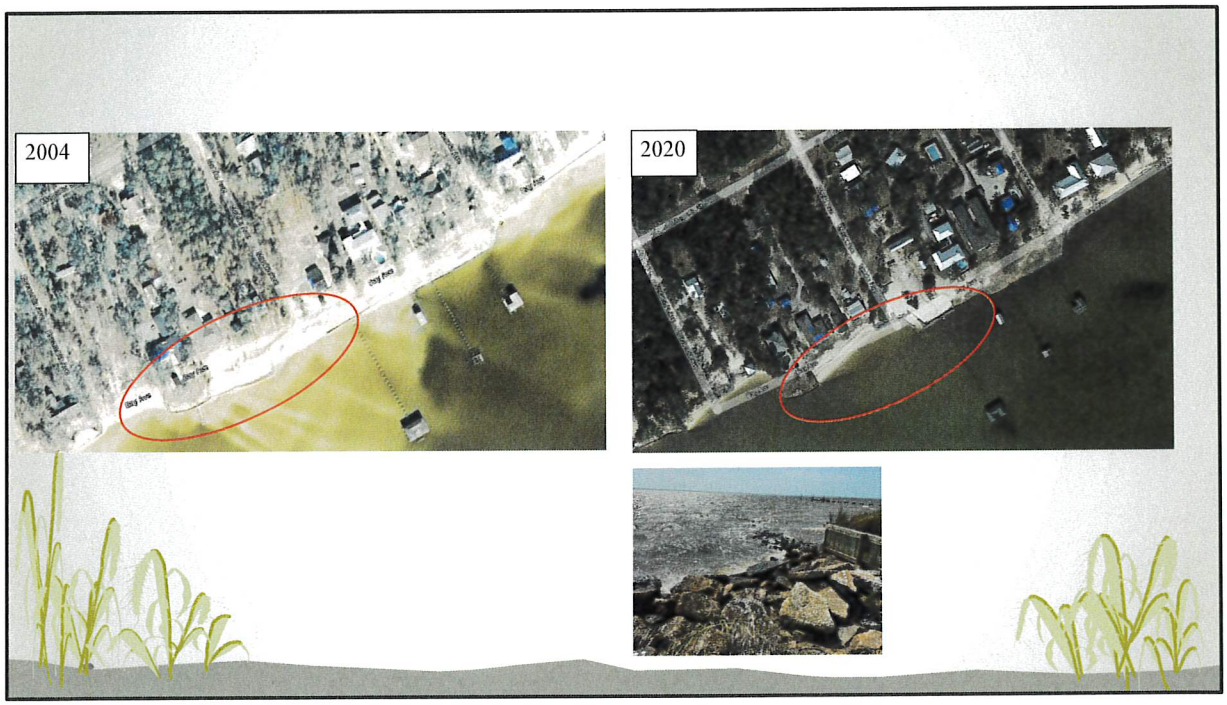
Ask people what is wrong there.

Summary of relative surface water quality in the WPBW

Parameter Class	Surface Water Body				
	Lillian Bridge	North Perdido Bay	Palmetto Creek	Peterson Branch	Soldier Creek
Field Parameters					
Dissolved Oxygen (DO)	Poor	Poor	No Data	Poor	No Data
Hardness	No Available Water Quality Standard				
pH	Good	Good	Poor	Fair	Good
Salinity	No Available Water Quality Standard				
Total Dissolved Solids (TDS)	No Applicable Water Quality Standard				
Total Suspended Solids (TSS)	No Available Water Quality Standard				
Turbidity	Good	Good	Good	Good	Good
Water Temperature	Good	Good	Good	Good	Good
Sediment					
Total Organic Carbon (TOC)	No Data	No Data	No Data	No Data	No Data
Nutrients					
Total Nitrogen	No Data	Fair	No Data	Good	No Data
Total Phosphorus	No Data	Fair	No Data	Good	No Data
Planktonic Primary Producers					
Chlorophyll *a*	No Data	Fair	No Data	Fair	No Data
Pathogens					
Enterococcus	Good	Good	Good	Good	Good
Harmful Algal Blooms	No Available Water Quality Standard				
Other					
Metals	Undetermined*				
Organics	Undetermined*				

Snapshot of water quality data (abundant but dated).

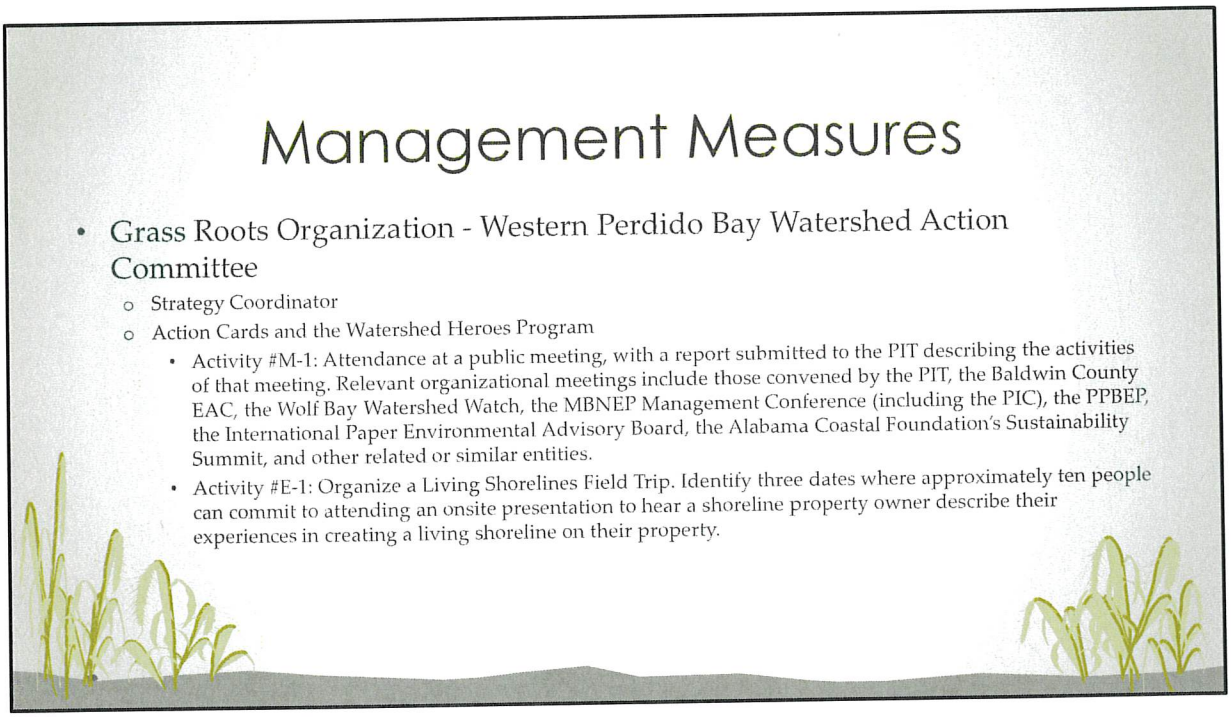
Pathogens likely primary concern.



Several shoreline project opportunities have been identified. Residences are interested in nature-based solutions.

Critical Issues

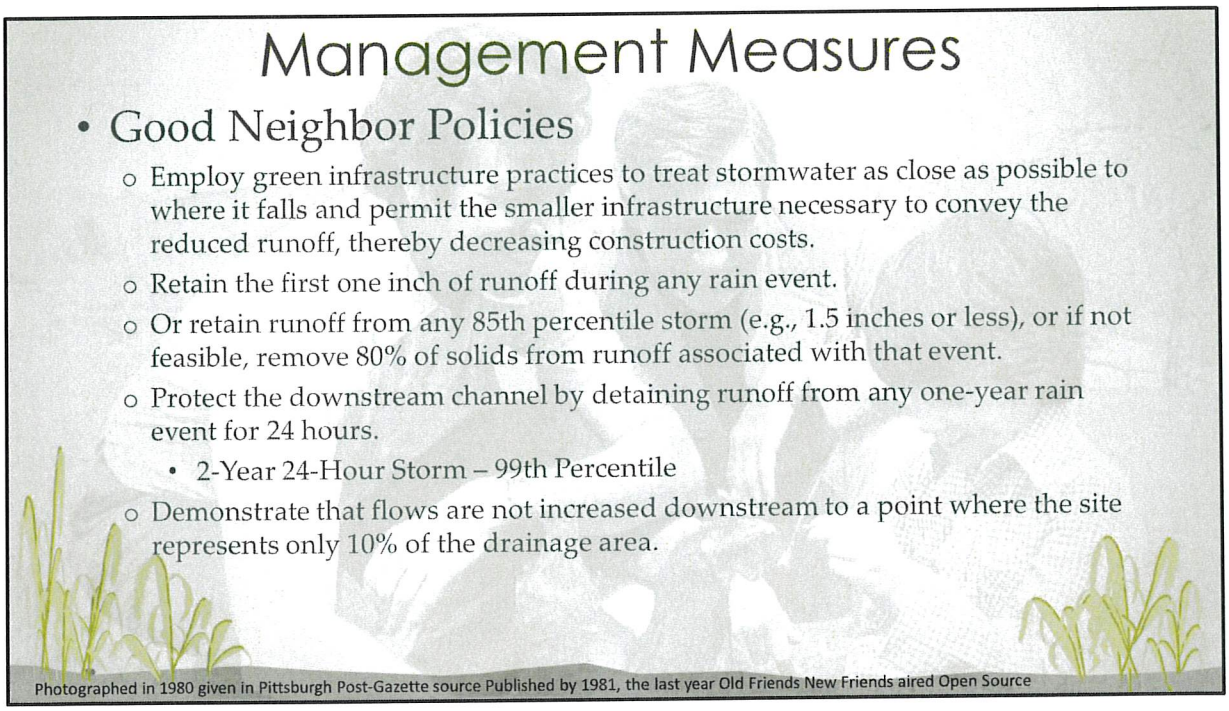
- Low-Impact Development and Green Infrastructure
- Agricultural
- Watershed Water Quality (nutrients/pathogens)
  - Impairment in Bay for Bacteria and other Microbes
- Stormwater Runoff (flooding/nutrients / pathogens)
- Onsite Sewers
- Access
- Awareness (lack of data/misconceptions)
- Shorelines



Draft Management Measures

Management Measures

- Good Neighbor Policies
  - Employ green infrastructure practices to treat stormwater as close as possible to where it falls and permit the smaller infrastructure necessary to convey the reduced runoff, thereby decreasing construction costs.
  - Retain the first one inch of runoff during any rain event.
  - Or retain runoff from any 85th percentile storm (e.g., 1.5 inches or less), or if not feasible, remove 80% of solids from runoff associated with that event.
  - Protect the downstream channel by detaining runoff from any one-year rain event for 24 hours.
    - 2-Year 24-Hour Storm – 99th Percentile
  - Demonstrate that flows are not increased downstream to a point where the site represents only 10% of the drainage area.



Photographed in 1980 given in Pittsburgh Post-Gazette source Published by 1981, the last year Old Friends New Friends aired Open Source

Management Measures

- Access

GI / LID Demonstration

Photographed in 1980 given in Pittsburgh Post-Gazette source Published by 1981, the last year Old Friends New Friends aired Open Source

Wade Burcham
(251) 402-4146
Wade@5020Eng.net

Project Implementation Committee Agenda

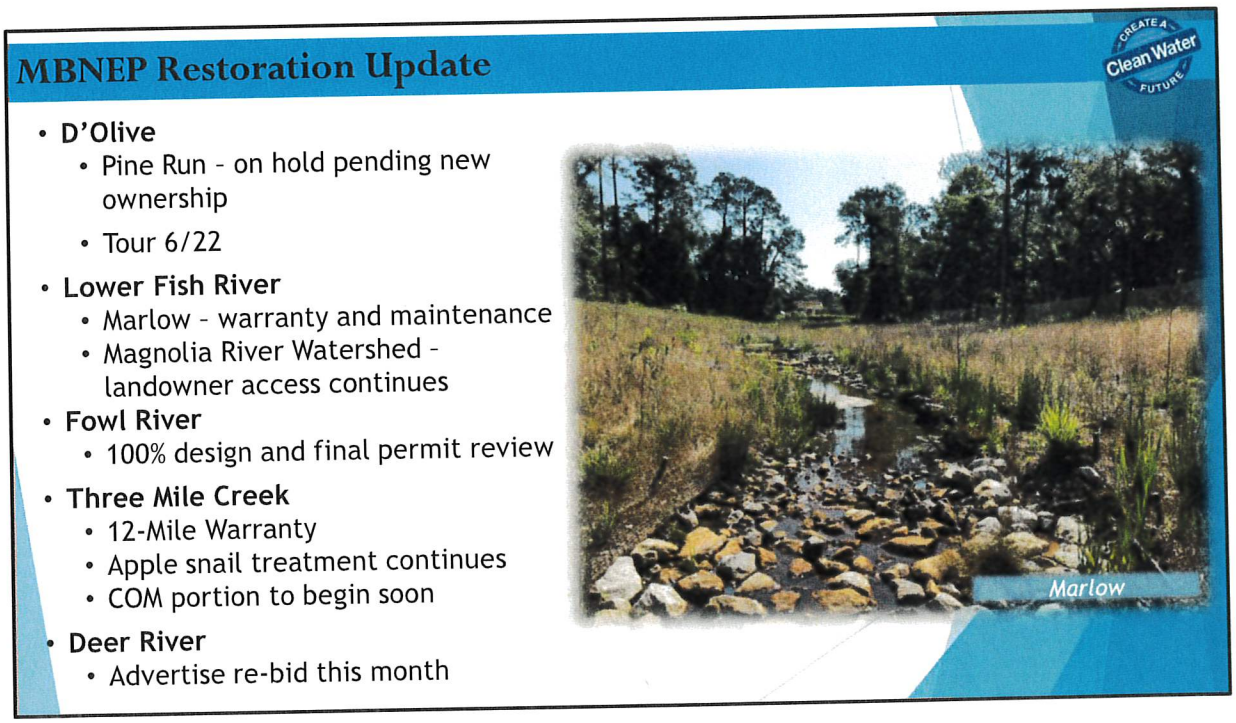
~~Welcome and Call to Order:~~
~~Co-Chairs: Judy Haner, The Nature Conservancy, & Patric Harper, U.S. Fish and Wildlife Service~~
~~**Review and approval of March 2023 minutes**~~

~~Old Business:~~
~~Management Conference Committee Updates~~

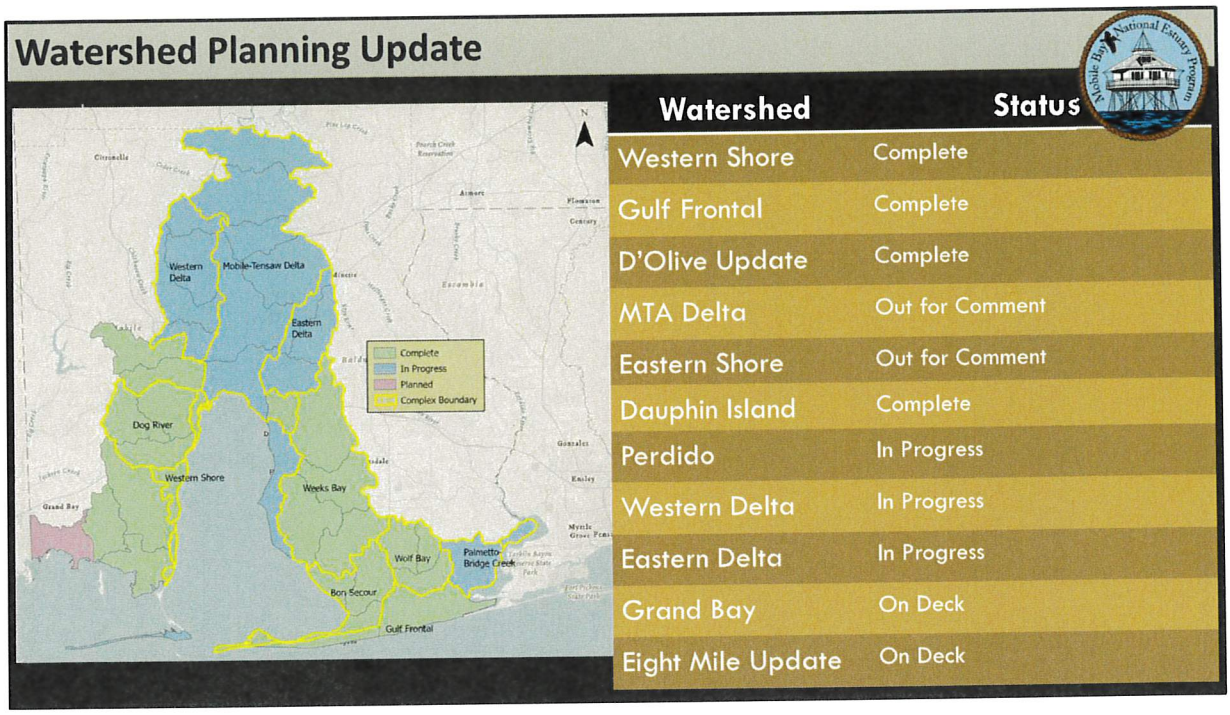
~~New Business:~~
- ~~Planning Activities and Updates~~
- **MBNEP Watershed Planning and Project Implementation Updates**
- **Next Meeting TBD**

At this time MBNEP staff offered to organize an off-cycle meeting to brainstorm opportunities to reach more contractors and increase competitive bids/respondent RFQ/RFP submittals for Coastal Alabama projects. This is an issue many of us deal with. There is so much work going on or planned and the timing and scale, and number of qualified contractors can be challenging to ensure every project gets the interest they deserve.

A poll will be sent out to the committee and interested parties can voice their interest to participate.



MBNEP staff provided brief updates on current restoration project activities.



Meeting activities finished at 2:53pm.

Carl Ferraro made the motion to adjourn, Lee Walters seconded the motion.

Mobile Bay National Estuary Program
Project Implementation Committee

September 28, 2023, 1:00 pm – 3:00 pm
Five Rivers Tensaw Theater
Zoom

Agenda

Meeting Objectives:

a) Committee input session for new Comprehensive Conservation Management Plan.
b) Share updates on ongoing and proposed restoration and monitoring activities in coastal Alabama.

1. **Welcome and Introductions**
   PIC Co-Chairs:
   Judy Haner, The Nature Conservancy
   Patric Harper, U.S. Fish & Wildlife Service

2. **Review and Approval of Minutes**

3. **Old Business**
   a) Management Conference Committee Status Updates

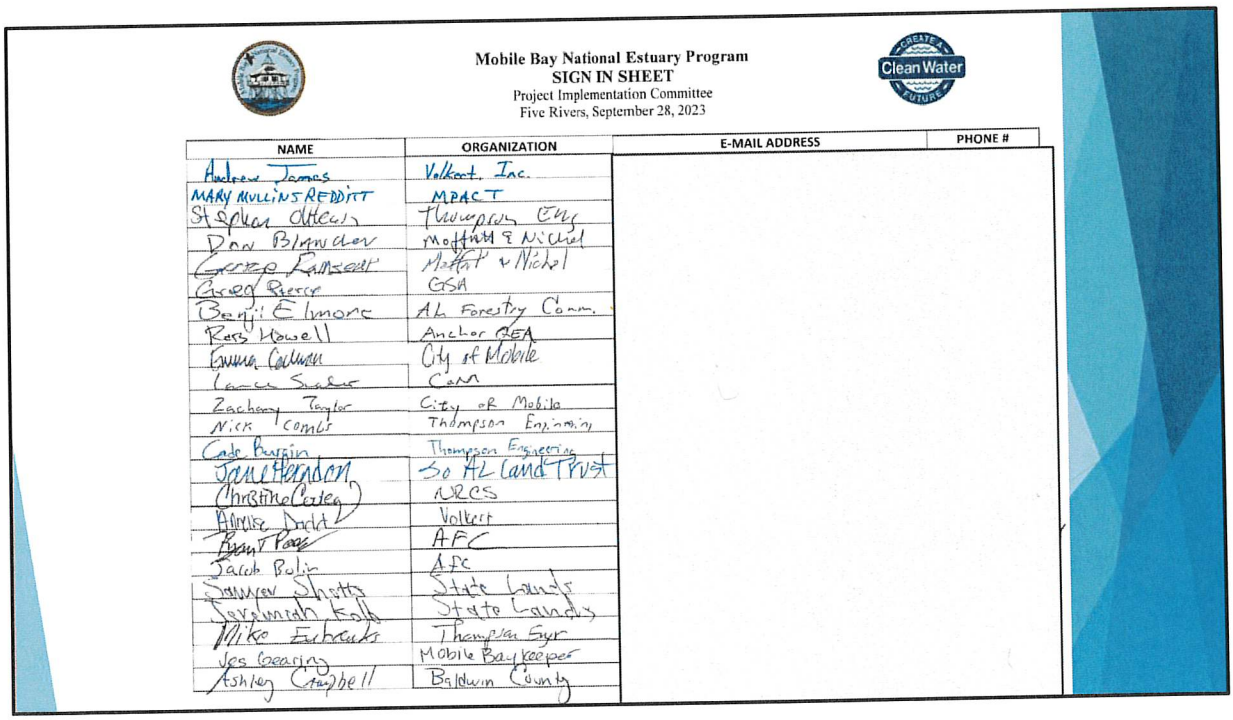
4. **New Business**
   a) Round 1 - Management Conference Committee Input Session for New CCMP – Mary Mullins, MPACT
      Poll Everywhere Live-Time Polling:

      PollEv.com
      MARYMULLINSREDDITT600

   b) Committee Member Updates
      a. Waters of the United States Final Rule Amendments – Tom Hutchings, EcoSolutions
         i. EPA Fact Sheet
   c) MBNEP Restoration Update (if time allows)
   d) Off-cycle topical meeting update
   e) Next meeting **TBD**

5. **Adjourn**

This presentation provides minutes of the September 28, 2023, Project Implementation Committee. Additional notes are added as needed.



Mobile Bay National Estuary Program
SIGN IN SHEET
Project Implementation Committee
Five Rivers, September 28, 2023

NAME	ORGANIZATION	E-MAIL ADDRESS	PHONE #
Andrew James	Volkert, Inc.		
MARY MULLINS REDDITT	MPACT		
Stephen Ottery	Thompson Eng		
Don Blankenship	Moffatt & Nichol		
George Ramseur	Moffatt & Nichol		
Greg Pierce	GSA		
Benji E Imore	AL Forestry Comm.		
Ross Howell	Anchor QEA		
Emma Coleman	City of Mobile		
Laura Sasser	CoM		
Zachary Taylor	City of Mobile		
Nick Combs	Thompson Engineering		
Cade Burgin	Thompson Engineering		
Jane Herndon	So AL Land Trust		
Christine Coleman	NRCS		
Allison Dodd	Volkert		
Brent Page	AFC		
Jacob Bolin	AFC		
Sawyer Shotts	State Lands		
Savannah Eads	State Lands		
Mike Eubanks	Thompson Eng		
Jes Gearing	Mobile Baykeeper		
Ashley Campbell	Baldwin County		

NAME	ORGANIZATION
Leslie Gahagan	City of Foley
Casey Fulford	AHCD
Tom Hutto, PE	Volkert, Inc.
Jay Estes	Allen ES
Jesi Ward	City of Daphne
Tina Sawicky	Mobile County
Lee Hales	
Walter Ernest	Policy Int + Consv.
Marykate Brown	TNC
VIRTUAL:	
Cody Aloi	
Roberta Swann	
Bradley Williams	
Chris Warn	
Suzanne Sweetser	
Autumn Nitz	
Scott Phipps	
Carl Ferraro	

Project Implementation Committee Agenda

Welcome and Call to Order:

Co-Chairs: Judy Haner, The Nature Conservancy, & Patric Harper, U.S. Fish and Wildlife Service

Review and approval of June 2023 minutes

Old Business:

Management Conference Committee Updates

New Business:

- Committee Input Session
- Project Updates and Discussion
- MBNEP Watershed Planning and Project Implementation Updates
- Next Meeting TBD

The meeting was called to order at 1:05pm

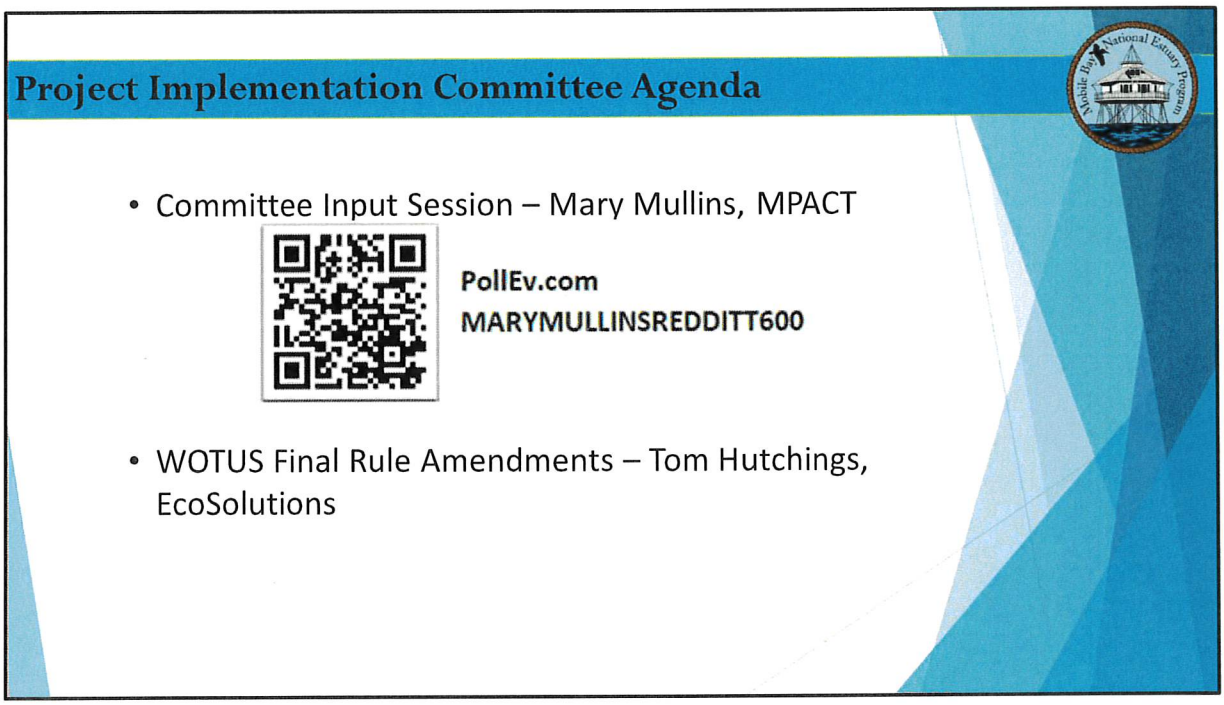
Minutes from the June 2023 meeting were distributed for review prior to the meeting. Andy James motioned to accept the minutes; Steve O'Hearn seconded the motion.

Old Business: MBNEP staff provided updates for the other Management Conference committees.

- Community Actions Committee – met September 14, discussed updates on coastal Alabama volunteer monitoring activities, Dr. Ruth Carmichael shared information about improving community health using microbial source tracking, and the committee provided responses to the impact survey.
- Business Resources Committee – met September 21, committee provided responses to the impact survey. Also, developing a workplan.
- Science Advisory Committee – met September 22, Baykeeper provided an overview of their strategic plan related to oyster work for feedback. State of the Bay updates were shared. A new report is in early development. The Fowl River Marsh Health Study is being refined into a manuscript for publication.
- Finance Committee – met September 27, new co-chairs are being recruited and committee by-laws were updated.
- Government Networks Committee – have not met yet this quarter. Their next meeting is

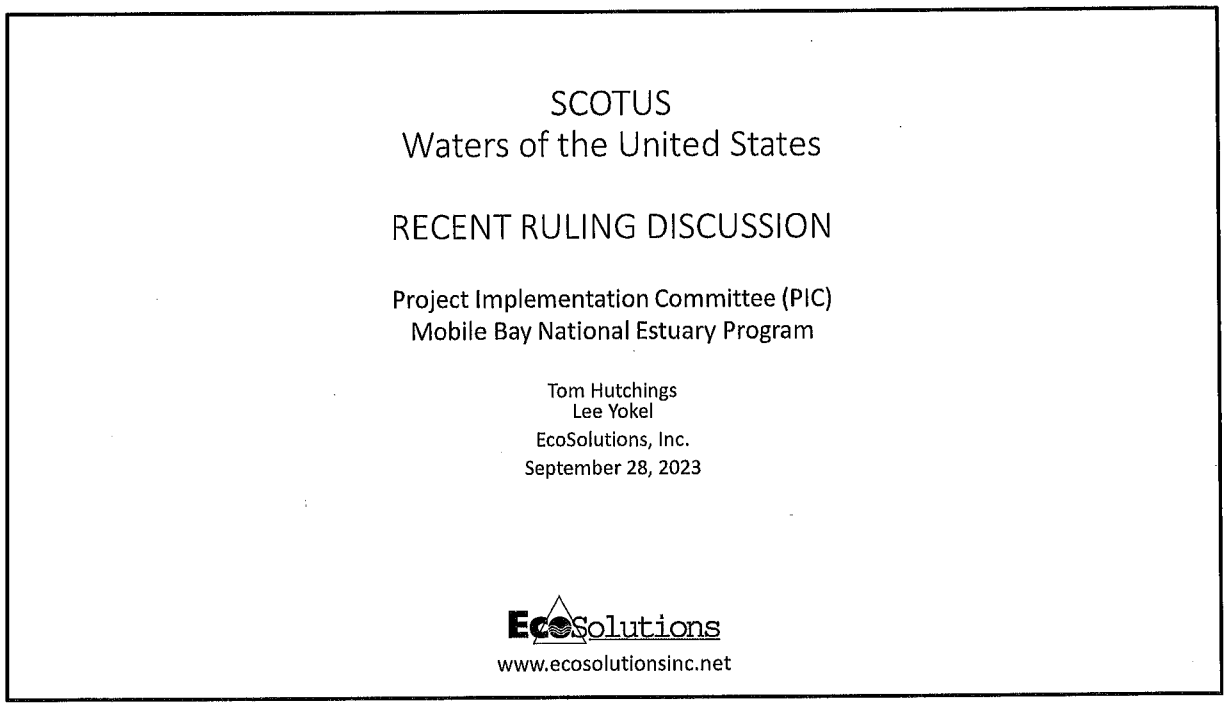
September 29.

New PIC Co-Chairs – nominations currently open for one of two co-chair positions. A representative of the State will hold one position, per changes to the MBNEP by-laws approved by the Executive Committee.



Live Polling Committee Input Session – to inform new CCMP

- Mary Mullins Redditt led a Project Implementation Committee organizational assessment survey. This survey was conducted across all management conference committees. The questions posed to each committee were originally posed to the management conference in 2005. This was done to see how opinions have changed over that time and to inform development of the new CCMP which will be taking place over the next two years.
- A formal report of the survey findings will be made available in the future to all members of the management conference.



Mr. Tom Hutchings Ms. Lee Yokel with EcoSolutions provided an update for a recent ruling to the Waters of the United States 2023 Rule (WOTUS) that could have impacts to management of wetlands.

Rulings Effecting
Federal Jurisdiction Over Wetlands

Clean Water Act 1972 sect 404

SWANCC 2001

Rapanos 2006

Obama Administration Clarification 2015

Trump Administration Rollback of Obama Rules 2020

Biden Administration 2022

Sackett 2023

Timeline for rulings effecting Federal jurisdiction over wetlands.

No guidance received regarding changes from the Mobile District of the Army Corps of Engineers. Tom shared that the ruling does not put into question what classifies as wetlands, but what are jurisdictional wetlands as considered by the regulatory authority.

Sackett 2023 - 5-4 decision by the Supreme Court.

Alabama Power's Theodore wetland project restores critical, coastal pine savannah 2023

https://alabamanewscenter.com/2023/04/25/alabama-powers-theodore-wetland-project-restores-critical-coastal-pine-savannah/

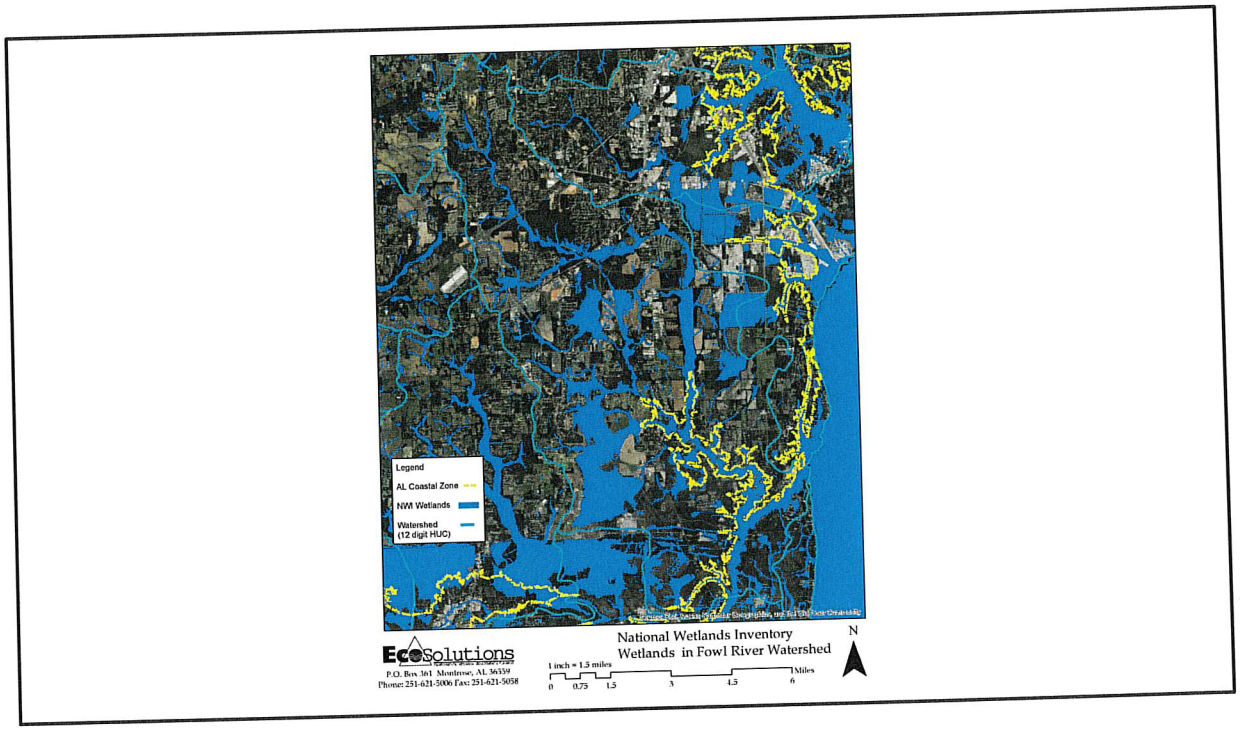
Pine savannah are one of the most threatened habitats that provide wetland function. Other habitats according to Tom that are under attack are pitcher plant bogs and interdunal swales.

Splinter Hill Bog

Facebook.com/thenatureconservancy

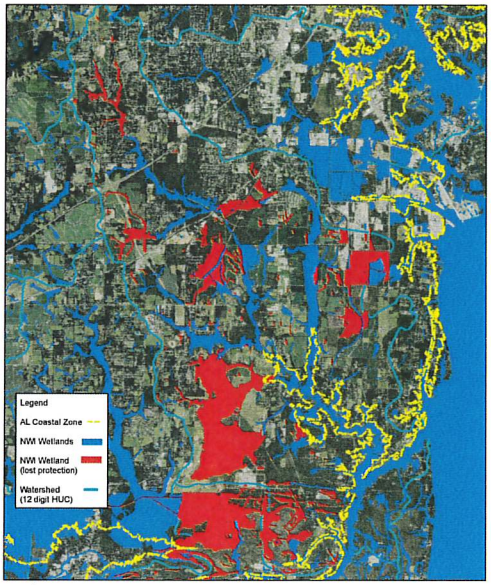
Coastal Interdunal Swale

NOAA



What is considered a jurisdictional wetland?

Blue represents wetlands currently on the national inventory. On the following slide, the red polygons highlight wetlands that have potentially lost federal regulation protection because of changes to WOTUS.



EcoSolutions
P.O. Box 161 Montrose, AL 36559
Phone: 251-621-3006 Fax: 251-621-3058

Wetlands that lost protection due to Sackett in Fowl River Watershed

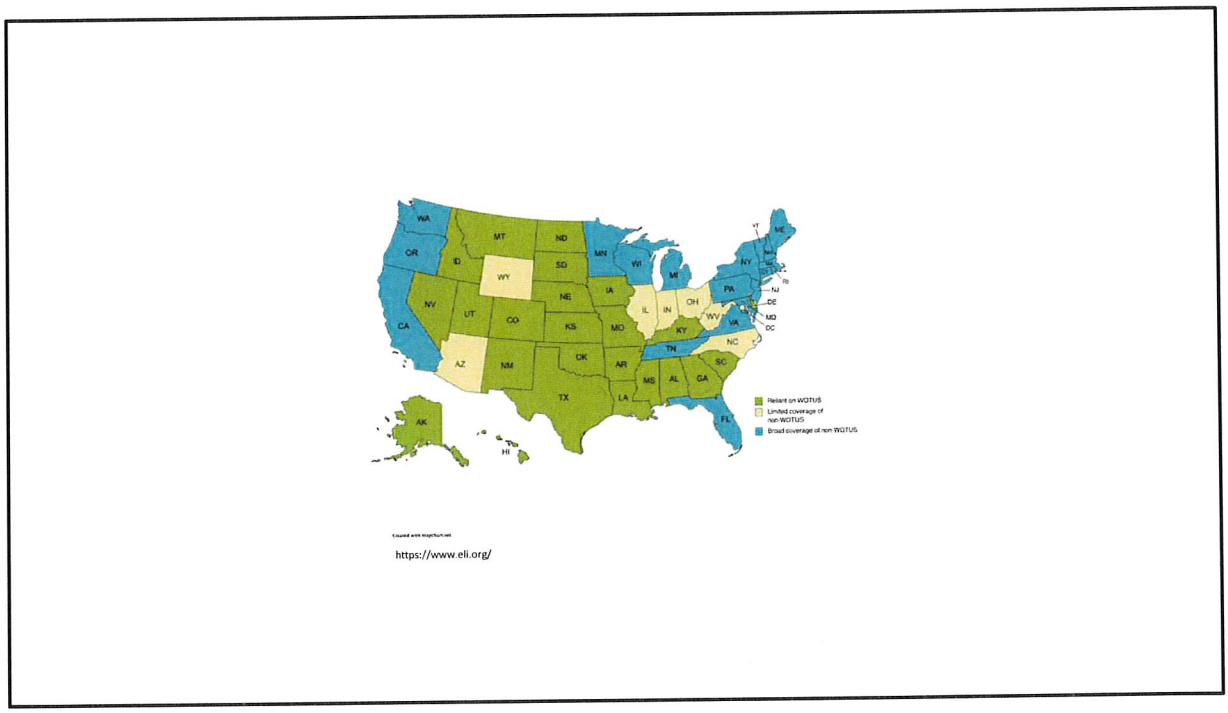
1 inch = 1.5 miles

0 0.75 1.5 3 4.5 6 Miles

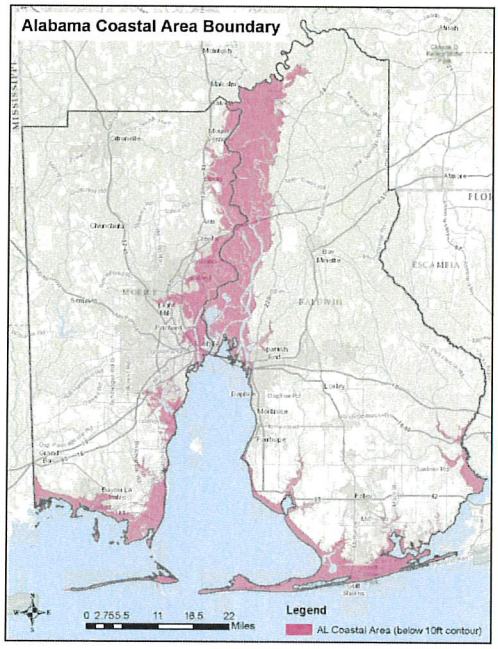
N

Most existing local wetland protection measures refer to jurisdictional wetlands as determined by the US Army Corps of Engineers

Continuous surface water connection to traditional navigable waters can be interpreted widely considering levees or other manmade structures. This will add risk to management and preservation of headwater streams.

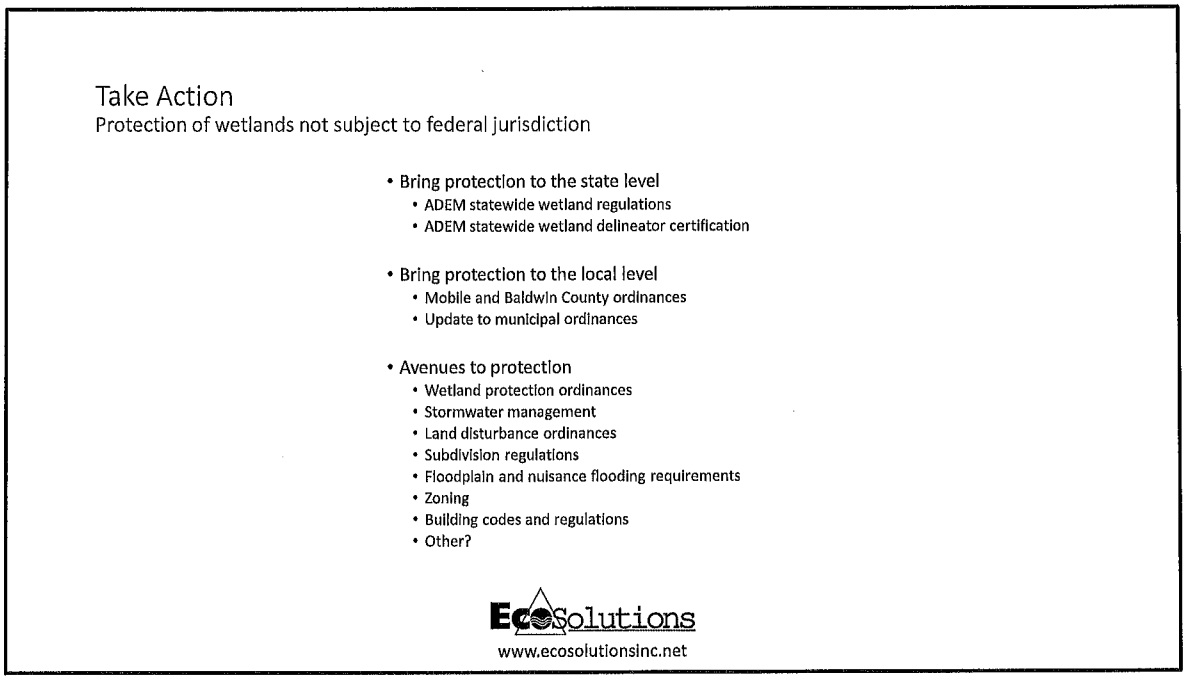


Green – rely on federal jurisdiction.
Yellow – limited local wetland authority.
Blue – states that have their own state wetland protection.



https://www.outdooralabama.com/coastal-programs/alabama-coastal-area-management-program

Alabama has jurisdiction below the 10-foot contour as regulated by the Alabama Department of Environmental Management.



Speaker recommendation to the committee if they are interested in acting to improve wetland protection.

EcoSolutions, Inc.
Tom Hutchings
Tom@ecosolutionsinc.net

P.O. Box 361
Montrose, AL 36559
251-621-5006
mail@ecosolutionsinc.net
www.ecosolutionsinc.net

Project Implementation Committee Agenda

~~Welcome and Call to Order:~~

~~Co-Chairs: Judy Haner, The Nature Conservancy, & Patric Harper, U.S. Fish and Wildlife Service~~

~~**Review and approval of June 2023 minutes**~~

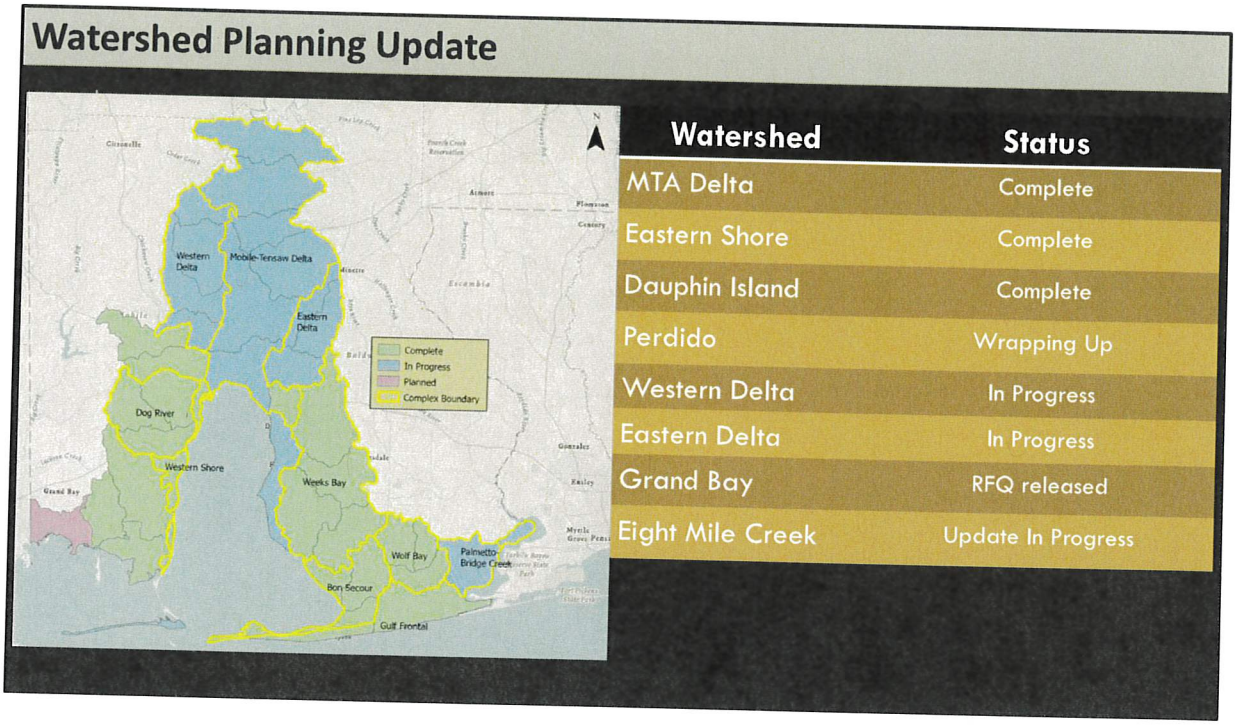
~~Old Business:~~

~~Management Conference Committee Updates~~

New Business:

- ~~Committee Input Session~~
- ~~Project Updates and Discussion~~
- MBNEP Watershed Planning and Project Implementation Updates
- Next Meeting TBD

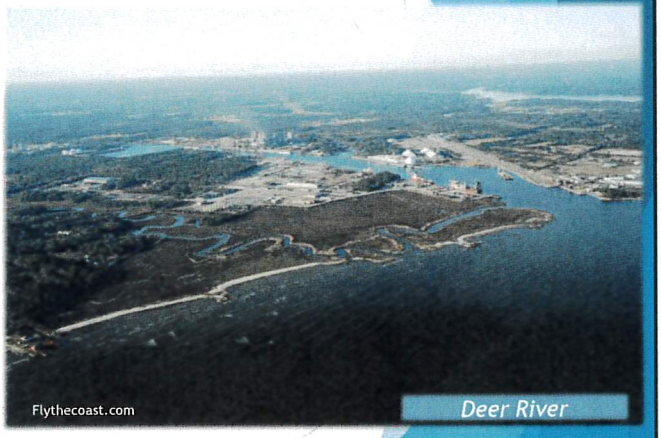
Prior to adjourning, MBNEP staff provided program activities implementation updates.



Mr. Christian Miller provided a status of completed and ongoing watershed management plan activities in coastal Alabama.

MBNEP Restoration Update

- **D'Olive**
  - Landowner access secured
  - Permit application submitted
- **Lower Fish River**
  - Marlow - warranty and maintenance
  - Magnolia River Watershed - Magnolia River and Schoolhouse 60% and permit underway
- **Fowl River**
  - Draft permit received; procurement to follow
- **Three Mile Creek**
  - 12-Mile Warranty
  - Apple snail treatment continues
- **Deer River**
  - NTP Issued



- The Pine Run project is moving forward with anticipated construction spring 2024.
- The Marlow project continues to perform as designed. Planned projects at Schoolhouse Branch and on the Magnolia River continue to move forward through design and permitting. Planned construction spring 2024.
- The Fowl River Spits project permit, after nearly two years, is almost in hand. Next steps will be procurement of a construction contractor.
- Three Mile Creek – wrapping up warranty on the 12-Mile project. The project continues to perform as designed. Invasive species activities continue.
- Deer River project – a contractor was secured after rebidding the project. Notice to Proceed was issued and we expect substantial completion spring 2024.

- City of Mobile provided an update on 12-Mile Creek stabilization: Phase I – University to Museum drive – should be substantially complete in 4-6 weeks. Phase II – East Drive to University is at 80% completion.

Meeting was adjourned at 2:45pm.

Mobile Bay National Estuary Program
Government Networks Committee
September 29, 2023, 8:00 am – 9:30 am

International Trade Building
250 N. Water Street
Mobile, AL 36606

Virtual Meeting Link
https://disl.zoom.us/j/83210755567?pwd=L2Q5ZktJL3FLejBHajYzd2VrRXN4UT09

Agenda

Meeting Objectives:

a) Provide status of State projects and priorities
b) Get committee input to inform development of new CCMP

1. **Welcome and Introductions**
   GNC Co-Chairs:
   Commissioner Billie Jo Underwood, Baldwin County
   Commissioner Merceria Ludgood, Mobile County

2. **Review and Approval of Minutes**

3. **Old Business**
   a) State Update
   b) MBNEP update

4. **New Business**
   a) Round 1 - Management Conference Committee Input Session for New CCMP – Mary Mullins, MPACT
      Poll Everywhere Live-Time Polling:

      PollEv.com
      MARYMULLINSREDDITT600

   b) Announcements

5. **Adjourn**

Minutes

In attendance: Joseph Abston, Washington County; Matt Anderson, City of Mobile; Jeff Collier, Town of Dauphin Island; Newton Cromer, City of Saraland; Leslie Gahagan, City of Foley; Donna Givens, AL House of Representatives; Charles "Skip" Gruber, Baldwin County Commission; Amy Hunter, ADCNR; Robin LeJeune, City of Daphne; Merceria Ludgood, Mobile County; Patti McCurdy, ADCNR; Laura Smith, AL Soil & Water Conservation Committee; Chris Thomas, EPA; John Valentine, DISL; Mary Mullins Redditt, MPACT; Wade Lehman, USEPA; Thomas McGill, USEPA; Cade Alred, SARPC, Mark Callaghan, Mobile County Legislative Delegation, Jennifer Dimaio, USEPA

Staff: Roberta Swann, Bethany Hudson, Vanessa Romero, Blair Morrison, Christian Miller

Takeaways

- RESTORE funded projects should not be impacted by a government shutdown but increased scrutiny by Treasury is making administration/reporting difficult on the State and grantees.
- GOMESA funded projects should not be impacted by a government shutdown but CZM projects likely would be impacted.
- Mary Redditt led the GNC in a live survey exercise to conduct an organizational assessment. The same questions were posed to the Management Conference in 2005 and this will allow the organization to review change in perceptions over time.

Meeting was called to order at 8:15. Motion to approve the minutes from the previous meeting was made by Commissioner Abston and seconded by Newton Cromer.

State Update

Amy Hunter gave and update on ADCNR projects:

- Oil Spil related funding
    - RESTORE buckets 1 &3- three projects are finished – Rollon Rolloff facility at the State Port, Baldwin County's dredge disposal facility in the Bon Secour area which is important for maintaining passage for the fishing fleet, Orange Beach's force main sewer project upgraded about 8 miles of infrastructure to increase capacity in the area.
    - Water treatment facility in Mt Vernon is nearly complete, finishing off punch list items
    - Several ALDOT projects are also finishing off punch lists
    - Satsuma has received a notice to proceed on construction for sewer infrastructure projects
    - Fairhope working waterfront has gone to bid for construction
    - Several projects in Bayou La Batre are going to bid for construction
- The State is being required to provide a lot of detail to US Treasury for RESTORE funded projects which has increased the reporting burden. ADCNR is considering a training session to increase awareness/efficiency of reporting issues.
- Reimbursement of funding should not be impacted by a government shutdown
- US Treasury did two site visits to see current Bucket 1 projects under construction.

Patti gave an update on GOMESA projects:

- The Governor announced 27 projects, approximately $67 million in funding for Coastal Alabama – the first project agreements should be going out within the next week. This funding would not be impacted by a government shutdown since the money is already at the State.
- Another request for proposals under the State's Coastal Zone Management Program should go out the first of the year. These are Federal dollars from NOAA that require 1:1 match for projects to protect or enhance the management of coastal awards.
- These tend to be in the $20-60,000 range that are used for planning to lead to implementation of larger projects. Also can be used for recreational access.
- Reimbursement for these funds could be impacted by a government shutdown.

MBNEP Update

Christian gave an update on the status of projects.

Watershed Planning:

- Watershed plans have been completed for the MTA Delta, Eastern Shore, and Dauphin Island and can be downloaded on the MBNEP website.
- Also working on finishing up the Western Perdido WMP which should be completed in the first half of 2024.
- Plans are currently under development for the Eastern and Western Delta watershed complexes and an update of the Eight Mile Creek WMP is also getting underway.
- The final RESTORE funded WMP is for the Grand Bay Watershed. An RFQ is currently out soliciting statements of interest. MBNEP is working with the State of Mississippi to fund the portion of the Watershed on the MS side since the RESTORE funding can only be used for the Alabama portion of the Watershed.

Restoration projects:

- D'Olive – Landowner access agreements have been secured and permit application has been submitted for Pine Run. This is the largest remaining project in the Watershed on D'Olive Creek in the Timber Creek subdivision upstream of the D4-D6 restoration.
- Lower Fish River – Marlow stream restoration, a tributary to Fish River near CR 32/9 intersection, is complete and in warranty and maintenance. Magnolia River and Schoolhouse Branch restorations are at 60% design and permitting is underway.
- Fowl River – Spits restoration project has received a draft permit, and the procurement process will start soon.
- Three Mile Creek – the 12 Mile Creek headwaters restoration is complete and under warranty and invasive species control efforts are ongoing.
- Deer River – Large ~5,000-foot shoreline restoration project near the Theodore ship channel is about to commence. Contractor has received the Notice to Proceed.

<u>Live Polling for CCMP update</u>

- Mary Mullins Redditt led the GNC in an organizational assessment survey. This survey was conducted across all management conference committees. The questions posed to each committee were originally posed to the management conference in 2005. This was done to see how opinions have changed over that time and to inform development of the new CCMP which will be taking place over the next two years.
- A formal report of the survey findings will be made available in the future to all members of the management conference.

Mobile Bay National Estuary Program
Project Implementation Committee

March 21, 2024, 1:00 pm – 3:00 pm
Five Rivers Tensaw Theater
Zoom

Agenda

Meeting Objectives:

a) Review Management Conference structure and PIC charge.
b) Review CCMP Ecosystem Restoration Protection strategies.

1. **Welcome and Introductions**
   PIC Co-Chairs:
   Shannon McGlynn, Alabama Department of Environmental Management
   Will Underwood, Alabama Department of Conservation and Natural Resources, State Lands Division

2. **Review and Approval of Minutes**

3. **Old Business**
   a) Management Conference Committee Status Updates

4. **New Business**
   a) MBNEP Management Conference and Project Implementation Committee refresher
   b) Getting to the Next Comprehensive Conservation Management Plan
      a. Ecosystem Restoration and Protection Strategy and Implementation Review
      b. Input Session Summary
   c) Vison for forthcoming CCMP?

   d) Committee Member Updates

   e) MBNEP Restoration Update (if time allows)

   f) Next meeting **TBD**

5. **Adjourn**

Mobile Bay National Estuary Program
Project Implementation Committee

March 21, 2024, 1:00 pm – 3:00 pm
Five Rivers Tensaw Theater/Virtual

Agenda

Meeting Objectives:

a) Review Management Conference structure and PIC charge.
b) Review CCMP Ecosystem Restoration Protection strategies.

1. **Welcome and Introductions**
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   b) Getting to the Next Comprehensive Conservation Management Plan
      a. Ecosystem Restoration and Protection Strategy and Implementation Review
      b. Input Session Summary
   c) Vision for forthcoming CCMP?
   d) Committee Member Updates
   e) MBNEP Restoration Update (if time allows)
   f) Next meeting **TBD**

5. **Adjourn**

Minutes

In-person Attendees:

1. Will Underwood, ADCNR
2. Shannon McGlynn, ADEM
3. Steve Jones, GSA
4. Nick Williams, City of Foley
5. Casey Fulford, AACD
6. Judy Haner, The Nature Conservancy
7. Kelley Barfoot, Stantec
8. Nicole Love, City of Fairhope
9. Caleb Harper, City of Spanish Fort
10. Jordan Hollinghead,
11. Patric Harper, U.S. Fish & Wildlife Service
12. Nick Combs, Thompson Engineering
13. Mark Kate Brown, The Nature Conservancy
14. Camilla English, ADPH Baldwin County
15. Tucker English, ADPH Baldwin County
16. Benji Elmore, Alabama Forestry Commission
17. Don Blancher, Moffatt & Nichol
18. Karine Calhoun, Mobile County Environmental Services
19. Jennifer Dimaio, U.S. EPA Region 4
20. Eliska Morgan, Thompson Engineering
21. Jeremiah Kolb, ADCNR
22. Emma Cochran, City of Mobile
23. Sawyer Shotts, ADCNR
24. Jesi Ward, City of Daphne

Virtual Attendees:

1. Katie Baltzer, The Nature Conservancy
2. Ashley Campbell, Baldwin County
3. Woody Speed, City of Orange Beach
4. Annelise Dodd, Volkert
5. Paige Felts, Volkert
6. Jay Este, Allen Engineering
7. Robin Mccall, U.S. EPA
8. Bradley Williams, USDA
9. Lee Yokel, EcoSolutions
10. Lee Walters, Thompson Engineering
11. Autumn Nitz, ADEMCP
12. Suzanne Sweetser, Thompson
13. Dottie Byron, Dauphin Island Sea Lab
14. Ray Richardson, City of Mobile
15. Wayne Pendle, Second Mile Consulting
16. Mary Collier Eastburn, City of Mobile
17. Chris Warn, ESA
18. Tim Thibaut, Thompson Engineering

Total: 42 attendees

MBNEP Staff Present: Christian Miller, Roberta Swann, Bekah Farmer, Blair Morrison, Bethany Hudson, Vanessa Romero, Cody Aloi

Takeaways

- Attendees were briefed by Christian Miller on the accomplishments falling within the goals of the 2018-2023 CCMP Ecosystem Restoration and Protection Strategy as well as suggested recommendations for the next CCMP.
- There is a need to work through the PIC to develop its strategy in the next CCMP.
- The Project Implementation Committee would benefit from an updated map and list of completed projects suggested by Watershed Management Plans as well as the projects that are remaining.

Welcome and Introductions: The meeting was called to order at 1:07 pm. Roberta Arena Swann opened the meeting by welcoming attendees and introduced the new PIC Co-Chairs: Shannon McGlynn and Will Underwood.

Review and Approval of Minutes: Don Blancher moved to approve minutes for the September 28th, 2023 meeting; Dottie Byron seconded the motion.

Old Business:

Management Conference Bylaws

Part of CCMP rewrite was a review of existing bylaws. A committee appointed by the Executive Committee co-chairs was used to amend the bylaws, which were approved at the September 2023 meeting. Some of the language of the committee charges changed because of the bylaw scrub process. The MOWA tribe and Poarch Band of Creek Indians were added to the Executive Committee.

From the newly adopted bylaws, the purpose of the **Project Implementation Committee** is to bring together resource management professionals to undertake environmental projects related to CCMP ecosystem restoration and protection goals and objectives. The PIC is tasked with:

1. Assessing restoration needs and resources, and prioritizing watershed projects, accordingly.
2. Using watershed planning as a basis for conducting restoration activities
3. Identifying projects and planning for their implementation (e.g., habitat conservation, restoration and protection, access, etc.
4. Conducting periodic project status meetings to track progress. The PIC may make recommendations to the EC about the CCMP and associated Work Plans.

Representation: The PIC is open to agencies, organizations, and contractors with an interest in the mission of the Conference.

Governance: One Co-chair of the PIC will be permanently held by a representative of a State of Alabama resource agency, and one Co-chair will be a resource manager elected by the PIC.

Review of CCMP Implementation Report

This report was completed by Shafer Consulting, October 2023. The report will be sent out to all committee members for a 30-day comment period following this meeting. Today's goal is to go over what has been accomplished in the previous CCMP over a five-year period for ecosystem restoration and protection, and look at some of the recommendations that were made as part of the report.

Any comments on the CCMP evaluation of implementation technical report are due to Jason Kudulis by April 19th, 2024.

Quick overview of report for Ecosystem Restoration and Protection:

ERP 1 – Develop comprehensive management plans for all coastal watersheds (at the 12-digit HUC scale).

Accomplishments:

- 12 watershed plans developed (26 HUC 12s)
- Updates completed for D'Olive, underway in Eight Mile Creek
- Completed WMP Synthesis

Recommendations:

- Continue updating WMPs, include new criteria
- Prioritize non-tidally influenced watersheds for planning (Perdido & Escatawpa)

PIC suggestions:

There is a necessity to decide on additional factors to evaluate in non-tidal habitat WMPs.

ERP 2 – Implement comprehensive watershed management plans with a focus on priority habitats.

Accomplishments:

- Coastal Habitat Restoration Plan completed (2019)
- 35,642 linear feet of stream & riparian restorations completed/in progress
- 26,860 linear feet of intertidal marshes & flats restoration complete

Recommendations:

- Restore and Protect critical habitats identified in WMPs
- Implement and Enforce stricter protection of natural habitats

PIC suggestions:

- A concern was voiced that there is more work than there is funding. This resulted in some concluding that a process is necessary to prioritize projects.
- There was a suggestion to seek policy-based changes to protect natural habitats vs. repairing damage.

ERP 3 – Improve ecosystem function and resilience through protection, restoration, and conservation along shorelines of coastal Alabama beaches.

Accomplishments:

- Comprehensive SMP under development (Western Shore/MS Sound)
- Interagency Sediment Management/BU group formed.
- 27,330 linear feet of shoreline protected.
- 369 acres of marsh protected/restored.

Recommendations:

- Encourage use of Nature-Based Solutions for shoreline stabilization
- Coordinate Beneficial Use of dredge material.
- Implement priority shoreline stabilization projects (WMPs/SMP)
- Create a new list with prioritized projects and update the list regularly.

PIC suggestions:

- Previous efforts have been focused on public shorelines. Current efforts in the Western Shore will be on private shorelines.
- There is now an Intergovernmental Agency Taskforce which includes the US Army Corps of Engineers and local governments to coordinate beneficial use of dredge material along Mobile County shorelines which is being facilitated as part of the Mobile County Shoreline Management planning.

PIC suggestions:

- TNC asked to be included on the task force. MBNEP responded that the group will be expanded at some point in the future but currently they had requested to keep it to government agencies while they scope out their plan of action.

ERP 4 – Improve management of invasive species through coastal Alabama watersheds.

Accomplishments:

- TMC Invasive Species Management Plan in implementation in progress
- State aquatic nuisance species management plan adopted (2021)
- 1,580 acres actively managed for invasive species.

Recommendations:

- Prioritize & Map watersheds for invasive species management.
- Support partner efforts to improve invasive species management.

ERP 5 – Restore and expand human connections to nature as a mechanism for improving environmental protection.

Accomplishments:

- 2,470 acres of priority habitat acquired for public benefit (NEPORT 2019-2022)
- 23 access points restored or enhanced (12 Mobile County, 11 Baldwin County)
- 2 ADA-compliant beach mats installed (1 Mobile County, 1 Baldwin County)

Recommendations:

- Continue to protect priority habitat identified in WMPs
- Continue to create/enhance public access points, focusing on areas with sparce access

MBNEP Watershed Planning Update

Perdido	Final draft in review
Western Delta	In Progress
Grand Bay	In Progress
Eight Mile Creek	Update In Progress

The Grand Bay WMP is the last one initiated. People in the area will be recruited into the process. NEP will also be working with Grand Bay National Estuary Research Reserve and the State of Mississippi.

MBNEP Restoration Update

- D'Olive
  - Pine Run out for bid.
- Lower Fish River
  - Marlow – warranty and maintenance
  - Magnolia River Watershed – Magnolia River and Schoolhouse near procurement
- Fowl River
  - Construction begins in June
- Three Mile Creek
  - 12-Mile Warranty – supplemental planting
  - Apple snail treatment continues
- Deer River
  - Phase I 95% complete

PIC Partner Project Updates and Announcements

- TNC
  - Purchased 8,000 acres of bottomland hardwood in Mobile Delta
  - Putting RFQ out for a Perdido project
  - Lightning Point eastern breakwaters have been completed.
  - TNC Swift Tract project monitoring completed.
- Baldwin County: Initial steps have been taken for USACE to conduct a study along the northern shoreline of Fort Morgan
- Eastern Shore Green Drinks beginning at Monkey Bar in Fairhope
- Mississippi Sound Estuary Program is starting operations.
- GOMESA project submittals open through April 23rd.
- ACAMP call for proposals out until April 25th.

Other Points of Discussion

- There is a need to improve PIC engagement and participation to improve feedback to NEP on what needs to be done.
- There is a need to improve PIC meeting structure to continue sharing projects but also plan for the new CCMP.

Next Steps

- Bylaws Update: – MBNEP website
- CCMP Development Status – Subcommittee?
- CCMP Evaluation – return comments to Jason K. by 4/19

6. Adjourn

Mobile Bay National Estuary Program
Government Networks Committee
March 22nd, 8:00 am – 9:30 am

International Trade Building
250 N. Water Street
Mobile, AL 36606

Virtual Meeting Link
https://disl.zoom.us/j/81503322750?pwd=DPb845jYTrFzLgOYlSpacBeUSjjFsc.1

Agenda

Meeting Objectives:

a) Provide status of State projects and priorities
b) Review CCMP Technical Assistance and Capacity Building strategies
c) Review regulatory updates impacting natural resource protection in coastal Alabama

1. **Welcome and Introductions**
   GNC Co-Chairs:
   Commissioner Skip Gruber, Baldwin County
   Commissioner Merceria Ludgood, Mobile County

2. **Review and Approval of Minutes**

3. **Old Business**
   a) State Update
   b) MBNEP update

4. **New Business**
   a) Waters of the United States - Lee Yokel, Ecosolutions
   b) The Role of County Zoning in Environmental Protection – Ashley Campbell, Baldwin County
   c) Announcements

5. **Adjourn**

Mobile Bay National Estuary Program
Government Networks Committee

June 16, 8:00 am – 9:30 am

International Trade Building
250 N. Water Street
Mobile, AL 36606

Virtual Meeting Link:
https://disl.zoom.us/j/81312895402?pwd=dXgwbmszWC9QYktZdEdvNGpEOW9vZz09

Agenda

Meeting Objectives:

a) Provide status of State projects and priorities
b) Provide overview of Baldwin County MRF programs
c) Provide overview of Resilience Planning for City of Mobile

1. **Welcome and Introductions**
   GNC Co-Chairs:
   Commissioner Billie Jo Underwood, Baldwin County
   Commissioner Merceria Ludgood, Mobile County

2. **Review and Approval of Minutes**

3. **Old Business**
   a) State Update – Chris Blankenship, ADCNR
   b) MBNEP update – Christian Miller, MBNEP

4. **New Business**
   a) Baldwin County Materials Recovery Facility – Terri Graham, Baldwin County Solid Waste
   b) Resilience Planning for the City of Mobile – Casi Callaway, City of Mobile
   c) Announcements

5. **Adjourn**

Minutes

In attendance: Joseph Abston, Washington County; Matt Anderson, City of Mobile; Scott Bannon, ADCNR MRD; Henry Barnes, City of Bayou LaBatre; Chris Blankenship, ADCNR; Jessica James, City of Chickasaw; Jeff Collier, Town of Dauphin Island; Jennifer Fidler; Leslie Gahagan, City of Foley; Skip Gruber, Baldwin County; Ralph Helmich, City of Foley; Scott Hughes, ADEM; Amy Hunter, ADEM; Cody Ledet, City of Spanish Fort; Robin LeJeune, City of Daphne; Merceria Ludgood, Mobile County; Shannon McGlynn, ADEM; Bill Puckett, AL Soil & Water Conservation Committee; Sherry Sullivan, City of Fairhope; Nicole Taylor, SARPC; Chris Thomas, EPA; John Valentine, DISL; Margie Wilcox, AL House of Representatives; Casi Callaway, City of Mobile; Terri Graham, Baldwin County Solid Waste; Amy Golemose, Baldwin County Solid Waste; Mark Ingram, Baldwin County EWK; Laura Smith, AL Soil and Water Conservation Committee

Staff: Roberta Swann, Bethany Hudson, Marti Messick, Vanessa Romero, Blair Morrison, Christian Miller

Takeaways

- Deepwater Horizon funding has resulted in $1billion worth of projects completed/in process so far.
- Baldwin County's new materials recycling facility will be able to receive recyclable materials from the region, will utilize methane produced at the landfill to help offset initial costs, and provide an educational program for area school children
- The City of Mobile is in the process of undergoing a resilience assessment and plan to improve the long-term resilience of the City.

Meeting was called to order at 8:15. Motion to approve the minutes from the previous meeting was made by Commissioner Abston and seconded by Mayor Helmich.

ADCNR Update

- Commissioner Blankenship gave an update from ADCNR
- GOMESA – $210 million in project suggestions were received this year for ~$50 million in available funding.
- Expect to have project announcements in mid-July.
- Deepwater Horizon funding has to date resulted in $1 billion worth of projects completed/in process in Alabama.
- Dept of Treasury representatives recently visited coastal AL to see projects.
- All of the NFWF GEBF money, $356 million, has been allocated.
- NRDA discussions underway to complete another restoration plan to begin later this year
- RESTORE buckets 1 & 3 projects that have already been approved have required additional funding to complete due to cost increases since projects were originally proposed. This may preclude additional projects from those sources for another year or two.
- State is going to bid on the Meaher Park expansion soon, Gulf State Park expansion to add 200+ camp sites, trails, and amphitheater on the old golf course.
- FEMA approvals have been received to pay for rebuilding the Gulf State Park pier, project has been bid and awarded to MD Thomas Construction. In water work must wait until after November 1st due to turtle nesting season. Plan to be finished by Spring of '24.
- The State has a shellfish enhancement plan, 77-acre cultch plant in partnership with AL Wildlife Federation at Cedar Point is happening this year. Each of the five Gulf states got $7 million for oyster restoration. State is working with partners to develop a 7-year plan and an additional $2 million will be available to help while the plan is being completed.

MBNEP Update

- Christian gave an update on the status of watershed planning
- MTA Delta and Eastern Shore plans are out for comment and available on the MBNEP website.
- Working on finalizing draft of Western Perdido with the steering committee.
- Several members of the Western Perdido steering committee are interested in forming their own grass roots watershed volunteer group to support implementation with assistance from MBNEP and the Wolf Bay Watershed Watch who has agreed to mentor them.
- This leaves Western Delta and Eastern Delta which are under development and the Grand Bay Swamp still to get underway shortly.
- Also getting underway in updating the Eight Mile Creek WMP which is 13 years old

Baldwin County Materials Recycling Facility (MRF)

- Terri Graham with Baldwin County Solid Waste updated the group on the County's new recycling facility and programing.
- 60,000 sq ft facility, with 10,000 sq ft of educational and office space.
- MRF will sit adjacent to the Magnolia Landfill
- Equipment has been purchased and is capable of processing up to 40,000 tons of material annually (goal is to get to 12,000 tons).
- Processing mixed fibers, paper, cardboard, plastics 1-7, aluminum, steel
- Education center – want to teach people about the importance of recycle and the potential economic impact of recycled materials. Will be geared to school-aged children
- Focus on Alabama companies that use recycled materials and what they use them for
- Will be able to highlight their reuse of gas from the facility as well as a constructed wetland that will be used to treat waste/stormwater at the facility.
- Baldwin County is investing $6 million in ARPA funds, additional grants from ADEM, EPA and other sources of funding.
- Will be opening several "CHARM" (center for hard to recycle materials) around the county to take items like glass, light bulbs, batteries, electronics, and other items that will not be processed at the MRF
- Converting the methane into natural gas from the landfill and transporting it to Riviera Utilities pipeline
- MRF and methane to natural gas facilities are targeted to being operation in 2024
- Gas recovered from the landfill can be used to help offset the costs of operating the MRF

Resilience Planning for the City of Mobile

- Casi Callaway gave an update on the development of a Resilience Plan for the City of Mobile
- Project completes a comprehensive review of the City's **assets, critical systems, current plans, and key policies** through the lens of their vulnerability to acute shocks and chronic stressors
- Plan will provide a prioritized and actionable set of adaptation and resilience strategies, closely intertwined with existing City plans and priorities, that serve as the roadmap with which to build the city's resilience
- Why are they completing this plan?
    - Shift from reactive to proactive approach
    - Improve coordination across departments
    - Unlock additional resources, funding and partnerships
    - Save the city money in the long-term
    - Ensure a safe and thriving future for Mobile and its residents
- Vision: A **Resilient Mobile** ensures that all members of our community are poised to thrive in the face of increasing challenges and changes in our environment, climate, and economy.
- The plan seeks to create solutions that are: Place-based, integrated, inclusive, Risk-aware, and forward-looking
- Plan is focusing on these four areas: Economy, Community, Sea-Level, and Climate

- Process included Internal and External engagement
    - Internal plan review team – all Dept leads
    - Advisory groups: Economy, Environment, Community Health, Infrastructure
    - Public Survey
    - Individual interviews with key stakeholders
- Resilience assessment is looking at five systems deemed critical to Mobile: Infrastructure, Health & Wellbeing, Economy, Communities, Natural Resources
- Resilience plan is building off previous and ongoing efforts: Watershed Plans, Map for Mobile, Action Plan, etc.
- Anticipate that the plan will be complete between January-March 2024

Meeting adjourned at 9:30 a.m.

Weeks Bay Advisory Committee

Weeks Bay National Estuarine Research Reserve

May 10, 2023

MEMORANDUM

TO: Weeks Bay Advisory Committee

FROM: Debbie Quinn, Chair

SUBJECT: Advisory Committee Meeting

The Weeks Bay Advisory Committee meets **Wednesday, May 10, 2023** at **2:00 PM** and will be held virtually. Remember, if you are unable to attend, please make every effort to send a proxy for your seat on the Advisory Committee.

The following is the preliminary Agenda for the WBAC meeting.

AGENDA

WEEKS BAY ADVISORY COMMITTEE

Call to Order

1. Approval of Minutes for September
2. Manager Report:

• Management	Operations and management of Reserve
• Research	Research and monitoring at the Reserve
• Education	Ongoing educational programs at Reserve
• Stewardship	Stewardship and outreach activities
• Watershed/CTP	Update on watershed & CTP activities

4. Other Business
5. Adjourn

Please notify Angela Underwood at 928-9792 angela.underwood@dcnr.alabama.gov if you would like to add discussion items to the agenda.

11300 U.S. Highway 98 - Fairhope, Alabama 36532 - Phone: (251) 928-9792 - Fax: (251) 928-1792

MINUTES

Weeks Bay National Estuarine Research Reserve
Advisory Committee Meeting
May 10, 2023

Call to order:
The scheduled quarterly meeting of the Weeks Bay Advisory Committee was called to order on May 10, 2023, at 2:05 pm by Chairwoman Debbie Quinn.

Board Member Attendance:
Debbie Quinn, Chairwoman
Kevin Anson
Ashley Campbell
Patti McCurdy
Randy Roach
John Valentine
Veronica Herndon, proxy, nonvoting
Will Underwood, nonvoting

Members Not Present:
Sommer Calderone
Chris Elliot
Jennifer Fidler
Tom Hartner
Larry Morris
Richard Moyer
Autumn Nitz
PJ Waters

Reserve Staff in Attendance:
Eric Brunden
Angela Underwood
Sarah Johnston
Cory Powell

Others in Attendance:
Matt Chasse
Doug Deaton

Approval of Previous Minutes:
Minutes were not approved due to lack of a quorum.

Old Business:
No old business was brought forward for discussion.

New Business:

Reserve Manager Report:

Reserve Manager Angela Underwood updated the committee on the status of Reserve operations.

- Angela reviewed the final findings of the Reserve Federal 312 Evaluation (attached).

- Annual Program Managers Meeting in Washington, D.C., this past March. This is a joint meeting between the program managers of the Research Reserves and the State Coastal Zone Programs and aims to increase national and local support for these programs as well as identify opportunities for enhanced coordination and collaboration between the programs.

- Weeks Bay Management Plan: Federal regulations require reserves to have a NOAA-approved management plan that is updated every 5 years. Management plans serve as the foundation and guide for reserve activities.

- Infrastructure Project Coordinator: Joint position between the Reserve and ACAMP funded through a noncompetitive award from the Bipartisan Infrastructure Law (BIL) funding. This person will develop project criteria, project proposals, and project performance measures for BIL competitive funding that support the goals of the Reserve Management Plan and the ACAMP.

Will Underwood reported on two successfully funded projects through BIL competitive funding:

- **Acquisition of Coastal Pine Savanna and Emergent Marsh Habitat on West Fowl River, Mississippi Sound in Mobile County, Alabama**
  Recommended Federal Funding: $1,103,000
  Summary: This fee simple purchase will conserve and protect sensitive tidal marsh, pine flatwood, and savanna habitats, which act as a habitat and nursery ground for commercially and recreationally important fishery species, protect uplands from storm surge and coastal flooding, and allow carbon to be sequestered.

- **Fee Simple Acquisition of 40-Acre Maury Tract in Meadows Unit of Weeks Bay NERR**
  Recommended Federal Funding: $147,000
  Summary: This fee simple purchase will help protect the ecological integrity of the area and the important ecosystem services it provides, such as acting as a buffer for storm surge and coastal flooding, providing space for marsh migration, providing carbon sequestration services, and maintaining water quality.

Discussion:

Patti- There wasn't a lot of guidance from NOAA on projects. The acquisitions were well received, but I was disappointed that they aren't funding for land management with fire and invasive species control.

Matt- Did you receive feedback about BIL applications?

Will- No, there was no written feedback as to why management needs weren't accepted.

Patti- Maybe we should setup a time to talk with Matt to get advice on our submittal.

Matt- Yes. More work is needed about submissions.

Research Report:

Reserve Manger Angela Underwood reported on Research

- **Dr Chris Anderson**, Auburn University, 'Maymester' (2 weeks) course at the DISL entitled Coastal Management. Students are currently at the Reserve with Scott and Johanna learning about research, restoration and monitoring and will be visiting the ACAMP program to learn about coastal management.

- **Bog Restoration**: Dr. Bashira Chowdrey from Mississippi State University. This project will also involve researchers from the University of Georgia's State Botanical Gardens. The Weeks Bay Reserve has areas of bog soils on the Damson Tract that have exhibited several bog plants after the application of prescribed fire. We hope to select bog plants from the area to propagate and then plant as restoration of this bog goes forward. Part of this project will be the determination of the insect assemblage associated with our bogs and to further our knowledge of the importance of this insect interaction in the success of bog restoration.

- **Ecosystems Services Valuation**: The Reserve is partnering with NCCOS (National Centers for Coastal Ocean Science) researcher, Dr. Heidi Burkart, on a project to determine the perceived value of habitat restoration

- **Margaret A. Davidson Fellowship update**:
  - Our inaugural MAD Fellow, Dr. Mai Fung, finished her Fellowship last October. Mai has recently accepted a post-Doctoral position with the University of California, Santa Barbara, National Center for Ecological Analysis and Synthesis. This position will be 50% independent research and 50% support for a NOAA RESTORE Gulf Ecosystem Initiative project.
  - Our current MAD fellow, Jacob Dybiec, has gotten off to a great start with his field research at Weeks Bay. He already has preliminary winter data and has submitted an abstract to present early findings at the CERF (Coastal and Estuarine Research Federation) meeting 12-16 November 2023.

Education Report:

- Manager Angela Underwood introduced the Education Coordinator Cory Powell who started April 1, 2023. The committee was shown a table of fieldtrips (attached).

Stewardship Report:

Stewardship Coordinator Eric Brunden Reported on stewardship

- Kayak launch and bulkhead repairs are very near completion.
- Passed Coast Guard vessel inspection on the Weeks Bay Explorer pontoon boat
- Replacement of pitcher plant boardwalk to be rebid to lower costs. Working with State Lands Construction Manager to produce bid specifications for the Visitor Center Boardwalk.
- Contractors submitting bids for the Dormitory Storm Resiliency improvement project.
- New fencing around maintenance yard and anticipate project will commence very soon.
- GulfCorps cleared fire breaks on Foley Tract, both Upland Trail and Bog side. Contacted State Lands personnel regarding prescribed fire on these tracts and are awaiting favorable conditions to burn.
- Treated exotic invasive species on Damson, Ogburn, and Safe Harbor Tracts. Want to do volunteer days on Saturdays to help with invasive species removal.

- Continue working with monitoring technician on Sentinel Site monitoring and have a time scheduled to complete a digital leveling campaign to measure any change in vertical height on our 12 Sediment Elevation Tables.
- Busy with education boat trips
- Have volunteers interested in helping us improve the landscaping around the visitor center and increase the size of the pollinator garden

Discussion:
Randy –It is getting late in year to burn but are there still plans to burn late May/June?

Eric –We will burn when we have the opportunity. We will do a dormant or growing season burn if it fits in the prescription. But we do not have the people who can be here waiting for perfect conditions so maintaining the frequency is difficult. It takes a lot of prework Eric & GulfCorps work for days to get fire breaks in and then could not complete the fire breaks because it was too wet. And by the time we can burn, we must go back and address fire lanes again. It is a constant cycle.

Randy – I know there are certain restrictions in Mobile and Baldwin County due to air quality concerns. Probably have way to get around it.

Will – It doesn't apply to burns for habitat or forestry.

CTP/Watershed Report:
Angela Underwood reported on Coastal Training

- Johanna Gertsch started January 16th
- Hosted 2 workshops:
  - Social Science Basics (January)
  - Wetland ID and Delineation with Baldwin County and Grand Bay NERR(March)
- Planned workshops/training
  - Scheduled - AWW training (May, collaborating with Graham Creek), Alabama Private Well Program (June), Wilderness First Aid (June), AWW Training (October), Alabama Watershed Stewards Workshop (November)
  - Work in progress – CPR/AED training, Landscaping with Natives, Wetland Rapid Assessment Procedure Workshop (partnering with Grand Bay)

Discussion:
Ashley--It was a great success, and we are looking at partnering with many more. We love having Johanna on-board.

Angela - We appreciate the partnerships, and it really came forward as a success with Reserve during the 312 Evaluation. These are partnerships that we make within all our programs: training, research, stewardship and education.

Other Business:

Randy- Is there funding for these projects and land acquisitions or are they proposals?

Will – For both of those [Fowl River and Maury Tracts], we received notice in the last 2 weeks that they are funded. The parcels are being held by a land trust and it should be quick heading towards closing.

Patti--We will be complying with all the Federal level requirements in addition to our own due diligence requirements and will be in good shape. Not sure if quick is the right word but all three are in good shape to move forward.

Debbie- Is the Fowl River Tract controlled by SALT?

Will-Coastal Land Trust. With the variety of funding through the BIL, we only focused only on the funding opportunities that were specific to the CZM and NERRS programs. We were not involved in the total list of projects you will see for Alabama. There is a great opportunity for funds in conversation on the coast now. The next round of funding is becoming available, and we are figuring how to best navigate the call for proposals.

Debbie – Are those matching or totally funded?

Will– They are 100% Federal.

Patti-- Our next Forever Wild Land Trust Board of Trustees quarterly meeting is in Mobile at 10:00am on 8/3/23 at South Alabama – anyone signed up on the DCNR to receive outdoor Alabama notifications will see the meeting notice.

Randy--Has state lands or Weeks Bay considered Carbon Sequestration as a means of potential funding?

Patti--Last year the legislature gave us statuary basis to participate in the programs. GSA is still working on regulations that were approved through that statutory amendment. The groups that have talked to me do not have the expertise or the on the ground capital to move forward. We are waiting on additional regulations to come forward. We will look at everything on a case-by-case basis. There's not a policy to oppose or reject the concept, it's just too early. A couple of the programs are now coming under scrutiny. and we aren't ready to jump in on one right now.

Randy- I've been through the program with NCX [Natural Capital Exchange] and there is money there.

Patti- Once you do it, you risk future ability to do it. Without the requirements of forestry plans, the immediate upfront payments come at a discount. Valid path for a private landowner. For a public asset, we look across generational opportunities and how best to operate and try not to cutoff opportunities in the future. There has been limited department participation in that program through Forestry Commission in consultation with Commissioner Blankenship, but the department participation was somewhat limited. One proposal we submitted through NCX wasn't accepted; they didn't accept our price. We have to consider it as a generational land asset differently than private landowners. Also looking at sequestration underground, upland and offshore and have had some discussions with entities, but no one is quite able to be permitted by EPA yet.

Randy- All you can do is try and bid low.

Patti- If we bid low to get money, we are cutting off our ability to do things in the future. It was determined that was not the proper move, but I will have Commissioner call and give some information on that.

Randy- Yes. I think it's a good program but there's still a lot of questions on monitoring and getting benefit that you are getting paid for.

Patti—There's a discount that comes with it that was determined not to be beneficial enough. And what we did submit that we thought would be beneficial was rejected. But I will have Commissioner call you and give you more information on that.

Randy—But you will continue to explore that opportunity?

Patti-- We will continue to explore any money-making opportunity that doesn't have an impact on the ecological or educational purposes that we serve. But we explore for generational benefit.

Debbie- Other questions?

Kevin--Reading through the [312] evaluation report reminded me of all the things the staff do there, and with a relatively limited number of staff, you all do a lot and I want to pass along kudos for all that you do and the hard work you put in.

Angela- We give credit to our partners and our state division partners also.

Debbie- We didn't vote on minutes and will hold for the next meeting.

Motion to adjourn by Randy Roach.
Kevin Anson seconded.
Meeting adjourned at 3:06pm.

Weeks Bay NERR Education Groups

1-Dec	WJ Carroll 5th Grade (morning), boardwalk, visitor center	25 5th grade
1-Dec	WJ Carroll 5th Grade (afternoon), boardwalk, visitor center	25 5th grade
2-Dec	WJ Carroll 5th Grade (morning), boardwalk, visitor center	25 5th grade
2-Dec	WJ Carroll 5th Grade (afternoon), boardwalk, visitor center	25 5th grade
6-Dec	Travel to Nature Connect Daphne	25 6yr-12yr
7-Dec	Southeastern State Parks Program Seminar (morning), boat, art, vc boardwalk	50 adults
7-Dec	Southeastern State Parks Program Seminar (afternoon), boat, art, vc boardwalk	50 adults
8-Dec	Travel to Nature Connect Daphne	10 6yr-12yr
14-Jan	Dominion Farms Homeowners Association	30 adults
10-Feb	Robertsdale HS (AP Environmental Science)	20 high school, 2 adults
17-Feb	Missouri Snowbirds (boat trip)	30 adults
28-Feb	MSU Geological Sciences Class (Boat trip)	10 adults
1-Mar	Florence B Mathis 4th Grade, 2 classes (VC, Boardwalk)	40 students, 8 adults
2-Mar	Florence B Mathis 4th Grade, 2 classes (VC, Boardwalk)	40 students, 8 adults
3-Mar	Florence B Mathis 4th Grade, 2 classes (VC, Boardwalk)	40 students, 8 adults
8-Mar	BC Master Gardeners talk	75 adults
26-Mar	Bog and Facility Tour for Rivers Alliance Conference	12 adults
27-Mar	UWF Leisure Learners (Boat Trip)	16 adults
4-Apr	Fairhope HS IB (boat, seining, vc)	20 students, 2 adults
11-Apr	Gulf Coast Joint Venture	30 adults
11-Apr	Bon Secour Butchers Fishing Club (boat)	8 adults
14-Apr	WJ Carrol Elem Gifted 4th Grade (boat, seining, vc)	24 students, 7 adults
15-Apr	Cubscout group (VC, boardwalk)	17 children, 8 adults
18-Apr	Corem Deo Scola Homeschool Group (boat, seining, vc)	35 students, 7 adults
19-Apr	Florence B Mathis 3rd-4th Gifted (boat, seining, vc)	23 students, 3 adults
21-Apr	Florence B Mathis 5th-6th Gifted (boat, seining, vc)	31 students, 7 adults
21-Apr	Earth Day Gulf Shores	2000 students, 150 parents
22-Apr	Earth Day Mobile Bay	500 participants
25-Apr	Organic School	11 students (self guided)
25-Apr	Homeschool K-HS (boat, seining, vc)	33 students, 8 adults
28-Apr	Summerdale 6th Grade	60 students
1-May	WJ Carrol Elem Gifted 3rd Grade (boat, seining, vc)	15 kids, 5 adults
2-May	Nature Connect (boat, vc)	15 kids
3-May	Fairhope MS Environmental Club	4 students, 1 adult
4-May	Nature Connect (boat, seining, vc)	15 kids
5-May	BC Virtual School (visitor center)	20 kids, 15 adults
10-May	Pandhandle Senior Travelers (boat)	28 adults

Final Evaluation Findings

Weeks Bay
National Estuarine Research Reserve

October 2015 to July 2022

February 2023

Office for Coastal Management
National Ocean Service
National Oceanic and Atmospheric Administration
United States Department of Commerce

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Summary List of Findings

The Coastal Zone Management Act requires the National Oceanic and Atmospheric Administration's Office for Coastal Management to conduct periodic evaluations of the performance of state programs participating in the National Estuarine Research Reserve System. This evaluation examined the operation and management of the Weeks Bay National Estuarine Research Reserve by the Alabama Department of Conservation and Natural Resources, the designated lead agency, for the period from October 2015 to July 2022. The evaluation focused on two target areas: program administration and growing communities and protecting coastal habitats.

The findings in this evaluation document will be considered by the NOAA Office for Coastal Management in making future financial award decisions concerning the reserve. The evaluation came to these conclusions:

Program Administration

Accomplishment: The Weeks Bay Reserve demonstrated flexibility, creativity, and nimbleness in continuing to meet the needs of their partners and stakeholders during the pandemic and in recovery from Hurricane Sally that made landfall in September of 2020.

Accomplishment: The partnership and close working relationship that the Weeks Bay Reserve and the Alabama Coastal Management Program have fostered has amplified the ability of both programs to assist coastal communities and habitat managers in improving resilience in the coastal region of Alabama.

Accomplishment: The Weeks Bay Reserve has been successful in filling two key positions: the reserve manager and the facilities manager. Both positions had been unfilled for an extended time due to several internal and external factors. These positions are critical for ensuring that the reserve continues to serve coastal Alabama.

Accomplishment: The Alabama Department of Conservation and Natural Resources has demonstrated steadfast investment in building and maintaining Weeks Bay Reserve facilities and infrastructure, providing a platform essential for the success and effectiveness of the reserve's research, education, coastal training, and stewardship programs. For example, the new research dormitory is attracting researchers and was used to house first responders during Hurricane Sally recovery efforts. The availability of classrooms, boardwalks, and vessels as well as other assets such as boat launches, exhibits, and access to natural habitats was identified by reserve partners, program participants, and visitors as critical to their reserve experience and the education and research programs.

Recommendation: The Office for Coastal Management strongly encourages the Weeks Bay Reserve to work with the Alabama Department of Conservation and Natural Resources to seek out alternative pathways that expedite reserve staff recruitment and hiring, close capability gaps, and build additional capacity to meet the expanding needs of coastal Alabama communities through established programming. For example, the reserve could leverage the experience from other reserves in their partnerships with local universities that have been successful in helping to fill staffing needs.

Recommendation: The Weeks Bay Reserve has a strong network of partners working on coastal management issues in the region who are well connected with local stakeholders and are interested in facilitating and fostering relationship building with new reserve staff members. As the reserve onboards a new Coastal Training Program coordinator who started on January 16, 2023, the reserve is strongly encouraged to leverage that network to reinforce the relationships necessary to the success of that role.

Growing Communities and Protecting Coastal Habitats

Accomplishment: The Weeks Bay Reserve's foresight and successful partnerships paved the way for the strategic acquisition of 656 acres of important coastal lands, enhancing resilience by mitigating storm damage, connecting valuable coastal habitats, and providing places for Alabamians and visitors to recreate and enjoy.

Accomplishment: The Weeks Bay Reserve has fostered long-term, consistent support of volunteers that augment the reserve's staff and significantly contribute to the mission of the reserve. As the reserve continues to backfill positions and expand its staff, reserve staff members are eager to work with the South Alabama Land Trust to continue to support and strengthen the volunteer program.

Accomplishment: The Weeks Bay Reserve is a recognized leader in resilience with collaborative efforts across the reserve's sectors supporting this work. The reserve's integration of land management, research, and outreach resulting in science for decision-making, combined with staff members' engagement with local residents and decision makers, has provided critical support for on-the-ground action in coastal Alabama. The evaluation team heard repeatedly that the reserve staff members partner, participate, support, and bring extensive knowledge to projects, resulting in action that makes communities and habitat more resilient.

Accomplishment: The Weeks Bay Reserve has been successful in partnering with local and regional organizations to provide learning experiences that reach a variety of audiences, including previously underserved populations. These reserve-led experiences connect people to their watersheds and estuaries and result in tangible behavior change in communities, including increased financial support for resilience activities like living shoreline installation and decreases in single-use plastics. Collective behavior changes such as these can enhance community resilience.

This evaluation concludes that the Alabama Department of Conservation and Natural Resources is adhering to the programmatic requirements of the National Estuarine Research Reserve System in the operation of the Weeks Bay National Estuarine Research Reserve.

Program Review Procedures

The Coastal Zone Management Act of 1972, as amended (16 U.S.C. 1451 et seq.), requires that state coastal zone management programs and national estuarine research reserves that are developed under the act and approved by the secretary of the Department of Commerce be evaluated periodically. Section 312 of the Coastal Zone Management Act and implementing regulations at 15 CFR 921, Subpart E, require that a research reserve be periodically evaluated with regard to 1) its operation and management including education and interpretive activities; 2) the research being conducted within the research reserve; and 3) adherence to the requirements of Section 315(b)(2) of the Coastal Zone Management Act.

The National Oceanic and Atmospheric Administration (NOAA) evaluated the Weeks Bay National Estuarine Research Reserve in fiscal year 2022. The evaluation team consisted of Pam Kylstra, evaluation team lead; Matt Chasse, regional specialist; and Marian Hanisko, Gulf learning services coordinator, all from the NOAA Office for Coastal Management; and Heather Gierloff, Hudson River National Estuarine Research Reserve manager. The support of the reserve staff was crucial in conducting the evaluation, and this support is most gratefully acknowledged.

NOAA sent a notification of the scheduled evaluation to the director of the Alabama Department of Conservation and Natural Resources' State Lands Division and published a notice of intent to evaluate in the Federal Register on June 16, 2022. NOAA also notified members of Alabama's congressional delegation. On June 12, 2022, the Weeks Bay Reserve posted a notice in the Mobile Press-Register newspaper about the public meeting and the opportunity to comment.

As a part of the evaluation process, a review of relevant information was conducted, including annual federal financial assistance award reports, the previous evaluation findings, and information provided by the programs documenting how they are implementing their programs and addressing the programmatic requirements of the Coast Zone Management Act. A survey of stakeholders was conducted, and reserve sector leads were interviewed.

The information review and survey results informed the identification of two target areas for the evaluation: program administration and growing communities and protecting coastal habitats. A virtual site visit was conducted, and the evaluation team held meetings with staff members and group discussions with stakeholders and program staff members to discuss the target areas. Meeting participants helped identify issues and workable solutions to maintain and improve the implementation of the reserve's programs. In addition, a public meeting was held on July 27, 2022, at 6:00 p.m. (Central); interested members of the public could attend on site or online. The public meeting provided an opportunity for members of the public to express their opinions about the implementation of the program. Stakeholders and members of the public were also given the opportunity to provide written comments via email through August 5, 2022. Written comments were received from seven interested parties. The Office for Coastal Management then developed draft evaluation findings, which were provided to the Alabama Department of Conservation and Natural Resources and to the reserve for review, and the department's comments were considered in drafting the final evaluation findings.

Final evaluation findings for the national estuarine research reserves highlight each reserve's accomplishments in the target areas and include recommendations, which are of two types:

Necessary Actions address programmatic requirements of implementing regulations of the Coastal Zone Management Act. These must be carried out by the dates specified. Failure to address necessary actions may result in a future finding of non-adherence and the invoking of interim sanctions, as specified in the Coastal Zone Management Act.

Recommendations are actions that the office believes would improve the program but which are not mandatory. The state is expected to have considered the recommendations by the time of the next evaluation or dates specified.

Evaluation Findings

The Alabama Department of Conservation and Natural Resources continues to successfully implement the federally approved Weeks Bay National Estuarine Research Reserve and continues to be committed to and supportive of the reserve's mission.

Program Administration

From the beginning, the department and the reserve have placed great emphasis on effective community engagement, and the programs are shaped and guided by the needs of the community. The evaluation team heard consistent support for the reserve and the value it brings to partners, stakeholders, and the broader community in Alabama as well as the Gulf Coast. Reserve staff members are respected in the region and the community as experts. They are recognized as being highly dedicated, knowledgeable, collaborative, and an important part of the community, providing critical information and expertise for decision-making.

As with each reserve, regular management plan updates are required. During the current evaluation period, the Weeks Bay Reserve successfully completed the 2017–2022 plan as called for the necessary action in the prior evaluation findings that were published in July of 2016. Additionally, the reserve is preparing to submit a final draft of the 2022–2027 management plan to NOAA.

Examples of Key Efforts

During the evaluation period, the reserve has experienced the challenges of a small staff, COVID-19, and impacts of Hurricanes Sally and Zeta. The reserve has accomplished much despite the challenges and realized opportunities for positive growth and connection out of the challenges as well. Despite the pandemic, the reserve continued to meet the needs of partners and stakeholders by embracing flexibility and getting creative in their approaches to reaching people. When on-site programs shut down and children attended school online from home, the reserve rapidly shifted to online programming for classroom use and community education. For example, reserve staff produced a video about programs and data they collect, and they held "Tea Time Talks" about various topics. Education staff conducted virtual field trips and "touch" labs, and partnered with the local library to do story time events. Along with other new virtually delivered resources, the reserve staff will continue to offer programming online to broaden access as conditions shift toward a post-pandemic setting, allowing them to reach audiences further up the watershed and those who are not able to travel to the site.

Compounding the challenge of the pandemic, Hurricane Sally made landfall in early fall of 2020. The storm brought down hundreds of trees across reserve properties, damaged boardwalks and water quality monitoring stations, and created loads of debris. The reserve received an outpouring of support from people wanting to help with recovery. The cleanup and recovery continued for over a year after the storm.

> **Accomplishment:** The Weeks Bay Reserve demonstrated flexibility, creativity, and nimbleness in continuing to meet the needs of their partners and stakeholders during the pandemic and in recovery from Hurricane Sally that made landfall in September of 2020.

Partnership with the Alabama Coastal Area Management Program

The reserve and the coastal management program are both administered under the coastal section of the State Lands Division within the Alabama Department of Conservation and Natural Resources, and the two programs work closely together to address coastal management issues in the state. The partnership between the coastal management program and the reserve remains strong and the two programs are structured so their respective strengths are leveraged. The components of this partnership that seem to be the keys for its effectiveness are engaged leadership, a manager with direct experience at a reserve, and staff members who are shared between the reserve and the coastal program. For example, the coastal section administrator is directly involved in the administration of the Alabama Coastal Zone Management Program and of the reserve and its on-the-ground activities, which translates to greater awareness among staff in the respective programs of happenings in the other. Because the coastal section administrator came to the position with seven years of experience as a stewardship coordinator at a neighboring reserve, he brings a unique appreciation of the reserve system and an awareness of the strengths of each sector. This perspective has positioned him well to leverage the capabilities of the reserve and coastal management program in support of each other. An example of success credited to this strong partnership include bringing to bear the reserve's research and coastal training assets to support the coastal program's Coastal Zone Enhancement Program (Section 309 Enhancement Program) strategies as follows:

- During the 2016-2020 cycle, coastal management program staff worked with the reserve's Coastal Training Program coordinator to develop a strategy called the Community Resilience Initiative. This project focused on improving floodplain management and increasing participation in FEMA's Community Rating System program across communities in Alabama's two coastal counties.
- During the 2021-2025 cycle, coastal management program staff leveraged a reserve research sector priority to understand the relationship between overwater structures (e.g., docks and piers) and benthic productivity. The project is currently underway, and the reserve welcomed its first Hollings Scholar this year to begin to study these impacts. Through the 309 strategy, the coastal management program will be inventorying overwater structures, developing a database, and working with permitting agencies to develop guidelines and building standards for overwater structures.

The reserve and the coastal management program share and jointly fund several positions; the Coastal Training Program coordinator and the education coordinator who support the coastal program's outreach and technical assistance interactions; and the GIS coordinator who supports digital and print mapping needs. This exemplary arrangement generates a greater awareness of programs and priorities across the offices, broadens the reach of services to more audiences across the watershed, and results in cost savings for the budgets of both programs.

> **Accomplishment:** The partnership and close working relationship that the Weeks Bay Reserve and the Alabama Coastal Management Program have fostered has amplified the ability of both programs to assist coastal communities and habitat managers in improving resilience in the coastal region of Alabama.

Staffing

Like many states, Alabama's recruitment and hiring processes can be slow moving and challenging for potential candidates to navigate. This negatively impacts the availability of an applicant pool with the expertise the reserve needs. Reserve staff have been proactive in increasing awareness about available positions and enhancing understanding among potential applicants of the state hiring process. For instance, the education coordinator has been providing technical assistance sessions that guide potential candidates for reserve positions through the intricacies of the register system used by the state for hiring. Additionally, to let people know of reserve positions available, the reserve staff informally advertises them and ensures that those interested in applying understand the register process. Internally, the department and the reserve have learned to wait for the register to update before "pulling" the register to get the list of the top ten scorers. This approach allows newer candidates to be included in the system.

In addition to continuing these forward-looking practices to ensure that potential candidates are aware of opportunities and understand the process, the reserve and the department should work together to explore creative solutions to expedite the hiring process. The evaluation team was pleased to celebrate the announcement that the education coordinator who has been serving as the interim manager for over a year is now the official reserve manager. Additionally, the reserve has hired a new facilities manager slated to start on August 1, 2022.

Increasing tourism and growing populations in coastal Alabama translate to greater demand on reserve programs and maintenance. During the evaluation period, the reserve experienced turnover in support staff and, more recently in that period, several long-tenured staff, including the manager, retired or moved into new opportunities outside of the reserve. The loss of relationships and institutional knowledge that this represents can impede continuity of programming and engagement of partners and stakeholders. The reserve staff addressed this by extending themselves beyond just their own roles to continue to maintain operations and serve the community. While this can be an effective short-term measure, reserve leadership recognizes the need to address these vacancies as staff are becoming overburdened.

The reserve has a strong network of partners working on coastal management issues in the region who are well connected with local stakeholders and are interested in facilitating and fostering relationship building with new reserve staff members. As the reserve onboards a new Coastal Training Program coordinator who started on January 16, 2023, the reserve is strongly encouraged to leverage that network to reinforce the relationships necessary to the success of that role. Additionally, the hiring of a new Coastal Training Program coordinator permits an opportunity to re-evaluate the definition of the program's target audiences, potentially broadening to include previously underserved populations, and to also consider mechanisms to more effectively incorporate the assets of the other reserve sectors into training design to continue to improve integration between sectors.

In addition to the position vacancies, there are several key staff responsibilities that rely on a single staff person. While collaboration and leveraging capabilities across programs is essential to the reserve's ability to meet stakeholder and partner needs, dependence on capabilities of a single staff member to be able to carry out programs can lead to acute pinch points at times. For instance, one staff member is USCG certified to captain the 42' Weeks Bay Explorer pontoon boat which is used for large educational groups and tours. These activities are limited to those times when that staff member is available.

In light of a slow-moving state hiring process and increasing demand on current staff, the division and reserve are encouraged to explore novel ways to augment the staff capacity. For example, other reserves across the country have had success in pursuing partnerships with local universities to support additional staff. The Weeks Bay Reserve leadership is encouraged to connect with those reserves to gain an understanding of how these partnerships could work in Alabama. Once additional staff become available, then the reserve staff would have more time to invest in onboarding interns, training volunteers, and cross-training staff.

Accomplishment: The Weeks Bay Reserve has been successful in filling two key positions: the reserve manager and the facilities manager. Both positions had been unfilled for an extended time due to several internal and external factors. These positions are critical for ensuring that the reserve continues to serve coastal Alabama.

Recommendation: The Office for Coastal Management strongly encourages the Weeks Bay Reserve to work with the Alabama Department of Conservation and Natural Resources to seek out alternative pathways that expedite reserve staff recruitment and hiring, close capability gaps, and build additional capacity to meet the expanding needs of coastal Alabama communities through established programming. For example, the reserve could leverage the experience from other reserves in their partnerships with local universities that have been successful in helping to fill staffing needs.

Recommendation: The Weeks Bay Reserve has a strong network of partners working on coastal management issues in the region who are well connected with local stakeholders and are interested in facilitating and fostering relationship building with new reserve staff members. As the reserve onboards a new Coastal Training Program coordinator who started on January 16, 2023, the reserve is strongly encouraged to leverage that network to reinforce the relationships necessary to the success of that role.

Facilities

Reserve facilities have been expanded and rehabilitated to better accommodate teachers, students, visiting researchers, partners like the Division of State Lands crews, and visitors. As an example, the new research dormitory completed in 2016 has more than doubled the capacity of the previous dormitory and, along with the Weeks Bay Resource Center, is solar powered. The installation of solar panels on both facilities was funded through a NOAA Procurement, Acquisition, and Construction Award. The expanded capacity of the dormitory has allowed multiple research teams to be housed concurrently. This not only enhances the reserve's ability to support work of visiting researchers, it has resulted in new collaborations between researchers that came about from the time they spent together in the dormitory. During Hurricane Sally recovery efforts, the new research dormitory housed first responders and served as a response center. To ensure continued operation during power outages and to facilitate disaster response, the reserve is in the design phase of a NOAA Procurement, Acquisition, and Construction Award funded project to incorporate upgrades to these systems, such as a generator and a power wall.

The reserve has invested in installation, maintenance, and improvement of other assets, including classrooms, boardwalks, vessels, floating dock and kayak launch, boat launch parking, exhibits, and access to natural habitats, that are essential to the support of education, research, and the visitor

experience. For instance, the Baldwin County Master Gardeners program highly values the use of the reserve classroom and pitcher plant boardwalk during its certification process and for program member excursions. Through these experiences, program participants gain an appreciation of the importance of coastal land and water conservation.

> **Accomplishment:** The Alabama Department of Conservation and Natural Resources has demonstrated steadfast investment in building and maintaining Weeks Bay Reserve facilities and infrastructure, providing a platform essential for the success and effectiveness of the reserve's research, education, coastal training, and stewardship programs. For example, the new research dormitory is attracting researchers and was used to house first responders during Hurricane Sally recovery efforts. The availability of classrooms, boardwalks, and vessels as well as other assets such as boat launches, exhibits, and access to natural habitats was identified by reserve partners, program participants, and visitors as critical to their reserve experience and the education and research programs.

Growing Communities and Protecting Habitat

Examples of Key Efforts

Land Acquisition

Baldwin County continues to be one of the fastest growing counties in the state of Alabama. Since 2015, it has experienced an annual average population increase of 2.33% for a total of 228,613 in 2020 (U.S. Census Bureau). If the projected total of 239,371 in 2022 is reached, that would represent an increase of 18% over the evaluation period (World Population Review). This growth continues to result in the loss of habitat to conversion through development, and subsequent increased vulnerability to storms and nonpoint-source polluted runoff that has impacts on water quality. The reserve and its partners cooperate in their work to protect land as a way to enhance resilience, provide a buffer from storms, connect habitats, provide pathways for habitat migration, and provide opportunities for recreation.

Just as in the previous evaluation period, the reserve has continued to successfully work with partners to protect key habitats through land acquisition. The area the reserve manages has been expanded through targeted acquisition of lands with funding and assistance from the Alabama Forever Wild Land Trust Program, NOAA, the Alabama Department of Conservation and Natural Resources, the South Alabama Land Trust, The Nature Conservancy, and others. The lands acquired by the reserve during the evaluation period include the Stelzenmuller, Hiatt, and Ollinger tracts (242.2 acres), the Lipscomb tract (64 acres), the Metcalf tract (2.75 acres), the Beckwith and Harris tracts (29 acres), the Williams tract (163 acres), the Holmes tract (95.6 acres), and the Lloyd tract (59.88 acres), for a total of 656 acres. These acquisitions are strategic in that they are adjacent to lands already protected by reserve partners. While all of the acquisitions are important in habitat protection, two of the tracts are particularly critical because they had greater potential for habitat loss had they not been acquired. Plans for land acquisitions are informed by stewardship and research staff to help identify important research questions related to the restoration of acquired parcels.

The evaluation team recognizes that the reserve understands there is an increased cost of management associated with the newly acquired parcels. Prioritizing acquisition planning through the reserve's management plan is a key factor in ensuring that staff have the capacity to manage reserve additions, given the multiple new funding opportunities related to the Bipartisan Infrastructure Bill through NOAA and other federal agencies.

> **Accomplishment:** The Weeks Bay Reserve's foresight and successful partnerships paved the way for the strategic acquisition of an additional 656 acres of important coastal lands, enhancing resilience by mitigating storm damage, connecting valuable coastal habitats, and providing places for Alabamians and visitors to recreate and enjoy.

Land Management: Prescribed Burns

Prescribed burning serves to reduce fuel and the risk of wildfires, impede growth of invasive vegetation while promoting growth of native plant species, and restore and improve habitat for wildlife and native plants. The reserve's prescribed fire work has been a significant success. In consideration of the use of prescribed fire, the reserve engages in planning and preparation to ensure the balance of ecological benefits with the health and safety of staff members and members of the communities around the reserve. All reserve field staff members have completed prescribed burn training and work with certified burn managers within the department's State Lands Division, and often partner with trained staff members from The Nature Conservancy to implement the prescribed burns and to accomplish the management goals for reserve parcels. The Nature Conservancy's crews were especially helpful with conducting prescribed burns around sensitive habitats like the pitcher plant bog after Hurricane Sally.

As in many areas, the value of prescribed fire to the community and habitat is not always well understood by those living near or visiting areas adjacent to the burn area. During the pandemic, the reserve produced outreach videos about fire, and the stewardship coordinator conducted an online "Tea Time Talk" discussing its use to aid marsh migration to uplands, concurrent with sea level rise, and to reduce fuel loads, decreasing fire risk. These activities allayed concerns about local prescribed fire activity generated by seeing news about the active fire season in the West, and increased an appreciation for the benefits of prescribed fire.

Volunteers and Friends Group

Volunteers contribute to the success of the reserve by contributing time and expertise across the reserve's work. Dedicated volunteers work with the reserve in a number of different ways. For instance, as a part of the stewardship program, after prescribed fires, school groups help replant longleaf pines in burn areas. The reserve partners with the U.S. Department of Agriculture trapping team and works with volunteers to manage feral hogs. Volunteers also assist in pitcher plant seed collection and growout of seedlings to plant, helping to maintain the health of the pitcher plant bog ecosystem.

The GulfCorps is a program sponsored by NOAA through the RESTORE Council work in response to the Deepwater Horizon oil spill and was established to provide workforce training while supporting conservation. The reserve has hosted GulfCorps teams annually since 2017 to help with conservation efforts, including restoration activities like removal of invasive vegetation, repairs to facilities such as boardwalks, and fuel reduction ahead of prescribed burns. Up to 100 GulfCorps crew members are supported by reserve staff during their annual weeklong orientation and training. Many reserve personnel including stewardship, Coastal Training Program, and education program staff members are

involved in providing training and guidance on topics like plant identification, monitoring protocols like canopy density and ground cover classifications, and skills such as the safe use of chainsaws. The GulfCorps participants discover new interests and develop marketable skills as a result of reserve staff members' commitment to this program. For instance, the reserve's System-Wide Monitoring Program (SWMP) technician became acquainted with the reserve's work as a GulfCorps team member. Other reserve staff members regard him as a significant asset to the team. While the reserve greatly benefits from the GulfCorps volunteer work, training and managing volunteers involves a significant investment of staff resources.

The Friends group that supports the reserve began as the Weeks Bay Reserve Foundation when it was formed in 1990 and became accredited as a land trust in 2009. Over time, it has broadened its scope and changed its name in 2020 to the South Alabama Land Trust (SALT). SALT now partners with the reserve to support land acquisition, teacher professional development, education, and summer activities for all ages. The reserve's relationship with SALT professional staff has improved as the reserve's approach to communication and connection has become more direct. The responsibility for continuing to foster that relationship and coordination is no longer solely on the manager's shoulders, but is now shared among the reserve staff. Day to day interactions with SALT are more informal and efficient, and SALT routinely requests participation of reserve staff in land acquisition meetings.

SALT has played a key role in the three most recent land acquisitions, helping to negotiate with landowners to secure purchase agreements, providing property assessments, and submitting parcels to the Deepwater Horizon project portal. The reserve has relied on SALT to help with volunteer coordination for special projects, and with the impact of Hurricane Sally, SALT helped to recruit volunteers to clean up storm debris and for repairs to facilities like the pitcher plant boardwalk and the pier. As the reserve continues to backfill positions, and expand its staff, reserve staff members are eager to work with SALT to continue to support and strengthen the volunteer program.

> **Accomplishment:** The Weeks Bay Reserve has fostered long-term, consistent support of volunteers that augment the reserve's staff and significantly contribute to the mission of the reserve. As the reserve continues to backfill positions and expand its staff, reserve staff members are eager to work with the South Alabama Land Trust to continue to support and strengthen the volunteer program.

Science to Outreach and Management

The reserve is a recognized leader in resilience, and the efforts across all of the reserve's sectors are supporting this work. Reserve staff engage with local residents and decision makers to communicate scientific findings and provide critical support for informed implementation of on-the-ground action. The evaluation team heard repeatedly that the reserve staff members partner with, participate in, support, and bring extensive knowledge to projects, resulting in action that makes communities and habitat more resilient. For example,

- The Coastal Training Program and education program staff members have been champions of sea level rise and climate change information for the Alabama coastal community and the Gulf region. They serve on advisory committees that contribute to regional resilience and adaptation efforts including Gulf TREE, Resilience to Future Flooding, and Resilience in SLR Education (RISE). As partners for the Gulf TREE project, staff members were considered a critical part of

shaping the process all the way through training delivery, resulting in a resource that minimizes "tool overwhelm" by connecting coastal decision makers to adaptation tools that meet their specific needs. The reserve staff members helped to guide and implement the Resilience to Flooding and RISE projects, ensuring that content was relevant to participants and that delivery was engaging.

- As discussed previously, stewardship program staff members work on acquiring land and implementing living shorelines is intended to mitigate storm damage by using these natural resources as a buffer. Additional benefits of this work are habitat protection, recreation, and water quality improvement. The lessons learned from these efforts are being applied to new projects.
- The research and monitoring program has been looking at hurricanes and fire as important factors in opening up habitat and providing space for marsh migration as sea levels rise. Fire regimes at the reserve are being adjusted to follow the findings of this work.
- The Coastal Training Program staff members worked with Alabama Coastal Management staff members to develop the Community Resilience Initiative, a CZMA Section 309 funded project, to improve floodplain management in Alabama communities, which led to a number of resilience accomplishment in coastal Alabama:
    - Semmes, Alabama, joined the National Flood Insurance Program.
    - Foley, Alabama, joined the Federal Emergency Management Agency's Community Rating System.
    - The South Alabama Flood Engagement Team (SAFE-T) emerged.
    - Training on fortified building standards and elevation certificates.
    - The reserve partnered with the University of South Alabama's GIS department to develop open space maps for 25 municipalities and two counties. Additional reserve staff members engaged in this project, including the GIS coordinator, who assisted with open space mapping training and provided technical assistance to the University of South Alabama.
- The reserve values working with and hosting research fellows. The reserve sponsored a Hollings Scholar to research the impacts of overwater structures on benthic productivity. This work is a priority research topic for the reserve, which will support the Alabama Coastal Area Management Program's current 309 strategy to inventory existing structures and develop recommendations for construction. During the evaluation period, the reserve also sponsored a Margaret A. Davidson fellow who investigated how different environmental factors affect eutrophication around Weeks Bay. She also developed hands-on science and art activities to teach students about her research.
- The staff is forward-thinking and willing to consider how climate change will impact land management at the reserve. They have engaged with the Program for Local Adaptation to Climate Effects (PLACE): SLR to utilize the Resist Adapt Direct (RAD) framework to think about adaptation strategies. The staff is currently incorporating the strategies identified through this process into their management plan, and they use the framework to justify not only how they plan to address climate impacts but also why this is important.
- Reserve partners regularly turn to and rely on the reserve for their science-informed outreach expertise. For example, the reserve's stewardship staff members provided a field trip opportunity for the Gulf of Mexico Alliance's Business Advisory Council to acquaint them with

and increase their understanding of the value of the reserve's stewardship activities. Council members visited living shoreline installations and learned how they serve to stabilize shorelines and protect communities from storm surge and flooding. As a result of the field trip, the alliance saw an increase in living shoreline funding coming from private partners.

Accomplishment: The Weeks Bay Reserve is a recognized leader in resilience with collaborative efforts across the reserve's sectors supporting this work. The reserve's integration of land management, research, and outreach resulting in science for decision-making, combined with staff members' engagement with local residents and decision makers, has provided critical support for on-the-ground action in coastal Alabama. The evaluation team heard repeatedly that the reserve staff members partner, participate, support, and bring extensive knowledge to projects, resulting in action that makes communities and habitat more resilient.

Partners in Education for Connection and Change

The reserve fosters its strong network of partners, and these partnerships have amplified the success of the reserve across its sectors, including education. These partnerships in adult learning and education have led to innovative mechanisms to engage stakeholders, and in many cases are resulting in behavior change in communities. Here are just a few of the examples the evaluation team heard during the site visit:

- As mentioned in the previous section, after the Gulf of Mexico Alliance's Business Advisory Council members were able to see for themselves during a field trip led by reserve staff how living shorelines stabilize shorelines and minimize impacts from storm surge and flooding, the alliance noted that private partner funding for living shorelines increased.
- The reserve partnered with a local art center to engage underserved audiences through art education programming. The education coordinator worked with art center staff to develop a program focusing on the use of touch and smell for citizens who are visually or hearing impaired. One participant who was visually impaired explored the three dimensional model of the Weeks Bay watershed in the Visitor Center through touch and was able to locate his home and the connection with the watershed.
- Partnering with Baldwin County schools, the reserve provided a dune grass planting workshop. A student who participated as a freshman returned four years later to the site and was excited to share that there were now sand dunes that had not been present at the time of the planting. That student felt a sense of ownership and clearly values the experience.
- In its work to provide professional development for teachers, the reserve conducts Teachers on the Estuary (TOTE) workshops covering various topics and related activities that teachers can easily incorporate into their curriculum. Since including marine debris as a module for TOTE, there has been a decrease of single-use plastics in schools. Schools are installing water bottle filling stations and distributing reusable bottles and decreasing the use of straws and Styrofoam trays.

Accomplishment: The Weeks Bay Reserve has been successful in partnering with local and regional organizations to provide learning experiences that reach a variety of audiences, including previously underserved populations. These reserve-led experiences connect people to their watersheds and estuaries and result in tangible behavior change in communities, including increased financial

support for resilience activities like living shoreline installation and decreases in single-use plastics. Collective behavior changes such as these can enhance community resilience.

Evaluation Metrics, 2012-2017

Three performance measures and targets were selected by Weeks Bay Reserve staff to track during the five-year period of 2012-2017 as part of the NOAA 312 program evaluation process. These were selected from the Weeks Bay National Estuarine Research Reserve Management Plan 2007-2012. The metrics were approved May 18, 2012.

Metric 1 – Education Sector

Goal: Protect and improve habitat and biological diversity within the boundary of the reserve.

Objective: By 2017, develop and implement comprehensive education and interpretation programs to increase knowledge of target audiences to protect and improve habitat and biological diversity within the boundary of the reserve.

Strategy: The Reserve Education Plan calls for the implementation of comprehensive K-12 education and interpretation programs to strengthen student understanding, appreciation and stewardship of estuaries and associated coastal habitats in an effort to protect and improve habitat and biological diversity within the boundary of the reserve.

Performance Measure: Number of K-12 education programs held annually at the reserve that focus on the value and conservation of estuaries.

Target: 25 K-12 education programs held annually at the reserve focus on the value and conservation of estuaries.

Results:
Year 1 (2012–2013) = 40 education programs
Year 2 (2013–2014) = 47 education programs
Year 3 (2014–2015) = 37 education programs
Year 4 (2015–2016) = 30 education programs
Year 5 (2016–2017) = 32 education programs
Total = 186
Average per year = 37

Discussion: The reserve exceeded its target every year. The reserve's education partners who bring students to the reserve and who host programs at the site offer consistent praise of the quality of the programs and the expertise and knowledge of the reserve staff members providing the programs. The reserve education and stewardship staff work together to deliver programs.

Metric 2 – Training Sector

Goal: Improve decisions affecting estuarine and coastal resources.

Objective: By 2017, use the training and outreach center (Resource Center) for the capacity building of coastal resource managers in an effort to improve decisions affecting estuarine and coastal resources.

Strategy: The Reserve Education Plan calls for the implementation of comprehensive coastal training programs to utilize the Resource Center in building capacity for coastal resource managers and

strengthen understanding, appreciation, and stewardship of estuaries, coastal habitats, and associated watersheds to improve decisions affecting estuarine and coastal resources.

Performance Measure: Number of Coastal Training Program (CTP) workshops held annually targeting coastal resource managers and local decision makers and use reserve-specific research to support best management decisions to protect coastal estuaries.

Target: 5 CTP workshops at the reserve held annually target coastal resource managers and local decision makers and use reserve-specific research to support best management decisions to protect coastal estuaries.

Results:
Year 1 (2012–2013) = 9 CTP workshops
Year 2 (2013–2014) = 11 CTP workshops
Year 3 (2014–2015) = 5 CTP workshops
Year 4 (2015–2016) = 10 CTP workshops
Year 5 (2016–2017) = 10 CTP workshops
Total = 45
Average per year = 9

Discussion: The reserve met or exceeded its target every year. The recently retired Coastal Training Program coordinator is a natural connector and fostered valued relationships with partners and local stakeholders. This contributed to his understanding of their needs, and he hosted trainings that consistently met those needs.

During the evaluation period (October 2015 to July 2022), over 99% of the participants who completed the evaluation survey reported that the training was a good use of their time, and 85% reported that they learned something they intend to apply in their work or in future decision-making.

Metric 3 – Research Sector

Goal: Promote education, stewardship, and scientific research focusing on estuarine ecosystems.

Objective: By 2017, provide resources, support, and background data to facilitate independent research projects within the reserve and adjacent associated waters.

Strategy: The reserve will support and facilitate independent research projects of external researchers in the Weeks Bay Reserve boundary, the Weeks Bay watershed, and the Weeks Bay Coastal Area. Resources provided by the reserve include laboratories, lodging, and field sites. Support and facilitation mean providing background data, logistical support including access to reserve boats, and reserve staff time.

Performance Measure: Number of reserve-supported research projects initiated annually at the reserve that investigate the dynamics and function of estuaries.

Target: Three reserve-supported research projects initiated annually at the reserve that investigate the dynamics and function of estuaries.

Results:
Year 1 (2012–2013) = 3 reserve-supported research projects
Year 2 (2013–2014) = 6 reserve-supported research projects

Year 3 (2014–2015) = 5 reserve-supported research projects
Year 4 (2015–2016) = 4 reserve-supported research projects
Year 5 (2016–2017) = 2 reserve-supported research projects
Total = 20
Average per year = 4

Discussion: The reserve successfully met or exceeded its target for 4 of the 5 years for annually initiated research projects that focus on the dynamics and functions of estuaries.

Evaluation Metrics, 2017-2022

Approved June 28, 2019. The goals and objectives are from the 2017-2022 Weeks Bay Reserve Management Plan.

Metric 1 – Education Sector

Goal: Protect and improve ecosystem health and biological diversity within the boundary of the reserve.

Objective: Audience awareness of ecosystem health and biological diversity issues at the reserve increases through implementation and development of education programs.

Strategy: The Reserve Education Plan calls for the implementation of comprehensive K-12 education and interpretation programs to strengthen student understanding, appreciation, and stewardship of estuaries and associated coastal habitats in an effort to protect and improve ecosystem health and biological diversity within the boundary of the reserve. This will be accomplished by incorporating new technologies to enhance K-12 and Professional Teacher Development Programs, continuing to employ an aide and volunteers to assist with educational programs throughout the year, and providing opportunities for the reserve education staff to attend professional development programs and trainings. The reserve's long-time education coordinator retired in 2016 and a new staff member with fewer hours was hired, which resulted in a dip in the number of students contacted in 2017. The reserve is now working to build back its education program.

Performance Measure: From 2017-2022, the number of P-12 students reached by the reserve.

Target: From 2017-2022, 3,750 P-12 students reached at the reserve.

Results:
Year 1 (2017–2018) = 1,038 students
Year 2 (2018–2019) = 909 students
Year 3 (2019–2020) = 298 students
Year 4 (2020–2021) = 1,547 students
Year 5 (2021–2022) = 1,165 students
Total = 4,957 students
Average per year = 991 students

Discussion: With the onset of the COVID-19 pandemic in March of 2020, the reserve developed several live, virtually delivered education experiences to be able to continue to engage students. The reserve has exceeded its five-year target by the end of the first four years.

It should be noted that there was decreased staff support for the education program during the fifth year because the education coordinator was also serving as the interim reserve manager. She has been officially hired as the manager and continues to fulfill the duties of the education coordinator because that position has not yet been filled.

Metric 2 – Training Sector

Goal: Promote education, training, stewardship, and scientific research focusing on estuarine ecosystems.

Objective: All training events and materials will meet the needs of coastal decision makers.

Strategy: The reserve Coastal Training Program will utilize the Weeks Bay Resource Center and other facilities as appropriate to run training events that address management needs of the reserve and build capacity of coastal resource managers in an effort to improve decisions affecting estuarine and coastal resources. The reserve Coastal Training Plan calls for the implementation of comprehensive coastal training programs to utilize the Resource Center in building capacity for coastal resource managers and strengthen understanding, appreciation, and stewardship of estuaries, coastal habitats, and associated watersheds to improve decisions affecting estuarine and coastal resources. The Coastal Training Program will continue to cultivate training partnerships, maintain the CTP Advisory Committee, make its best effort to maintain the Regional Training Program website, and participate in local, regional, and national conferences related to priority issues. Target audiences often include coastal resource managers and local decision makers and use current, science-based information including data from reserve-specific research to support best management decisions to protect coastal estuaries.

Performance Measure: From 2017-2022, the number of Coastal Training Program events held by the reserve.

Target: From 2017-2022, 49 Coastal Training Program events held by the reserve.

Results:
Year 1 (2017–2018) = 17 Coastal Training Program events
Year 2 (2018–2019) = 16 Coastal Training Program events
Year 3 (2019–2020) = 11 Coastal Training Program events
Year 4 (2020–2021) = 15 Coastal Training Program events
Year 5 (2021–2022) = 9 Coastal Training Program events
Total = 68
Average per year = 14

Discussion: To date, the reserve has exceeded its target by 37%. During the evaluation period (October 2015 to July 2022), over 99% of the participants who completed the evaluation survey reported that the training was a good use of their time, and 85% reported that they learned something they intend to apply in their work or in future decision-making.

An additional note is that the Coastal Training Program coordinator retired about three-quarters of the way through the fifth year, resulting in the reserve relying on partners to fill in to deliver events that had been previously planned prior to the coordinator leaving. It is anticipated that the Coastal Training Program coordinator position will be filled in the near future.

Metric 3 – Research Sector

Goal: Promote education, training, stewardship, and scientific research focusing on estuarine ecosystems.

Objective: Independent researchers receive resources, support, and data for projects within the reserve and associated areas.

Strategy: The reserve will support and facilitate independent research projects of independent researchers in the Weeks Bay Reserve, the Weeks Bay watershed, and the Weeks Bay Coastal Area. Resources provided by the reserve include laboratories, lodging, and field sites. Support and facilitation mean providing background data, logistical support including access to reserve boats, and reserve staff time. The reserve will continue its efforts to provide these resources as appropriate to support research projects in the Weeks Bay Coastal Area. The target is set lower than performance over the previous five years because the reserve is primarily a facilitator of research and does not have direct control of the number of research projects carried out at the reserve.

Research performance measures are measured by calendar year, not cooperative agreement cycles.

Performance Measure: From 2018-2022 (measured in calendar years), the number of research projects being carried out within the reserve that investigate the dynamics and function of estuaries.

Target: From 2018-2022 (measured in calendar years), 15 research projects being carried out within the reserve that investigate the dynamics and function of estuaries.

Results:
Year 1 (2018) = 11 research projects
Year 2 (2019) = 5 research projects
Year 3 (2020) = 3 research projects
Year 4 (2021) = 2 research projects
Year 5 (2022) = 3 research projects
Total = 24

Discussion: By the end of the second year, the reserve exceeded its target. Year 1 captured ongoing prior projects, while Years 2-5 only counted new projects. With the expertise and support of the research and monitoring program staff and facilities, such as the expanded capacity of the research dormitory, the reserve continues to successfully attract researchers and foster collaboration.

Conclusion

For the reasons stated herein, I find that the Alabama Department of Conservation and Natural Resources is adhering to the programmatic requirements of the Coastal Zone Management Act and its implementing regulations in the operation of its approved Weeks Bay National Estuarine Research Reserve.

These evaluation findings contain two recommendations that must be considered before the next regularly scheduled program evaluation. Program recommendations that must be repeated in subsequent evaluations may be elevated to necessary actions.

This is a programmatic evaluation of the Weeks Bay National Estuarine Research Reserve that may have implications regarding the state's financial assistance awards. However, it does not make any judgment about or replace any financial audits.

Jeffrey Payne

2/7/2023

Jeffrey L. Payne, Ph.D.
Director
NOAA Office for Coastal Management

Date

Appendix: Response to Written Comments

Seven written comments in the form of letters of support were received during the public comment period.

L.G. Adams,
former Weeks Bay Reserve Manager

Mr. Adams provided comments in support of the work of the reserve staff, volunteers, partner organizations, and state agency. He acknowledged the challenges created by the pandemic and recognized the resilience, dedication, adaptability, perseverance, and hard work of reserve staff in meeting those challenges. He offered the following suggestions:

- Continue vital work on coastal conservation through land acquisition building on recent success
- Continue to strengthen partnerships in working together to meet local and regional needs
- Work closely with friends (SALT) and volunteer groups to best foster community support
- Continue to engage/utilize advisory groups and state agencies (State Lands Division) to support programs
- Fill manager position at reserve with full-time position to move on past interim appointment
- Fill vacant positions, i.e., Administrative Assistant, Maintenance Worker; Education Coordinator, Coastal Training Program Coordinator, and Volunteer Coordinator.
- Replace watershed signs as outreach within the community; signs worn out, hard to read.

Mr. Adams noted in the conclusion of his comments that only with a full staff does the reserve have the potential to best flourish and meet future opportunities for growth as well as challenges with strategic success.

> **NOAA Office for Coastal Management Response:** The evaluation team thanks Mr. Adams for sharing his comments and observations from his perspective of having served as the reserve manager for 25 years. The evaluation findings highlight the reserve's success in land acquisition, fostering and maintaining partnerships, and engaging volunteers, as well as the staffing challenges the reserve has experienced during the evaluation period. Since the close of the evaluation period, the reserve has successfully filled four of the vacant positions Mr. Adams noted. The manager and the maintenance supervisor both started on August 1, 2022; the Administrative Assistant position start date was November 28, 2022, and the Coastal Training Program Coordinator started on January 16, 2023.

Julian Walthall, former president of the Baldwin County Master Gardeners program offered comments of support for the reserve staff and their work. Julian commented that the reserve staff have been exceptionally helpful in providing the use of the reserve facilities for several Master Gardener projects, including the two annual plant sales and their certification educational programs. Julian also noted the

value of the pitcher plant bog as a treasured educational excursion for the Master Gardener program members and friends, and also shared that the reserve brings great value in the training and education opportunities about the importance of coastal land and water in an area that is experiencing increasing development.

> **NOAA Office for Coastal Management Response:** The evaluation team thanks Mr. Walthall for his comments, participation in the public meeting, and ongoing support of the reserve. The evaluation findings discuss the importance of partnerships with organizations including the Baldwin County Master Gardeners program and recognize the achievements of the training and education programs.

Rick O'Connor, Escambia County Extension Agent for Florida Sea Grant Escambia County, expressed his appreciation for the reserve's support of the Florida Master Naturalists visits to the reserve. Rick commented on his partnership with the reserve in working on invasive species issues and mangrove monitoring and their efforts to control the invasive species and educate people about potential new ones. He noted that the reserve staff is responsive, knowledgeable, and a friendly team to work with.

> **NOAA Office for Coastal Management Response:** The evaluation team thanks Mr. O'Connor for his comments and for Florida Sea Grant Escambia County's ongoing partnership with the reserve and support of its work. The evaluation findings highlight the progress the reserve has made in working to control invasive species and the importance of the reserve's role in providing education about invasive species.

Allison Fletcher, Lehrter Lab Manager, Dauphin Island Sea Lab, provided comments of support for the reserve staff members and the role they have in stimulating and facilitating marine science research. After attending a microplastics workshop at Weeks Bay Reserve when she was a master's student, she was inspired to study how microplastics can act as a vector for heavy metals in marine systems. Her research showed that significant concentrations of numerous heavy metals do transfer from sediments and adsorb into microplastics. Ms. Fletcher commented that the reserve's participation in and support of other programs like the NOAA Margaret A. Davidson Fellowship and the Alabama Coastal Cleanup are crucial to understand and protect Weeks Bay and other estuaries like it.

> **NOAA Office for Coastal Management Response:** The evaluation team thanks Ms. Fletcher for her comments regarding the role the reserve had in her choice of course of study for her master's degree, as well as the experience her friend has had as a Margaret A. Davidson fellow at the reserve. The findings highlight the importance of results of studies that contribute to deepening the understanding of impacts to Weeks Bay and the region.

Randy Roach, former Weeks Bay Advisory Committee member, commends the Weeks Bay Reserve for providing an outstanding asset to the Gulf Coast region. Mr. Roach acknowledges the reserve's progress in protecting habitats adjacent to the reserve and in controlling invasive plant and animal species like tallow trees and feral hogs, as well the reserve's successful prescribed fire program. He recommended

additional management emphasis for the pitcher plant bog to ensure a burn frequency of at least every two years. Mr. Roach raised additional concerns about an increase in boat traffic and its connection to the erosion of habitat and loss of eelgrass along the Fish and Magnolia Rivers. He notes that although the no-wake zones implemented for safety may be a sensitive issue, they have benefited the ecosystem. To address the low dissolved oxygen and high bacterial counts in the dead end canals on the west side of the Fish River, he suggests the use of oil spill funding to eliminate the dead ends by filling and restoring them to improve habitat for fish, birds, and mammals. Mr. Roach looks forward to continued work with the reserve.

> **NOAA Office for Coastal Management Response:** The evaluation team thanks Mr. Roach for his comments and concurs that the reserve's prescribed fire program and the work in controlling invasive species represent great progress in restoration of the reserve's ecosystems. The Marsh Restoration in Fish River, Weeks Bay, Oyster Bay, and Meadows Tract project work Mr. Roach referenced is being implemented by NOAA in partnership with the state of Alabama according to the RESTORE Act Funding Priorities List 1. More information is available on this fact sheet. The success of the stewardship work has been highlighted in the evaluation findings, and Mr. Roach's suggestions for further restoration work have been shared with the reserve for consideration.

Chris Verlinde, Florida Sea Grant Extension, commented that she has had the opportunity to work with the reserve for over 20 years and feels the reserve research, coastal program, and education staff do a great job maintaining the mission of the reserve. She emphasized the importance of their regional reach and impact and notes that she is included in all program announcements, surveys, and general information about the reserve and the National Estuarine Research Reserve System. Ms. Verlinde expressed the importance of the reserve to Florida Sea Grant's Florida Master Naturalist Team, which holds the field modules at the reserve. She commented that the Florida Master Naturalist team brings class participants to the reserve because it serves as a wonderful place to learn about wetland and coastal systems, as well as the maintenance involved in conservation of these areas. The Master Naturalist participants often make return visits to the reserve with their friends and family. Ms. Verlinde looks forward to working with the reserve staff in the years to come.

> **NOAA Office for Coastal Management Response:** The evaluation team thanks Ms. Verlinde for her comments and ongoing partnership with the reserve. The evaluation findings highlight the success of such partnerships and the work of the Coastal Training Program.

Debbie Quinn, Chair, Weeks Bay National Estuarine Research Reserve Advisory Committee, offered comments that acknowledge the shifts in the reserve and foundation staff and the challenges of change. Ms. Quinn expressed that the pace of the state's hiring process and approving funding for facilities maintenance is a challenge. She shared that Mike Shelton, the former Coastal Training Program coordinator, had crucial relationships with county and city entities as well as deep institutional knowledge of the reserve due to his long tenure. She expressed concern that with his retirement, the reserve has lost that knowledge and those relationships and what that may mean about the reserve's ability to address issues such as changes in storm water regulations. Ms. Quinn stated that she feels the

reserve ought to direct the conversation with the county government about changes in stormwater regulations.

NOAA Office for Coastal Management Response: The evaluation team thanks Ms. Quinn for her comments and concurs that Mike Shelton's retirement is a loss to the reserve and the region. The evaluation findings discuss the importance of maintaining institutional knowledge and relationships as well as acknowledge concerns about the pace of the state's hiring process. The reserve anticipates continuing to provide technical assistance and education in support of state and county governments in their efforts to address stormwater management.

Weeks Bay Advisory Committee

Weeks Bay National Estuarine Research Reserve

July 5, 2023

MEMORANDUM

TO: Weeks Bay Advisory Committee

FROM: Debbie Quinn, Chair

SUBJECT: Advisory Committee Meeting

The Weeks Bay Advisory Committee meets **Wednesday, July 5, 2023,** at **2:00 PM** and will be held virtually. Remember, if you are unable to attend, please make every effort to send a proxy for your seat on the Advisory Committee.

The following is the preliminary Agenda for the WBAC meeting.

AGENDA

WEEKS BAY ADVISORY COMMITTEE

Call to Order

1. Approval of Minutes for September
2. Manager Report:

• Management	Operations and management of Reserve
• Research	Research and monitoring at the Reserve
• Education	Ongoing educational programs at Reserve
• Stewardship	Stewardship and outreach activities
• Watershed/CTP	Update on watershed & CTP activities

3. Other Business
4. Adjourn

Please notify Angela Underwood at 928-9792 angela.underwood@dcnr.alabama.gov if you would like to add discussion items to the agenda.

11300 U.S. Highway 98 - Fairhope, Alabama 36532 - Phone: (251) 928-9792 - Fax: (251) 928-1792

MINUTES

Weeks Bay National Estuarine Research Reserve
Advisory Committee Meeting
July 5, 2023

Call to order:
The scheduled quarterly meeting of the Weeks Bay Advisory Committee was called to order on July 5, 2023, at 2:00 PM.

Board Member Attendance:
Debbie Quinn, Chairwoman
Kevin Anson
Ashley Campbell
Roger Clay
Katherine Kuhn
Patti McCurdy
Autumn Nitz
Randy Roach
Will Underwood, nonvoting

Members Not Present:
Sommer Calderone
Chris Elliot
Jennifer Fidler
Tom Hartner
Larry Morris
Richard Moyer
PJ Waters

Reserve Staff in Attendance:
Eric Brunden
Scott Phipps
Angela Underwood
Sarah Johnson
Cory Powell

Others in Attendance:
Matt Chasse
Doug Deaton

Approval of Previous Minutes:
Minutes were not approved due to lack of a quorum.

Old Business:
No old business was brought forward for discussion.

New Business:

Reserve Manager Report:

- Director of State Lands Division Patti McCurdy updated the committee on the passing of the Reserve Margaret A. Davidsons fellow, Jacob Dybiec.
- Reserve Manager Angela Underwood updated the committee on the status of Reserve operations.
    - Staff went to the Gulf of Mexico Alliance All Hands meeting in June.
        - Angela – Chair & State Lead for Alabama Education & Engagement Teams.
        - Eric –State Lead for Alabama Habitat Resources Team.
        - Sarah – State Lead for Data & Monitoring Team.
        - Marine Debris Cross Team – GOMA applied for money through NOAA Marine Debris Program and will work across all 5 Gulf states to remove large marine debris including abandoned and derelict vessels (ADVs). In Alabama, Alabama Law Enforcement Agency (ALEA) has legal right to remove vessels. They've already identified 40-45 vessels to remove through this program.

Discussion:
Patti – The reason ALEA is involved is a statute was passed clarifying their jurisdiction for those removals. GOMA is the grant recipient and will handle administrative management. After they have removed identified vessels there is another amount of Federal funding for removal that will be available competitively as additional people and agencies come forward with derelict vessel situations.

- Staff are all working on revision of the 5-year management plan. Patti and Doug have reviewed the strategic portion and it has been sent to Matt for review (Matt confirmed receipt). We are scheduled to have a draft submittal to NOAA by November. When they come back with comments, we'll make revisions on that and there will be a public comments period probably after the first of the year. This will be important for the Advisory Committee to review and comment.

Research Report:
Reserve Research Coordinator Scott Phipps reported on Research.

- Margaret Davidson Fellowship: Each fellowship is for a two-year period, so proposals are reviewed and selected every other year. The call for proposals starts in the summer (now for the upcoming competition) with final proposals due mid-December. The timeline for review is January – February and by March to early April the selection is made. Fellowship starts when the fiscal year of the University starts, usually June – October. We will be doing outreach for Universities in Alabama and other universities as well to solicit applications. The recipient is listed as a recipient and can show they brought in funding for their own research which will help fellows in their job search. The funding levels are competitive with other fellowship programs. Part of the funding is for their actual research and there is money available for travel to present the results of research. All information on the Margaret A. Davidson is on their website (https://coast.noaa.gov/nerrs/research/davidson-fellowship.html).

- Storm Resilient SWMP Platforms: We're getting very close to the installation of our resilient platforms. NOAA with the help of the U.S. Naval Academy came up with a design for monitoring platforms to withstand hurricanes. The stability of the platforms not only keeps us from losing the stations during a hurricane (lost two stations during Sally) but also helps us to monitor water depth more accurately. We will also be able to put sensors out to retrieve data through storms accurately and continuously.

Discussion:
Matt – Finally moving forward on it and are just waiting on a few environmental compliance pieces. There are two other reserves (North & South Carolina Reserves) that are part of this pilot who are installing stations. This is a completely voluntary pilot that Weeks Bay volunteered to do, and we're glad they did.

Roger – What makes the platforms more secure?

Scott – They are very large fiberglass reinforced polymer (FRP) pilings. They will be buried very deep where they are stable and won't catch as many waves and debris strikes. It is a single piling design which is more stable than multiple pilings. They'll be strong enough to support equipment and withstand the storm & part of the design will be stainless steel bracketing system for sensors.

Matt – The FRP pilings will be engineered to survive specific loading of force under water, at the surface of the water, air, wind, debris and waves.

Education Report:
Education Coordinator Cory Powell reported on Education.

- Adult and K-12 visits – boat tours, guided walks, educational programs – 100 students, 78 adults for May 10 – July 5
- Community of Practice Meeting in Sarasota, FL
- Gulf of Mexico Alliance All Hands Meeting
    - Introduction to GOMA, EE teams
- Alabama Wildlife Habitat Education Program state contest
- Down by the Bay TOTE–July 10-11 & July 13-14

Discussion:
Angela – Alabama Wildlife Habitat Education Program through extension & do a state contest every year. The students are very smart – it gives us hope for students who will be in our jobs one day. Participants were mainly from the northern part of the state. We were able to do education programming with the students and also with their parents.

Stewardship Report:
Stewardship Coordinator Eric Brunden Reported on Stewardship.

- Boat trips for K-12 and adult groups and Coastal management class for Dolphin Island Sea Lab

- Eagle Scouts have volunteered to give us a plan for raised beds and working with Master Gardener volunteers to improve flower beds in front of visitor center.
- At the GOMA meeting we talked about many topics: Eric Sparks is going to be here July 18 hosting a workshop here regarding living shorelines and some training with local, private individuals that may be considering living shorelines.
- Working on finishing the management plan draft.
- It's been hard with bad weather to move equipment to fire lanes and are waiting for it to dry out some.

Discussion:
Debbie – Is information on the Living Shorelines workshop on the website and can they sign up for that?
Eric –I believe there are two living shoreline workshops coming up and Johanna has been letting people know.

CTP/Watershed Report:
Angela Underwood reported on Coastal Training.

Johanna is not on today as she is in a CTP meeting with NERRS.

- Attended CTP Spring Virtual Meeting
- Hosted 2 workshops:
  - Water Watch Training (May)-partners Graham Creek Nature Preserve and Baldwin Co Planning & Zoning Dept.
  - Alabama Private Well Program (June)-partner Auburn University
- Planned workshops/training
  - Living Shorelines Permitting Workshop for Florida with FL Extension
  - Living Shorelines for Homeowners Workshop-in person at the Resource Center; information on Facebook and Reserve website
  - First Aid/CPR/AED staff training; staff must be recertified every two years
  - Wilderness First Aid staff and conservation officer training
- Participating in CTP virtual training "Serving with Dignity: How to engage communities experiencing change, conflict, and scarcity"

Discussion:
Eric – The living shorelines for homeowners workshop is a GOMA GulfStar funded project.

Patti – GulfStar funding is another segment of GOMA. It is a business group that provides funding for certain projects and programs. This is money coming in from the private sector and utilized as GOMA teams prioritize & determine what work needs to be done within the six priority issue teams that Angela went through earlier. It is a great public/private partnership.

Other Business:

Debbie – any other business to discuss or questions. Our next meeting is September.

Patti –The Forever Wild Land Trust next quarterly meeting is August 3 and will be at University of South Alabama at 10:00 a.m. Should be convenient for anyone who would like to come. Open to public. 15-member board who directs funding through the land trust program.

Debbie –I'll try and go. Do you know if there is any property in this area they are interested in?

Patti – We do not have the scoring finalized. The short list is ongoing as we receive nominations. It will be closer to the meeting time before the scoring is completed. I expect there might be properties on the short list that might be of interest to some.

Angela – Our next advisory committee is September 20th.

Matt – I appreciated the presence the State and Reserve had at the GOMA meeting and being strong in your representation for the State.

Kevin – Do you have the December meeting date?

Angela – It is December 13th.

Will – We have hired Chris Nix, a wildlife biologist who is now working with us in the State Lands Division working with the CZM program and the Reserve to help us in with administering and building the capacity for the Bipartisan Infrastructure Law funding that we have both received and are eligible to apply for. Started on May 16th and has been reviewing part of the management plan work related to acquisition areas and other areas that might be potential for acquisition and other management plans for properties. Very happy to have Chris on board. Hopefully at the next Advisory Meeting you'll all have a chance to meet him.

Debbie – Any other questions?

Randy – Is there a date for the Living Shoreline workshop?

Debbie – July 18th. I'll call for a motion to adjourn.

Motion to adjourn by Randy Roach.
Kevin Anson seconded.
Meeting adjourned at 2:51 pm.

Weeks Bay Advisory Committee

Weeks Bay National Estuarine Research Reserve

September 15, 2023

MEMORANDUM

TO: Weeks Bay Advisory Committee

FROM: Debbie Quinn, Chair

SUBJECT: Advisory Committee Meeting

The Weeks Bay Advisory Committee meets **Wednesday, September 20, 2023,** at **2:00 PM** and will be held virtually. Remember, if you are unable to attend, please make every effort to send a proxy for your seat on the Advisory Committee.

The following is the preliminary Agenda for the WBAC meeting.

AGENDA

WEEKS BAY ADVISORY COMMITTEE

Call to Order

1. Approval of Minutes for September
2. Manager Report:

- Management — Operations and management of Reserve
- Research — Research and monitoring at the Reserve
- Education — Ongoing educational programs at Reserve
- Stewardship — Stewardship and outreach activities
- Watershed/CTP — Update on watershed & CTP activities

3. Other Business
4. Adjourn

Please notify Angela Underwood at 928-9792 angela.underwood@dcnr.alabama.gov if you would like to add discussion items to the agenda.

MINUTES

Weeks Bay National Estuarine Research Reserve
Advisory Committee Meeting
September 20, 2023

Call to order:
The scheduled quarterly meeting of the Weeks Bay Advisory Committee was called to order on September 20, 2023, at 2:00 PM.

Board Member Attendance:
Kevin Anson
Sommer Calderone
Ashley Campbell
Roger Clay
Patti McCurdy
Randy Roach
Katherine Kuhn, nonvoting
Will Underwood, nonvoting

Members Not Present:
Debbie Quinn, Chairwoman
Autumn Nitz
Chris Elliot
Jennifer Fidler
Tom Hartner
Larry Morris
Richard Moyer
PJ Waters

Reserve Staff in Attendance:
Eric Brunden
Scott Phipps
Angela Underwood
Sarah Johnson
Cory Powell
Johanna Gertsch

Others in Attendance:
Chris Nix

Approval of Previous Minutes:
Minutes were not approved due to lack of a quorum.

Old Business:
No old business was brought forward for discussion.

New Business:

Reserve Manager Report:

- Reserve Manager Angela Underwood updated the committee on the status of Reserve operations.
    - Discussion on bylaws of Advisory Committee and what constitutes a quorum. We haven't been voting on minutes. Angela and Patti will read bylaws and discuss. Will put discussion of bylaws on the agenda at a future date.
    - Submitted 3 Letters of Intent for the NERR Habitat Protection and Restoration BIL Competition.
        - Restoration Planning at the Foley Tract
        - Living Shoreline at the East Gateway Tract
        - Restoration on the Damson Tract
- Staff are continuing to work on revision of the 5-year management plan.

Research Report:

Reserve Research Coordinator Scott Phipps reported on Research.

- **Marsh Methane Research**: 27 coastal marshes around the coast of the U.S. (22 NERRs). Role of methane emissions in the carbon cycle of marshes. Methane emissions are predictable at higher salinities but in low salinity, brackish marshes with high nitrogen availability (like Weeks Bay), there is a higher level of variability. A journal article is in preparation.
- **Alabama Water Resources Conference:** September 6-8 in Orange Beach. Presentations that highlighted research either within or including sites within the Weeks Bay Reserve.
- **Jacob Dybiec's Research:** final data collection will take place in October, finishing up the 2nd year of field work. This work investigates the interaction of wave energy and nutrient enrichment on shoreline erosion.
- **New Research Projects:** mapping of the hydrology of the Swift Tract and a comparison of soil nutrient cycles in sites with a history of fire vs. sites where fire has been excluded.

Discussion:

Randy Roach asked for more information about Jacob Dybiec's research and how nutrient enrichment might affect shoreline erosion in regard to wave energy. Scott replied that when there is nutrient enrichment, the plant allocates more energy to above ground plant parts instead of roots and thus are less able to hold sediment.

Education Report:

Education Coordinator Cory Powell reported on Education.

- **Fieldtrips: 224 students, 83 adults**
    - TOTE workshop
    - Auburn University- NSF Research Traineeship
    - Outdoor Writers Association
    - Mississippi Master Naturalist
    - St. John Catholic School, Foley Middle STEAM Camp, Discovery Island School, Foley HS (6 classes), Baldwin Co Virtual School (high school)
    - Mentor for R'dale HS senior capstone project

- Foley Highschool – Marine Sciences Class – Watershed Game

- **Gulf Coast Phenology Trail**: will have volunteer training in winter
- **National Estuaries Week (Sept 16-23)**:
  - Seining (Mon & Thur), Kayak Trips (Wed & Sat), Reptile Encounter (Fri)

Discussion:
Kevin asked if the Reserve provides teachers with opportunities to evaluate and give feedback? Cory answered that TOTE trainings have an evaluation and then 6-month follow-up evaluation. Also work with teachers to provide fieldtrips based on their needs and we provide a survey for fieldtrips.

Stewardship Report:
Stewardship Coordinator Eric Brunden reported on Stewardship.

- Boat trips for K-12 and adult groups
- Coastal Cleanup: 32 volunteers
- Continue to work with Master Gardeners on landscaping at visitor center
- Invasive Species Removal
- Working on BIL LOIs
- GulfCorps are starting soon

CTP/Watershed Report:
CTP Coordinator Johanna Gertsch reported on Coastal Training.

- Hosted 3 workshops:
  - Living Shorelines Permitting Workshop
  - Living Shorelines for Homeowners Workshop
  - First Aid/CPR/AED staff training
- Upcoming workshops:
  - Landscaping with Natives Class—waitlist!
  - Wetland Plant ID Class
  - Wilderness First Aid Class

Other Business:

Patti –The Forever Wild Land Trust next quarterly meeting is November 2 at Auburn University at 10:00 a.m.
Ashley Campbell—Turnbull property [west of the Meadows tract] is being cleared.
Katherine Kuhn--BirdFest, Oct 4-7
Will – Introduced Chris Nix who is working with CZM and the Reserve on BIL applications.
Randy-complimented presentation and use of slides.

Motion to adjourn by Randy Roach.
Kevin Anson seconded.
Meeting adjourned at 2:49 pm.

Weeks Bay Advisory Committee

Weeks Bay National Estuarine Research Reserve

December 13, 2023

MEMORANDUM

TO: Weeks Bay Advisory Committee

FROM: Debbie Quinn, Chair

SUBJECT: Advisory Committee Meeting

The Weeks Bay Advisory Committee meets **Wednesday, December 13, 2023,** at **2:00 PM** and will be held virtually. Remember, if you are unable to attend, please make every effort to send a proxy for your seat on the Advisory Committee.

The following is the preliminary Agenda for the WBAC meeting.

AGENDA

WEEKS BAY ADVISORY COMMITTEE

Call to Order

1. Approval of Minutes for September
2. Manager Report:

• Management	Operations and management of Reserve
• Research	Research and monitoring at the Reserve
• Education	Ongoing educational programs at Reserve
• Stewardship	Stewardship and outreach activities
• Watershed/CTP	Update on watershed & CTP activities

3. Other Business
4. Adjourn

Please notify Angela Underwood at 928-9792 angela.underwood@dcnr.alabama.gov if you would like to add discussion items to the agenda.

11300 U.S. Highway 98 - Fairhope, Alabama 36532 - Phone: (251) 928-9792 - Fax: (251) 928-1792

MINUTES

Weeks Bay National Estuarine Research Reserve
Advisory Committee Meeting
December 13, 2023

Call to order:
The scheduled quarterly meeting of the Weeks Bay Advisory Committee was called to order by Debbie Quinn on December 13, 2023, at 2:00 PM.

Angela asked Members to introduce themselves and give their positions.

Board Member Attendance:
Kevin Anson – Alabama Dept. of Conservation – Marine Resources Division
Sommer Calderone – Environment Studies Center
Ashley Campbell – Baldwin County Planning & Zoning
Roger Clay – Alabama Dept. of Conservation, Wildlife and Freshwater Fisheries Division
Randy Roach – US Fish & Wildlife Service - Retired
Jennifer Fidler – Rep. District 94; also serving proxy for Senator Elliott
Cindy Wilson – Secondary Supervisor for Science, Baldwin County Schools
Patti McCurdy –Alabama Dept. of Conservation, Director of State Lands Div.
Will Underwood, nonvoting – Alabama Dept. of Conservation, Coastal Section Administrator for State Lands Div.
Debbie Quinn - Chairwoman

Members Not Present:
Autumn Nitz
Chris Elliot
Larry Morris
Richard Moyer
PJ Waters
Jane Herndon
John Valentine

Reserve Staff in Attendance:
Eric Brunden – Stewardship Coordinator
Scott Phipps – Research Coordinator
Angela Underwood – Manager - WBR
Sarah Johnston – GIS Specialist – WBR
Cory Powell – Education Coordinator
Johanna Gertsch – Coastal Training Program
Karen Oliver—ASA II
Doug Deaton- Alabama Dept. of Conservation, Assistant Director of State Lands Div.

Approval of Previous Minutes:
Debbie asked for motion to approve minutes but questioned if there was a quorum. Will counted attendees, confirmed a quorum, and motioned to approve minutes. Roger seconded. Motion to accept minutes passed.

Old Business:
No old business was brought forward for discussion.

New Business:

Reserve Manager Report:

- Reserve Manager Angela Underwood updated the committee on the status of Reserve operations.
    - Invited to submit full proposals for 2 of 3 projects through the NERR Habitat Protection and Restoration BIL Competition
        - Living Shoreline at the East Gateway Tract
        - Restoration on the Damson and Ogburn Tracts
    - On 12/12 the contract was executed for the Pitcher Plant Bog Boardwalk construction project. There will be a pre-construction meeting on 12/15 with construction anticipated to start in the new year.
    - Management Plan came back from our NOAA liaison (Matt Chasse). We are reviewing comments and making edits. The next step is for a full NOAA review.
- Eric Brunden received the NERRS-NERRA Award for Outstanding Contribution

Discussion:
Debbie —That's an awesome award. Thanks for everything you do for Weeks Bay Reserve and all the kids you've impacted.

Patti —I know it involves working well with so many different people and all ages over all those years and your knowledge and expertise. Thanks for that and for how well you've conducted yourself.

Randy Roach—Eric & Angela, what is being proposed at the mouth of Weeks Bay?

Angela —We're going to work with an engineer to give us a design on what is going to help protect the shoreline the best without repairing the bulkheads. We're proposing to remove the rest of the bulkhead. It's washed out in sections and is being eroded behind that portion of the bulkhead. We're hoping it will be suitable for some small plantings off the edge.

Eric —TNC put in oyster castles adjacent to Pelican Point. We're seeing both the marsh and SAV's return there which is a good sign.

Research Report:

Reserve Research Coordinator Scott Phipps reported on Research.

- Drs. Olshansky and Alexander, from Auburn University, presented early results of their Weeks Bay research at the Water Resources meeting. They are expanding their work at Weeks Bay to include future prescribed burns on the Damson Tract, and they have added sites in the Ogburn Tract. The Ogburn Tract has been restricted from fire for many decades. This site will provide a reference for the Damson Tract and will ensure that they have pre-fire data for this tract. Weeks Bay plans to prepare the Ogburn Tract for the application of fire and start restoration of this site in the coming years.
- Drs. Dixie Cartwright, John Cartwright and Kerrie Geil, with Mississippi State University are working on an updated sea level model for Weeks Bay using advanced techniques to present visualization of predicted flooding of the areas right around our offices. Those techniques will utilize a virtual tour technique. When modeling is complete, visitors will be able to access imagery via a kiosk right in the Reserve and see nearby areas and what will change by storm impacts.
- Jessica Curl and Chris Anderson at Auburn University are investigating sediments along a transect from the headwater wetlands through the Fish River Watershed to the mouth of Weeks Bay. This project hopes to learn how nutrients are filtered by the wetlands and marshes around the Bay. This is a full watershed study.
- The Cherry lab in conjunction with Weeks Bay Research staff have completed the in-field data collection for Jacob Dybiec's Fellowship research. Dr. Julia Cherry's lab is now evaluating the data and they presented preliminary findings at CERF (Coastal and Estuarine Research Federation) meeting last month. Jacob Dybiec received his PhD posthumously in December. His work investigates the interaction of wave energy and nutrient enrichment on shoreline erosion.

Discussion:

Debbie – awesome that you're continuing his work. It was a very sad day for the Reserve when that occurred. I'm glad that his degree will be awarded. Thanks Scott, it's been very inspiring seeing the continued support for Jake's research and his lab. We're happy that we can do that as well.

Randy – asked about research on nutrients in the marsh. Are we talking about the edge of the marsh or way back in the marsh?

Scott—We know there are nutrients transferred through groundwater into the marsh & also through the river and bay, but we don't know if it impacts just the edge or if it moves deeper into the marsh. We think it does move deeper into the marsh but at an unknown level depending on how often the marsh is fully flooded. The same thing for the riparian wetland and headwater wetlands.

Scott—Also, our first MAD Fellow, Mai Fung, is going to her new job which is a NOAA funded post doc at University of Santa Barbara, CA. It's a very prestigious post-doc and she's excited to start that work. We're proud to have had someone of her caliber as our inaugural MAD Fellow.

Education Report:

Reserve Education Coordinator Cory Powell reported on Education.

- Fieldtrips: 298 students, 78 adults, plus 600 visitors at BirdFest Nature Expo.
- Dixon School of Arts and Sciences (Pensacola)
  - Fieldtrip for class
  - 3 separate trips three weeks apart for students conducting research. They did seining in the Bay and collected their research. This is a school that hasn't had a science teacher for three years. It was rewarding to work with them.
- CCS Saints, Foley HS (two fieldtrips), AL School of Math and Sciences, Nature Connect (3 fieldtrips).
- UWF Leisure Learning Society Boat Trip
- BirdFest Boat Trips (2) and Nature Expo
- NERRS Annual Meeting
- Cory and Johanna put on a Gulf Coast Phenology Trail Training (Dec. 8) Met with Gale from the National Phenology Trail Group, she came out and helped train us on nature connect app. One of the things the app shows is how to designate plants on our trails. Also, when they are blooming and fruiting so we can see how changing through times. We did get a good turnout for the meeting including some GulfCorps members.
- AMSTI will co-host a teacher professional development workshop here focused on GLOBE training for those teachers.

Stewardship Report

Reserve Stewardship Coordinator Eric Brunden reported on Stewardship. We have been very busy writing our grants in addition to boat trips and other things previously mentioned.

- Attended the NERRS annual meeting.
- GulfCorps – is back in session and clearing out fire breaks.
- Boat parade was a big hit and a lot of fun until the fog hit the river. Was a slow drive back. There were about 19-20 other participants with boats lit up and was a fun evening.
- Eric working with Eagle Scouts on raised garden beds adjacent to our pollinator garden.
- We are going to get the boat out when we have more favorable weather, high tide, etc., to prepare for Coast Guard inspection.

Angela – Thanks Eric. He has been instrumental in helping us write for BIL grants. Once we get those turned in, besides our management plan, we'll be working on some NOAA procurement acquisition and construction (PAC) proposals to help do some needed maintenance here at the Reserve.

Coastal Training

Reserve Coastal Training Program Coordinator Coastal Training Program Coordinator Johanna Gertsch reported on CTP.

Johanna – We've had a wide audience and many workshops.

- Landscaping with natives was very popular, it filled up quickly and we had a lot of Master Gardeners and representation from plant nurseries and landscaping companies.
- Wetland plant ID – we partnered with Auburn Water Resource Center, Baldwin County, and Alabama Extension. From that one we saw some people from Corps of Engineers, ADEM, Environmental Engineering groups Mobile Bay, and Mississippi Dept. of Marine Resources. It was a very wide audience which was good to see.
- Alabama Water Watch Training – we hosted multiple ones and had one that was just open to the public and then we also did a specific one for GulfCorps. We're getting more people trained on water watch quality.
- Wilderness First Aid Course– We had those on 12-5 & 12-6. They went very well, and I got to participate in that one and we all learned a lot. We had people from the Coastal section, Mississippi Dept. of Marine Resources, Wildlife and Fresh Water Fisheries and State Parks.
- Planning more workshops. One will be Landscaping with Native Plants since it was so popular. Also, Facilitation Basics, Nature-Based Solutions and Introduction to Wetland Identification and Delineation Class.
- Daphne Jubilee Festival of Arts outreach event.
- NOAA's Climate Resilience Regional Challenge. A funding opportunity collaborating with GBNERR, NERRA, MS-AL Sea Grant, City of Chickasaw, and City of Moss Point. Goal is to get funding to take an existing structure and turn it into a Community Resilience Hub. The main function is in the event of an emergency the hub would have solar power and battery backup. A place where community members, if they need to leave their home, could go in case of emergency. It could be a place to distribute supplies and be a place for first responders. It could also be a place for our coastal training workshops during non-emergency situations. We are in the process of writing a proposal for that now and we're also going to do a Community Resilience Index (CRI) in Chickasaw in January. We also want to sit down with emergency management, flood plain managers, the mayor and critical staff within the communities and see what areas they are prepared for in an emergency and what areas could use some improvement. We have someone from EPA coming to lead the CRI and Johanna will assist. Hopefully we can take that CRI to other communities.
- NOAA National Center for Coastal Ocean Science study--ecosystem services valuation and perceptions of prescribed fire in Alabama and Coastal Mississippi. The main part will be a survey. Recently they held focus groups to refine the survey.
- Attended NERRS Annual Meeting.

Other Business:

Patti – thanked Angela and the staff. There is a lot of work and detail that goes into writing the grant proposals and letters of intent. It's very important because this is 100% Federal money and there are things that would be difficult to find a match for if we had to. It's a great opportunity that we're taking seriously and is still competitive. I wanted to thank everyone and wish you a Merry Christmas.

Angela – I set the days for the upcoming Advisory Committee 2024 Meetings. We normally try for the third Wednesday of the month except for December: March 20, June 19, Sept 18, Dec 11.

Randy – I think we need to contact people who aren't attending to see if they still want to be on the committee.

Debbie – I know Angela and Patti want to get together and see if we can fill out the roster and I would be glad to help with that. There are a few people who have contacted me about being on the committee and I need to forward to Patti and Angela and see what we come up with.

Kevin – Congrats Eric, did you have any thoughts on award or want to say anything?

Eric – It was a significant surprise and was greatly appreciated & good to know you're being recognized for getting things done.

Will – The Reserve has two proposals they're writing for BIL funding. We're [ACAMP] also invited back for two full proposals, one for land acquisition in south Mobile County. The other for prescribed fire across Mobile and Baldwin Counties. To help get fire into some of the landscapes we have not been able to hit because of the nature of the fire lane work needed. We're hopeful that we can be competitive for those funding sources. There are several ACAMP funded projects within the Weeks Bay Watershed that are active now. One in Robertsdale, City of Loxley, and Magnolia Springs, all are working on comprehensive plans funded in part by ACAMP funds. Loxley is growing so fast and has a large footprint city limits wise. It has a big impact on the Weeks Bay Watershed. We're excited to work with Magnolia Springs, it's the first utilization by Magnolia Springs for ACAMP funding. Our next call for ACAMP proposals will be in January for October starts. They are for low-cost public access improvements and for planning. I appreciate everything the Reserve is doing and thank all of you for attending.

Ashley – Baldwin County has an environmental advisory committee and one of their annual events is to recognize environmental stewards of Baldwin County. We are starting to take applications for the environmental stewards for 2024 awards. We present them in April, and you can visit our website and there will be a link where you can nominate someone. It can be anyone you consider an environmental steward of Baldwin County. We present awards during Earth Day week at county commission and it's a nice event and we have 10 different categories. Please look at it and if you're aware of anyone please nominate them. Also, the environmental committee has several sub-committees and are working on farmland protection, water quality

for the county, looking at Fort Morgan shoreline erosion. There are a lot of different things going on in the area. There is also a link on the website, and you can look at what the advisory committee is doing – there are 14 Citizen Volunteers who meet once a month to help guide the commission. We are looking for a replacement in Commissioners' District 3, if you know of anyone who would like to serve have them contact me.

Debbie – any other items – none. Merry Christmas and Happy New Year – we'll see you in March. Motion to adjourn.
Motion to adjourn by Kevin Anson
Will Underwood seconded.

Meeting adjourned at 3:02pm

Weeks Bay Advisory Committee

Weeks Bay National Estuarine Research Reserve

March 13, 2024

MEMORANDUM

TO: Weeks Bay Advisory Committee

FROM: Angela Underwood, Manager

SUBJECT: Advisory Committee Meeting

The Weeks Bay Advisory Committee meets **Wednesday, March 20, 2024,** at **2:00 PM** and will be held virtually only. Remember, if you are unable to attend, please make every effort to send a proxy for your seat on the Advisory Committee.

The following is the preliminary Agenda for the WBAC meeting.

AGENDA

WEEKS BAY ADVISORY COMMITTEE

Call to Order

1. Approval of Minutes for September
2. Manager Report:

• Management	Operations and management of Reserve
• Research	Research and monitoring at the Reserve
• Education	Ongoing educational programs at Reserve
• Stewardship	Stewardship and outreach activities
• Watershed/CTP	Update on watershed & CTP activities
• Volunteer	Update on volunteer opportunities

3. Other Business
4. Adjourn

Please notify Angela Underwood at 928-9792 angela.underwood@dcnr.alabama.gov if you would like to add discussion items to the agenda.

Assessing Nature Based Solutions to Mitigate Flood Impacts and Enhance Resilience

Mobile Bay Compound Flood Modeling Project

30945 Five Rivers Boulevard, Spanish Fort, AL 36527

April 17, 2023

Objectives

- Attendees understand the CIROH project goals, objectives, timeline, and their role in shaping the project outputs
- To gather input on flood events that are of interest to attendees, and where these are occurring
- To understand management needs of attendees for future planning/development
- To understand the future conditions and timescales for which attendees are planning
- Attendees understand modeling constraints regarding flood mitigation strategies
- To identify mitigation strategies that will be implemented and locations where these will be implemented
- To understand metrics that indicate a mitigation strategy is successful
- To identify opportunities for collaboration around data and resource sharing
- To solicit input on what types of outputs/products are most useful to attendees

Agenda

8:30 am	**Arrival, Check-in, Survey**
9:00 am	**Welcome, Workshop Objectives, and Introductions** • Welcome to the workshop • Introduce workshop team • Review agenda, logistics, ground rules
9:15 am	**Ice Breaker, Rainfall Event Discussion*** • Ice Breaker in pairs or 3s • Rainfall event discussion

9:50 am	**Project Overview** • Project goals, objectives, and timeline • Incorporating social science
10:10 am	**10 Minute Break**
10:20 am	**Flood Events*** • Flood mapping activity
11:05 am	**Defining Compound Flooding*** • Presentation on compound flooding • Graph exercise
12:05 am	**Lunch**
12:50 pm	**Future Planning, Timescales** • Graphing activities • Group discussion
1:30 pm	**Mitigation Strategies** • Presentation on mitigation strategies • Model constraints, what can be used
1:45 pm	**Mitigation Mapping** • Mapping activities: 1. Mapping upcoming mitigation projects 2. Mapping past mitigation projects 3. Land use changes 4. Information gap mapping
2:55 pm	**10 Minute Break**
3:05 pm	**Opportunities for Collaboration*** • View maps as a group • Group discussion on collaboration opportunities
3:35 pm	**Outputs and End Products*** • How can outputs from this project be used?
3:30 pm	**Wrap-up** • Recap the day • Survey • Workshop Evaluation
4:30 pm	**Adjourn**

*Indicates sections that may be audio recorded

PENSACOLA
& PERDIDO BAYS
ESTUARY PROGRAM

Comprehensive Monitoring Workshop Agenda

Thursday, February 29th, 2024
9:00 AM – 3:00 PM CT
Bayview Community Center
2000 E Lloyd St, Pensacola, FL 32503

Goal:
Establish framework for Comprehensive Monitoring Program for Pensacola and Perdido Bays watersheds, including parameters, locations, frequency, and funding strategy for implementation.

Objectives:
1) Develop a list of monitoring sites, monitoring parameters, and monitoring frequencies
2) Determine what entities have capacity and funding to assist in filling data gaps
3) Develop criteria for a memorandum of understanding (MOU) among participating monitoring partners
4) Develop funding strategy for future monitoring

9:00 – 9:15	**Welcome, Introductions, and Workshop Overview** Coffee will be provided.
9:15 – 9:30	**PPBEP Monitoring Priorities 2024 and Beyond**
9:30 – 9:45	**Monitoring Partner Report Out** • Current monitoring locations, parameters, frequencies
9:45 – 10:00	**Break**
10:00 – 12:00	**Table Talk Session 1** • Ice breaker activity – Looking Back and Looking Forward • Parameter Frequency and Monitoring Prioritization activity • Map activity • Assessment criteria and target setting activity
12:00 – 12:30	**Lunch provided by PPBEP** **Vegetarian option available*
12:30 – 1:00	**Table Report Out**

PENSACOLA
& PERDIDO BAYS
ESTUARY PROGRAM

1:00 – 2:00	**Table Talk Session 2** • The Who, The What, The How activity
2:00 – 2:15	**Break**
2:15 – 3:00	**Table Report Out, Debrief, and Next Steps**

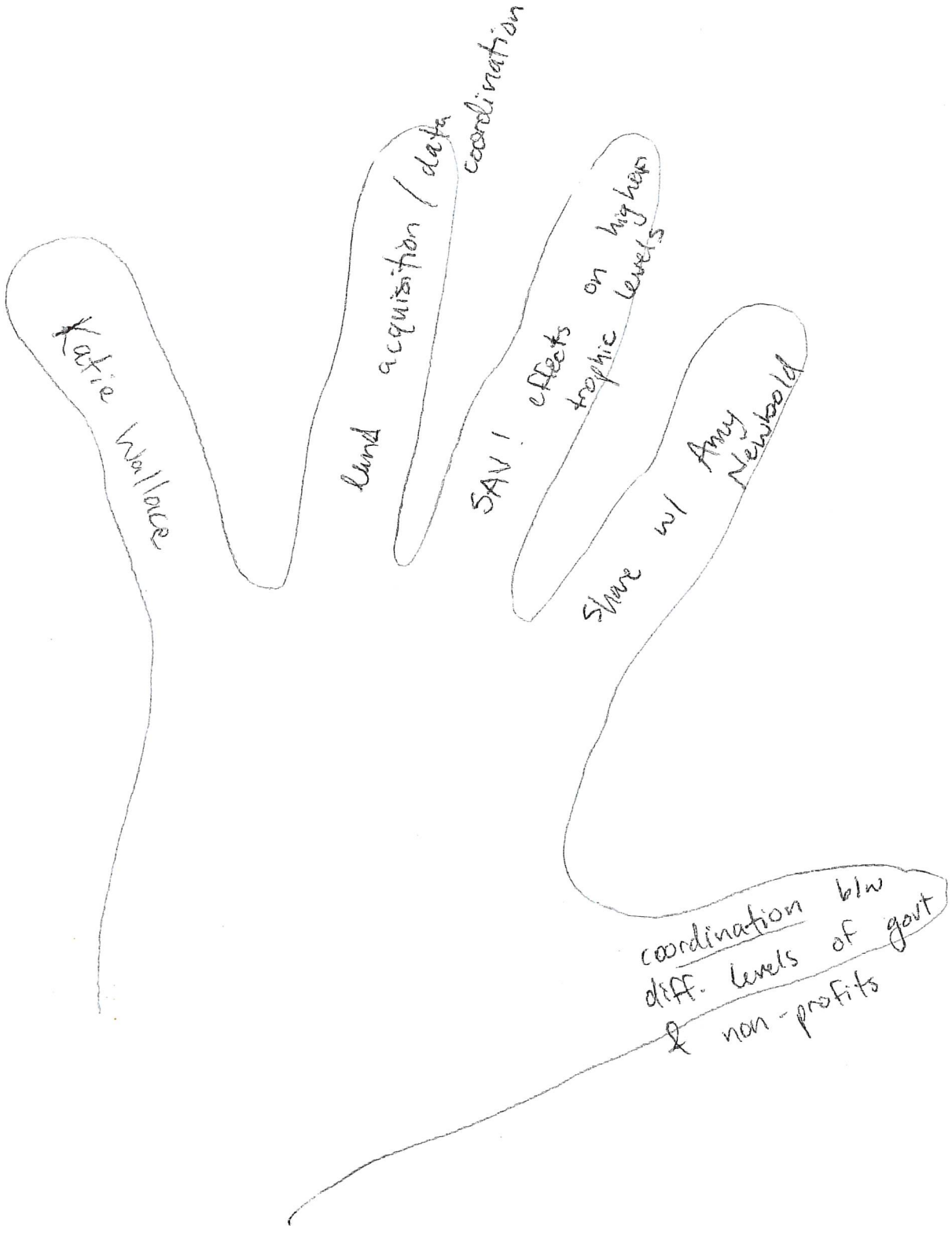

TABLE 4-2 BALDWIN COUNTY PHASE II MS4

NPDES Permit Section	SWMPP Section	4-Public Education & Outreach Strategy	Goal	Pollution Targeted	Responsible Departments
Part III-B1bv	*4.4.1*	*Local Partnerships*	*Eastern Shore MS4 Meetings in years one(1) through five(5), host or attend one meeting a year*	*All*	*P&Z*

ESMS4 Meetings	**Permit Year 2023/2024**		
	Date	**Meeting Topic**	**Attendance**
	4/27/2023	Template Ordinances	4

Daphne ALABAMA
The Jubilee City

BALDWIN COUNTY, ALABAMA

CITY OF FAIRHOPE ALABAMA

Environmental Advisory Coalition
Meeting Minutes
April 27, 2023, 1:30-2:30 Fairhope Satellite Office

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1. Attendance

Fairhope	Amy Paulson, Fairhope EAB Co-Chair / Joint-EAC Chair Gary Gover, Fairhope EAB Co-Chair
Daphne	Jesi Ward, Daphne Environmental Programs Manager
County	Ashley Campbell, BC Natural Resource Planner / Joint-EAC Secretary

2. New Items-The group discussed the next topic for review and ordinance creation. The group decided that Nature Base Solutions (NBS) would be our next ordinance. The NBS will include Public Properties Native Habitat, Low Impact Development for Stormwater, and Shoreline Stabilization.

3. Old Business –The group discussed the draft Stream and Wetland template ordinance. The group agreed to review the ordinance one more time to try to shorten it and make it easier to understand and enforce. The group also agreed to work with the Mobile Bay National Estuary Program to set up a template ordinance page for the Clean Water Future Stormwater Campaign. The partnership will allow the template ordinances to be available to any entity that wants to use them. Once we get the Stream and Wetland Ordinance finalized and set up on the page, we will work on a outreach campaign.

    a. Present the CWF Campaign to Our City, County
    b. Emails other cities and towns
    c. Attend Planning Commission and City Council Meetings
    d. Follow-up

4. The meeting ended around 2:40 pm.

5. Next Meeting Monday, June 26 at 1:30pm at Fairhope Satellite Court House.

CREATE A Clean Water FUTURE

cleanwaterfuture.com

TABLE 4-2 BALDWIN COUNTY PHASE II MS4

NPDES Permit Section	SWMPP Section	4-Public Education & Outreach Strategy	Goal	Pollution Targeted	Responsible Departments
Part III-B1	*4.4.1.1*	*Local Partnerships-Clean Water Future Campaign*	*Throughout permit cycle continue to support the Clean Water Future Campaign*	*All*	*P&Z*
2023/2024		Location	Link-Example		
		Baldwin County EAC Webpage	Environmental Advisory Committee (baldwincountyal.gov)		
		EAC Meeting Minutes	CWF Logo Use on Meeting Minutes		

TABLE 4-2 BALDWIN COUNTY PHASE II MS4

NPDES Permit Section	SWMPP Section	4-Public Education & Outreach Strategy	Goal	Pollution Targeted	Responsible Departments
Part III-B1	*4.4.2*	*Articles in Local Media & Brochures*	*In years one(1) through five(5) create and update a list of local media outlets*	*All*	*P&Z*
2023/2024		**Local Media**			**Contact**
		Paper & Magazines			Natalie Williamson
		Bulletin-ES Courier-Gulf coast News Media			Gabe Tines
		Lagniappe			Christian Miller
		MBNEP Coastal Connection			Mary Helene Hall
		Mobile Press Register - AL.com			**Contact**
		Radio & TV			Clark Stewart
		WHEP 1210 AM			Debbie Williams
		WKRG 5 TV Station			Erik Reynolds
		Fox 10			

TABLE 4-2 BALDWIN COUNTY PHASE II MS4
MCM 1 -Public Education Outreach Strategies and Goals

NPDES Permit Section	SWMPP Section	4-Public Education & Outreach Strategy	Goal	Pollution Targeted	Responsible Departments
Part III-B1	*4.4.2*	*Articles in Local Media & Brochures*	*Throughout the permit cycle, the County will submit or participate in five(5) Stormwater related materials/Facebook post/articles being released to local media outlet or social media*	*All*	*P&Z*
2023/2024					
Qty	Date	Media Source	Topic		
1	2/1/2024	Facebook Post	EAC Annual Stewardship Awards Nominations		
2	4/10/2023	Facebook Post	Gopher Tortoise Day		
3	4/18/2023	Facebook Post	EAC Annual Stewardship Awards		
4	4/24/2023	Facebook Post	Earth Day		
5	7/18/2023	Facebook Post	Living Shoreline Workshop		
6	Summer 2023	Ala Current Connection	Spring Branch Springing to Life		
7	8/10/2023	Facebook Post	MEE Training		
8	9/16/2023	Facebook Post	Coastal Cleanup		
9	9/25/2023	Facebook Post	Wetland Training Advertisement		
10	9/25/2023	Facebook Post	Wetland Training		
11	10/4/2023	Facebook Post	Birdfest		
12	11/3/2023	Facebook Post	Green Stormwater Infrastructure Workshop		
13	11/15/2023	Facebook Post	Sea Rise and the Impacts to Our Coast Workshop		
14	2/22/2024	Facebook Post	Baldwin County Envirothon		
15	3/20/2024	Facebook Post	Water Festival		
16	3/9/2024	Facebook Post	AWW Training		

Baldwin County, AL Commission

Published by Cloud Campaign · April 24 at 9:44 AM ·

Eastern Shore MS4 Partners Jesi Ward, City of Daphne; Kim Burmeister and Christina LeJeune, City of Fairhope; and Ashley Campbell, Baldwin County Commission join efforts at Mobile Bay Earth Day to educate citizens about Watersheds and Storm water pollution.

#EarthDay #MobileBayEarthDay #MobileDay

See insights and ads

Boost post

Baldwin County, AL Commission
Published by Cloud Campaign · 6d ·

Today, February 1st is the **LAST DAY** to **NOMINATE** for the **2024 Annual Environmental Stewardship Awards** in the following categories:

- INDIVIDUAL CITIZENS
- SMALL BUSINESS
- LARGE BUSINESS
- ENVIRONMENTAL ORGANIZATION
- EDUCATIONAL PROGRAM
- GOVERNMENT AGENCY
- STUDENT INITIATIVE
- AGRICULTURE/FORESTRY

The nomination form can be found at: https://tinyurl.com/5e93rz98. Please send all completed nomination forms to Rebecca Peacock by email at **rebecca.peacock@baldwincountyal.gov** by today, February 1, 2024!

See insights and ads

Boost post

1

1 share

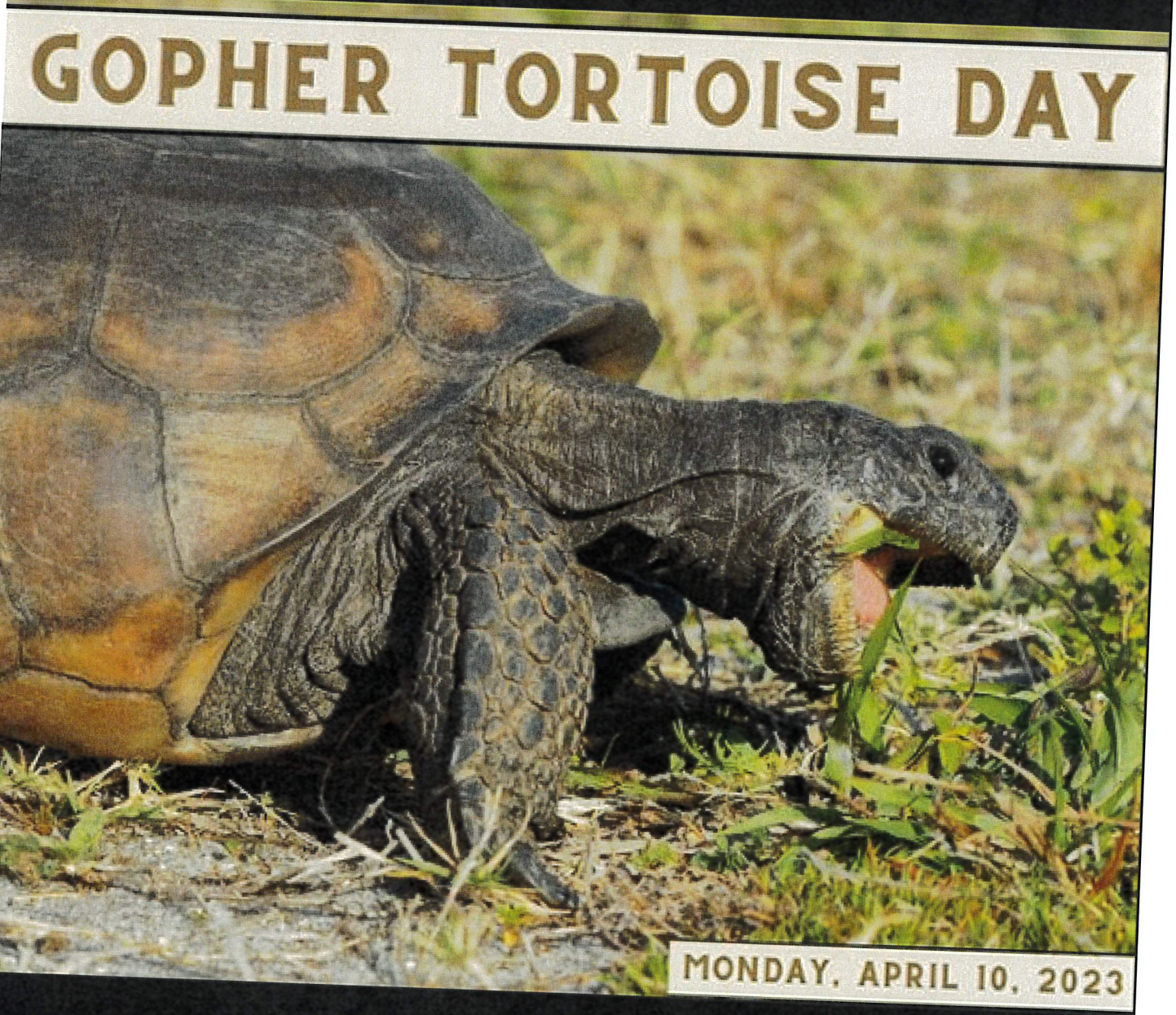
Baldwin County, AL Commission
Published by Cloud Campaign · 12m ·

Governor Ivey has designated April 10th as **Gopher Tortoise Day**. Let's spread community awareness on the gopher tortoise as we celebrate #gophertortoiseday!

Tortoises are land-dwelling, cannot swim well, and should not be put in the water. Over 350 other animals may live in gopher tortoise burrows, including the federally threatened Eastern indigo snake. If a gopher tortoise is in the roadway, move it across the road in the direction in which it was headed. Do not put your life in danger to move the tortoise!

The Gopher Tortoise Council was formed in 1978 for the conservation of gopher tortoises across the Southeastern United States. Learn more about the Gopher Tortoise Council here: http://www.gophertortoisecouncil.org

Threats to gopher tortoises include loss of habitat, gassing burrows for rattlesnakes, roadway strikes and people gathering them for the pet trade.



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Proclamation

By the Governor of Alabama

WHEREAS, the people of the State of Alabama treasure our wildlife and take pleasure in the natural heritage that has benefited generations of Alabamians; and

WHEREAS, the gopher tortoise is a much-beloved and iconic species of southern Alabama's natural communities and lives in twenty-six counties of the state; and

WHEREAS, the gopher tortoise is State protected in the eastern portion of its Alabama range and federally protected as threatened in Mobile, Washington and Choctaw counties; and

WHEREAS, gopher tortoises are ecologically important as a keystone species in upland habitats, providing habitat and refuge in their burrows for more than 350 communal wildlife species, including other imperiled species; and

WHEREAS, gopher tortoises help to sustain the ecology of South Alabama and provide our residents and visitors with a source of joy and appreciation for nature; and

WHEREAS, the gopher tortoise's habitat needs protection; and

WHEREAS, it is important for Alabamians to understand their role in conserving gopher tortoises; and

WHEREAS, raising awareness, through media, social media, exhibits, brochures and school and community outreach activities, increases appreciation and conservation of the species; and

WHEREAS, cooperation among many Alabama's public and private entities, including military bases and private landowners, has been vital to conserving gopher tortoises. Organizations and individuals must continue working together for the long-term survival of the gopher tortoise in its natural habitat;

NOW, THEREFORE, I, Kay Ivey, Governor of Alabama, do hereby proclaim April 10, 2018, as

Alabama Gopher Tortoise Day

in the State of Alabama and urge all citizens to engage in efforts to care for and preserve this beloved species.

Given Under My Hand and the Great Seal of the Office of the Governor at the State Capitol in the City of Montgomery on the 21st day of March 2018.

Kay Ivey

Kay Ivey/Governor

Baldwin County, AL Commission

Published by Cloud Campaign · April 18 at 11:51 AM ·

This morning, the Baldwin County Commission presented ten 2023 Environmental Stewardship Awards to citizens, businesses, and agencies that demonstrate sound environmental principals in their day-to-day operations in the hope that all citizens may learn from their examples.

The awards that were given today made the 100th Environmental Stewardship Awards given out in Baldwin County. Thank you all for doing your part for protecting and preserving the environment.

#EnvironmentalAwards2023 #2023EnvironmentalStewardshipAwards

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Baldwin County, AL Commission
Published by Cloud Campaign · 23 hours ago ·

Are you a waterfront property owner? This Living Shoreline Workshop could be for you! By attending this workshop, you will learn about living shorelines as natural alternatives to bulkheads for protecting your property.

Date: July 18, 2023
Time: 5:30 p.m. - 7:00 p.m.
Location: Tonsmeire Resource Center - 11525 US - 98, Fairhope, AL 36532

Sign up by scanning the QR code below, or by contacting Sara Martin by email at sara.martin@msstate.edu, or by phone at 662-268-2799.

MISSISSIPPI STATE UNIVERSITY
COASTAL RESEARCH & EXTENSION CENTER

YOU'RE INVITED TO OUR

LIVING SHORELINE WORKSHOP

JULY 18 2023

TONSMEIRE RESOURCE CENTER
11525 US-98
Fairhope, AL 36532

5:30 PM- 7:00 PM

THIS WORKSHOP WILL BE A LIVING SHORELINE WORKSHOP FOR WATERFRONT PROPERTY OWNERS IN BALDWIN COUNTY, ALABAMA.

AGENDA

- FREE DINNER
- SHORT PRESENTATION ON THE BASICS OF LIVING SHORELINES
- OPTIONAL ONE-ON-ONE CONVERSATIONS WITH A MEMBER OF THE LIVING SHORELINE TEAM

By attending this workshop, you will learn about living shorelines as a natural alternative to bulkheads for protecting your property. You will also have the opportunity to discuss your shoreline needs one-on-one with a member of our living shorelines team!

Coastal Conservation & Restoration

Sea Grant Mississippi-Alabama

Weeks Bay National Estuarine Research Reserve

SCAN QR CODE TO SIGN UP

Contact:
Sara Martin
Email: sara.martinemsstate.edu
Call: 662-268-2799

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4 comments 15 shares

A biannual newsletter of the Alabama Department of Conservation and Natural Resources, State Lands Division, Coastal Section and the Mobile Bay National Estuary Program

Alabama current connection

SUMMER 2023 • Vol. XVII, Issue 1

Spring Branch Springing to Life

By Marti Messick, Mobile Bay National Estuary Program
Photo by Jason Kudulis, Mobile Bay National Estuary Program

The results of the Spring Branch restoration are remarkable, even to those familiar with the world of stream stabilization. Three years ago, Spring Branch was caving in on itself. Today, it is a picturesque branch meandering into Fish River in Baldwin County. Native plants and flowers, like willow trees and *Coreopsis*, have begun to grow where a ravine had formed. Minnows and bronze frogs can be seen in the clear water as it gurgles and flows through the creek bed. Heavy rains no longer mean danger to adjacent property, nor send excessive sediment into Fish River and Weeks Bay. *Cont. on page 3*

Currently Inside

1 Spring Branch Springing to Life
2 Coastal Corner: Good Plans Coming Together
4 Estuary Reflections: Between the Tides
5 Support for Coastal Resilience Through ACAMP Funding
7 Watershed Planning Moves Mountains in Bon Secour
9 Weeks Bay Kayak Launch
10 Dredging Up Protection for Deer River Marsh
12 A Return to the Water
14 Losing a Coastal Alabama Champion, Gaining a New Perspective on Life
15 MBNEP Welcomes New Staff
16 Shape the Future of the Western Delta

Spring Branch Springing to Life

Cont. from page 1

A priority project in the Weeks Bay Watershed Management Plan, locals and Baldwin County officials have long been concerned about the conditions of Spring Branch. Headcuts create a domino effect on the riparian structure – collapsing banks, destabilizing trees, and introducing excessive silt and sediment creating a sandbar at the Cottages of Fish River Marina. In this deteriorating condition, downstream water quality and ecological function of the stream system suffer.

Local property owner, William Akridge, remembers the April 2014 flood. "The flood started exposing the Spring Branch area badly and is more than likely the main culprit. But it was also years of folks using [the area] as a dumping ground. In addition to the unsightliness, huge amounts of debris and sediment would make its way to the river anytime there was four inches or more of rain." Akridge said multiple cleanouts costing thousands of dollars were unsuccessful in stopping the ongoing issues.

This project, known as the Marlow project for the community in which it is located, was funded through the National Fish and Wildlife Foundation's (NFWF) Gulf Environmental Benefit Fund and was completed in August 2022. The project stabilized 1,437 linear feet of stream channel and re-established floodplain connectivity and riparian corridors. This multi-year project is a collaborative effort of the Mobile Bay National Estuary Program (MBNEP), the Baldwin County Commission, adjoining landowners, and contractors Thompson Engineering and Streamline Environmental.

In coastal Alabama, streams become degraded through natural causes, like heavy rains, and human causes like stormwater runoff. Stream degradation causes bank collapse as the sides of the stream are no longer able to support the weight of the soil, trees, or rocks. The caving in of the banks can lead to sedimentation, flood risk, habitat loss, and severe erosion of property. In some cases, it can be a safety hazard with the potential for falling trees, road or bridge collapse, or landslides.

While every stream project is unique and includes varying levels of complexity, MBNEP employs Regenerative Stormwater Conveyance techniques to emulate natural systems. This "green" option is used in place of "gray" traditional pipe and ditch infrastructure. There are advantages to designing with nature rather than against it, including less maintenance and cost, aesthetic improvements, enhanced environmental conditions, and reduced environmental impacts.

In addition to traditional project management elements (i.e., goals, objectives, engineering, and construction), the real locomotive pulling the train of every stream project is the people – property owners, concerned citizens, municipal officials, engineers, equipment operators, and scientists. By working together to solve complex problems, we are building collective capacity to improve stormwater management and care for resources. As we continue to build stream resilience, this model will reverberate across coastal Alabama to ensure it remains a place to be treasured now and in the future.

Akridge expressed gratitude for the project. "I am very thankful for the efforts of (then County Commissioner and Engineer) Chris Elliott and Joey Nunnally, and MBNEP's Roberta Swann. Once they were able to address the needs and get them appropriated, the team at MBNEP, led by Jason Kudulis, and actions put in place by David Smart and crew went as flawlessly as they could have gone."

Meet Bocephus – A Monitoring Assistant

Nicknamed Bocephus, this blue box contains instrumentation that is one part of the post-restoration monitoring strategy. It is used to gauge water quality, focusing primarily on turbidity (water clarity). To evaluate the success of the Marlow restoration project, the stream's turbidity and suspended sediment levels are checked and compared to geologic baselines.

Bocephus contains two main parts: a sensor to measure turbidity and a pump apparatus to pull water samples. Both components connect to a computer and data logger – the brains of Bocephus. The data logger allows the two pieces of instrumentation to interact. For example, data collected by the turbidity sensor can trigger the pump to sample water when certain turbidity thresholds are detected. This setup allows us to remotely sample water over the duration of a rain or storm event when turbidity levels typically rise and fall with precipitation levels. Additionally, Bocephus is equipped with the capacity to send updates via a cellular network. In other words, this device can send us emails telling us how it's doing!

Over the next several months, MBNEP staff will be making regular site visits to be sure Bocephus is well maintained, and Alabama Department of Environmental Management protocols are being followed. These regular visits will also help ensure quality data on sediment being transported in a variety of flow conditions can be gathered. The goal is to document that the work in Marlow results in improved water quality and ecologic function.

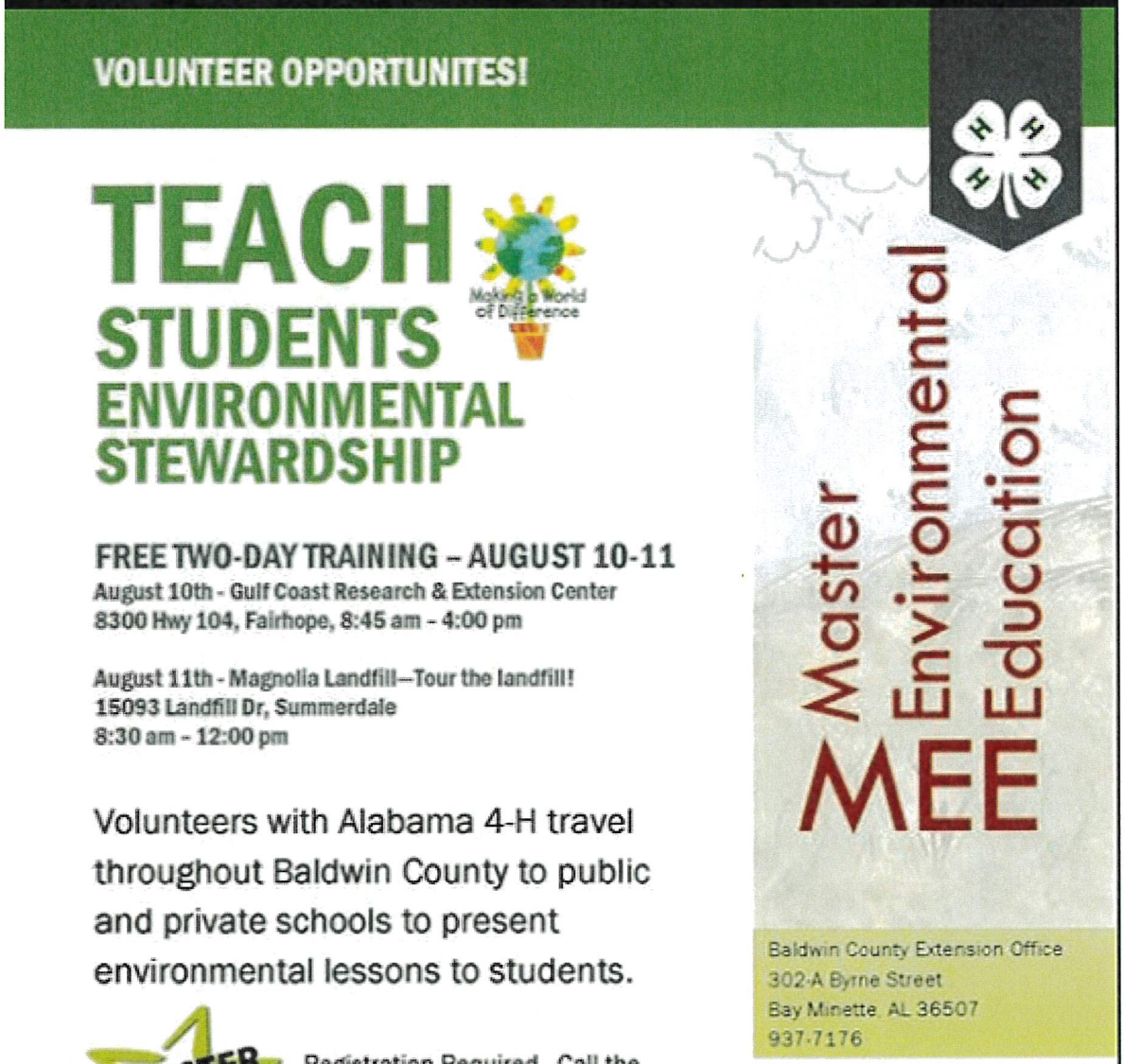
Baldwin County, AL Commission
Published by Cloud Campaign · 21m ·

FREE Two-Day "Teach Students Environmental Stewardship" Training August 10 - August 11.

August 10th from 8:45 a.m. until 4:00 p.m.
Gulf Coast Research & Extension Center: 7300 Hwy 104, Fairhope

August 11th from 8:30 a.m. until 12:00 p.m. (Tour of the Landfill)
Magnolia Landfill: 15093 Landfill Drive, Summerdale

Registration is required. Please RSVP by August 3rd by calling the Baldwin County Extension office at 251-937-7176 or emailing bannicj@eces.edu.



THE ALABAMA COOPERATIVE EXTENSION SYSTEM (ALABAMA A&M UNIVERSITY AND AUBURN UNIVERSITY), IS AN EQUAL OPPORTUNITY EDUCATOR AND EMPLOYER. EVERYONE IS WELCOME! BALDWIN COUNTY PROGRAMS ARE SUPPORTED BY THE BALDWIN COUNTY COMMISSION.

See insights and ads
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Baldwin County, AL Commission
Published by Cloud Campaign · Just now ·

Help ***Get the Trash Out of the Splash*** this coming Saturday, September 16th from 8 a.m. until 12 p.m. during the **36th Annual Alabama Coastal Cleanup!**

Interested in volunteering? Find your zone at: https://alabamacoastalcleanup.com/cleanupzones/

#CoastalCleanUp2023 #36thAnnualCoastalCleanup

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Baldwin County, AL Commission
Published by Cloud Campaign · 2h ·

‼️ LEARNING OPPORTUNITY ‼️
September 25, 26 & 27, 2023
Get the basics on wetland plant identification.
This course emphasizes botanical nomenclature; the use of plant keys and field guides; how to recognize grasses, sedges, and rushes; fern identification; and invasive exotic plant species identification.

Registration Required by September 15... See more

WETLAND PLANT IDENTIFICATION COURSE

SEPTEMBER 25, 26 & 27 2023

This course provides the basics on wetland plant identification. It emphasizes the dominant plant species found in wetlands, adjacent uplands, and the transition zone between. Topics include information on common plant families; botanical nomenclature; use of plant keys and field guides; how to recognize grasses, sedges, and rushes; fern identification; and invasive exotic plant species identification. Approximately half of each day will be spent covering lecture material with the other half spent in the field seeing, discussing, and identifying plants. Field sites include a variety of plant community types in the coastal area. Gena Todia, Wetland Resources Environmental Consulting, is the instructor.

15 Registrations Available
Registration Fee $500.00
Pre-Register by September 15
(15 Registrations Required by 9/15/23 or Class Will Be Rescheduled)

Pre-Registration Application Link
Lunch Provided

THANKS TO OUR SPONSORS.

NOAA
AUBURN UNIVERSITY
ALABAMA AGRICULTURAL EXPERIMENT STATION
Water Resources Center
STATE LANDS ALABAMA DIVISION
Extension ALABAMA A&M & AUBURN UNIVERSITIES
BALDWIN COUNTY ALABAMA

County & Municipal Employees

Wetland Regulatory Specialists

Environmental Scientists & Consultants

Gardeners

WEEKS BAY
NATIONAL ESTUARINE RESEARCH RESERVE

Weeks Bay Reserve
Tonsmeire Resource Center
11525 US-98
Fairhope, AL

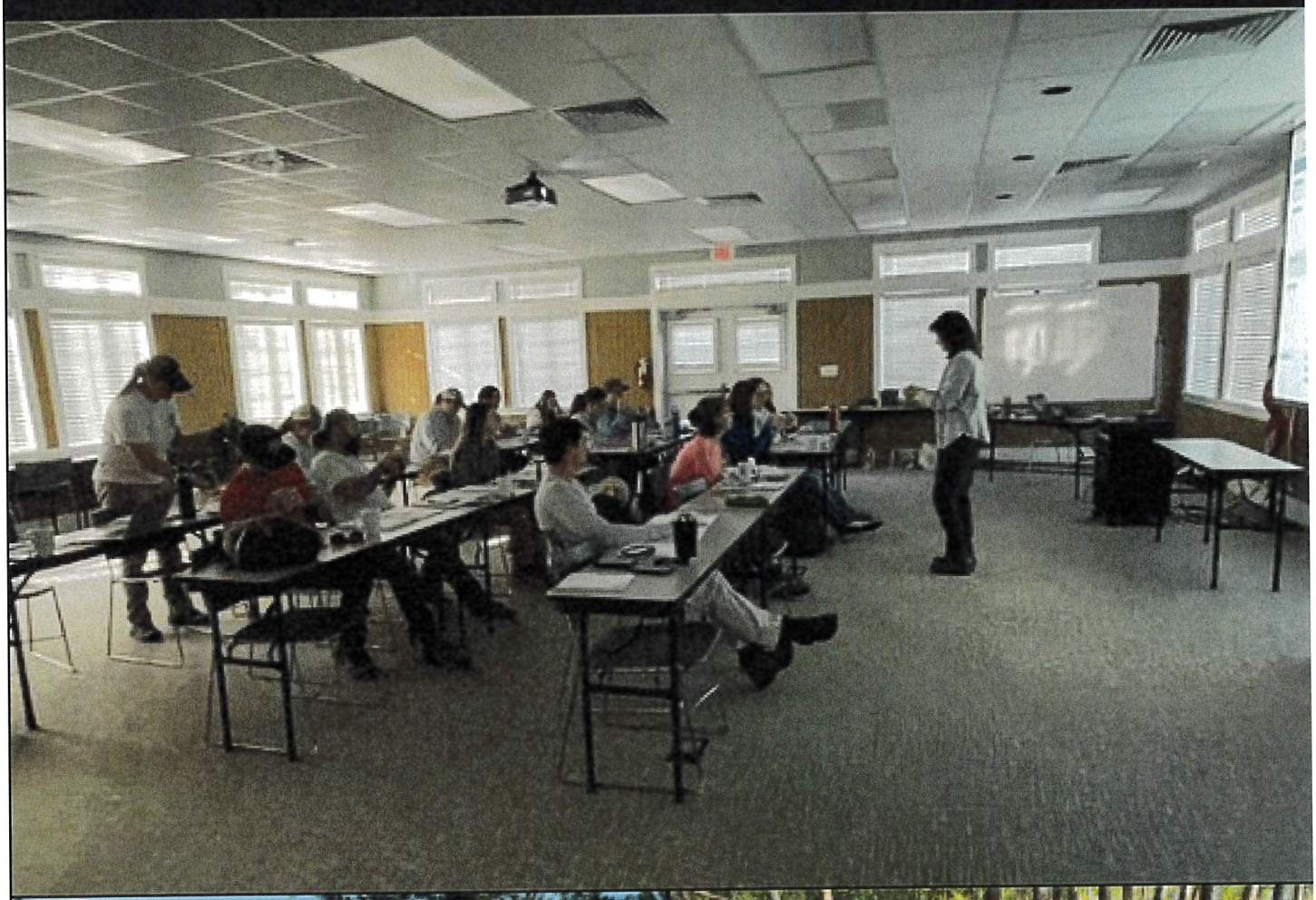
September 25, 26 & 27
8 am-5 pm
Each Day

Baldwin County, AL Commission

Published by Cloud Campaign · Just now ·

Day two of the Wetland Plant Identification Class is underway! Class is being held at the Week's Bay Reserve Tonsmeire Resource Center and is sponsored by Auburn University, Baldwin County, and Weeks Bay Reserve Coastal Training Program.

The class is learning to identify plants across Baldwin County
- **Yesterday** the class identified plants at Graham Creek
- **Today** the class has been at Bon Secour National Wildlife Refuge identifying
-**Tomorrow** identifications will take place at the Historic Blakely State Park



See insights and ads

Boost post

✓**MARK YOUR CALENDARS**

Are you a birder and nature lover? The Alabama Coastal BirdFest is just the event for you. Mark your calendars for October 4-7, 2023 to experience some of the most amazing birdwatching opportunities along the Alabama Coast.

Registration is open until Friday, September 22

Register: https://bit.ly/BF2023REGISTER

Schedule: https://bit.ly/BF2023SCHEDULE

#AlabamaCoastalB... See more

BIRDING & NATURE FESTIVAL
OCTOBER 4-7

Birding Trips For All Levels

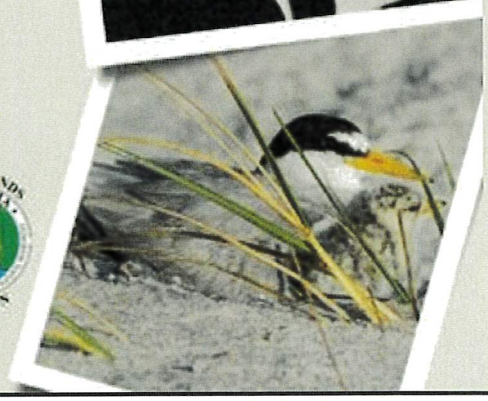
Whether you are new to birding or an experienced birder, there is a trip designed for you! Join a bus trip or meet on location along the Alabama Coastal Birding Trail. All trips are guided and range 2 to 8 hours.

Boat & Kayak Tours

Cruise on a pontoon boat, paddle a kayak, or embark on a research vessel to experience Coastal Alabama by water. Explore the upper and lower portions of the Mobile-Tensaw Delta or meander on creeks and backwaters.

Workshops & Socials

Learn about Hummingbirds, how to create a backyard wildlife habitat, build bird boxes, and more. Evening catered receptions include an opening social and a closing keynote speaker presentation.



REGISTRATION OPEN
AUGUST 4 - SEPTEMBER 22

SOUTH ALABAMA LAND TRUST

STATE LANDS DIVISION

SouthAlabamaLandTrust.org/BirdFest

Baldwin County, AL Commission
Published by Cloud Campaign · 6m ·

✓**SAVE THE DATE**
The Auburn University Water Resources Center will be facilitating a **Green Stormwater Infrastructure: Design, Maintenance + Planning Workshop** on November 3, 2023, from 8:00 a.m. until 12:00 p.m. CT via Zoom.

Cost: $50 (Fee Waived for municipal employees and students, contact LBC@auburn.edu for information)

Interested?
Sign up to be notified when registration is open at: https://tinyurl.com/y4c8644s

GREEN STORMWATER INFRASTRUCTURE

DESIGN, MAINTENANCE & PLANNING WORKSHOP

VIRTUAL - ZOOM | FRIDAY NOV 3, 2023
0.4 CEUs | $50
Fee waived for municipal employees & students
REGISTER: aub.ie/GSI

AUBURN UNIVERSITY Water Resources Center · NFWF · City of Auburn

Instructor:
Eban Bean, PhD, PE - Assistant Professor and Extension Specialist of Urban Water Resources Engineering at the University of Floridia.

Agenda

GREEN STORMWATER INFRASTRUCTURE: DESIGN, MAINTENANCE + PLANNING WORKSHOP

7:45 a.m. **Log in open**

8:00 a.m. **Laura Cooley, AUWRC** Welcome and Introductions

8:15 a.m. **Dr. Eban Bean, University of Florida**

1.) Introduction to GSI
2.) Designing with Maintenance in Mind
3.) Inspection and Maintenance Tools and Resources
4.) Case Study Examples
5.) Q&A

10:00 a.m. **Break**

GREEN STORMWATER INFRASTRUCTURE

Baldwin County, AL Commission
Published by Cloud Campaign · 45m ·

✓ **MARK YOUR CALENDARS**
On Wednesday, November 15th at 2:00 p.m. at the GulfQuest National Maritime Museum in Downtown Mobile, Alabama, Coastal Conversations will host their next FREE program featuring:

- **Dr. Reid Cummings**, Associate Professor of Finance and Real Estate and Executive Director, SABRE (South Alabama Center for Business Analytics, Real Estate and Economic Development
- **Justin McDonald**, Chief of Programs and Project Management for Civil Works at the U.S. Army Corps of Engineers, Mobile District
- **Casi Calloway**, Chief Resilience Officer with the city of Mobile

To register visit: https://tinyurl.com/3kw4j4x6

Leading Experts to Discuss "Sea Rise and the Impacts to Our Coastal Economy, A Coastal Conversation"

On Wednesday, November 15 at 2:00 p.m. at GulfQuest National Maritime Museum in downtown Mobile, AL, Coastal Conversations will host their next program featuring:

- **Dr. Reid Cummings**, Associate Professor of Finance and Real Estate and Executive Director, SABRE (South Alabama Center for Business Analytics, Real Estate and Economic Development)
- **Justin McDonald**, Chief of Programs and Project Management for Civil Works at the U.S. Army Corps of Engineers, Mobile District
- **Casi Calloway**, Chief Resilience Officer with the City of Mobile

Coastal Conversations presents this event, bringing together experts, stakeholders, and concerned citizens to explore the challenges and opportunities that rising sea levels pose to our beloved coastal communities. The public is invited to this engaging and informative discussion on the pressing issue of sea rise and its profound effects on the coastal economy of Alabama.

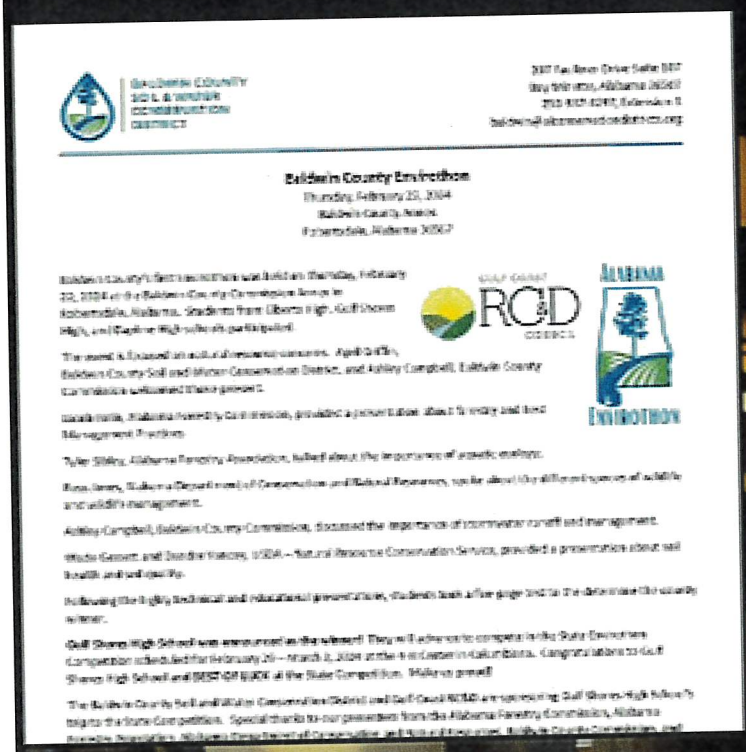
The program will start with keynote addresses delivered by esteemed experts in environmental science, climate change, and coastal economics providing comprehensive insights into the scientific aspects of sea level rise and its multifaceted implications for the economies along our coastal regions. Participants will explore topics such as the vulnerabilities of coastal infrastructure, the effects on tourism and recreational activities, challenges faced by the fishing industry, and shifts in real estate markets.

Coastal Conversations is a program of Coastal Alabama Partnership and is a platform for citizens to engage with experts who will provide leading edge information and share big ideas. Our goal is to expand awareness of issues, to increase knowledge of best practices and to inspire positive change.

Baldwin County, AL Commission
Published by Cloud Campaign · 18m ·

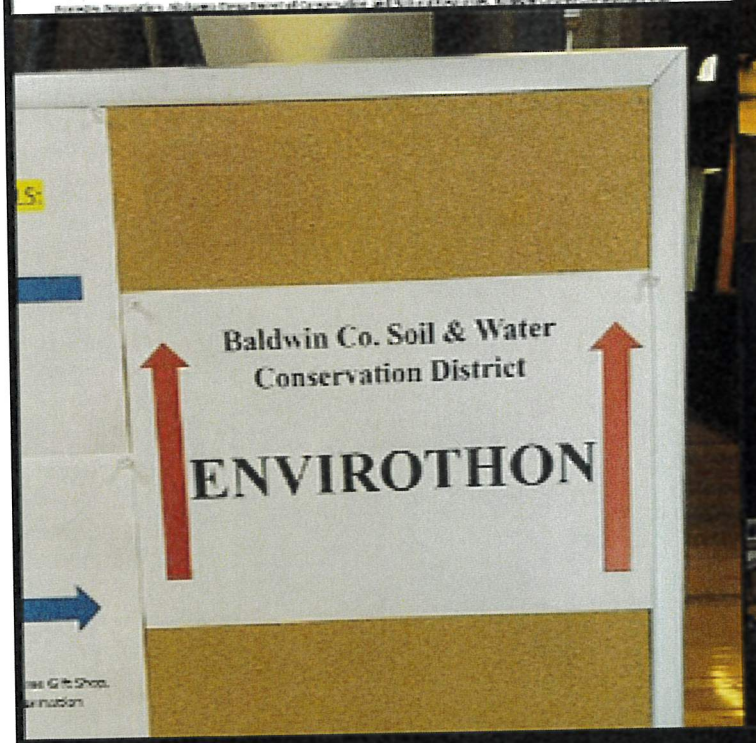
Baldwin County Soil and Water Conservation District held the first ever Envirothon on Thursday, February 22, 2024 at the Baldwin County Commission Central Annex. This event focused on natural resource concerns. Elberta High, Gulf Shores High, and Daphne High Schools participated.

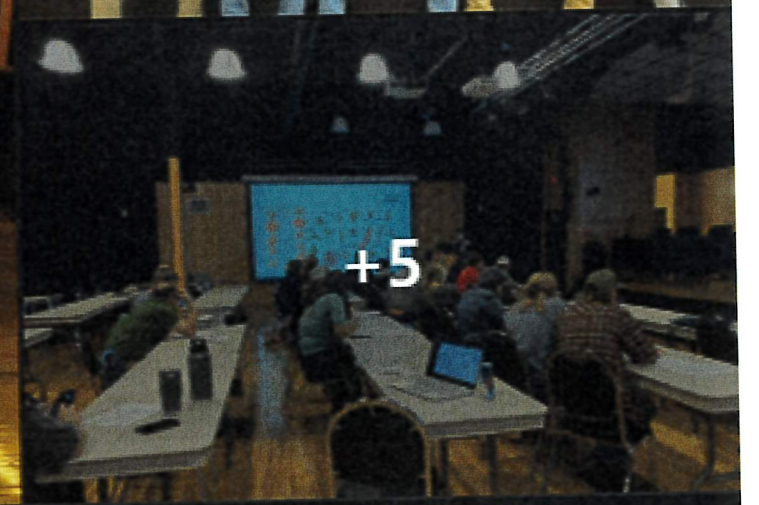
Gulf Shores High School was the winner and will advance to compete in the State Envirothon Competition on February 29 - March 2, 2024.



Baldwin County Envirothon
Thursday, February 22, 2024
Baldwin County Annex
Fairhope, Alabama 36567

RCD
ENVIROTHON





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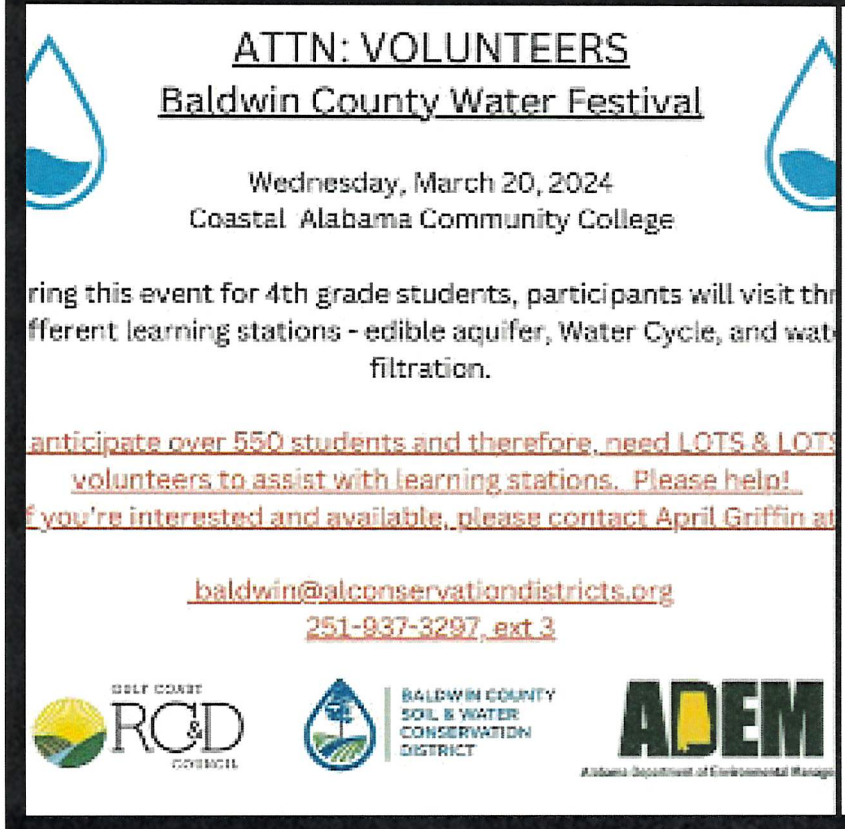
Baldwin County, AL Commission

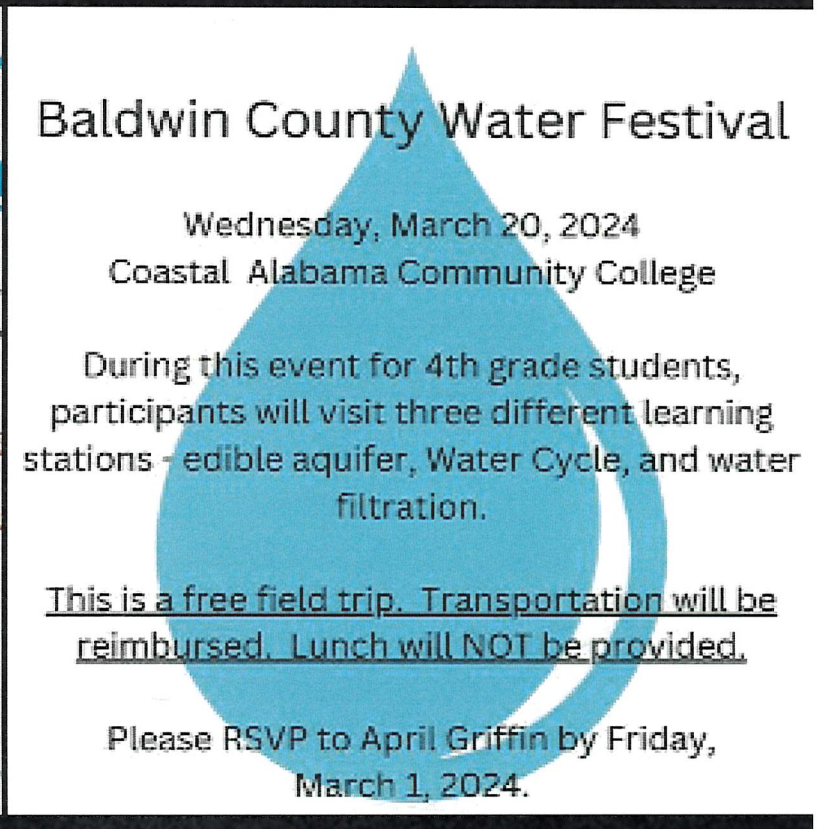
Published by Cloud Campaign · 5h ·

The 2024 Baldwin County Water Festival is set to take place on Wednesday, March 20, 2024, at the Coastal Alabama Community College. During this event, participants will visit three learning stations - edible aquifer, water cycle, and water filtration.

‼️ **VOLUNTEERS NEEDED** ⚠️

It is anticipated that over 550, 4th-grade students will attend this event. If you'd like to **VOLUNTEER**, please get in touch with April Griffin by email at: baldwin@alconservationdistricts.org, or via phone at 251.937.3297, ext. 3





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Baldwin County, AL Commission
Published by Cloud Campaign · 21m ·

The Baldwin County Commission partnered with the City of Foley and the Alabama Water Watch program and hosted two AWW Water Quality Monitoring Training Workshops in Lillian. A Total of 11 volunteers were trained to monitor water quality in the Perdido Watershed. The City of Foley was the lead on this workshop.

The Baldwin County Commission is proud to work with the City of Foley and AWW to reach the following Strategic Plan Goal: "Commission Adopted Item 23-0800-4.3 - By 2026, the community will experience increased transparency and accountability for watershed quality through regular testing and reporting of water quality and the ongoing development of partnerships with citizens and groups interested in the environment."

Alabama Water Watch is a citizen volunteer, water quality monitoring program covering all of the major river basins of the state. The mission of AWW is to improve both water quality and water policy through citizen monitoring and action.

The County plans to work with local partners to provide AWW training throughout the year.

https://mywaterway.epa.gov/ to find AWW sample sites and data.
To learn more about AWW Visit: https://tinyurl.com/mut324j6

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TABLE 4-2 BALDWIN COUNTY PHASE II MS4

MCM 1 -Public Education Outreach Strategies and Goals

NPDES Permit Section	SWMPP Section	4-Public Education & Outreach Strategy	Goal	Pollution Targeted	Responsible Departments
Part III-B1	*4.4.2*	*Articles in Local Media & Brochures*	*In year one of the permit cycle, the county will compile and update a list of EPA stormwater related education outreach materials*	*All*	*P&Z*
2023/2024		EPA Pollution Prevention	Automotive Repair		
		EPA Concrete Washout	Concrete Washout		
		EPA SPCC Plan Requirements	SPCC		
		EPA Stormwater Smart Outreach Tool	Stormwater Smart Outreach Tools | US EPA		
		Infographic Stormwater Flow	Stormwater Flow		
		Stormwater Smart Brochures	Investments		
		Stormwater Smart Brochures	Know What Happens		
		Stormwater Smart Brochures	Suburban Steps		
		Stormwater Smart Brochures	Urban Steps		
		Stormwater Smart Brochures	Presentatoin for Municipal Officials		
		Stormwater Smart Social Media Graphic	Trash		
		Stormwater Smart Social Media Graphic	Bio-retention		
		Stormwater Smart Social Media Graphic	Chemicals		
		Stormwater Smart Social Media Graphic	Parking Lots		
		Stormwater Smart Social Media Graphic	Permeable Pavers		
		Stormwater Smart Social Media Graphic	Rain Garden		
		Stormwater Smart Social Media Graphic	Sprinklers		
		Stormwater Smart Social Media Graphic	Street Sweep		
		Stormwater Tip Sheet for Business	Auto Shops		
		Stormwater Tip Sheet for Business	Construction Crews		
		Stormwater Tip Sheet for Business	Construction for Consumers		
		Stormwater Tip Sheet for Business	Lawn Care		
		Stormwater Tip Sheet for Business	Parking Lots		
		Stormwater Tip Sheet for Business	Restaurants		

TABLE 4-2 BALDWIN COUNTY PHASE II MS4

MCM 1 -Public Education Outreach Strategies and Goals

NPDES Permit Section	SWMPP Section	4-Public Education & Outreach Strategy	Goal	Pollution Targeted	Responsible Departments
Part III-B1	*4.4.2*	*Articles in Local Media & Brochures*	*In year one(1) review the county's building locations for brochure distribution and update as needed*	*All*	*P&Z*

2023/2024	
Total Locations	**Location**
1	Foley Satellite Courthouse Building Department Lobby
2	Foley Satellite Courthouse Commission Lobby
3	Foley Satellite Courthouse Planning & Zoning Lobby
4	Fairhope Satellite Courthouse Probate Lobby
5	Robertsdale Annex I Planning & Zoning Lobby
6	Robertsdale Annex I Council On Aging Lobby

2023-2024

TABLE 4-2 BALDWIN COUNTY PHASE II MS4

MCM 1 -Public Education Outreach Strategies and Goals

NPDES Permit Section	SWMPP Section	4-Public Education & Outreach Strategy	Goal	Pollution Targeted	Responsible Departments
Part III-B1	*4.4.2*	*Articles in Local Media & Brochures*	*In year two, initiate a tracking system for EO Brochures-Pamphlets distribution*	*All*	*P&Z*
2023/2024					
Total Locations	**Location**			**Qty Placed**	**Qty Taken**
1	Foley Satellite Courthouse Building Department Lobby (3 Brochures at 20 Each)			60	35
2	Foley Satellite Courthouse Commission Lobby			60	21
3	Foley Satellite Courthouse Planning & Zoning Lobby			60	41
4	Fairhope Satellite Courthouse Probate Lobby			60	20
5	Robertsdale Annex I Planning & Zoning Lobby			60	32
6	Robertsdale Annex I Council On Aging Lobby			60	60

Table 4-2 Baldwin County Phase II MS4
MCM 1- Public Education Outreach Strategies and Goals

NPDES Permit Section	SWMPP Section	4-Public Education & Outreach Strategy	Goal	Pollution Targeted	Responsible Departments
Part III-B1	*4.4.2*	*Articles in Local Media & Brochures*	*Create two stormwater education brochures to targeted pollutant every permit cycle*	*All*	*P&Z*
Year		**Brochure Title**			
2023/2024		Construction Best Management Practices (CBMP) Brochure			
2022/2023		Wetland Brochure			

CBMPP INSPECTION & MAINTENANCE

Your site's BMPs require inspection and maintenance. You shall:

- Ensure proper implementation, daily observation, regular inspection and continual maintenance of effective Best Management Practices to prevent offsite impacts and impacts to downstream water quality.

- In the event the Best Management Practices are found to be in need of maintenance or improvements, the permittee shall commence and implement all necessary maintenance and corrective measures to the Best Management Practices within forty-eight (48) hours of notice unless prevented by unsafe weather conditions.

CREATE A Clean Water FUTURE

VISIT CLEANWATERFUTURE.COM FOR STORMWATER MANAGEMENT RESOURCES.

Thanks for protecting the environment by implementing Best Management Practices on your construction site. By stopping harmful pollutants from leaving your construction site you are ***Creating a Clean Water Future*** for generations to come.

BALDWIN
COUNTY, ALABAMA

Baldwin County Planning & Zoning
Natural Resource Planning
251-580-1655
planning@baldwincountyal.gov
https://baldwincountyal.gov/departments/planning-zoning/forms-applications/permit-forms

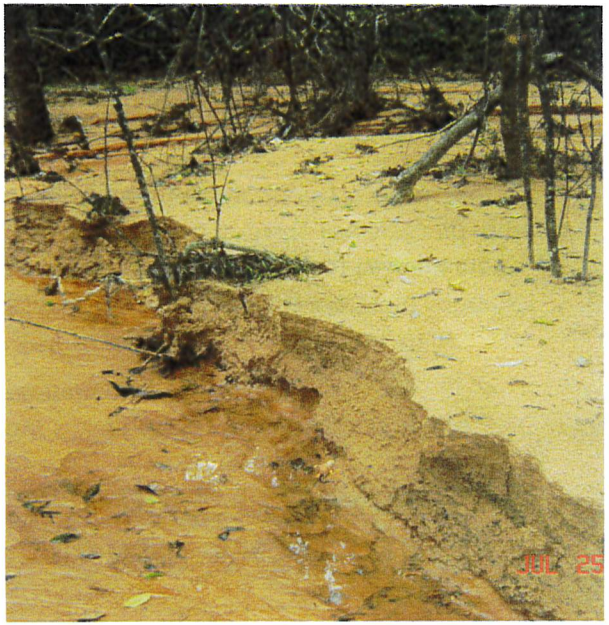
CONSTRUCTION

BEST MANAGEMENT PRACTICES (CBMPs)

THE SEAL OF BALDWIN COUNTY ALABAMA
1809

CBMPP

Construction **B**est **M**anagement **P**ractices **P**lan (**CBMPP**) are measures you take to reduce pollutants from leaving your site and causing impacts to local waterways and private and public property. The measures can include many steps from site phasing to stabilized construction entrances. New state and local stormwater regulations require builders and developers to have CBMP Plans that address site-specific BMP. In order to acquire a land disturbance permit in Baldwin County you will need to address the applicable Best Management Practices listed in the brochure and any other needed resource to aid in site compliance with local, state, and federal regulations.



BEST MANAGEMENT PRACTICES

Your CBMP Plan should be a plot plan detailing the chosen best management practices, including but not limited to the BMPs listed below:

* Ensure implementation of effective BMPs for erosion and sediment control

* Ensure proper onsite containment and disposal of all construction building materials, supplies, vehicle washing, concrete washout, paint, trash, debris, fertilizers, pesticides, herbicides, detergents, sanitary waste, and any other solid waste or wash water

* Minimize the discharge of any pollutants resulting from a spill or leak from vehicles, mechanical equipment, and chemical or fuel storage

* Stabilize all construction entrances and exits to minimize off-site tracking of sediment from vehicles

* Minimize the generation of dust during construction

* Minimize the disturbance of steep slopes, unless infeasible

* Minimize the amount of soil exposure and compaction during construction activity

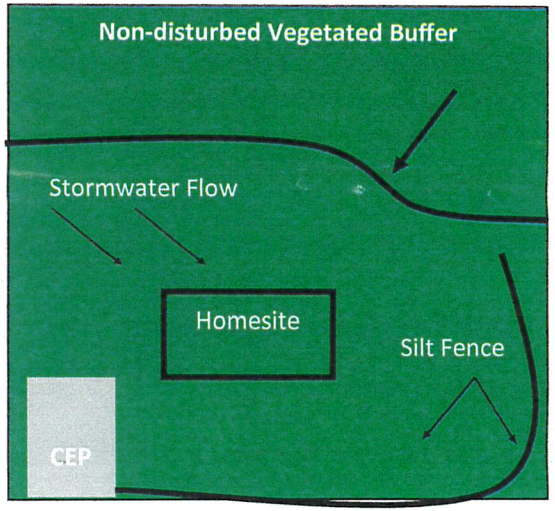
* Temporarily stabilize all disturbed areas where construction activity has ceased for a period exceeding thirteen (13) calendar days

* Inspect and maintain site BMPs, following every rain event

ADDITIONAL MEASURES

* Provide the necessary measures to ensure that drainage structures important to overall storm water management and control are not adversely affected by clearing, grading, or any other land disturbing activities.

* All onsite/offsite areas, including right of ways, disturbed during construction shall be permanently stabilized prior to issuance of a Certificate of Building Occupancy.



All BMP design should be based on the guidance in the *Alabama Handbook for Erosion Control, Sediment Control, and Stormwater Management on Construction Sites and Urban Areas.* A copy of the latest edition can be found on the Alabama Soil and Water Conservation Committee's website at:: **WWW.SWCC.STATE.AL.US**

TABLE 4-2 BALDWIN COUNTY PHASE II MS4

MCM 1 -Public Education Outreach Strategies and Goals

NPDES Permit Section	SWMPP Section	4-Public Education & Outreach Strategy	Goal	Pollution Targeted	Responsible Departments
Part III-B1biii	*4.4.4*	*Environmental Workshops*	*During the permit cycle, host or sponsor 2 education outreach workshop with at least 1 targeting land development community*	*Sediment, ALL*	*P&Z*

2023/2024	Date	Workshop Title	Location
1	5/19/2023	AWW Volunteer Monitor Training	Graham Creek
2	9/25/2023	Wetland Training	Graham Creek
3	2/23/2024	AWW Volunteer Monitor Training	Lillian
4	3/9/2024	AWW Volunteer Monitor Training	Lillian

AWW May 19, 2023 -Graham Creek

First Name	Last Name	Email	Phone	Mailing Address	City	State	County	Zip	Monitoring Certification	Have you ever Been Certified	Age
Allie	Quinley	aquinley@cityoffoley.org	251-923-4267	23030 Wolf Bay Drive	Foley	AL	Baldwin	36535	R-Card Bacteria	Yes	Adult (19 & up)
Rebecca	Peacock	rebecca.peacock@baldwincountyal.gov	251-689-4726	201 East Section Ave	Foley	AL	Baldwin	36535	R-Card Bacteria	No	Adult (19 & up)
Joe	Ryan	jlryan9384@gmail.com	251-253-9935	24938 Hack Road	Bay Minette	AL	Baldwin	36507	R-Card Bacteria & WQ		Adult (19 & up)
Narissa	Nelson	ngnelson@gulftel.com	251-978-6667	6777 Bon Secour Hwy	Foley	AL	Baldwin	36535	R-Card Bacteria & WQ		
Rich	Nelson	ngnelson@gulftel.com	251-978-6667	6777 Bon Secour Hwy	Foley	AL	Baldwin	36535	R-Card Bacteria & WQ		

WETLAND PLANT IDENTIFICATION COURSE

SEPTEMBER 25, 26 & 27 2023

This course provides the basics on wetland plant identification. It emphasizes the dominant plant species found in wetlands, adjacent uplands, and the transition zone between. Topics include information on common plant families; botanical nomenclature; use of plant keys and field guides; how to recognize grasses, sedges, and rushes; fern identification; and invasive exotic plant species identification. Approximately half of each day will be spent covering lecture material with the other half spent in the field seeing, discussing, and identifying plants. Field sites include a variety of plant community types in the coastal area. Gena Todia, Wetland Resources Environmental Consulting, is the instructor.

15 Registrations Available
Registration Fee $500.00
Pre-Register by September 15
(15 Registrations Required by 9/15/23 or Class Will Be Rescheduled)

Pre-Registration Application Link
Lunch Provided

THANKS TO OUR SPONSORS.

NOAA National Oceanic and Atmospheric Administration U.S. Department of Commerce

Auburn University
Alabama Agricultural Experiment Station
Water Resources Center

State Lands Alabama Department of Conservation and Natural Resources Division

extension Alabama A&M & Auburn Universities

Baldwin County Alabama

County & Municipal Employees

Wetland Regulatory Specialists

Environmental Scientists & Consultants

Gardeners

Weeks Bay
National Estuarine Research Reserve

Weeks Bay Reserve
Tonsmeire Resource Center
11525 US-98
Fairhope, AL

September 25, 26 & 27
8 am-5 pm
Each Day

EXIT

AWW Training Workshop

February 23, 2024

AWW Training Workshop 2/23

	First Name	Last Name	Email	Phone Number
1	Janet	Larson	janlarson55@gmail.com	215-668-7855
2	Steve	Powell	Gunsmoke928@yahoo.com	256-777-3737
3	Melissa	Powell	Mp11359@yahoo.com	256-777-9020
4	Joelle	Pagel	joellepagel@yahoo.com	850-206-3601
5				
6				
7				
8				
9				
10				

ALABAMA WATER WATCH
ALABAMA EXTENSION

CREATE A Clean Water FUTURE
www.CleanWaterFuture.com

AWW Volunteer Monitor Water Quality Training

When: March 9th
9am to 3pm
Where: Lillian Volunteer Fire Department

11331 County Road 91
Lillian, AL

For more information contact : Angie Eckman
aeckman@cityoffoley.org 251-923-4267

Foley

BALDWIN COUNTY, ALABAMA
Planning and Zoning Department

AWW Training Workshop 2024/03/09

	1/0 First Name	Last Name	Email	Phone Number
1	Tom	Baxter	Tbaxter99@yahoo.com	8503808783
2	Karen	Baxter	Kbaxter99@yahoo.com	8507483135
3	Julie	Hartley	jlap424@gmail.com	
4	Bill	Higgins	whiggins@umd.edu	301-452-1676
5	Ted	Hughes	tedncharge515@gmail.com	251-9795663
6	**Sherri**	Scarbrough	**Sas21118@gmail.com**	850-748-0509
7	Mike	Littlemoon	Mrtwowolves1387@gmail.com	
8				
9				
10				

TABLE 4-2 BALDWIN COUNTY PHASE II MS4
MCM 1 -Public Education Outreach Strategies and Goals

NPDES Permit Section	SWMPP Section	4-Public Education & Outreach Strategy	Goal	Pollution Targeted	Responsible Departments
Part III-B1	*4.4.5.1*	*Classroom Presentations-Master Environmental Education Presentations*	*During permit cycle, present four (4)MEE lessons to school age classrooms per year*	*All*	*P&Z*
Classes/Lessons	**Date**	**Location**	**Lesson**	**Students**	**Teachers**
2023/2024					
1	4/12/2023	Daphne High School	Stormwater Pollution	53	Ashley Campbell & Rebecca Peacock
2	9/13/2023	Daphne High School	Alabama Water Watch	64	Ashley Campbell & Rebecca Peacock
3	10/4/2023	Daphne High School	Stormwater Pollution	175	Ashley Campbell & Rebecca Peacock
4	10/13/2024	Summerdale Elementary	Stormwater Pollution	56	Ashley Campbell & Rebecca Peacock
5	10/23/2023	Western Perdido Bay Wate	Alabama Water Watch	18	Ashley Campbell & Rebecca Peacock
6	10/26/2023	Fairhope High School	Alabama Water Watch	29	Ashley Campbell & Rebecca Peacock
7	11/8/2023	Daphne High School	Alabama Water Watch	140	Ashley Campbell & Rebecca Peacock
8	1/3/2024	Belforest Elementary	Alabama Water Watch	83	Ashley Campbell & Rebecca Peacock
			Total Students Taught	618	

MASTER ENVIRONMENTAL EDUCATION

Extension
ALABAMA A&M & AUBURN UNIVERSITIES

Date: August 10
Time: 8:45 check in, 9:00 am – 4:00 pm
Place: Gulf Coast Research & Extension Center
8300 Hwy 104, Fairhope, AL

Agenda

Time	Item	Presenter
8:45 am	Sign In / Pick up your MEE Book or Updated USB Flash drive	
9:00 am	Welcome and Introductions	Katherine Shepard, CEC
9:15 am	Board of Education	Becky Turner, Janae Watson
9:30	Non-Discrimination Law and Complaint Process	Sarah Butterworth
9:45 am	Lesson Updates	Cathy Banning
9:50 am	Group Photo / Outside in front	Charlotte Roberts
10:00 am	Introduction to MEE	Charlotte Roberts
10:15 am	Invasive Plant Species	Josh Roberts
10:45 am	Energy	James Wallace and Scott Sligh
11:15 am	Groundwater Pollution	Tony Schachle and Lee Kibler
12:00 pm	Lunch	
12:30 pm	Water Cycle	Bob Young
1:15 pm	Alabama Water Watch	Sarah Butterworth
2:00 pm	Stormwater Pollution	Ashley Campbell
2:45 pm	Turn in Evaluations/Questions	Cathy Banning
3:00 pm	Adjourn	

Date: August 11
Time: 8:45 check in, 9:00 am – 12:00 pm
Place: Magnolia Landfill
5093 Landfill Dr, Summerdale, AL 36580

Agenda

Time	Item	Presenter
8:45 am	Sign In	
	Tour of the Landfill	1st group
	Backyard Wildlife Habitat	Jackie McGonigal
	Tour of the Landfill	2nd group
	Recycling	Amy Galemore
12:00 pm	Adjourn	

extension
ALABAMA A&M & AUBURN UNIVERSITIES

The Alabama Cooperative Extension System (Alabama A&M University and Auburn University) is an equal opportunity educator, employer, and provider. If you need reasonable accommodation or language access services, contact Cathy Banning] at 251-937-7176, bannicj@aces.edu by August 4.

ENVIRONMENTAL STEWARDSHIP

Educating students to protect our coastal environment

Baldwin County 4-H Master Environmental Education Volunteers engaged with 6,787 young people to help give them an understanding and appreciation of the environment in their own backyards.

Master Environmental Education

MEE

240 LESSONS TAUGHT

27 SCHOOLS

502 VOLUNTEER HOURS

6,787 YOUTH REACHED

6,787

Youth Reached in Baldwin County during 2022-2023

Alabama Water Watch * Aquatic Nuisance Species * Backyard Wildlife Habitat
Energy * Groundwater Pollution * Invasive Plant Species
Recycling * Stormwater Pollution * Water Cycle

extension
ALABAMA A&M & AUBURN UNIVERSITIES

The Alabama Cooperative Extension System (Alabama A&M University and Auburn University) is an equal opportunity educator and employer. Everyone is welcome! Please let us know if you have accessibility needs.

VOLUNTEER OPPORTUNITES!

TEACH STUDENTS ENVIRONMENTAL STEWARDSHIP

Master Environmental Education

MEE

FREE TWO-DAY TRAINING – AUGUST 10-11

August 10th - Gulf Coast Research & Extension Center
8300 Hwy 104, Fairhope, 8:45 am – 4:00 pm

August 11th - Magnolia Landfill—Tour the landfill!
15093 Landfill Dr, Summerdale
8:30 am – 12:00 pm

Volunteers with Alabama 4-H travel throughout Baldwin County to public and private schools to present environmental lessons to students.

Registration Required. Call the Baldwin County Extension Office @ 937-7176 or email bannicj@aces.edu

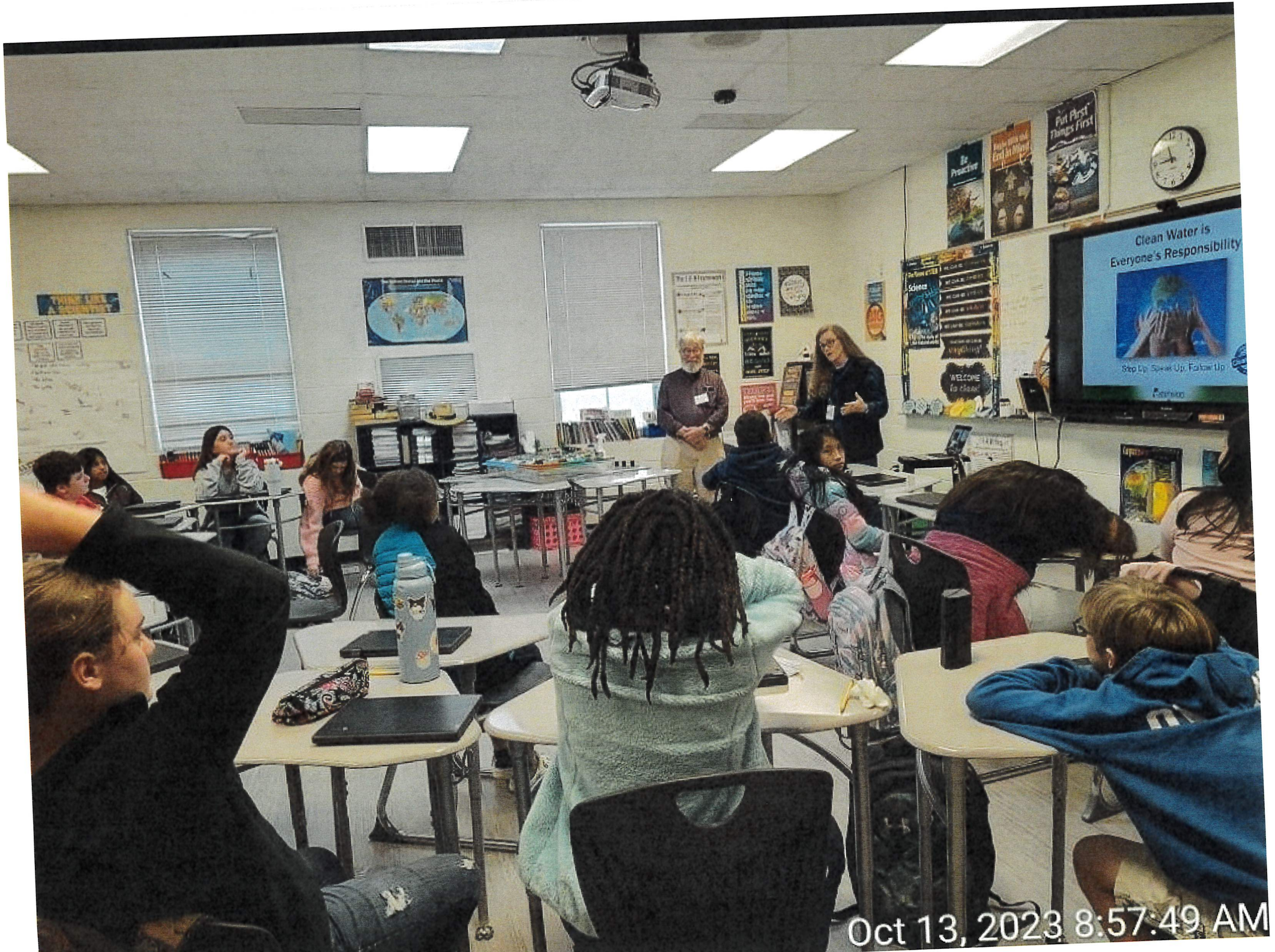
Alabama Water Watch * Groundwater Pollution * Recycling * The Water Cycle * Invasive Plant Species * Aquatic Nuisance Species * Energy * Stormwater Pollution * Backyard Wildlife Habitats

Baldwin County Extension Office
302-A Byrne Street
Bay Minette, AL 36507
937-7176

extension
ALABAMA A&M & AUBURN UNIVERSITY

THE ALABAMA COOPERATIVE EXTENSION SYSTEM (ALABAMA A&M UNIVERSITY AND AUBURN UNIVERSITY), IS AN EQUAL OPPORTUNITY EDUCATOR AND EMPLOYER. EVERYONE IS WELCOME! BALDWIN COUNTY PROGRAMS ARE SUPPORTED BY THE BALDWIN COUNTY COMMISSION.

drive


Clean Water is
Everyone's Responsibility
Step Up, Speak Up, Follow Up
Oct 13, 2023 8:57:49 AM

2nd + 3rd
22 + 13

extension
ALABAMA A&M & AUBURN UNIVERSITIES

Master Environmental Education

Stormwater Pollution

School Information

School Name: Daphne High School Date: 4/12/23

Teachers Name: Hunter & Anderton Grade: 9-12

Student Demographics

Group	White	Black	Native Am	Hispanic	Asian	Other	TOTALS	Male	Female
Youth							35		
Adults									

Post Student Evaluation - Raise Your Hand

1. How many of you will pick up trash along your road? # 35
2. How many of you will volunteer for the next Coastal Clean Up? # 35

Teacher Evaluation

1. How would you rate this presentation? Outstanding 5 4 3 2 1 Poor
2. Would you schedule this lesson again? Yes No
3. Did this lesson meet your curriculum needs? Yes No
4. What information do you feel was most helpful for your students? Additional Comments:

MEE Volunteer

MEE Name: Bob Young Volunteer Hours: 7

MEE Name: Ashley Campbell Volunteer Hours: 7

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extension
ALABAMA A&M & AUBURN UNIVERSITIES

Master Environmental Education

Stormwater Pollution

School Information

School Name: Daphne High School Date: 4/12/23

Teachers Name: Anderton Grade: 9-12

Student Demographics

Group	White	Black	Native Am	Hispanic	Asian	Other	TOTALS	Male	Female
Youth							18		
Adults									

Post Student Evaluation - Raise Your Hand

1. How many of you will pick up trash along your road? # 18
2. How many of you will volunteer for the next Coastal Clean Up? # 18

Teacher Evaluation

1. How would you rate this presentation? Outstanding 5 4 3 2 1 Poor
2. Would you schedule this lesson again? Yes No
3. Did this lesson meet your curriculum needs? Yes No
4. What information do you feel was most helpful for your students? Additional Comments:

Thank you!

MEE Volunteer

MEE Name: Bob Young Volunteer Hours: 07

MEE Name: Ashley Campbell Volunteer Hours: 07

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Master Environmental Education

Alabama Water Watch

School Information

School Name: Daphne High School Date: 9/13/23

Teachers Name: Matt Gilson Grade: 11th-12th

Student Demographics

Group	White	Black	Native Am	Hispanic	Asian	Other	TOTALS	Male	Female
Youth	13	6			1	1	21	15	6
Adults									

Post Student Evaluation - Raise Your Hand

1. Will you tell your friends and family about Alabama Water Watch? # 21
2. Would you like to become an Alabama Water Watch volunteer someday? # 5

Teacher Evaluation

1. How would you rate this presentation? Outstanding 5 4 3 2 1 Poor
2. Would you schedule this lesson again? (Yes) No
3. Did this lesson meet your curriculum needs? (Yes) No
4. What information do you feel was most helpful for your students? Additional Comments:

MEE Volunteer

MEE Name: Ashley Campbell Volunteer Hours: 8 10

MEE Name: Rebecca Peacock Volunteer Hours: 8 10

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Master Environmental Education

Alabama Water Watch

School Information

School Name: Daphne High School Date: 9/13/23

Teachers Name: Matt Gilgin Grade: 9th-10th

Student Demographics

Group	White	Black	Native Am	Hispanic	Asian	Other	TOTALS	Male	Female
Youth	14	6		1			21	14	7
Adults									

Post Student Evaluation - Raise Your Hand

1. Will you tell your friends and family about Alabama Water Watch? # 21
2. Would you like to become an Alabama Water Watch volunteer someday? # 13

Teacher Evaluation

1. How would you rate this presentation? Outstanding 5 4 3 2 1 Poor
2. Would you schedule this lesson again? Yes No
3. Did this lesson meet your curriculum needs? Yes No
4. What information do you feel was most helpful for your students? Additional Comments:

MEE Volunteer

MEE Name: Ashley Campbell Volunteer Hours: 4.0

MEE Name: Rebecca Peacock Volunteer Hours: 4.0

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Extension
ALABAMA A&M & AUBURN UNIVERSITIES

Master Environmental Education

Alabama Water Watch

School Information

School Name: Daphne High School Date: 9/13/23

Teachers Name: Matt Gilson Grade: 9th

Student Demographics

Group	White	Black	Native Am	Hispanic	Asian	Other	TOTALS	Male	Female
Youth	11	10		1			22	14	8
Adults									

Post Student Evaluation - Raise Your Hand

1. Will you tell your friends and family about Alabama Water Watch? # 2
2. Would you like to become an Alabama Water Watch volunteer someday? # 2

Teacher Evaluation

1. How would you rate this presentation? Outstanding (5) 4 3 2 1 Poor
2. Would you schedule this lesson again? (Yes) No
3. Did this lesson meet your curriculum needs? (Yes) No
4. What information do you feel was most helpful for your students? Additional Comments:

MEE Volunteer

MEE Name: Ashley Campbell Volunteer Hours: 4.0 ALL-3

MEE Name: Rebecca Peacock Volunteer Hours: 4.0 ALL-3

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Extension
ALABAMA A&M & AUBURN UNIVERSITIES

Master Environmental Education

Stormwater Pollution

School Information

School Name: Daphne High School Date: 10/4/23

Teachers Name: Upton & Hunter Grade: 9-12

Student Demographics

Group	White	Black	Native Am	Hispanic	Asian	Other	TOTALS	Male	Female
Youth	100	50				25	~~175~~ 175	85	90
Adults							3	1	2

Post Student Evaluation - Raise Your Hand

1. How many of you will pick up trash along your road? # all
2. How many of you will volunteer for the next Coastal Clean Up? # 6

Teacher Evaluation

1. How would you rate this presentation? Outstanding 5 4 3 2 1 Poor
2. Would you schedule this lesson again? Yes No
3. Did this lesson meet your curriculum needs? Yes No
4. What information do you feel was most helpful for your students? Additional Comments:

all of it.

MEE Volunteer

MEE Name: Ashley Campbell Volunteer Hours: 6

MEE Name: Jessie Ward Volunteer Hours: 3

Rebecca Peacock 3

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Extension
ALABAMA A&M & AUBURN UNIVERSITIES

Master Environmental Education

Stormwater Pollution

School Information

School Name: Summerdale Elementary Date: 10/13/23

Teachers Name: Mrs. Brown Grade: 6th

Student Demographics

Group	White	Black	Native Am	Hispanic	Asian	Other	TOTALS	Male	Female
Youth	31	4	0	13	1	7	56	27	29
Adults	3	1	0	0	0	0	4	1	3

Post Student Evaluation - Raise Your Hand

1. How many of you will pick up trash along your road? # 41
2. How many of you will volunteer for the next Coastal Clean Up? # 23

Teacher Evaluation

1. How would you rate this presentation? Outstanding (5) 4 3 2 1 Poor
2. Would you schedule this lesson again? (Yes) No
3. Did this lesson meet your curriculum needs? (Yes) No
4. What information do you feel was most helpful for your students? Additional Comments:

- The students learned that they can make a difference one by one.
- Flushable wipes does harm to the septic tanks
- If you see red in a creek, river, stream, call someone

MEE Volunteer

MEE Name: Ashley Campbell Volunteer Hours: 7.5

MEE Name: Rebecca Peacock Volunteer Hours: 7.5

Mickey Bell 7.5

Alabama Cooperative Extension System (Alabama A&M University and Auburn University) is committed to affirmative action, equal opportunity and the diversity of its workforce. Educational programs serve all people regardless of race, color, national origin, age, disability, sex, gender identity, marital status, family/parental status, religion, sexual orientation, political beliefs, reprisal, or because all or a part of an individual's income is derived from any public assistance program. Baldwin County Extension Programs are supported by the Baldwin County Commission.

Emailed AC 10/13/23

Master Environmental Education

Alabama Water Watch

School Information

School Name: Western Perdido Bay Watershed Action Committee Date: 10/23/23

Teachers Name: NA Grade: NA

Senior Citizens

Student Demographics

Group	White	Black	Native Am	Hispanic	Asian	Other	TOTALS	Male	Female
Youth									
Adults	18						18	9	9

Post Student Evaluation - Raise Your Hand

1. Will you tell your friends and family about Alabama Water Watch? #_____
2. Would you like to become an Alabama Water Watch volunteer someday? #_____

Teacher Evaluation

1. How would you rate this presentation? Outstanding 5 4 3 2 1 Poor
2. Would you schedule this lesson again? Yes No
3. Did this lesson meet your curriculum needs? Yes No
4. What information do you feel was most helpful for your students? Additional Comments:

MEE Volunteer

MEE Name: Ashley Campbell Volunteer Hours: 2

MEE Name: _____ Volunteer Hours: _____

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Western Perdido Bay Watershed Committee Meeting Sign In Sheet
Monday, October 23, 2024

Name	Email	Phone
Bobby Beck	chair@spanishcove.org	(706) 831-1548
Tammy Robinson	alaskarobnsns@yahoo	907-202-0821
Julie Hartley	jlap424@ymail.com	251.689.5499
Melissa Powell	MP11359@yahoo.	256.777.9020
STEVE POWELL	GUNSMOKE928@YAHOO.COM	256-777-3737
DOUG & NANCY SCOTT		
Thornton + Sharon Garth	Sharon Wgarth@yahoo.com	850 292 - 1826
*Sheri Scarborough		
*BILL HIGGINS	higginsterpeg@mail.com	301-452-1676
DAVE BERGSLAND	1dbergsland@gmail.com	812 580 9812
*RON ROBSON	RONROBSON@YAHOO.COM	706 662-4500
*JOELLE PAGEL	joellepagel@yahoo.com	850-206-3601
Karen Baxter	kbaxter99@yahoo.com	850-748-3135
Cathy Hearn		901-827-6340
TYLER HEARN		901-299-7065

Western Perdido Bay Watershed Committee Meeting Sign In Sheet
Monday, October 23, 2024

Name	Email	Phone
DAVID HEARN	dhearn601@gmail.com	901-496-6509

1st

Baldwin County Extension Office
302-A Byrne Street
Bay Minette, AL 36507
(251) 937-7176
928-3002/943-5061 ext. 2222

MASTER ENVIRONMENTAL EDUCATOR
PRESENTATION REPORT FORM

To be filled out by School Teacher:

Presentation Title: Alabama Water Watch **Date:** 10/26/2023

School Name: Fairhope High **Grade:** 10

Teacher's Name: L. Charles / sub L. Jones

Group	White	Black	Native Am	Hispanic	Asian	Other	TOTALS	Male	Female
Youth	5	3					8	4	4
Adults	1								1

Teacher Evaluation:

		Outstanding				Poor
1.	How would you rate this presentation?	5	4	3	2	1
2.	Would you schedule this lesson again?	Yes	No			
3.	Did this lesson meet your curriculum needs?	Yes	No			

4. What information do you feel was most helpful for your students? Additional Comments.

How to test water and how bad our water actually is.
How very acitic many different items can be
Ph is very important for your body, so you should always watch it.
I learned that regular water is better than seltzer water - Ariana
How good Alabamas water is.
We have the most water species

Students Raise Your Hand

1. Will you tell your friends and family about the Alabama Water Watch? #8
2. Would you like to become an Alabama Water Watch volunteer someday? #8

Ashley Campbell 4 hours
Rebecca Peacock 4 hours

Enable 4-H

extension
ALABAMA A&M & AUBURN UNIVERSITIES

Master Environmental Education

Alabama Water Watch

School Information

School Name: Daphne High School Date: 11-8-23

Teachers Name: Tipton Grade: 9-12

Student Demographics

Group	White	Black	Native Am	Hispanic	Asian	Other	TOTALS	Male	Female
Youth	42	26					68	49	19
Adults	2						2		2

Post Student Evaluation - Raise Your Hand

1. Will you tell your friends and family about Alabama Water Watch? # 68
2. Would you like to become an Alabama Water Watch volunteer someday? # 1

Teacher Evaluation

1. How would you rate this presentation? Outstanding 5 4 3 2 1 Poor
2. Would you schedule this lesson again? (Yes) No
3. Did this lesson meet your curriculum needs? (Yes) No
4. What information do you feel was most helpful for your students? Additional Comments:

We are taking a trip to the mounds on the Tensaw

MEE Volunteer

MEE Name: Ashley Campbell Volunteer Hours: 8.0

MEE Name: Rebecca Peacock Volunteer Hours: 4.0

Cheryl Bly 4.0

1Alabama Cooperative Extension System (Alabama A&M University and Auburn University) is committed to affirmative action, equal opportunity and the diversity of its workforce. Educational programs serve all people regardless of race, color, national origin, age, disability, sex, gender identity, marital status, family/parental status, religion, sexual orientation, political beliefs, reprisal, or because all or a part of an individual's income is derived from any public assistance program. Baldwin County Extension Programs are supported by the Baldwin County Commission.

Baldwin County Extension Office
302-A Byrne Street
Bay Minette, AL 36507
(251) 937-7176
928-3002/943-5061 ext. 2222

MASTER ENVIRONMENTAL EDUCATOR
PRESENTATION REPORT FORM

To be filled out by School Teacher:

Presentation Title: Alabama Water Watch **Date:** 11-8-23

School Name: Daphne High School **Grade:** 9-12

Teacher's Name: Crigler (Hunter) + Anderton

Group	White	Black	Native Am	Hispanic	Asian	Other	TOTALS	Male	Female
Youth	50	18	1	3			72		
Adults									

Teacher Evaluation:

		Outstanding				Poor
1.	How would you rate this presentation?	5	4	3	2	1
2.	Would you schedule this lesson again?	Yes	No			
3.	Did this lesson meet your curriculum needs?	Yes	No			

4. What information do you feel was most helpful for your students? Additional Comments.

Students Raise Your Hand

1. Will you tell your friends and family about the Alabama Water Watch? # Yes
2. Would you like to become an Alabama Water Watch volunteer someday? # Not now maybe later

✓

Extension
ALABAMA A&M & AUBURN UNIVERSITIES

Master Environmental Education

Stormwater Pollution

School Information

School Name: Belforest Elementary Date: 1-3-24

Teachers Name: Amanda Miller Grade: 6th

Student Demographics

Group	White	Black	Native Am	Hispanic	Asian	Other	TOTALS	Male	Female
Youth	70	8		3	2		83	48	35
Adults	1						1		1

Post Student Evaluation - Raise Your Hand

1. How many of you will pick up trash along your road? # 83
2. How many of you will volunteer for the next Coastal Clean Up? # 35

Teacher Evaluation

1. How would you rate this presentation? Outstanding 5 4 3 2 1 Poor
2. Would you schedule this lesson again? (Yes) No
3. Did this lesson meet your curriculum needs? (Yes) No
4. What information do you feel was most helpful for your students? Additional Comments:

They learned about point vs non-point source pollution. They learned that they could help by reporting problems and be part of the solution.

MEE Volunteer

MEE Name _____ Volunteer Hours _____

MEE Name _____ Volunteer Hours _____

Alabama Cooperative Extension System (Alabama A&M University and Auburn University) is committed to affirmative action, equal opportunity and the diversity of its workforce. Educational programs serve all people regardless of race, color, national origin, age, disability, sex, gender identity, marital status, family/parental status, religion, sexual orientation, political beliefs, reprisal, or because all or a part of an individual's income is derived from any public assistance program. Baldwin County Extension Programs are supported by the Baldwin County Commission.

TABLE 4-2 BALDWIN COUNTY PHASE II MS4

MCM 1 -Public Education Outreach Strategies and Goals

NPDES Permit Section	SWMPP Section	4-Public Education & Outreach Strategy	Goal	Pollution Targeted	Responsible Departments
Part III-B1	*4.4.5.2&3*	*Local Environmental Festivals- Watershed Festivals*	*Baldwin County Water Festival & Coastal Kids Quiz- The County will participate in or sponsor two (2) events per permit cycle.*	*All*	*P&Z*

	Date	Event	Volunteer/Sponsorship Details
1	3/20/2024	Baldwin County Water Festival	Rebecca Peacock & Cory Rhodes, Planning & Zoning
2	2/22/2024	Baldwin County Envirothon	Ashley Campbell

Rebecca Peacock

From: Baldwin County SWCD <baldwin@alconservationdistricts.org>
Sent: Friday, March 15, 2024 9:24 AM
To: Rebecca Peacock
Subject: Re: Water Festival - VOLUNTEER INFO

This message has originated from an **External Source**. Please use proper judgment and caution when opening attachments, clicking links, or responding to this email.

Looking forward to meeting y'all!

Happy Fri-yay!

From: Rebecca Peacock <Rebecca.Peacock@baldwincountyal.gov>
Sent: Friday, March 15, 2024 8:50 AM
To: Baldwin County SWCD <baldwin@alconservationdistricts.org>
Subject: RE: Water Festival - VOLUNTEER INFO

April,

I'm going to have Cory Rhodes with me to volunteer. She wears a medium if you still have shirts.

Thanks,

Rebecca Peacock
Natural Resource/Planning Technician
Baldwin County Planning & Zoning
251-580-1655 ext. 7212
rebecca.peacock@baldwincountyal.gov

BALDWIN COUNTY, ALABAMA

From: Baldwin County SWCD <baldwin@alconservationdistricts.org>
Sent: Friday, March 15, 2024 8:38 AM
To: Ashley Campbell <Ashley.Campbell@baldwincountyal.gov>; hhf868891@gmail.com; McGough, Danielle - FPAC-FSA, BAY MINETTE, AL <danielle.mcgough@usda.gov>; Reid, Amanda - FPAC-FSA, BAY MINETTE, AL <amanda.reid@usda.gov>; Charlotte Roberts <cal0054@auburn.edu>; rcaver@cityoffoley.org; Jody Moore <jlmoore@cityoffoley.org>; Katherine Shepard <kgs0047@auburn.edu>; Mobile County SWCD <mobile@alconservationdistricts.org>; Escambia County SWCD <escambia@alconservationdistricts.org>; Marengo County SWCD <marengo@alconservationdistricts.org>; Valerie Longa <vlonga@mobilebaykeeper.org>; Reagan Robinson <rrobinson@mobilebaykeeper.org>; Casey Fulford <casey@alconservationdistricts.org>; Conecuh County SWCD <conecuh@alconservationdistricts.org>; Monroe County SWCD <monroe@alconservationdistricts.org>; Wood, Michele - NRCS, Grove Hill, AL <michele.wood@usda.gov>; kaleigh.younge@usda.gov; Washington County SWCD

<washington@alconservationdistricts.org>; Williams, Bradley - NRCS, Selma, AL <bradley.williams@usda.gov>; Rebecca Peacock <Rebecca.Peacock@baldwincountyal.gov>; Matt Williford <Matt.Williford@coastalalabama.edu>; Louis, Christopher - FPAC-NRCS, AL <Christopher.Louis@usda.gov>; Sara Godwin Davis <Sara.Davis@coastalalabama.edu>
Subject: Water Festival - VOLUNTEER INFO

This message has originated from an **External Source**. Please use proper judgment and caution when opening attachments, clicking links, or responding to this email.

Water Festival Volunteers:

First, THANK YOU for your support and assistance during this year's Water Festival set for next Wednesday, March 20 at Coastal Alabama Community College in Bay Minette! We couldn't have it without you and your VOLUNTEER efforts!

Ashley Campbell - Please forward this message to Rebecca Peacock.

Katie Shepard - Please forward to the MEE's and Riveria Utilities.

Dawn Hopper - Please forward to Miss Bobbie.

Volunteers:

Please plan to arrive by 9:00 for set up.

I've attached the **schedule with your assigned station.** I tried not to move too many folks around so you'd be teaching the same lesson again this year. Let me know if you have questions.

I've also attached a **map of the Coastal Campus.**

Lunch will be provided.

We'll have Baldwin and Elberta High FFA students to provide assistance during the event.

All of your teaching materials will be in your classroom ready to go. **Once you arrive at Coastal, stop by the Volunteer Headquarters and pick up your colorful Water Festival t-shirt!**

What have I left out? Any questions?

Again, THANK YOU for your support of conservation education in Baldwin County! 🙂

April Griffin
District Administrative Coordinator
Baldwin Co. Soil Conservation District

207 Faulkner Drive, Suite 107
Bay Minette, Alabama 36507
baldwin@alconservationdistricts.org
251-937-3297 Office
https://alabamasoilandwater.gov/

BALDWIN COUNTY
SOIL & WATER
CONSERVATION
DISTRICT

207 Faulkner Drive Suite 107
Bay Minette, Alabama 36507
251-937-3297, Extension 3
baldwin@alconservationdistricts.org

Baldwin County Envirothon

Thursday, February 22, 2024
Baldwin County Annex
Robertsdale, Alabama 36567

9:00 am:	Welcome & Introductions	Randall Hastings *Baldwin County Soil & Water Conservation District*
9:10 am:	Forestry	Jacob Bolin *Alabama Forestry Commission*
9:30 am:	Aquatic Ecology	Tyler Sibley *Alabama Forestry Association*
9:50 am:	Wildlife	Ross Jones *Alabama Department of Conservation & Natural Resources*
10:10 am:	Stormwater Runoff	Ashley Campbell *Baldwin County Commission*
10:30 am:	Soils/Land Use	DAndre Yancey Wade Gossett *USDA-Natural Resources Conservation Service*
11:00 am:	Lunch	
11:45 am:	Further Discussion/Questions/Review	
12:00 pm:	Test	
12:45 pm:	Grading Tests	
1:00 pm:	Winner	
1:05 pm:	Further Discussion/Questions/Review	
2:00 pm:	Conclusion	

GULF COAST RC&D COUNCIL

ALABAMA ENVIROTHON

USDA NRCS U.S. Department of Agriculture Natural Resources Conservation Service

Randall Hastings, Chairman
Blaine Chastang, Vice-Chairman
Adam Bertolla, Secretary/Treasurer
Tobin Street, Supervisor
Dawn Hopper, Supervisor

FORESTRY
TOOLS

TABLE 4-2 BALDWIN COUNTY PHASE II MS4

MCM 1 -Public Education Outreach Strategies and Goals

NPDES Permit Section	SWMPP Section	4-Public Education & Outreach Strategy	Goal	Pollution Targeted	Responsible Departments
Part III-B1	*4.4.6.1&2*	*Local Environmental Festivals-Watershed Festivals*	*Woods-n-Water, Jubilee Festival & Earth Day The county will sponsor or participate in one festival a year.*	*ALL*	*P&Z*
2023/2024	Date	Event	Description		
	4/24/2023	Earth Day	Watershed Booth		
	4/25/2023	Woods & Water	Brats Bus Sponsor		

Baldwin County, AL Commission

Published by Cloud Campaign · April 24 at 9:44 AM ·

Eastern Shore MS4 Partners Jesi Ward, City of Daphne; Kim Burmeister and Christina LeJeune, City of Fairhope; and Ashley Campbell, Baldwin County Commission join efforts at Mobile Bay Earth Day to educate citizens about Watersheds and Storm water pollution.

#EarthDay #MobileBayEarthDay #MobileDay

See insights and ads

Boost post

CITY OF SPANISH FORT

7361 Spanish Fort Blvd.
Spanish Fort, Alabama 36527
(251) 626-4884
(251) 626-4880 Fax

Michael M. McMillan
Mayor
Rebecca A. Gaines
City Clerk

City Council
Robert Curtis Smith
Carl L. Gustafson, Jr.
Shane M. Perry
Clewis W. Smith, Jr.
Mary W. Brabner

February 26, 2024

The Honorable Billie Jo Underwood
Baldwin County Commission
312 Courthouse Square
Suite 12
Bay Minette, Alabama 36507

RE: BRATS Service

Dear Chairman Underwood:

The 14th annual Delta Woods and Waters Expo will be held at 5 Rivers Delta Resource Center on the Causeway on April 25-27, 2024. As in the past, April 25-26 will be open to our school children for field trips, while April 27th will be open to the public. We are estimating a large crowd on the 27th for our public event. In that past, the County Commission has graciously always allowed the use of one of its BRATS buses for that day, and I would like to request that the Commission allow a BRATS bus to be available Saturday, April 27th from 8:00 a.m. to 5:00 p.m. to shuttle guests on the 5 Rivers property.

Please let me know if the Commissioners can fulfill my request. If you need any additional information, please give me a call at 251-626-4884.

Sincerely,

Michael M. McMillan
Mayor

March 4, 2022

REQUEST FOR BRATS TRANSIT SERVICE

Name of Organization: **City of Spanish Fort, Alabama** Date of Request: **2/26/2024**

Contact Person: **Rebecca A. Gaines** Email Address: **cityclerk@cityofspanishfort.com**

Phone Number: 251-410-6525 Billing Address: 7361 Spanish Fort Blvd., Spanish Fort, Alabama 36527 Do you currently have an approved account with Baldwin Regional Area Transit System? Yes __x___ No_____

POTENTIAL EXEMPTIONS OR EXCEPTIONS

EXEMPTION: Rural Program Purpose

Is the origin of the proposed trip outside the MPO Urbanized Area (see attached map)? ☐ Yes ☐❶ No

Will the proposed transportation be for a human service organization or for elderly, disabled, or low income passengers. ☐❶ Yes ☐ No

EXCEPTION 1: Service for Qualified Human Service Organizations (QHSO)

Is the requested service for individuals in one of the following three categories (check all that apply)?

x☐ Those with mobility limitations due to advance age ☐❶ Those with disabilities ☐❶ Those with low income

Does one of the following apply to your entity (check all that apply)?

☐ Receives funding from federal program listed in attachment ☐ Is a registered QHSO on the FTA charter website

EXCEPTION 2: Service for Government Officials on Official Government Business

Will the proposed trip occur within BRATS service area (currently all of Baldwin County)? x☐ Yes ☐ No

Will the proposed involve official government business? ☐❶ Yes ☐ No

Will at least one elected or appointed official be on each provided trip? ☐ Yes x☐ No

EXCEPTION 3: Service When Private Charter Service Not Available

Would you like BRATS to initiate exceptions by issuing a notice to determine whether any registered charter providers are interested in providing your entity with charter service? ☐ Yes ☐ No

NOTE: if you mark "yes" above, BRATS will issue the required notice to registered charter service providers within Baldwin County. If any provider responds with interest in providing the service, Baldwin County cannot provide your entity with the requested service.

EVENT INFORMATION

Name of Event: **Delta Woods and Waters Expo** Date of Event: **April 27, 2024**

Contact Person at Event: **Rebecca A. Gaines** Cell Phone Number: **251-232-4133**

Number of Vehicles Needed: 1 Number of Passengers: Several Hundred

Number of Wheelchairs: unknown Number of Lift Assist Passengers: unknown

Time to Begin Event: 8:00 Time Event Will End: 5:00

Pick Up Location & Physical Address: Delta Woods Resource Center, 30945 5 Rivers Blvd, Spanish Fort, Alabama. Shuttle service may also occur across the street at Meaher State Park is parking is full at 5 Rivers. _

Destination Location and Physical Address: Delta Woods Resource Center, 30945 5 Rivers Blvd, Spanish Fort, Alabama. Shuttle service may also occur across the street at Meaher State Park is parking is full at 5 Rivers.

A timed itinerary with address details must be supplied for multiple stops.

We acknowledge there will be additional charges for excessive cleanup or damage to the vehicle caused by passengers. We understand charges will include pre and post safety inspections of vehicle and travel times to and from event. We will not hold BRATS responsible for breakdowns, accidents, bad road conditions, inclement weather, and other conditions beyond its control.

Signed: _____

(Authorized Signature)

For: City of Spanish Fort

(Company Name)

Trip Scheduled: _____/_____

(scheduler signature) (date)

Approved Cost:_____

Event Pricing Matrix
2/27/2024

Name of Event	Delta Woods & Water Expo
Date of Event	Saturday, April 27, 2024

Date	Start Time of Service	End Time of Service	Event in Hours	Event Time in minutes	Pre-Trip Inspection	Post-Trip Inspection	Google Travel Time AM From Garage	Google Travel Time PM To Garage	Non Event Time in Minutes	Non Event Time in Hours	Total Hours	Cost Per Hour	Total Cost per day	Total Cost per day Rounded	Number of Buses	Overall cost	This doesn't include mileage for Shuttle only Travel. AM Mileage From Hub	PM Mileage To Hub	Total Daily Mileage
4/27/2024	8:00 AM	5:00 PM	9.00	540	15	15	30	30	90	1.50	10.50	$ 59.26	-	$622.23	1	$ 622.23	23.8	23.8	47.6
				0	15	15			30	0.50	0.50	$ 59.26		$0.00		$ -			0
				0	15	15			30	0.50	0.50	$ 59.26		$0.00		$ -			0
				0	15	15			30	0.50	0.50	$ 59.26		$0.00		$ -			0
														Total All Days		$ 622.23			

1 bus = $622.23
Bus out of Bay Minette or Robertsdale Hub

*see 1st tab (master) for calculations of cost/hour

Sign In

Baldv

Home File Search All Meetings Cale

Details Reports

File #: 24-0559 Version:

Agenda section: Consent

File created: 2/29/2024

On agenda: 3/19/2024

Agenda item title: Request from City o

Attachments: 1. Request Letter fr

History (1) Text

1 record Group Export

Date	Ver.	Action By
3/19/2024	1	Baldwin Count

Baldwin County Commission - Action Details

Details

File #: 240559 Version: 1

Agenda section: Consent

Title: Request from City of Spanish Fort for Donated Transportation Services for 14th Annual Delta Woods and Waters Expo

Mover: Seconder:

Result:

Agenda note:

Minutes note:

Action: Approved

Action text: At the request of the City of Spanish Fort, approve Baldwin Regional Area Transit System to donate transportation services for the 14th Annual Delta Woods and Waters Expo to be held at 5 Rivers Delta Resource Center on Saturday April 27, 2024, from 8:00 a.m. to 5:00 p.m.

Votes (0:0)

0 records

Person Name	Vote
No records to display.	

TABLE 4-2 BALDWIN COUNTY PHASE II MS4

MCM 1 -Public Education Outreach Strategies and Goals

NPDES Permit Section	SWMPP Section	4-Public Education & Outreach Strategy	Goal	Pollution Targeted	Responsible Departments
Part III-B-1-b-iii-(2)	*4.4.7.1*	*Reduction of Littler, Floatable & Debris-Watershed Signage & Environmental Awareness Signage*	*Throughout the permit cycle, maintain watershed and environmental awareness signs and inventory*	*Trash & Floatable*	*Hwy & P&Z*
	2023/2024		**Signs Inventoried and Maintained**		

TABLE 4 BALDWIN COUNTY PHASE II MS4

MCM 1 -Public Education Outreach Strategies and Goals

NPDES Permit Section	SWMPP Section	4-Public Education & Outreach Strategy	Goal	Pollution Targeted	Responsible Departments
Part III-B-1-b-iii-(1)	*4.4.7.2*	*Reduction of Littler, Floatable & Debris-Watershed Signage & Environmental Awareness Signage*	*In year 2, partner with Eastern Shore (ES) MS4 to host the community event to install storm drain labels throughout the ES MS4 area.*	*Trash & Floatable*	*P&Z*

Date:	Status
3/1/2024	Storm Drain Labels Ordered
2023/2024	*Storm Drains Not Installed Due Ordering Issues and Late Arrival*

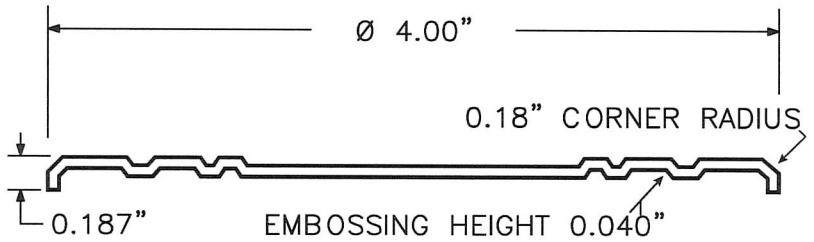
2 Joy Drive, Hackettstown, NJ 07840
800-248-2080 I csr@almetek.com
www.almetek.com

ART APPROVAL FORM

REV	DATE	DESCRIPTION
-	---	---

CUSTOMER:	ITEM NO:	DATE:	DRAWN BY:	MATERIALS & SPECIFICATIONS
Almetek Industries, Inc.	STDM-19764-SPSH	3/27/2024	AC	0.062" 302 ANNEALED STAINLESS STEEL (0.218 lbs.) 0.062" ANODIZED ALUMINUM (0.082 lbs.) 0.062" NATURAL ALUMINUM (0.082 lbs.) 0.062" BRASS (0.250 lbs.) INTERNAL REF: ---

2020 STDM Art Form.pdf - 05/05/20



SECTION VIEW

This is our interpretation of your artwork requirements. Review for accuracy and note any changes you wish to make before signing this approval form. NOTE: This art approval request form is required to begin the manufacturing process. By signing "approved as is", you acknowledge that the artwork is correct as shown and grant permission to Almetek to begin the manufacturing process. You also acknowledge that if the order is canceled after production has started, you are responsible for any material and labors costs incurred.

PLEASE RESPOND WITHIN 24-48 HOURS TO AVOID DELAYS	CUSTOMER APPROVAL SIGNATURE	DATE	TOLERANCE
PROPRIETARY AND CONFIDENTIAL. The information contained in this drawing is the sole property of Almetek Industries, Inc. Any reproduction in part or as a whole without the written permission of Almetek Industries, Inc. is prohibited.			.000 ± .005 .00 ± .030 .0 ± .060 FRACTION ± .015

TABLE 4 BALDWIN COUNTY PHASE II MS4

MCM 1 -Public Education Outreach Strategies and Goals

NPDES Permit Section	SWMPP Section	4-Public Education & Outreach Strategy	Goal	Pollution Targeted	Responsible Departments
Part III-B1d	*4.6*	*Program Evaluation*	*Throughout the permit cycle, evaluate the Education Outreach Minimum Control Measure strategies and goals achieved and submit an annual report*	*ALL*	*P&Z*

Date:	**Evaluation - MCM Strategies and Goals Met Except for Below**
2023/2024	*Part III-B-1-b-iii (1)* *4.4.7.2 -Install Storm Drain Labels* *Goal Not Met*
	The Public Education Outreach Minimum Control
	Measure strategies and goals have been tracked in the
	Annual Report's Spreadsheets. Proposed uppdates will
	be detailed in the MCM Evaluation Summary.

Table 5-1 Baldwin County Phase II MS4

MCM 1-Public Involvement/Public Participation Strategies and Goals

NPDES Permit Section	SWMPP Section	5-Public Involvement/Participation Strategy	Goal	Pollution Targeted	Responsible Departments	2022 Proposed	2022 Achieved	2023 Proposed	2023 Achieved	2024 Proposed	2024 Achieved	2025 Proposed	2025 Achieved	2026 Proposed	2026 Achieved
Part III-B1bv	5.2.1	Litter & Trash Abatement Programs	Throughout the permit cycle, the County will partner with Adopt-a-Mile, Adopt-a-Stream litter programs and track program events	Trash & Floatables	Solid Waste & P&Z	*	*	*	*						
Part III-B1bv	5.2.1	Litter & Trash Abatement Programs	Community Clean-Up -County will participate, promote, and /or sponsor one (1) event a year	Trash & Floatables	Solid Waste & P&Z	1	2	1	1 🗀						
Part III-B1bv	5.2.2.1	Litter & Trash Abatement Programs	Throughout the permit cycle, the County will provide recycle dumpsters within the MS4 area of the county. The county will track recycle quantities in the annual report	Trash	Solid Waste	✓	🗀	✓	✓🗀						
Part III-B1bv	5.2.1.2	Litter & Trash Abatement Programs	Baldwin County Clean Sweep- Household Waste Amnesty Day- the County will host one household solid waste amnesty day a permit cycle ~~a year.~~	Hazardous Waste- & Trash	Solid Waste	✓	🗀	1	X						
Part III-B1bi	5.2.2.2	Committees, Watershed Organizations & Groups;	During the permit cycle the County EAC hold eight (8) meeting a year	All	P&Z	8	25 🗀	8	12 🗀						
Part III-B1bi	5.2.2.2	Committees, Watershed Organizations & Groups;	During the Master Plan/Comprehensive Plan process, the EAC Review and Update the proposed plan updates.	All	P&Z & EAC	✓	🗀	©	©	©	©	©	©	©	©
Part III-B1bi	5.2.2.2	Committees, Watershed Organizations & Groups;	In year one of the permit cycle, the EAC Review and Update SWMPP	All	P&Z & EAC	✓	🗀	✓	✓🗀						
Part III-B1bv	5.2.2.3	Committees, Watershed Organizations & Groups;	Oncer per year, the County will host or attend Eastern Shore MS4 meeting	All	P&Z	1	2 🗀	1	1 🗀						
Part III-B1bv	5.2.2.4	Committees, Watershed Organizations & Groups;	County staff will promote, participate and track watershed organization events	All	P&Z	✓	✓	✓	✓🗀						
Part III-B1bv	5.2.2.4	Committees, Watershed Organizations & Groups;	County Staff will promote, participate and track attendance in County Watershed Management Plan Steering Committees	All	P&Z	✓	🗀	✓	3 🗀						
Part III-B1bv	5.2.2.5	Committees, Watershed Organizations & Groups;	Alabama Water Watch Monitoring (AWW)-Partner with the MBNEP to provide two (2) AWW trainings per permit cycle	All	P&Z	*	*	2	2 🗀						
Part III-B1bv	5.2.3	Commissions, Board of Adjustment & Other Public Involvement Opportunities	Through out the permit cycle, the County will track all Master Plan public meetings	All	P&Z	✓	🗀	©	©	©	©	©	©	©	©
Part III-B1bv	5.2.3 - 1,2&3	Commissions, Board of Adjustment & Other Public Involvement Opportunities	Through out the permit cycle, track Commission, BOA & Other Public Involvement Meetings	All	P&Z	✓	🗀	✓	✓🗀						
Part III-B-1d	5.4	Program Evaluation	Throughout the permit cycle, evaluate the Public Involvement and Participation Minimum Control Measure strategies and goals achieved and submit an annual report	All	P&Z	✓	✓	✓	✓						
					Totals	19	38	19	24						

	©	**Completed For Permit Cycle**
	*	**Not Proposed for Permit Year**
	**	**Completed Prior to Proposed Year**
	X	**Not Completed-Goal Not Met**
	🗀	**Attachment Included in Report**
	P&Z	**Planning & Zoning**
	Hwy	**Highway**

Table 5 Baldwin County Phase II MS4

MCM 1-Public Involvement/Public Participation Strategies and Goals

NPDES Permit Section	SWMPP Section	5-Public Involvement/Participation Strategy	Goal	Pollution Targeted	Responsible Departments
Part III-B1bv	*5.2.1*	*Litter & Trash Abatement Programs*	*Community Clean-Up County will participate and /or sponsor 1 event a year*	*Trash & Floatable*	*Solid Waste & P&Z*
2023/2024	**Date**	**Event**	**Location**		
	9/16/2023	Coastal Cleanup	Coastal Areas Including MS4		
	4/4/2023	ACF Clean Beach Initiative	Fort Morgan Community (Outside MS4)		
	5/22/2023	ACF Clean Beach Initiative	Fort Morgan Community (Outside MS4)		
	6/27/2023	ACF Clean Beach Initiative	Fort Morgan Community (Outside MS4)		
	8/29/2023	ACF Clean Beach Initiative	Fort Morgan Community (Outside MS4)		
	9/26/2023	ACF Clean Beach Initiative	Fort Morgan Community (Outside MS4)		
	2/27/2024	ACF Clean Beach Initiative	Fort Morgan Community (Outside MS4)		
	3/26/2024	ACF Clean Beach Initiative	Fort Morgan Community (Outside MS4)		

Baldwin County, AL Commission

Published by Cloud Campaign · Just now ·

Help ***Get the Trash Out of the Splash*** this coming Saturday, September 16th from 8 a.m. until 12 p.m. during the **36th Annual Alabama Coastal Cleanup!**

Interested in volunteering? Find your zone at: https://alabamacoastalcleanup.com/cleanupzones/

#CoastalCleanUp2023 #36thAnnualCoastalCleanup

See insights and ads

Boost post

Like Comment Share

CONNECT TO YOUR COAST

Fort Morgan Clean Beach Initiative Meeting Agenda
10:00am on Tuesday, April 4, 2023

https://meet.goto.com/MarkBerte/fmcbi
OR
(224) 501-3412 Access Code: 130-354-685#

1. **(Re)Introductions.**

2. **Recap volunteer and rolloff weight #s for March 19th collection:**
   - Fire Station #1
   - Beach Club Resort
   - First Station #2
   - Fort Morgan Historic Site

3. **Discuss any lessons learned.**

4. **Begin planning the June 16th "World Sea Turtle Day" Cleanup:**
   a. Background.
   b. Timeframe: 8:30-11:30am.
   c. Discuss Locations/Logistics: Do we want to do 4 locations again or 3?
   d. What new equipment do we need?

5. **Announcements.**

6. **Set the date and time of our next meeting.**

7. **Adjourn.**

Thank you, as always, for your time and your leadership!!

CONNECT TO YOUR COAST

Fort Morgan Clean Beach Initiative Meeting Agenda
10:30am on Tuesday, May 22, 2023

https://meet.goto.com/MarkBerte/fmcbi
OR
(224) 501-3412 Access Code: 130-354-685#

1. **Welcome and check in.**

2. **Get to know you question:** What is the most interesting piece of trash you have ever collected?

3. **Big topic:** Continue planning the Friday, June 16th *World Sea Turtle Day Cleanup*--
   - **a.** Background.
   - **b.** 8:30-11:30am.
   - **c.** Did FM Civic Association get their new vests/equipment?
   - **d.** Discuss Locations/Logistics:
     - Fire Station #1
     - Beach Club Resort
     - First Station #2?
     - Fort Morgan Historic Site
   - **e.** Registration Link.

4. **Announcements.**

5. **Set the date and time of our next meeting.**

6. **Adjourn.**

Thank you, as always, for your time and your leadership!!

CONNECT TO YOUR COAST

Fort Morgan Clean Beach Initiative Meeting Agenda
10:30am on Tuesday, June 27, 2023

https://meet.goto.com/MarkBerte/fmcbi
OR
(224) 501-3412 Access Code: 130-354-685#

1. **Welcome and check in.**

2. **Get to know you question:** What threats to sea turtles bother you the most?

3. **Big topic:** Report/Lessons Learned from the June 16/23 *Cleanup*--
   a. **June 16:** Weather monitoring/communications, 27 volunteers signed up, 6 staff, what else?
   b. **June 23:** Weather monitoring/communications, 13? volunteers, 5 staff, what else?
   c. **Collection:** Number of bags and weight?

4. **Set the date and time of our next meeting:** We normally skip July so August 22nd at 10:30?

5. **Announcements.**

6. **Adjourn.**

Thank you, as always, for your time and your leadership!!

CONNECT TO YOUR COAST

Fort Morgan Clean Beach Initiative Meeting Agenda
10:30am on Tuesday, August 29, 2023

https://meet.goto.com/MarkBerte/fmcbi
OR
(224) 501-3412 Access Code: 130-354-685#

1. **Welcome and check in.**
2. **Get to know you question:** Name one thing you wish everyone who visited Fort Morgan understood.
3. **Big topic:** September 16th Coastal Cleanup for Fort Morgan. What can our group do to help this year?
4. **Announcements.**
5. **Set the date and time of our next meeting:** September 26th at 10:30?
6. **Adjourn.**

Thank you, as always, for your time and your leadership!!

CONNECT TO YOUR COAST

Fort Morgan Clean Beach Initiative Meeting Agenda
10:30am on Tuesday, September 26, 2023

https://meet.goto.com/MarkBerte/fmcbi
OR
(224) 501-3412 Access Code: 130-354-685#

1. **Welcome and check in.**

2. **Get to know you question:** What was the most unique item you collected during the most recent Coastal Cleanup?

3. **Recap/Lessons Learned**: September 16th Coastal Cleanup along Fort Morgan.

4. **Big topic:** Is there anything we want to do to help prepare for next Spring?

5. **Announcements:**
   - **September 28:** Connect to Your Coast event @ Oyster City.
   - **September 29:** Mega Musical Chairs.
   - **September 30:** Keesler *5000 Reasons* campaign closes.
   - **October 5:** *Earth Gives* campaign ends.
   - **October 11:** Coastal Kids Quiz Round 1 concludes.
   - **Others?**

6. **Set the date and time of our next meeting.**

7. **Adjourn.**

Thank you, as always, for your time and your leadership!!

CONNECT TO YOUR COAST

Fort Morgan Clean Beach Initiative Meeting Agenda
10:30am on Tuesday, February 27, 2024

By Computer: https://zoom.us/j/97407902056?pwd=ckFxbUpreFBKRGFycVF5M1czVG91dz09
By Phone: OneTap +13092053325,,97407902056#,,,,*647311# OR Dial 309-205-3325 with the following Meeting ID: 974 0790 2056 and Passcode: 647311

1. **Welcome and check in.**

2. **Get to know you question:** What was the biggest change in your life since the last time we met?

3. **Discuss what worked best for past spring cleanups.**

4. **Big Topic Discussion: April 7th Cleanup.**
   a. Background.
   b. Timeframe: 1:00-4:00pm.
   c. Volunteer Recruitment.
   d. Discuss Logistics.

5. **Announcements:**
   - **March 19:** Share the Beach Volunteer Kickoff Meeting (Baldwin).
   - **March 20:** Share the Beach Volunteer Kickoff Meeting (Mobile).
   - **March 21:** Connect to Your Coast event at Wingman (Mobile).
   - **March 23:** Crepe Myrtle Trail Bicycle Ride (Mobile).
   - **April 18:** Connect to Your Coast event at TrimTab (Birmingham).
   - **May 4, 7, 9, and 11:** Good Life Bicycle Rides (Gulf Shores/Orange Beach).
   - **Others?**

6. **Set the date and time of our next meeting.**

7. **Adjourn.**

Thank you, as always, for your time and your leadership!!

CONNECT TO YOUR COAST

Fort Morgan Clean Beach Initiative Meeting Agenda
10:30am on Tuesday, March 26, 2024

By Computer: https://zoom.us/j/97407902056?pwd=ckFxbUpreFBKRGFycVF5M1czVG91dz09
By Phone: OneTap +13092053325,,97407902056#,,,,*647311# OR Dial 309-205-3325 with the following Meeting ID: 974 0790 2056 and Passcode: 647311

1. **Check in.**

2. **Get to know you question:** What was largest item you have ever found on a cleanup?

3. **Big Topic Discussion:** April 7th Cleanup.
   a. Review details: 1:00-4:00pm @ Fort Morgan State Historic Site, 110 AL-180, Gulf Shores, Alabama 36542.
   b. Volunteer Recruitment Status Updates:
      i. # of confirmed Hangout volunteers.
      ii. # of confirmed Hangout volunteer standbys.
      iii. # of confirmed general volunteers.
   c. Discuss weather check and communication on April 5th.
   d. Discuss Day of Logistics.

4. **Announcements:**
   - **April 17:** Mobile Bay Green Drinks at Braided River Brewing.
   - **April 18:** Connect to Your Coast event at TrimTab (Birmingham).
   - **April 20:** Mobile Bay Earth Day at Fairhope Pier.
   - **May 4, 7, 9, and 11:** Good Life Bicycle Rides (Gulf Shores/Orange Beach).
   - **Others?**

5. **Set the date and time of our next meeting.**

6. **Adjourn.**

Thank you, as always, for your time and your leadership!!

Table 5 Baldwin County Phase II MS4

MCM 1-Public Involvement/Public Participation Strategies and Goals

NPDES Permit Section	SWMPP Section	5-Public Involvement/Participation Strategy	Goal	Pollution Targeted	Responsible Departments
Part III-B1bv	*5.2.1*	*Litter & Trash Abatement Programs*	*Throughout the permit cycle, the County will partner with Adopt-a-Mile, Adopt-a-Stream litter programs and track program events*	*Trash & Floatable*	*Solid Waste & P&Z*

Permit Year	Description
2022-2023	No Activities
2023-2024	No Activities

Table 5-1 Baldwin County Phase II MS4

MCM 1-Public Involvement/Public Participation Strategies and Goals

NPDES Permit Section	SWMPP Section	5-Public Involvement/Participation Strategy	Goal	Pollution Targeted	Responsible Departments
Part III-B1bv	*5.2.1*	*Litter & Trash Abatement Programs*	*Baldwin County Clean Sweep Household Waste Amnesty Day the County will host one household solid waste amnesty day a year*	*Hazardous Waste & Trash*	*Solid Waste*
Date		**Event**	**Location**	**Tons**	**Tires**
2023/2024		Waste Amnesty Day	Cancelled Due to Construction of New Facility		
			Baldwin County Solid Waste Department became the		
			Baldwin County Solid Waste Authority (BCSWA).		

STATE OF ALABAMA)

COUNTY OF BALDWIN)

RESOLUTION NO. 2023-114
AUTHORIZE THE FORMATION OF THE SOLID WASTE DISPOSAL AUTHORITY OF BALDWIN COUNTY, ALABAMA, INC.

KNOW ALL MEN BY THESE PRESENTS, that **WHEREAS** a sworn application has been presented by James E. Ball, Matthew P. McKenzie, Billie Jo Underwood, and Charles F. Gruber seeking authority to form a public corporation under and pursuant to the provisions of Title 11-89A-1, et seq., Code of Alabama (1975), as amended, and.

WHEREAS, the Baldwin County Commission has reviewed the contents of said application and the accompanying form of certificate of incorporation of the Solid Waste Disposal Authority of Baldwin County, Alabama, Inc.;

WHEREAS, it is found and determined that the statements contained in the application are true;

NOW, THEREFORE, BE IT RESOLVED by the Baldwin County Commission that the statements and contents of the application seeking authority to incorporate a solid waste disposal authority, together with the proposed form of certificate incorporation of the Solid Waste Disposal Authority of Baldwin County, Alabama, Inc. filed with the application, has been reviewed and it is hereby declared and resolved that the statements in the application are true, and it is wise, expedient, and necessary that the proposed solid waste disposal authority be formed and approved and the applicants are hereby authorized to proceed to form the Solid Waste Disposal Authority of Baldwin County, Alabama, Inc. by the filing for record in the Baldwin County Probate Records of said certificate of incorporation and application pursuant to the provisions of Title 11-89A-4, Code of Alabama (1975), as amended.

BE IT FURTHER RESOLVED that a copy of the application be spread upon the minutes of this meeting of the Baldwin County Commission.

DONE this the 2nd day of May, 2023.

CHARLES F. GRUBER, CHAIRMAN

ATTEST:

RONALD J. CINK, BUDGET DIRECTOR

STATE OF ALABAMA)
COUNTY OF BALDWIN)

I, the undersigned, a Notary Public in and for said County in said State, hereby certify that CHARLES F. GRUBER, whose name as Chairman, and RONALD J. CINK, whose name as Budget Director, of the BALDWIN COUNTY COMMISSION, are signed to the foregoing instrument, and who are known to me, acknowledged before me on this day that being informed of the contents of the said instrument, they executed the same voluntarily for and as the act of the Baldwin County Commission on the day the same bears date.

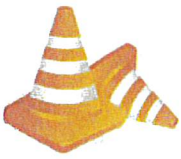
Given under my hand and seal hereto affixed by me on this the 2nd day of May, 2023.

Notary Public

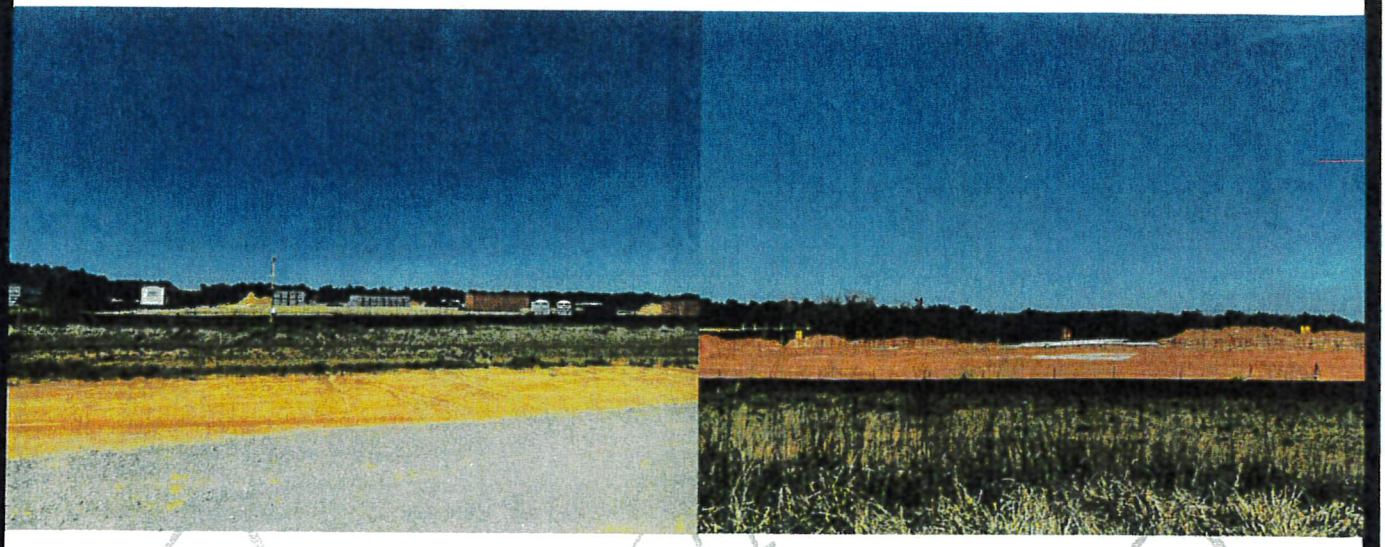
My Commission Expires: My Commission Expires: August 31, 2026

Baldwin County Materials Recovery Facility

Baldwin County Materials Recovery Facility was construction awarded to Persons Services Corp. out of Mobile, AL for $17.1 Million.



FALL 2024!!



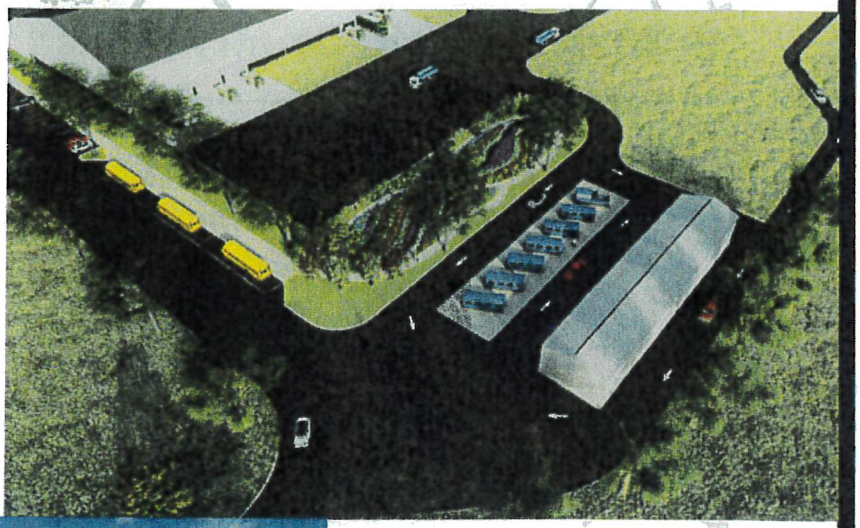
MRF Site Plan

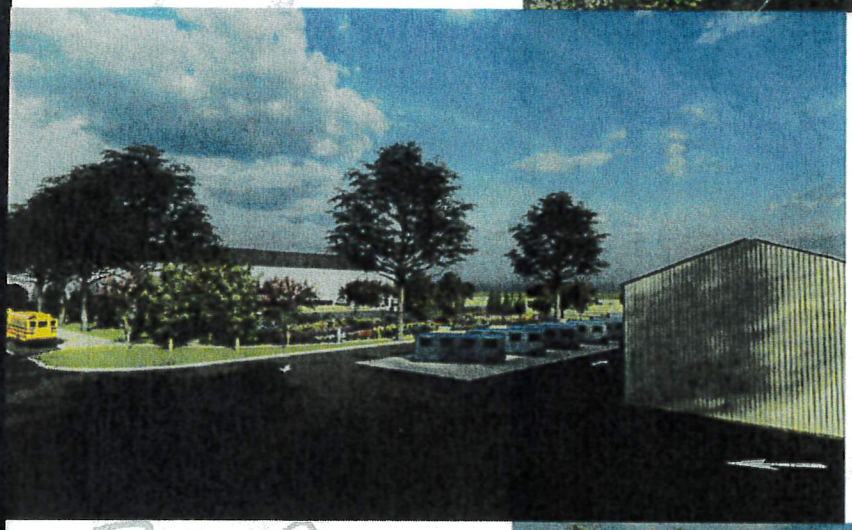
Table 5-1 Baldwin County Phase II MS4
MCM 1-Public Involvement/Public Participation Strategies and Goals

NPDES Permit Section	SWMPP Section	5-Public Involvement/Participation Strategy	Goal	Pollution Targeted	Responsible Departments
Part III-B1bv	*5.2.2.1*	*Litter & Trash Abatement Programs*	*Throughout the permit cycle, the County will provide recycle dumpsters within the MS4 area of the county. The county will track recycle quantities in the annual report.*	*Trash*	*Solid Waste*
2023/2024		**Recycle Bins Locations**	**Total Recycle Tons**		
		Fairhope Courthouse	268		
		MacBride Landfill	86		
		Spanish Fort Kids Park	231		

CHaRM

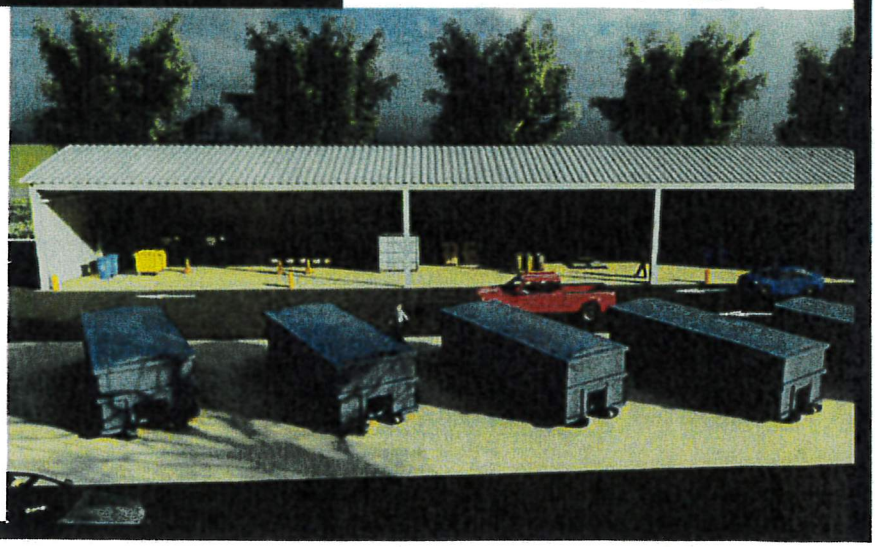
The following renderings are for the CHaRM Center at the Magnolia Landfill





SWDA Baldwin County is in the process of designing and constructing 3 CHaRM Centers to open in 2024.

Magnolia CHaRM
Fairhope CHaRM
Spanish Fort CHaRM



Curbside Recycling

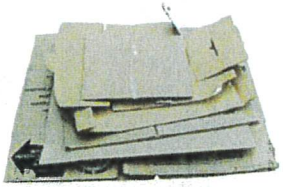
In 2025, Baldwin County plans to begin curbside recycling for the unincorporated areas. For the four municipalities that currently offer curbside recycling, we are excited that they will soon be able to bring their recyclable materials to the new MRF.

Below are the items that we will be accepting in curbside recycling bins:

Mixed Paper

Aluminum/Tin

Plastics #1-7



Cardboard

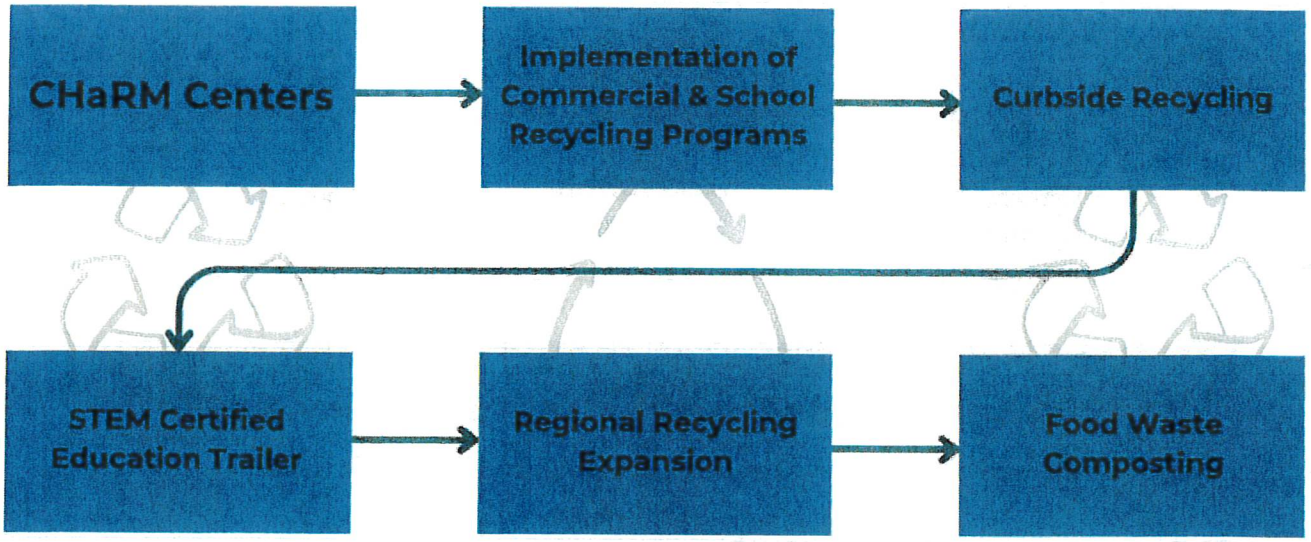
We are very excited here at the SWDA Baldwin County to see recycling grow, and can't wait to share updates about the construction of the MRF and new information about recycling!
If you have any questions reach out to Jennifer Doan at Jennifer.Doan@baldwincountyswda.org

Recycling Goals

The Solid Waste Disposal Authority of Baldwin County is also working on designing and constructing several Convenience Centers to be located throughout the county. Each Commission District will have at least one manned CHaRM Center. We are hoping to have five Convenience Centers up and running in the next few years.

These CHaRM Centers are the first step in our goal to increase recycling rates and education throughout Baldwin County and South Alabama.

Below are our current recycling goals:



CHaRM

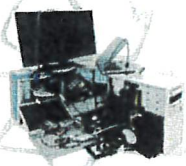
The Convenience Centers will be known as CHaRM Facilities which stands for Center for Hard to Recycle Materials. The following are items that we plan to accept at the CHaRM Facilities.

Mixed Paper

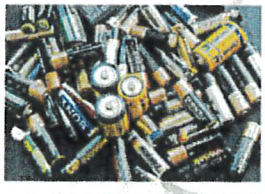
Glass

Tanks & Extinguishers

Plastics #1-7

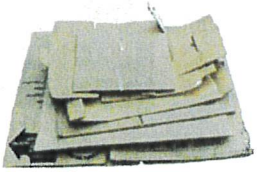


Electronics



Batteries

Aluminum/Tin



Cardboard

Household Hazardous Waste

Lightbulbs

The first CHaRM Facility that should be up and running in 2024 will be located adjacent to the new MRF. A list of materials accepted at each site will be posted on the Baldwin County SWDA's website https://baldwincountyswda.org once the first CHaRM Center is up and running.

Vol. 2

July 2023

BALDWIN COUNTY, ALABAMA Recycle

Smaller Recycling Bins!

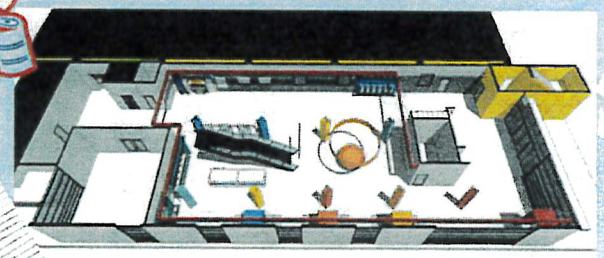
The smaller recycling bins are officially in! The bins will be delivered next week. If you would like a smaller bin in your breakroom or community areas but have not reached out yet,
it is not too late!
We have 7-gallon and 10-gallon recycling bins. The 7-gallon bins are for plastic and aluminum. The 10-gallon bins are for paper.

Contact Info

Jennifer Doan
Email: Jennifer.Doan@baldwincountyal.gov
Office: (251) 972-6878 EXT: 2702

Sneak Peak at the Educational Facility!!

1ST FLOOR



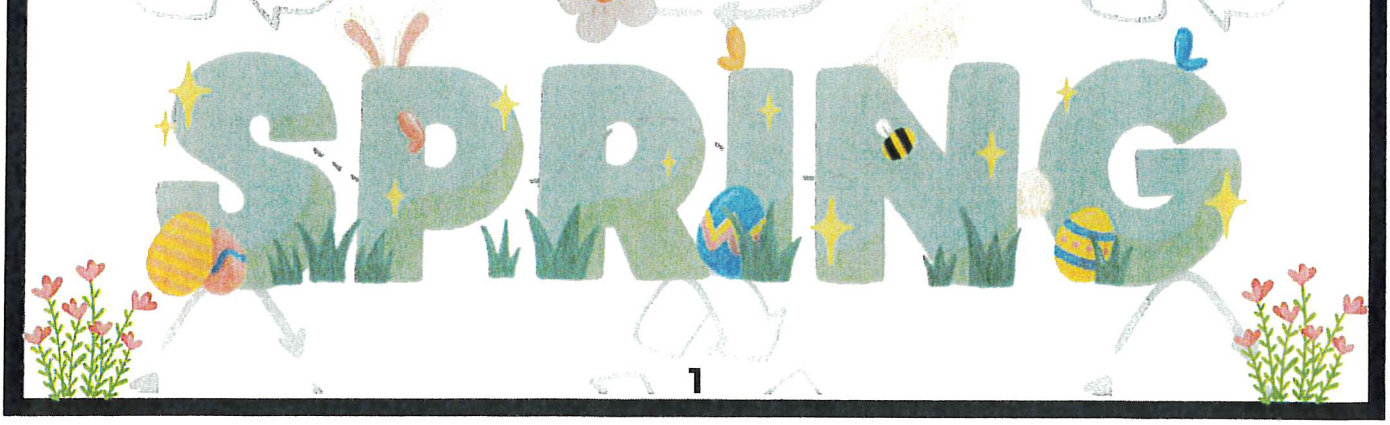
2ND FLOOR

SWDA Recycling Newletter

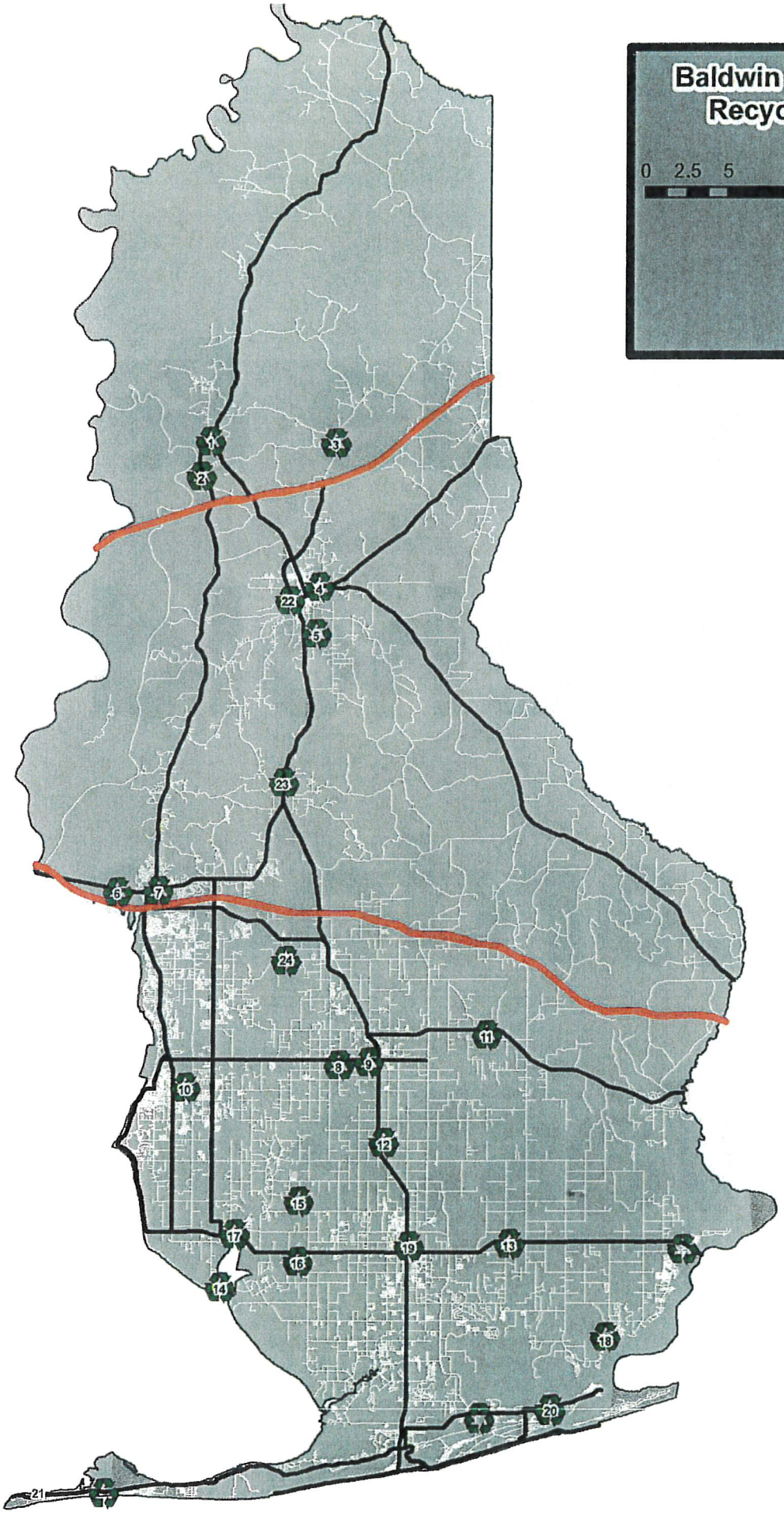
Happy First Day of Spring! from The Solid Waste Disposal Authority of Baldwin County, Alabama, Inc! We are excited to be sending out the first Recycling Newsletter of 2024.

The Recycling Newsletter will be sent out bimonthly.

We can't wait to give you updates on the construction of the new Materials Recovery Facility and any other projects involving recycling!



Recycle & Household Hazardous Waste

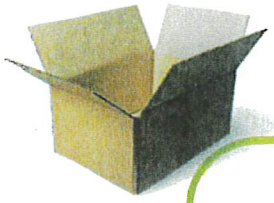


SOLID WASTE DISPOSAL AUTHORITY
ESTD
2023
BALDWIN COUNTY, AL

Site	Location
1	Stockton Post Office
2	Bicentennial Park
3	Perdido VFD
4	Commission Administration
5	Bay Minette Transfer Station
6	5 Rivers Delta Center
7	Spanish Fort Kids Park
8	Little Hall
9	Robertsdale Central Annex
10	Fairhope Courthouse
11	Elsanor Community Center
12	Summerdale 1st & Jefferson St
13	Elberta VFD
14	Camp Beckwith
15	Magnolia Landfill
16	Magnolia Springs VFD
17	Weeks Bay Reserve
18	Perdido Beach VFD
19	Foley Courthouse
20	Orange Beach Walker Ln
21	Fort Morgan Pier
22	Bay Minette Public Works
23	Stapleton VFD
24	MacBride Landfill

SOLID WASTE AUTHORITY

BALDWIN COUNTY



WHAT TO RECYCLE

Paper

- Newspaper & Inserts
- Magazines & catalogs
- Junk Mail & envelopes
- Cardboard
- Phonebooks
- Office and School Papers (Colored Paper)
- Brown Paper Bags (Grocery Bags)
- Boxboard

(cereal boxes, crackers boxes, etc.)

Plastic

- Plastics no. 1 through 7
- Plastic Milk Jugs
- 2- Liters
- Bottles and Containers

Aluminum

- Aluminum Cans & Lids
- Pet Food cans
- Aluminum Foil Baking Pans
- Balls of Tin; Foil Pie Tins
- Tin and Steel Cans & Lids
- Metal Pots, Pans & Cookie Sheets

WHAT NOT TO RECYCLE

Paper

- Ice Cream Cartons
- Wax Paper
- Milk Cartons
- Juice Boxes

Plastic

- Plastic Bags (Grocery)
- Juice Pouches
- Tarps
- Styrofoam

Other

- Glass (Any Color)
- Aerosol Cans
- Household Garbage or Yard Waste
- Garden Hose
- Window Blinds
- Bedding or Linens
- Carpeting or Rugs
- Construction Materials

Totals

ADEM Tonnage - RECYCLE by Site by Day
(((Trans.DateOut BETWEEN '2023-04-01' AND '2024-03-31')
AND (Trans.Void = 0)
AND (Trans.BillAcct BETWEEN '0' AND '9999999')
AND (Trans.SiteCode LIKE 'MG%')
AND (vwMT.Label IN ('SS SINGLE STREAM'))))

Truck	MTLabel	NetSTN	DateOut	DetailTotalFee	BillCompany	SiteCode	TranNum	BillAcct	STEntryLabel	Vol
BCSW135	SS SINGLE STREAM	0.47	04/03/2023	$0.00	FAIRHOPE CH RECY	MG	1726143	705952		
BCSW135	SS SINGLE STREAM	0.09	04/04/2023	$0.00	FAIRHOPE CH RECY	MG	1726157	705952		
BCSW135	SS SINGLE STREAM	0.15	04/05/2023	$0.00	FAIRHOPE CH RECY	MG	1726195	705952		
BCSW135	SS SINGLE STREAM	0.26	04/06/2023	$0.00	FAIRHOPE CH RECY	MG	1726208	705952		
BCSW135	SS SINGLE STREAM	0.19	04/07/2023	$0.00	FAIRHOPE CH RECY	MG	1726215	705952		
BCSW135	SS SINGLE STREAM	0.53	04/10/2023	$0.00	FAIRHOPE CH RECY	MG	1726232	705952		
BCSW135	SS SINGLE STREAM	0.25	04/11/2023	$0.00	FAIRHOPE CH RECY	MG	1726258	705952		
BCSW135	SS SINGLE STREAM	0.19	04/12/2023	$0.00	FAIRHOPE CH RECY	MG	1726501	705952		
BCSW135	SS SINGLE STREAM	0.24	04/13/2023	$0.00	FAIRHOPE CH RECY	MG	1726508	705952		
BCSW135	SS SINGLE STREAM	0.17	04/14/2023	$0.00	FAIRHOPE CH RECY	MG	1726518	705952		
BCSW135	SS SINGLE STREAM	0.84	04/17/2023	$0.00	FAIRHOPE CH RECY	MG	1726546	705952		
BCSW135	SS SINGLE STREAM	0.21	04/18/2023	$0.00	FAIRHOPE CH RECY	MG	1726567	705952		
BCSW135	SS SINGLE STREAM	0.25	04/19/2023	$0.00	FAIRHOPE CH RECY	MG	1726574	705952		
BCSW135	SS SINGLE STREAM	0.18	04/20/2023	$0.00	FAIRHOPE CH RECY	MG	1726582	705952		
BCSW135	SS SINGLE STREAM	0.26	04/21/2023	$0.00	FAIRHOPE CH RECY	MG	1726687	705952		
BCSW135	SS SINGLE STREAM	0.46	04/24/2023	$0.00	FAIRHOPE CH RECY	MG	1726732	705952		
BCSW135	SS SINGLE STREAM	0.30	04/25/2023	$0.00	FAIRHOPE CH RECY	MG	1726747	705952		
BCSW135	SS SINGLE STREAM	0.12	04/26/2023	$0.00	FAIRHOPE CH RECY	MG	1726754	705952		
BCSW135	SS SINGLE STREAM	0.16	04/27/2023	$0.00	FAIRHOPE CH RECY	MG	1726764	705952		
BCSW135	SS SINGLE STREAM	0.04	04/28/2023	$0.00	FAIRHOPE CH RECY	MG	1726778	705952		
BCSW135	SS SINGLE STREAM	0.60	05/01/2023	$0.00	FAIRHOPE CH RECY	MG	1727781	705952		
BCSW135	SS SINGLE STREAM	0.30	05/02/2023	$0.00	FAIRHOPE CH RECY	MG	1727796	705952		
BCSW135	SS SINGLE STREAM	0.30	05/03/2023	$0.00	FAIRHOPE CH RECY	MG	1727803	705952		
BCSW135	SS SINGLE STREAM	0.18	05/04/2023	$0.00	FAIRHOPE CH RECY	MG	1727811	705952		
BCSW135	SS SINGLE STREAM	0.30	05/05/2023	$0.00	FAIRHOPE CH RECY	MG	1728670	705952		
BCSW135	SS SINGLE STREAM	0.59	05/08/2023	$0.00	FAIRHOPE CH RECY	MG	1729036	705952		
BCSW135	SS SINGLE STREAM	0.30	05/09/2023	$0.00	FAIRHOPE CH RECY	MG	1729058	705952		
BCSW135	SS SINGLE STREAM	0.65	05/11/2023	$0.00	FAIRHOPE CH RECY	MG	1730844	705952		
BCSW135	SS SINGLE STREAM	0.49	05/15/2023	$0.00	FAIRHOPE CH RECY	MG	1730903	705952		
BCSW135	SS SINGLE STREAM	0.24	05/16/2023	$0.00	FAIRHOPE CH RECY	MG	1730921	705952		
BCSW135	SS SINGLE STREAM	0.20	05/17/2023	$0.00	FAIRHOPE CH RECY	MG	1733350	705952		
BCSW106	SS SINGLE STREAM	0.11	05/18/2023	$0.00	FAIRHOPE CH RECY	MG	1733360	705952		
BCSW135	SS SINGLE STREAM	0.30	05/19/2023	$0.00	FAIRHOPE CH RECY	MG	1733383	705952		
BCSW135	SS SINGLE STREAM	0.11	05/20/2023	$0.00	FAIRHOPE CH RECY	MG	1733388	705952		
BCSW135	SS SINGLE STREAM	0.58	05/22/2023	$0.00	FAIRHOPE CH RECY	MG	1733418	705952		
BCSW135	SS SINGLE STREAM	0.30	05/23/2023	$0.00	FAIRHOPE CH RECY	MG	1733430	705952		
BCSW135	SS SINGLE STREAM	0.26	05/24/2023	$0.00	FAIRHOPE CH RECY	MG	1733439	705952		
BCSW135	SS SINGLE STREAM	0.18	05/25/2023	$0.00	FAIRHOPE CH RECY	MG	1733449	705952		
BCSW150	SS SINGLE STREAM	0.44	05/26/2023	$0.00	FAIRHOPE CH RECY	MG	1733457	705952		
BCSW135	SS SINGLE STREAM	0.31	05/26/2023	$0.00	FAIRHOPE CH RECY	MG	1733460	705952		
BCSW135	SS SINGLE STREAM	0.18	05/27/2023	$0.00	FAIRHOPE CH RECY	MG	1733465	705952		
BCSW150	SS SINGLE STREAM	1.27	05/29/2023	$0.00	FAIRHOPE CH RECY	MG	1733483	705952		
BCSW135	SS SINGLE STREAM	0.18	05/30/2023	$0.00	FAIRHOPE CH RECY	MG	1733895	705952		
BCSW135	SS SINGLE STREAM	0.23	05/31/2023	$0.00	FAIRHOPE CH RECY	MG	1733901	705952		
BCSW135	SS SINGLE STREAM	0.21	06/01/2023	$0.00	FAIRHOPE CH RECY	MG	1735014	705952		
BCSW135	SS SINGLE STREAM	0.82	06/02/2023	$0.00	FAIRHOPE CH RECY	MG	1735019	705952		
BCSW135	SS SINGLE STREAM	0.70	06/05/2023	$0.00	FAIRHOPE CH RECY	MG	1735030	705952		
BCSW135	SS SINGLE STREAM	0.26	06/06/2023	$0.00	FAIRHOPE CH RECY	MG	1736344	705952		
BCSW106	SS SINGLE STREAM	0.32	06/07/2023	$0.00	FAIRHOPE CH RECY	MG	1736349	705952		
BCSW135	SS SINGLE STREAM	0.16	06/08/2023	$0.00	FAIRHOPE CH RECY	MG	1736358	705952		
BCSW135	SS SINGLE STREAM	0.18	06/09/2023	$0.00	FAIRHOPE CH RECY	MG	1736363	705952		
BCSW135	SS SINGLE STREAM	0.48	06/12/2023	$0.00	FAIRHOPE CH RECY	MG	1738390	705952		
BCSW135	SS SINGLE STREAM	0.44	06/13/2023	$0.00	FAIRHOPE CH RECY	MG	1738403	705952		
BCSW135	SS SINGLE STREAM	0.25	06/14/2023	$0.00	FAIRHOPE CH RECY	MG	1738414	705952		
BCSW135	SS SINGLE STREAM	0.83	06/15/2023	$0.00	FAIRHOPE CH RECY	MG	1738444	705952		
BCSW135	SS SINGLE STREAM	0.11	06/16/2023	$0.00	FAIRHOPE CH RECY	MG	1738448	705952		
BCSW106	SS SINGLE STREAM	0.50	06/19/2023	$0.00	FAIRHOPE CH RECY	MG	1738464	705952		
BCSW106	SS SINGLE STREAM	0.20	06/20/2023	$0.00	FAIRHOPE CH RECY	MG	1738478	705952		
BCSW135	SS SINGLE STREAM	0.32	06/21/2023	$0.00	FAIRHOPE CH RECY	MG	1739501	705952		
BCSW135	SS SINGLE STREAM	0.35	06/23/2023	$0.00	FAIRHOPE CH RECY	MG	1739514	705952		
BCSW135	SS SINGLE STREAM	0.19	06/24/2023	$0.00	FAIRHOPE CH RECY	MG	1739515	705952		
BCSW135	SS SINGLE STREAM	0.57	06/26/2023	$0.00	FAIRHOPE CH RECY	MG	1740235	705952		

Truck	MTLabel	NetSTN	DateOut	DetailTotalFee	BillCompany	SiteCode	TranNum	BillAcct	STEntryLabel	Vol
BCSW135	SS SINGLE STREAM	0.25	06/27/2023	$0.00	FAIRHOPE CH RECY	MG	1740264	705952		
BCSW135	SS SINGLE STREAM	0.40	06/28/2023	$0.00	FAIRHOPE CH RECY	MG	1740272	705952		
BCSW135	SS SINGLE STREAM	0.22	06/29/2023	$0.00	FAIRHOPE CH RECY	MG	1740732	705952		
BCSW135	SS SINGLE STREAM	0.18	06/30/2023	$0.00	FAIRHOPE CH RECY	MG	1740727	705952		
BCSW135	SS SINGLE STREAM	0.22	07/01/2023	$0.00	FAIRHOPE CH RECY	MG	1742835	705952		
BCSW135	SS SINGLE STREAM	0.66	07/03/2023	$0.00	FAIRHOPE CH RECY	MG	1742848	705952		
BCSW135	SS SINGLE STREAM	0.27	07/04/2023	$0.00	FAIRHOPE CH RECY	MG	1742860	705952		
BCSW135	SS SINGLE STREAM	0.23	07/05/2023	$0.00	FAIRHOPE CH RECY	MG	1742869	705952		
BCSW135	SS SINGLE STREAM	0.20	07/06/2023	$0.00	FAIRHOPE CH RECY	MG	1743163	705952		
BCSW135	SS SINGLE STREAM	0.37	07/07/2023	$0.00	FAIRHOPE CH RECY	MG	1743177	705952		
BCSW135	SS SINGLE STREAM	0.05	07/08/2023	$0.00	FAIRHOPE CH RECY	MG	1743178	705952		
BCSW135	SS SINGLE STREAM	0.53	07/10/2023	$0.00	FAIRHOPE CH RECY	MG	1743192	705952		
BCSW135	SS SINGLE STREAM	0.31	07/11/2023	$0.00	FAIRHOPE CH RECY	MG	1743200	705952		
BCSW135	SS SINGLE STREAM	0.17	07/12/2023	$0.00	FAIRHOPE CH RECY	MG	1743204	705952		
BCSW135	SS SINGLE STREAM	0.17	07/13/2023	$0.00	FAIRHOPE CH RECY	MG	1745366	705952		
BCSW135	SS SINGLE STREAM	0.40	07/14/2023	$0.00	FAIRHOPE CH RECY	MG	1745377	705952		
BCSW135	SS SINGLE STREAM	0.20	07/15/2023	$0.00	FAIRHOPE CH RECY	MG	1745378	705952		
BCSW135	SS SINGLE STREAM	0.57	07/17/2023	$0.00	FAIRHOPE CH RECY	MG	1745392	705952		
BCSW152	SS SINGLE STREAM	1.70	07/17/2023	$0.00	FAIRHOPE CH RECY	MG	1745394	705952		
BCSW135	SS SINGLE STREAM	0.44	07/18/2023	$0.00	FAIRHOPE CH RECY	MG	1745687	705952		
BCSW135	SS SINGLE STREAM	0.36	07/19/2023	$0.00	FAIRHOPE CH RECY	MG	1745692	705952		
BCSW135	SS SINGLE STREAM	0.11	07/20/2023	$0.00	FAIRHOPE CH RECY	MG	1745697	705952		
BCSW106	SS SINGLE STREAM	0.40	07/21/2023	$0.00	FAIRHOPE CH RECY	MG	1745708	705952		
BCSW106	SS SINGLE STREAM	0.25	07/22/2023	$0.00	FAIRHOPE CH RECY	MG	1745709	705952		
BCSW106	SS SINGLE STREAM	0.41	07/24/2023	$0.00	FAIRHOPE CH RECY	MG	1745568	705952		
BCSW106	SS SINGLE STREAM	0.42	07/25/2023	$0.00	FAIRHOPE CH RECY	MG	1746010	705952		
BCSW106	SS SINGLE STREAM	0.13	07/26/2023	$0.00	FAIRHOPE CH RECY	MG	1746312	705952		
BCSW106	SS SINGLE STREAM	0.32	07/27/2023	$0.00	FAIRHOPE CH RECY	MG	1746647	705952		
BCSW106	SS SINGLE STREAM	0.42	07/28/2023	$0.00	FAIRHOPE CH RECY	MG	1746891	705952		
BCSW106	SS SINGLE STREAM	0.20	07/29/2023	$0.00	FAIRHOPE CH RECY	MG	1746992	705952		
BCSW150	SS SINGLE STREAM	0.40	07/31/2023	$0.00	FAIRHOPE CH RECY	MG	1747199	705952		
BCSW106	SS SINGLE STREAM	0.30	07/31/2023	$0.00	FAIRHOPE CH RECY	MG	1747260	705952		
BCSW135	SS SINGLE STREAM	0.19	08/01/2023	$0.00	FAIRHOPE CH RECY	MG	1747613	705952		
BCSW135	SS SINGLE STREAM	0.73	08/03/2023	$0.00	FAIRHOPE CH RECY	MG	1748198	705952		
BCSW135	SS SINGLE STREAM	0.25	08/04/2023	$0.00	FAIRHOPE CH RECY	MG	1748487	705952		
BCSW135	SS SINGLE STREAM	0.56	08/07/2023	$0.00	FAIRHOPE CH RECY	MG	1748927	705952		
BCSW135	SS SINGLE STREAM	0.24	08/08/2023	$0.00	FAIRHOPE CH RECY	MG	1749211	705952		
BCSW135	SS SINGLE STREAM	0.24	08/09/2023	$0.00	FAIRHOPE CH RECY	MG	1749508	705952		
BCSW135	SS SINGLE STREAM	0.32	08/11/2023	$0.00	FAIRHOPE CH RECY	MG	1749978	705952		
BCSW135	SS SINGLE STREAM	0.20	08/12/2023	$0.00	FAIRHOPE CH RECY	MG	1750105	705952		
BCSW106	SS SINGLE STREAM	0.38	08/14/2023	$0.00	FAIRHOPE CH RECY	MG	1750445	705952		
BCSW150	SS SINGLE STREAM	0.98	08/15/2023	$0.00	FAIRHOPE CH RECY	MG	1750666	705952		
BCSW135	SS SINGLE STREAM	0.17	08/15/2023	$0.00	FAIRHOPE CH RECY	MG	1750857	705952		
BCSW135	SS SINGLE STREAM	0.23	08/16/2023	$0.00	FAIRHOPE CH RECY	MG	1751133	705952		
BCSW135	SS SINGLE STREAM	0.09	08/17/2023	$0.00	FAIRHOPE CH RECY	MG	1751336	705952		
BCSW135	SS SINGLE STREAM	0.21	08/18/2023	$0.00	FAIRHOPE CH RECY	MG	1751832	705952		
BCSW135	SS SINGLE STREAM	0.54	08/21/2023	$0.00	FAIRHOPE CH RECY	MG	1752173	705952		
BCSW150	SS SINGLE STREAM	0.36	08/21/2023	$0.00	FAIRHOPE CH RECY	MG	1751911	705952		
BCSW150	SS SINGLE STREAM	0.73	08/22/2023	$0.00	FAIRHOPE CH RECY	MG	1752403	705952		
BCSW135	SS SINGLE STREAM	0.10	08/22/2023	$0.00	FAIRHOPE CH RECY	MG	1752556	705952		
BCSW135	SS SINGLE STREAM	0.27	08/23/2023	$0.00	FAIRHOPE CH RECY	MG	1752827	705952		
BCSW135	SS SINGLE STREAM	0.34	08/25/2023	$0.00	FAIRHOPE CH RECY	MG	1753285	705952		
BCSW135	SS SINGLE STREAM	0.09	08/26/2023	$0.00	FAIRHOPE CH RECY	MG	1753356	705952		
BCSW135	SS SINGLE STREAM	0.48	08/28/2023	$0.00	FAIRHOPE CH RECY	MG	1753729	705952		
BCSW135	SS SINGLE STREAM	0.18	08/29/2023	$0.00	FAIRHOPE CH RECY	MG	1754069	705952		
BCSW135	SS SINGLE STREAM	0.17	08/30/2023	$0.00	FAIRHOPE CH RECY	MG	1754301	705952		
BCSW135	SS SINGLE STREAM	0.36	09/01/2023	$0.00	FAIRHOPE CH RECY	MG	1754824	705952		
BCSW135	SS SINGLE STREAM	0.51	09/04/2023	$0.00	FAIRHOPE CH RECY	MG	1755111	705952		
BCSW135	SS SINGLE STREAM	0.18	09/05/2023	$0.00	FAIRHOPE CH RECY	MG	1755391	705952		
BCSW135	SS SINGLE STREAM	0.22	09/06/2023	$0.00	FAIRHOPE CH RECY	MG	1755735	705952		
BCSW135	SS SINGLE STREAM	0.29	09/07/2023	$0.00	FAIRHOPE CH RECY	MG	1755993	705952		
BCSW135	SS SINGLE STREAM	0.12	09/08/2023	$0.00	FAIRHOPE CH RECY	MG	1756195	705952		
BCSW135	SS SINGLE STREAM	0.44	09/11/2023	$0.00	FAIRHOPE CH RECY	MG	1756639	705952		
BCSW135	SS SINGLE STREAM	0.28	09/13/2023	$0.00	FAIRHOPE CH RECY	MG	1757221	705952		
BCSW135	SS SINGLE STREAM	0.18	09/14/2023	$0.00	FAIRHOPE CH RECY	MG	1757421	705952		
BCSW131	SS SINGLE STREAM	0.18	09/15/2023	$0.00	FAIRHOPE CH RECY	MG	1757627	705952		
BCSW135	SS SINGLE STREAM	0.65	09/18/2023	$0.00	FAIRHOPE CH RECY	MG	1758137	705952		

Truck	MTLabel	NetSTN	DateOut	DetailTotalFee	BillCompany	SiteCode	TranNum	BillAcct	STEntryLabel	Vol
BCSW135	SS SINGLE STREAM	0.33	09/19/2023	$0.00	FAIRHOPE CH RECY	MG	1758432	705952		
BCSW135	SS SINGLE STREAM	0.41	09/20/2023	$0.00	FAIRHOPE CH RECY	MG	1758786	705952		
BCSW135	SS SINGLE STREAM	0.24	09/21/2023	$0.00	FAIRHOPE CH RECY	MG	1758937	705952		
BCSW135	SS SINGLE STREAM	0.31	09/22/2023	$0.00	FAIRHOPE CH RECY	MG	1759269	705952		
BCSW135	SS SINGLE STREAM	0.61	09/26/2023	$0.00	FAIRHOPE CH RECY	MG	1761328	705952		
BCSW135	SS SINGLE STREAM	0.29	09/26/2023	$0.00	FAIRHOPE CH RECY	MG	1760159	705952		
BCSW135	SS SINGLE STREAM	0.22	09/27/2023	$0.00	FAIRHOPE CH RECY	MG	1760494	705952		
BCSW135	SS SINGLE STREAM	0.06	09/28/2023	$0.00	FAIRHOPE CH RECY	MG	1760639	705952		
BCSW135	SS SINGLE STREAM	0.29	09/29/2023	$0.00	FAIRHOPE CH RECY	MG	1760984	705952		
BCSW135	SS SINGLE STREAM	0.71	10/02/2023	$0.00	FAIRHOPE CH RECY	MG	1761459	705952		
BCSW135	SS SINGLE STREAM	0.23	10/03/2023	$0.00	FAIRHOPE CH RECY	MG	1761729	705952		
BCSW135	SS SINGLE STREAM	0.30	10/04/2023	$0.00	FAIRHOPE CH RECY	MG	1763350	705952		
BCSW135	SS SINGLE STREAM	0.27	10/05/2023	$0.00	FAIRHOPE CH RECY	MG	1762258	705952		
BCSW135	SS SINGLE STREAM	0.18	10/06/2023	$0.00	FAIRHOPE CH RECY	MG	1762364	705952		
BCSW135	SS SINGLE STREAM	0.54	10/09/2023	$0.00	FAIRHOPE CH RECY	MG	1762990	705952		
BCSW128	SS SINGLE STREAM	0.22	10/10/2023	$0.00	FAIRHOPE CH RECY	MG	1763199	705952		
BCSW135	SS SINGLE STREAM	0.26	10/10/2023	$0.00	FAIRHOPE CH RECY	MG	1763286	705952		
BCSW135	SS SINGLE STREAM	0.36	10/11/2023	$0.00	FAIRHOPE CH RECY	MG	1763570	705952		
BCSW135	SS SINGLE STREAM	0.27	10/12/2023	$0.00	FAIRHOPE CH RECY	MG	1763782	705952		
BCSW135	SS SINGLE STREAM	0.07	10/13/2023	$0.00	FAIRHOPE CH RECY	MG	1763837	705952		
BCSW135	SS SINGLE STREAM	0.71	10/16/2023	$0.00	FAIRHOPE CH RECY	MG	1764443	705952		
BCSW135	SS SINGLE STREAM	0.43	10/17/2023	$0.00	FAIRHOPE CH RECY	MG	1764749	705952		
BCSW135	SS SINGLE STREAM	0.34	10/18/2023	$0.00	FAIRHOPE CH RECY	MG	1765042	705952		
BCSW135	SS SINGLE STREAM	0.32	10/19/2023	$0.00	FAIRHOPE CH RECY	MG	1765308	705952		
BCSW135	SS SINGLE STREAM	0.18	10/20/2023	$0.00	FAIRHOPE CH RECY	MG	1765443	705952		
BCSW135	SS SINGLE STREAM	0.62	10/23/2023	$0.00	FAIRHOPE CH RECY	MG	1766030	705952		
BCSW135	SS SINGLE STREAM	0.33	10/24/2023	$0.00	FAIRHOPE CH RECY	MG	1766337	705952		
BCSW135	SS SINGLE STREAM	0.16	10/26/2023	$0.00	FAIRHOPE CH RECY	MG	1766912	705952		
BCSW135	SS SINGLE STREAM	0.38	10/26/2023	$0.00	FAIRHOPE CH RECY	MG	1766727	705952		
BCSW135	SS SINGLE STREAM	0.33	10/27/2023	$0.00	FAIRHOPE CH RECY	MG	1767130	705952		
BCSW135	SS SINGLE STREAM	0.36	10/30/2023	$0.00	FAIRHOPE CH RECY	MG	1767449	705952		
BCSW135	SS SINGLE STREAM	0.13	10/31/2023	$0.00	FAIRHOPE CH RECY	MG	1767793	705952		
BCSW135	SS SINGLE STREAM	0.57	11/02/2023	$0.00	FAIRHOPE CH RECY	MG	1768249	705952		
BCSW135	SS SINGLE STREAM	0.31	11/03/2023	$0.00	FAIRHOPE CH RECY	MG	1768537	705952		
BCSW135	SS SINGLE STREAM	0.56	11/06/2023	$0.00	FAIRHOPE CH RECY	MG	1769003	705952		
BCSW135	SS SINGLE STREAM	0.27	11/07/2023	$0.00	FAIRHOPE CH RECY	MG	1769274	705952		
BCSW135	SS SINGLE STREAM	0.13	11/09/2023	$0.00	FAIRHOPE CH RECY	MG	1769635	705952		
BCSW135	SS SINGLE STREAM	0.39	11/09/2023	$0.00	FAIRHOPE CH RECY	MG	1769838	705952		
BCSW135	SS SINGLE STREAM	0.19	11/10/2023	$0.00	FAIRHOPE CH RECY	MG	1769948	705952		
BCSW135	SS SINGLE STREAM	0.60	11/13/2023	$0.00	FAIRHOPE CH RECY	MG	1770491	705952		
BCSW135	SS SINGLE STREAM	0.20	11/14/2023	$0.00	FAIRHOPE CH RECY	MG	1770740	705952		
BCSW135	SS SINGLE STREAM	0.24	11/15/2023	$0.00	FAIRHOPE CH RECY	MG	1770918	705952		
BCSW135	SS SINGLE STREAM	0.25	11/16/2023	$0.00	FAIRHOPE CH RECY	MG	1771097	705952		
BCSW135	SS SINGLE STREAM	0.28	11/17/2023	$0.00	FAIRHOPE CH RECY	MG	1771351	705952		
BCSW135	SS SINGLE STREAM	0.84	11/20/2023	$0.00	FAIRHOPE CH RECY	MG	1771854	705952		
BCSW135	SS SINGLE STREAM	0.39	11/21/2023	$0.00	FAIRHOPE CH RECY	MG	1772072	705952		
BCSW135	SS SINGLE STREAM	0.42	11/22/2023	$0.00	FAIRHOPE CH RECY	MG	1772309	705952		
BCSW135	SS SINGLE STREAM	0.38	11/24/2023	$0.00	FAIRHOPE CH RECY	MG	1772495	705952		
BCSW135	SS SINGLE STREAM	0.46	11/27/2023	$0.00	FAIRHOPE CH RECY	MG	1772869	705952		
BCSW135	SS SINGLE STREAM	0.35	11/28/2023	$0.00	FAIRHOPE CH RECY	MG	1773193	705952		
BCSW135	SS SINGLE STREAM	0.39	11/29/2023	$0.00	FAIRHOPE CH RECY	MG	1773470	705952		
BCSW135	SS SINGLE STREAM	0.31	11/30/2023	$0.00	FAIRHOPE CH RECY	MG	1773736	705952		
BCSW135	SS SINGLE STREAM	0.20	12/01/2023	$0.00	FAIRHOPE CH RECY	MG	1773989	705952		
BCSW135	SS SINGLE STREAM	0.63	12/04/2023	$0.00	FAIRHOPE CH RECY	MG	1774273	705952		
BCSW135	SS SINGLE STREAM	0.40	12/05/2023	$0.00	FAIRHOPE CH RECY	MG	1774523	705952		
BCSW135	SS SINGLE STREAM	0.44	12/06/2023	$0.00	FAIRHOPE CH RECY	MG	1774790	705952		
BCSW135	SS SINGLE STREAM	0.44	12/07/2023	$0.00	FAIRHOPE CH RECY	MG	1775052	705952		
BCSW135	SS SINGLE STREAM	0.24	12/08/2023	$0.00	FAIRHOPE CH RECY	MG	1775174	705952		
BCSW135	SS SINGLE STREAM	0.62	12/11/2023	$0.00	FAIRHOPE CH RECY	MG	1775686	705952		
BCSW135	SS SINGLE STREAM	0.32	12/12/2023	$0.00	FAIRHOPE CH RECY	MG	1775975	705952		
BCSW135	SS SINGLE STREAM	0.25	12/13/2023	$0.00	FAIRHOPE CH RECY	MG	1776307	705952		
BCSW135	SS SINGLE STREAM	0.20	12/14/2023	$0.00	FAIRHOPE CH RECY	MG	1776495	705952		
BCSW135	SS SINGLE STREAM	0.42	12/18/2023	$0.00	FAIRHOPE CH RECY	MG	1777286	705952		
BCSW135	SS SINGLE STREAM	0.32	12/19/2023	$0.00	FAIRHOPE CH RECY	MG	1777533	705952		
BCSW135	SS SINGLE STREAM	0.39	12/20/2023	$0.00	FAIRHOPE CH RECY	MG	1777806	705952		
BCSW135	SS SINGLE STREAM	0.32	12/21/2023	$0.00	FAIRHOPE CH RECY	MG	1778063	705952		
BCSW106	SS SINGLE STREAM	0.50	12/26/2023	$0.00	FAIRHOPE CH RECY	MG	1778599	705952		

Truck	MTLabel	NetSTN	DateOut	DetailTotalFee	BillCompany	SiteCode	TranNum	BillAcct	STEntryLabel	Vol
BCSW135	SS SINGLE STREAM	0.73	12/27/2023	$0.00	FAIRHOPE CH RECY	MG	1778669	705952		
BCSW135	SS SINGLE STREAM	0.37	12/27/2023	$0.00	FAIRHOPE CH RECY	MG	1778878	705952		
BCSW106	SS SINGLE STREAM	0.49	12/28/2023	$0.00	FAIRHOPE CH RECY	MG	1778946	705952		
BCSW135	SS SINGLE STREAM	0.38	12/28/2023	$0.00	FAIRHOPE CH RECY	MG	1779191	705952		
BCSW135	SS SINGLE STREAM	0.23	12/29/2023	$0.00	FAIRHOPE CH RECY	MG	1779445	705952		
BCSW101	SS SINGLE STREAM	0.82	01/02/2024	$0.00	FAIRHOPE CH RECY	MG	1779879	705952		
BCSW106	SS SINGLE STREAM	0.21	01/02/2024	$0.00	FAIRHOPE CH RECY	MG	1779812	705952		
BCSW135	SS SINGLE STREAM	0.58	01/02/2024	$0.00	FAIRHOPE CH RECY	MG	1779949	705952		
BCSW135	SS SINGLE STREAM	0.22	01/03/2024	$0.00	FAIRHOPE CH RECY	MG	1780177	705952		
BCSW135	SS SINGLE STREAM	0.24	01/04/2024	$0.00	FAIRHOPE CH RECY	MG	1780461	705952		
BCSW135	SS SINGLE STREAM	0.17	01/05/2024	$0.00	FAIRHOPE CH RECY	MG	1780591	705952		
BCSW135	SS SINGLE STREAM	0.74	01/09/2024	$0.00	FAIRHOPE CH RECY	MG	1781078	705952		
BCSW106	SS SINGLE STREAM	0.43	01/09/2024	$0.00	FAIRHOPE CH RECY	MG	1781188	705952		
BCSW135	SS SINGLE STREAM	0.07	01/09/2024	$0.00	FAIRHOPE CH RECY	MG	1781206	705952		
BCSW135	SS SINGLE STREAM	0.33	01/10/2024	$0.00	FAIRHOPE CH RECY	MG	1781510	705952		
BCSW135	SS SINGLE STREAM	0.17	01/11/2024	$0.00	FAIRHOPE CH RECY	MG	1781703	705952		
BCSW135	SS SINGLE STREAM	0.12	01/12/2024	$0.00	FAIRHOPE CH RECY	MG	1781891	705952		
BCSW135	SS SINGLE STREAM	0.50	01/15/2024	$0.00	FAIRHOPE CH RECY	MG	1782281	705952		
BCSW135	SS SINGLE STREAM	0.41	01/16/2024	$0.00	FAIRHOPE CH RECY	MG	1782558	705952		
BCSW135	SS SINGLE STREAM	0.14	01/17/2024	$0.00	FAIRHOPE CH RECY	MG	1782806	705952		
BCSW135	SS SINGLE STREAM	0.16	01/18/2024	$0.00	FAIRHOPE CH RECY	MG	1783030	705952		
BCSW135	SS SINGLE STREAM	0.12	01/19/2024	$0.00	FAIRHOPE CH RECY	MG	1783209	705952		
BCSW135	SS SINGLE STREAM	0.53	01/22/2024	$0.00	FAIRHOPE CH RECY	MG	1783719	705952		
BCSW135	SS SINGLE STREAM	0.20	01/23/2024	$0.00	FAIRHOPE CH RECY	MG	1783961	705952		
BCSW135	SS SINGLE STREAM	0.48	01/25/2024	$0.00	FAIRHOPE CH RECY	MG	1784262	705952		
BCSW135	SS SINGLE STREAM	0.05	01/25/2024	$0.00	FAIRHOPE CH RECY	MG	1784338	705952		
BCSW135	SS SINGLE STREAM	0.12	01/26/2024	$0.00	FAIRHOPE CH RECY	MG	1784498	705952		
BCSW135	SS SINGLE STREAM	0.68	01/29/2024	$0.00	FAIRHOPE CH RECY	MG	1784979	705952		
BCSW135	SS SINGLE STREAM	0.28	01/30/2024	$0.00	FAIRHOPE CH RECY	MG	1785264	705952		
BCSW135	SS SINGLE STREAM	0.35	01/31/2024	$0.00	FAIRHOPE CH RECY	MG	1785542	705952		
BCSW135	SS SINGLE STREAM	0.05	02/01/2024	$0.00	FAIRHOPE CH RECY	MG	1785710	705952		
BCSW135	SS SINGLE STREAM	0.31	02/02/2024	$0.00	FAIRHOPE CH RECY	MG	1785959	705952		
BCSW135	SS SINGLE STREAM	0.67	02/05/2024	$0.00	FAIRHOPE CH RECY	MG	1786520	705952		
BCSW135	SS SINGLE STREAM	0.34	02/06/2024	$0.00	FAIRHOPE CH RECY	MG	1786826	705952		
BCSW135	SS SINGLE STREAM	0.40	02/07/2024	$0.00	FAIRHOPE CH RECY	MG	1787136	705952		
BCSW135	SS SINGLE STREAM	0.20	02/08/2024	$0.00	FAIRHOPE CH RECY	MG	1787363	705952		
BCSW135	SS SINGLE STREAM	0.09	02/09/2024	$0.00	FAIRHOPE CH RECY	MG	1787532	705952		
BCSW135	SS SINGLE STREAM	0.71	02/12/2024	$0.00	FAIRHOPE CH RECY	MG	1787952	705952		
BCSW135	SS SINGLE STREAM	0.38	02/13/2024	$0.00	FAIRHOPE CH RECY	MG	1788237	705952		
BCSW135	SS SINGLE STREAM	0.26	02/14/2024	$0.00	FAIRHOPE CH RECY	MG	1788558	705952		
BCSW135	SS SINGLE STREAM	0.06	02/15/2024	$0.00	FAIRHOPE CH RECY	MG	1788689	705952		
BCSW135	SS SINGLE STREAM	0.36	02/16/2024	$0.00	FAIRHOPE CH RECY	MG	1789044	705952		
BCSW135	SS SINGLE STREAM	0.61	02/19/2024	$0.00	FAIRHOPE CH RECY	MG	1789475	705952		
BCSW135	SS SINGLE STREAM	0.18	02/20/2024	$0.00	FAIRHOPE CH RECY	MG	1789757	705952		
BCSW135	SS SINGLE STREAM	0.54	02/21/2024	$0.00	FAIRHOPE CH RECY	MG	1790066	705952		
BCSW135	SS SINGLE STREAM	0.14	02/22/2024	$0.00	FAIRHOPE CH RECY	MG	1790298	705952		
BCSW135	SS SINGLE STREAM	0.27	02/23/2024	$0.00	FAIRHOPE CH RECY	MG	1790571	705952		
BCSW135	SS SINGLE STREAM	0.62	02/26/2024	$0.00	FAIRHOPE CH RECY	MG	1792316	705952		
BCSW135	SS SINGLE STREAM	0.25	02/27/2024	$0.00	FAIRHOPE CH RECY	MG	1791564	705952		
BCSW135	SS SINGLE STREAM	0.45	02/28/2024	$0.00	FAIRHOPE CH RECY	MG	1791866	705952		
BCSW135	SS SINGLE STREAM	0.12	02/29/2024	$0.00	FAIRHOPE CH RECY	MG	1792107	705952		
BCSW135	SS SINGLE STREAM	0.06	03/01/2024	$0.00	FAIRHOPE CH RECY	MG	1792354	705952		
BCSW135	SS SINGLE STREAM	0.78	03/05/2024	$0.00	FAIRHOPE CH RECY	MG	1793146	705952		
BCSW135	SS SINGLE STREAM	0.26	03/05/2024	$0.00	FAIRHOPE CH RECY	MG	1793024	705952		
BCSW135	SS SINGLE STREAM	0.23	03/06/2024	$0.00	FAIRHOPE CH RECY	MG	1793309	705952		
BCSW135	SS SINGLE STREAM	0.25	03/07/2024	$0.00	FAIRHOPE CH RECY	MG	1793637	705952		
BCSW135	SS SINGLE STREAM	0.11	03/08/2024	$0.00	FAIRHOPE CH RECY	MG	1793839	705952		
BCSW135	SS SINGLE STREAM	0.62	03/11/2024	$0.00	FAIRHOPE CH RECY	MG	1794360	705952		
BCSW135	SS SINGLE STREAM	0.36	03/12/2024	$0.00	FAIRHOPE CH RECY	MG	1794686	705952		
BCSW135	SS SINGLE STREAM	0.32	03/13/2024	$0.00	FAIRHOPE CH RECY	MG	1794977	705952		
BCSW135	SS SINGLE STREAM	0.35	03/14/2024	$0.00	FAIRHOPE CH RECY	MG	1795282	705952		
BCSW135	SS SINGLE STREAM	0.19	03/15/2024	$0.00	FAIRHOPE CH RECY	MG	1795445	705952		
BCSW135	SS SINGLE STREAM	0.57	03/18/2024	$0.00	FAIRHOPE CH RECY	MG	1795960	705952		
BCSW135	SS SINGLE STREAM	0.07	03/19/2024	$0.00	FAIRHOPE CH RECY	MG	1796144	705952		
BCSW135	SS SINGLE STREAM	0.27	03/20/2024	$0.00	FAIRHOPE CH RECY	MG	1796620	705952		
BCSW135	SS SINGLE STREAM	0.16	03/21/2024	$0.00	FAIRHOPE CH RECY	MG	1796766	705952		
BCSW135	SS SINGLE STREAM	0.15	03/22/2024	$0.00	FAIRHOPE CH RECY	MG	1797132	705952		

Truck	MTLabel	NetSTN	DateOut	DetailTotalFee	BillCompany	SiteCode	TranNum	BillAcct	STEntryLabel	Vol
BCSW135	SS SINGLE STREAM	0.89	03/25/2024	$0.00	FAIRHOPE CH RECY	MG	1797616	705952		
BCSW135	SS SINGLE STREAM	0.13	03/26/2024	$0.00	FAIRHOPE CH RECY	MG	1797844	705952		
BCSW135	SS SINGLE STREAM	0.31	03/27/2024	$0.00	FAIRHOPE CH RECY	MG	1798118	705952		
BCSW135	SS SINGLE STREAM	0.25	03/28/2024	$0.00	FAIRHOPE CH RECY	MG	1798338	705952		
BCSW135	SS SINGLE STREAM	0.33	03/29/2024	$0.00	FAIRHOPE CH RECY	MG	1798620	705952		
Grand Summaries		Sum = 91.21		Sum = $0.00			Count = 268			

Totals

ADEM Tonnage - RECYCLE by Site by Day
(((Trans.DateOut BETWEEN '2023-04-01' AND '2024-03-31')
AND (Trans.Void = 0)
AND (Trans.BillAcct BETWEEN '0' AND '9999999')
AND (Trans.SiteCode LIKE 'MG%')
AND (vwMT.Label IN ('SS SINGLE STREAM'))))

Truck	MTLabel	NetSTN	DateOut	DetailTotalFee	BillCompany	SiteCode	TranNum	BillAcct	STEntryLabel	Vol
BCSW135	SS SINGLE STREAM	0.09	04/05/2023	$0.00	MACBRIDE RECY	MG	1726162	705957		
BCSW135	SS SINGLE STREAM	0.10	04/05/2023	$0.00	MACBRIDE RECY	MG	1726192	705957		
BCSW135	SS SINGLE STREAM	0.29	04/12/2023	$0.00	MACBRIDE RECY	MG	1726500	705957		
BCSW135	SS SINGLE STREAM	0.37	04/19/2023	$0.00	MACBRIDE RECY	MG	1726573	705957		
BCSW135	SS SINGLE STREAM	0.52	04/19/2023	$0.00	MACBRIDE RECY	MG	1726576	705957		
BCSW135	SS SINGLE STREAM	0.17	04/26/2023	$0.00	MACBRIDE RECY	MG	1726755	705957		
BCSW135	SS SINGLE STREAM	0.08	04/26/2023	$0.00	MACBRIDE RECY	MG	1726756	705957		
BCSW135	SS SINGLE STREAM	0.37	05/03/2023	$0.00	MACBRIDE RECY	MG	1727801	705957		
BCSW135	SS SINGLE STREAM	0.38	05/03/2023	$0.00	MACBRIDE RECY	MG	1727802	705957		
BCSW135	SS SINGLE STREAM	0.41	05/10/2023	$0.00	MACBRIDE RECY	MG	1730832	705957		
BCSW135	SS SINGLE STREAM	0.44	05/10/2023	$0.00	MACBRIDE RECY	MG	1730834	705957		
BCSW135	SS SINGLE STREAM	0.20	05/17/2023	$0.00	MACBRIDE RECY	MG	1733352	705957		
BCSW135	SS SINGLE STREAM	0.50	05/24/2023	$0.00	MACBRIDE RECY	MG	1733436	705957		
BCSW135	SS SINGLE STREAM	0.47	05/24/2023	$0.00	MACBRIDE RECY	MG	1733438	705957		
BCSW135	SS SINGLE STREAM	0.38	05/31/2023	$0.00	MACBRIDE RECY	MG	1733899	705957		
BCSW135	SS SINGLE STREAM	0.20	05/31/2023	$0.00	MACBRIDE RECY	MG	1733900	705957		
BCSW135	SS SINGLE STREAM	0.21	06/07/2023	$0.00	MACBRIDE RECY	MG	1736347	705957		
BCSW106	SS SINGLE STREAM	0.29	06/07/2023	$0.00	MACBRIDE RECY	MG	1736348	705957		
BCSW135	SS SINGLE STREAM	0.24	06/14/2023	$0.00	MACBRIDE RECY	MG	1738411	705957		
BCSW135	SS SINGLE STREAM	0.19	06/14/2023	$0.00	MACBRIDE RECY	MG	1738413	705957		
BCSW135	SS SINGLE STREAM	0.39	06/21/2023	$0.00	MACBRIDE RECY	MG	1739500	705957		
BCSW135	SS SINGLE STREAM	0.30	06/28/2023	$0.00	MACBRIDE RECY	MG	1740269	705957		
BCSW135	SS SINGLE STREAM	0.40	06/28/2023	$0.00	MACBRIDE RECY	MG	1740270	705957		
BCSW135	SS SINGLE STREAM	0.49	07/05/2023	$0.00	MACBRIDE RECY	MG	1742867	705957		
BCSW135	SS SINGLE STREAM	0.47	07/05/2023	$0.00	MACBRIDE RECY	MG	1742871	705957		
BCSW135	SS SINGLE STREAM	0.39	07/12/2023	$0.00	MACBRIDE RECY	MG	1743203	705957		
BCSW135	SS SINGLE STREAM	0.50	07/19/2023	$0.00	MACBRIDE RECY	MG	1745690	705957		
BCSW135	SS SINGLE STREAM	1.41	07/19/2023	$0.00	MACBRIDE RECY	MG	1745691	705957		
BCSW106	SS SINGLE STREAM	0.76	07/26/2023	$0.00	MACBRIDE RECY	MG	1746249	705957		
BCSW135	SS SINGLE STREAM	0.35	08/02/2023	$0.00	MACBRIDE RECY	MG	1747954	705957		
BCSW135	SS SINGLE STREAM	0.28	08/02/2023	$0.00	MACBRIDE RECY	MG	1747991	705957		
BCSW135	SS SINGLE STREAM	0.21	08/09/2023	$0.00	MACBRIDE RECY	MG	1749544	705957		
BCSW135	SS SINGLE STREAM	0.30	08/16/2023	$0.00	MACBRIDE RECY	MG	1751093	705957		
BCSW135	SS SINGLE STREAM	0.21	08/16/2023	$0.00	MACBRIDE RECY	MG	1751168	705957		
BCSW135	SS SINGLE STREAM	0.41	08/23/2023	$0.00	MACBRIDE RECY	MG	1752807	705957		
BCSW135	SS SINGLE STREAM	0.76	08/30/2023	$0.00	MACBRIDE RECY	MG	1754256	705957		
BCSW135	SS SINGLE STREAM	0.38	08/30/2023	$0.00	MACBRIDE RECY	MG	1754341	705957		
BCSW135	SS SINGLE STREAM	0.33	09/06/2023	$0.00	MACBRIDE RECY	MG	1755701	705957		
BCSW135	SS SINGLE STREAM	0.45	09/13/2023	$0.00	MACBRIDE RECY	MG	1757189	705957		
BCSW135	SS SINGLE STREAM	0.44	09/13/2023	$0.00	MACBRIDE RECY	MG	1760498	705957		
BCSW135	SS SINGLE STREAM	0.60	09/20/2023	$0.00	MACBRIDE RECY	MG	1758819	705957		
BCSW135	SS SINGLE STREAM	0.37	09/27/2023	$0.00	MACBRIDE RECY	MG	1760447	705957		
BCSW135	SS SINGLE STREAM	0.48	09/27/2023	$0.00	MACBRIDE RECY	MG	1761330	705957		
BCSW135	SS SINGLE STREAM	0.31	10/04/2023	$0.00	MACBRIDE RECY	MG	1762007	705957		
BCSW135	SS SINGLE STREAM	0.19	10/04/2023	$0.00	MACBRIDE RECY	MG	1762053	705957		
BCSW135	SS SINGLE STREAM	0.40	10/11/2023	$0.00	MACBRIDE RECY	MG	1763533	705957		
BCSW135	SS SINGLE STREAM	0.39	10/18/2023	$0.00	MACBRIDE RECY	MG	1765000	705957		
BCSW135	SS SINGLE STREAM	0.82	10/20/2023	$0.00	MACBRIDE RECY	MG	1765584	705957		
BCSW135	SS SINGLE STREAM	0.49	10/20/2023	$0.00	MACBRIDE RECY	MG	1765590	705957		
BCSW135	SS SINGLE STREAM	0.13	10/25/2023	$0.00	MACBRIDE RECY	MG	1766653	705957		
BCSW135	SS SINGLE STREAM	0.53	11/01/2023	$0.00	MACBRIDE RECY	MG	1768033	705957		
BCSW135	SS SINGLE STREAM	0.33	11/01/2023	$0.00	MACBRIDE RECY	MG	1768069	705957		
BCSW135	SS SINGLE STREAM	0.44	11/08/2023	$0.00	MACBRIDE RECY	MG	1769529	705957		
BCSW135	SS SINGLE STREAM	0.31	11/08/2023	$0.00	MACBRIDE RECY	MG	1769596	705957		
BCSW135	SS SINGLE STREAM	0.43	11/15/2023	$0.00	MACBRIDE RECY	MG	1770877	705957		
BCSW135	SS SINGLE STREAM	0.46	11/15/2023	$0.00	MACBRIDE RECY	MG	1770909	705957		
BCSW135	SS SINGLE STREAM	0.44	11/22/2023	$0.00	MACBRIDE RECY	MG	1772267	705957		
BCSW135	SS SINGLE STREAM	0.40	11/29/2023	$0.00	MACBRIDE RECY	MG	1773439	705957		
BCSW135	SS SINGLE STREAM	0.46	11/30/2023	$0.00	MACBRIDE RECY	MG	1773530	705957		
BCSW135	SS SINGLE STREAM	0.65	12/07/2023	$0.00	MACBRIDE RECY	MG	1775083	705957		
BCSW135	SS SINGLE STREAM	0.43	12/13/2023	$0.00	MACBRIDE RECY	MG	1776260	705957		

Truck	MTLabel	NetSTN	DateOut	DetailTotalFee	BillCompany	SiteCode	TranNum	BillAcct	STEntryLabel	Vol
BCSW135	SS SINGLE STREAM	0.48	12/14/2023	$0.00	MACBRIDE RECY	MG	1776457	705957		
BCSW135	SS SINGLE STREAM	0.28	12/20/2023	$0.00	MACBRIDE RECY	MG	1777845	705957		
BCSW135	SS SINGLE STREAM	0.63	12/28/2023	$0.00	MACBRIDE RECY	MG	1779145	705957		
BCSW135	SS SINGLE STREAM	0.37	01/08/2024	$0.00	MACBRIDE RECY	MG	1780819	705957		
BCSW135	SS SINGLE STREAM	0.32	01/10/2024	$0.00	MACBRIDE RECY	MG	1781462	705957		
BCSW135	SS SINGLE STREAM	0.51	01/11/2024	$0.00	MACBRIDE RECY	MG	1781561	705957		
BCSW135	SS SINGLE STREAM	0.45	01/17/2024	$0.00	MACBRIDE RECY	MG	1782744	705957		
BCSW135	SS SINGLE STREAM	0.43	01/18/2024	$0.00	MACBRIDE RECY	MG	1782925	705957		
BCSW135	SS SINGLE STREAM	0.14	01/24/2024	$0.00	MACBRIDE RECY	MG	1784228	705957		
BCSW135	SS SINGLE STREAM	0.35	01/31/2024	$0.00	MACBRIDE RECY	MG	1785490	705957		
BCSW135	SS SINGLE STREAM	0.41	02/01/2024	$0.00	MACBRIDE RECY	MG	1785597	705957		
BCSW135	SS SINGLE STREAM	0.30	02/07/2024	$0.00	MACBRIDE RECY	MG	1787085	705957		
BCSW135	SS SINGLE STREAM	0.25	02/14/2024	$0.00	MACBRIDE RECY	MG	1788507	705957		
BCSW135	SS SINGLE STREAM	0.25	02/15/2024	$0.00	MACBRIDE RECY	MG	1788695	705957		
BCSW135	SS SINGLE STREAM	0.38	02/21/2024	$0.00	MACBRIDE RECY	MG	1790024	705957		
BCSW135	SS SINGLE STREAM	0.32	02/22/2024	$0.00	MACBRIDE RECY	MG	1790167	705957		
BCSW135	SS SINGLE STREAM	0.23	02/28/2024	$0.00	MACBRIDE RECY	MG	1791816	705957		
BCSW135	SS SINGLE STREAM	1.20	02/29/2024	$0.00	MACBRIDE RECY	MG	1791926	705957		
BCSW135	SS SINGLE STREAM	0.37	03/06/2024	$0.00	MACBRIDE RECY	MG	1793257	705957		
BCSW135	SS SINGLE STREAM	0.20	03/13/2024	$0.00	MACBRIDE RECY	MG	1794926	705957		
BCSW135	SS SINGLE STREAM	0.35	03/14/2024	$0.00	MACBRIDE RECY	MG	1795044	705957		
BCSW135	SS SINGLE STREAM	0.26	03/20/2024	$0.00	MACBRIDE RECY	MG	1796583	705957		
BCSW135	SS SINGLE STREAM	0.29	03/21/2024	$0.00	MACBRIDE RECY	MG	1796666	705957		
BCSW135	SS SINGLE STREAM	0.49	03/27/2024	$0.00	MACBRIDE RECY	MG	1798073	705957		
BCSW135	SS SINGLE STREAM	0.52	03/28/2024	$0.00	MACBRIDE RECY	MG	1798181	705957		
Grand Summaries										
		Sum = 33.97		Sum = $0.00			Count = 86			

Totals

ADEM Tonnage - RECYCLE by Site by Day
(((Trans.DateOut BETWEEN '2023-04-01' AND '2024-03-31')
AND (Trans.Void = 0)
AND (Trans.BillAcct BETWEEN '0' AND '9999999')
AND (Trans.SiteCode LIKE 'MG%')
AND (vwMT.Label IN ('SS SINGLE STREAM'))))

Truck	MTLabel	NetSTN	DateOut	DetailTotalFee	BillCompany	SiteCode	TranNum	BillAcct	STEntryLabel	Vol
BCSW131	SS SINGLE STREAM	0.41	04/03/2023	$0.00	SPANISH FT KIDS RECY	MG	1726142	705965		
BCSW131	SS SINGLE STREAM	0.42	04/03/2023	$0.00	SPANISH FT KIDS RECY	MG	1726145	705965		
BCSW131	SS SINGLE STREAM	0.34	04/06/2023	$0.00	SPANISH FT KIDS RECY	MG	1726207	705965		
BCSW131	SS SINGLE STREAM	0.45	04/06/2023	$0.00	SPANISH FT KIDS RECY	MG	1726211	705965		
BCSW135	SS SINGLE STREAM	0.22	04/07/2023	$0.00	SPANISH FT KIDS RECY	MG	1726214	705965		
BCSW131	SS SINGLE STREAM	0.51	04/10/2023	$0.00	SPANISH FT KIDS RECY	MG	1726222	705965		
BCSW131	SS SINGLE STREAM	0.43	04/10/2023	$0.00	SPANISH FT KIDS RECY	MG	1726226	705965		
BCSW131	SS SINGLE STREAM	0.57	04/13/2023	$0.00	SPANISH FT KIDS RECY	MG	1726509	705965		
BCSW131	SS SINGLE STREAM	0.74	04/13/2023	$0.00	SPANISH FT KIDS RECY	MG	1726512	705965		
BCSW135	SS SINGLE STREAM	0.08	04/14/2023	$0.00	SPANISH FT KIDS RECY	MG	1726516	705965		
BCSW131	SS SINGLE STREAM	0.54	04/17/2023	$0.00	SPANISH FT KIDS RECY	MG	1726542	705965		
BCSW131	SS SINGLE STREAM	0.49	04/17/2023	$0.00	SPANISH FT KIDS RECY	MG	1726544	705965		
BCSW131	SS SINGLE STREAM	0.39	04/20/2023	$0.00	SPANISH FT KIDS RECY	MG	1726587	705965		
BCSW131	SS SINGLE STREAM	0.39	04/20/2023	$0.00	SPANISH FT KIDS RECY	MG	1726683	705965		
BCSW131	SS SINGLE STREAM	0.47	04/24/2023	$0.00	SPANISH FT KIDS RECY	MG	1726730	705965		
BCSW131	SS SINGLE STREAM	0.42	04/24/2023	$0.00	SPANISH FT KIDS RECY	MG	1726731	705965		
BCSW131	SS SINGLE STREAM	0.43	04/26/2023	$0.00	SPANISH FT KIDS RECY	MG	1726758	705965		
BCSW131	SS SINGLE STREAM	0.26	04/27/2023	$0.00	SPANISH FT KIDS RECY	MG	1726762	705965		
BCSW135	SS SINGLE STREAM	0.10	04/28/2023	$0.00	SPANISH FT KIDS RECY	MG	1726777	705965		
BCSW131	SS SINGLE STREAM	0.51	05/01/2023	$0.00	SPANISH FT KIDS RECY	MG	1733885	705965		
BCSW131	SS SINGLE STREAM	0.53	05/01/2023	$0.00	SPANISH FT KIDS RECY	MG	1733889	705965		
BCSW131	SS SINGLE STREAM	0.42	05/04/2023	$0.00	SPANISH FT KIDS RECY	MG	1727812	705965		
BCSW131	SS SINGLE STREAM	0.46	05/04/2023	$0.00	SPANISH FT KIDS RECY	MG	1727819	705965		
BCSW135	SS SINGLE STREAM	0.23	05/05/2023	$0.00	SPANISH FT KIDS RECY	MG	1728668	705965		
BCSW131	SS SINGLE STREAM	0.91	05/08/2023	$0.00	SPANISH FT KIDS RECY	MG	1729038	705965		
BCSW131	SS SINGLE STREAM	0.56	05/08/2023	$0.00	SPANISH FT KIDS RECY	MG	1729042	705965		
BCSW131	SS SINGLE STREAM	0.44	05/11/2023	$0.00	SPANISH FT KIDS RECY	MG	1730845	705965		
BCSW131	SS SINGLE STREAM	0.87	05/11/2023	$0.00	SPANISH FT KIDS RECY	MG	1730853	705965		
BCSW106	SS SINGLE STREAM	0.20	05/12/2023	$0.00	SPANISH FT KIDS RECY	MG	1730854	705965		
BCSW131	SS SINGLE STREAM	0.37	05/15/2023	$0.00	SPANISH FT KIDS RECY	MG	1730892	705965		
BCSW131	SS SINGLE STREAM	0.42	05/15/2023	$0.00	SPANISH FT KIDS RECY	MG	1730896	705965		
BCSW131	SS SINGLE STREAM	0.35	05/18/2023	$0.00	SPANISH FT KIDS RECY	MG	1733356	705965		
BCSW131	SS SINGLE STREAM	0.41	05/18/2023	$0.00	SPANISH FT KIDS RECY	MG	1733363	705965		
BCSW135	SS SINGLE STREAM	0.26	05/19/2023	$0.00	SPANISH FT KIDS RECY	MG	1733376	705965		
BCSW131	SS SINGLE STREAM	0.71	05/22/2023	$0.00	SPANISH FT KIDS RECY	MG	1733408	705965		
BCSW131	SS SINGLE STREAM	0.54	05/22/2023	$0.00	SPANISH FT KIDS RECY	MG	1733411	705965		
BCSW131	SS SINGLE STREAM	0.41	05/25/2023	$0.00	SPANISH FT KIDS RECY	MG	1733444	705965		
BCSW131	SS SINGLE STREAM	0.47	05/25/2023	$0.00	SPANISH FT KIDS RECY	MG	1733450	705965		
BCSW135	SS SINGLE STREAM	0.34	05/26/2023	$0.00	SPANISH FT KIDS RECY	MG	1733459	705965		
BCSW131	SS SINGLE STREAM	0.37	05/29/2023	$0.00	SPANISH FT KIDS RECY	MG	1733474	705965		
BCSW131	SS SINGLE STREAM	1.07	05/29/2023	$0.00	SPANISH FT KIDS RECY	MG	1733480	705965		
BCSW135	SS SINGLE STREAM	0.44	05/29/2023	$0.00	SPANISH FT KIDS RECY	MG	1733485	705965		
BCSW131	SS SINGLE STREAM	0.41	06/01/2023	$0.00	SPANISH FT KIDS RECY	MG	1735008	705965		
BCSW131	SS SINGLE STREAM	0.47	06/01/2023	$0.00	SPANISH FT KIDS RECY	MG	1735012	705965		
BCSW135	SS SINGLE STREAM	0.30	06/02/2023	$0.00	SPANISH FT KIDS RECY	MG	1735017	705965		
BCSW131	SS SINGLE STREAM	0.54	06/05/2023	$0.00	SPANISH FT KIDS RECY	MG	1735024	705965		
BCSW131	SS SINGLE STREAM	0.48	06/05/2023	$0.00	SPANISH FT KIDS RECY	MG	1735027	705965		
BCSW131	SS SINGLE STREAM	0.46	06/08/2023	$0.00	SPANISH FT KIDS RECY	MG	1736352	705965		
BCSW131	SS SINGLE STREAM	0.60	06/08/2023	$0.00	SPANISH FT KIDS RECY	MG	1736357	705965		
BCSW135	SS SINGLE STREAM	0.12	06/09/2023	$0.00	SPANISH FT KIDS RECY	MG	1736361	705965		
BCSW131	SS SINGLE STREAM	0.49	06/12/2023	$0.00	SPANISH FT KIDS RECY	MG	1738386	705965		
BCSW131	SS SINGLE STREAM	0.39	06/12/2023	$0.00	SPANISH FT KIDS RECY	MG	1738389	705965		
BCSW131	SS SINGLE STREAM	0.71	06/15/2023	$0.00	SPANISH FT KIDS RECY	MG	1738434	705965		
BCSW135	SS SINGLE STREAM	0.43	06/16/2023	$0.00	SPANISH FT KIDS RECY	MG	1738447	705965		
BCSW131	SS SINGLE STREAM	0.47	06/19/2023	$0.00	SPANISH FT KIDS RECY	MG	1738456	705965		
BCSW131	SS SINGLE STREAM	0.61	06/19/2023	$0.00	SPANISH FT KIDS RECY	MG	1738459	705965		
BCSW131	SS SINGLE STREAM	0.47	06/22/2023	$0.00	SPANISH FT KIDS RECY	MG	1739506	705965		
BCSW135	SS SINGLE STREAM	0.23	06/23/2023	$0.00	SPANISH FT KIDS RECY	MG	1739511	705965		
BCSW131	SS SINGLE STREAM	0.62	06/26/2023	$0.00	SPANISH FT KIDS RECY	MG	1740227	705965		
BCSW131	SS SINGLE STREAM	0.64	06/26/2023	$0.00	SPANISH FT KIDS RECY	MG	1740229	705965		
BCSW131	SS SINGLE STREAM	0.31	06/29/2023	$0.00	SPANISH FT KIDS RECY	MG	1740275	705965		
BCSW131	SS SINGLE STREAM	0.43	06/29/2023	$0.00	SPANISH FT KIDS RECY	MG	1740379	705965		

Truck	MTLabel	NetSTN	DateOut	DetailTotalFee	BillCompany	SiteCode	TranNum	BillAcct	STEntryLabel	Vol
BCSW135	SS SINGLE STREAM	0.25	06/30/2023	$0.00	SPANISH FT KIDS RECY	MG	1740725	705965		
BCSW131	SS SINGLE STREAM	0.42	07/03/2023	$0.00	SPANISH FT KIDS RECY	MG	1742838	705965		
BCSW131	SS SINGLE STREAM	0.71	07/03/2023	$0.00	SPANISH FT KIDS RECY	MG	1742842	705965		
BCSW131	SS SINGLE STREAM	0.48	07/06/2023	$0.00	SPANISH FT KIDS RECY	MG	1743152	705965		
BCSW131	SS SINGLE STREAM	0.49	07/06/2023	$0.00	SPANISH FT KIDS RECY	MG	1743156	705965		
BCSW135	SS SINGLE STREAM	0.20	07/07/2023	$0.00	SPANISH FT KIDS RECY	MG	1743171	705965		
BCSW131	SS SINGLE STREAM	0.52	07/10/2023	$0.00	SPANISH FT KIDS RECY	MG	1743181	705965		
BCSW131	SS SINGLE STREAM	0.53	07/10/2023	$0.00	SPANISH FT KIDS RECY	MG	1743185	705965		
BCSW131	SS SINGLE STREAM	0.42	07/13/2023	$0.00	SPANISH FT KIDS RECY	MG	1745346	705965		
BCSW131	SS SINGLE STREAM	0.65	07/13/2023	$0.00	SPANISH FT KIDS RECY	MG	1745349	705965		
BCSW135	SS SINGLE STREAM	0.02	07/14/2023	$0.00	SPANISH FT KIDS RECY	MG	1745371	705965		
BCSW131	SS SINGLE STREAM	0.64	07/17/2023	$0.00	SPANISH FT KIDS RECY	MG	1745384	705965		
BCSW131	SS SINGLE STREAM	0.61	07/17/2023	$0.00	SPANISH FT KIDS RECY	MG	1745389	705965		
BCSW131	SS SINGLE STREAM	0.37	07/20/2023	$0.00	SPANISH FT KIDS RECY	MG	1745696	705965		
BCSW131	SS SINGLE STREAM	0.26	07/20/2023	$0.00	SPANISH FT KIDS RECY	MG	1745699	705965		
BCSW106	SS SINGLE STREAM	0.14	07/21/2023	$0.00	SPANISH FT KIDS RECY	MG	1745705	705965		
BCSW131	SS SINGLE STREAM	0.58	07/24/2023	$0.00	SPANISH FT KIDS RECY	MG	1745532	705965		
BCSW131	SS SINGLE STREAM	0.44	07/24/2023	$0.00	SPANISH FT KIDS RECY	MG	1745534	705965		
BCSW131	SS SINGLE STREAM	0.42	07/27/2023	$0.00	SPANISH FT KIDS RECY	MG	1746445	705965		
BCSW131	SS SINGLE STREAM	0.40	07/27/2023	$0.00	SPANISH FT KIDS RECY	MG	1746531	705965		
BCSW106	SS SINGLE STREAM	0.26	07/28/2023	$0.00	SPANISH FT KIDS RECY	MG	1746813	705965		
BCSW131	SS SINGLE STREAM	0.44	07/31/2023	$0.00	SPANISH FT KIDS RECY	MG	1747231	705965		
BCSW131	SS SINGLE STREAM	0.35	07/31/2023	$0.00	SPANISH FT KIDS RECY	MG	1747289	705965		
BCSW131	SS SINGLE STREAM	0.56	08/03/2023	$0.00	SPANISH FT KIDS RECY	MG	1748104	705965		
BCSW131	SS SINGLE STREAM	0.50	08/03/2023	$0.00	SPANISH FT KIDS RECY	MG	1748169	705965		
BCSW135	SS SINGLE STREAM	0.18	08/04/2023	$0.00	SPANISH FT KIDS RECY	MG	1748394	705965		
BCSW131	SS SINGLE STREAM	0.51	08/07/2023	$0.00	SPANISH FT KIDS RECY	MG	1748811	705965		
BCSW131	SS SINGLE STREAM	0.55	08/07/2023	$0.00	SPANISH FT KIDS RECY	MG	1748883	705965		
BCSW131	SS SINGLE STREAM	0.42	08/10/2023	$0.00	SPANISH FT KIDS RECY	MG	1749613	705965		
BCSW131	SS SINGLE STREAM	0.33	08/10/2023	$0.00	SPANISH FT KIDS RECY	MG	1749663	705965		
BCSW135	SS SINGLE STREAM	0.09	08/11/2023	$0.00	SPANISH FT KIDS RECY	MG	1749941	705965		
BCSW131	SS SINGLE STREAM	0.36	08/14/2023	$0.00	SPANISH FT KIDS RECY	MG	1750341	705965		
BCSW131	SS SINGLE STREAM	0.41	08/14/2023	$0.00	SPANISH FT KIDS RECY	MG	1750417	705965		
BCSW131	SS SINGLE STREAM	0.29	08/17/2023	$0.00	SPANISH FT KIDS RECY	MG	1751294	705965		
BCSW131	SS SINGLE STREAM	0.41	08/17/2023	$0.00	SPANISH FT KIDS RECY	MG	1751362	705965		
BCSW131	SS SINGLE STREAM	0.36	08/21/2023	$0.00	SPANISH FT KIDS RECY	MG	1751979	705965		
BCSW131	SS SINGLE STREAM	0.37	08/21/2023	$0.00	SPANISH FT KIDS RECY	MG	1752074	705965		
BCSW131	SS SINGLE STREAM	0.25	08/24/2023	$0.00	SPANISH FT KIDS RECY	MG	1752948	705965		
BCSW131	SS SINGLE STREAM	0.43	08/24/2023	$0.00	SPANISH FT KIDS RECY	MG	1752998	705965		
BCSW131	SS SINGLE STREAM	0.60	08/28/2023	$0.00	SPANISH FT KIDS RECY	MG	1753565	705965		
BCSW131	SS SINGLE STREAM	0.42	08/28/2023	$0.00	SPANISH FT KIDS RECY	MG	1753635	705965		
BCSW131	SS SINGLE STREAM	0.39	08/31/2023	$0.00	SPANISH FT KIDS RECY	MG	1754508	705965		
BCSW131	SS SINGLE STREAM	0.41	08/31/2023	$0.00	SPANISH FT KIDS RECY	MG	1754581	705965		
BCSW131	SS SINGLE STREAM	0.27	09/04/2023	$0.00	SPANISH FT KIDS RECY	MG	1755010	705965		
BCSW131	SS SINGLE STREAM	0.44	09/04/2023	$0.00	SPANISH FT KIDS RECY	MG	1755046	705965		
BCSW131	SS SINGLE STREAM	0.39	09/07/2023	$0.00	SPANISH FT KIDS RECY	MG	1755901	705965		
BCSW131	SS SINGLE STREAM	0.29	09/07/2023	$0.00	SPANISH FT KIDS RECY	MG	1755967	705965		
BCSW135	SS SINGLE STREAM	0.17	09/08/2023	$0.00	SPANISH FT KIDS RECY	MG	1756092	705965		
BCSW131	SS SINGLE STREAM	0.33	09/11/2023	$0.00	SPANISH FT KIDS RECY	MG	1756491	705965		
BCSW131	SS SINGLE STREAM	0.36	09/11/2023	$0.00	SPANISH FT KIDS RECY	MG	1756621	705965		
BCSW131	SS SINGLE STREAM	0.40	09/14/2023	$0.00	SPANISH FT KIDS RECY	MG	1757373	705965		
BCSW131	SS SINGLE STREAM	0.38	09/14/2023	$0.00	SPANISH FT KIDS RECY	MG	1757432	705965		
BCSW135	SS SINGLE STREAM	0.19	09/15/2023	$0.00	SPANISH FT KIDS RECY	MG	1757595	705965		
BCSW131	SS SINGLE STREAM	0.47	09/18/2023	$0.00	SPANISH FT KIDS RECY	MG	1757967	705965		
BCSW131	SS SINGLE STREAM	0.62	09/18/2023	$0.00	SPANISH FT KIDS RECY	MG	1758032	705965		
BCSW131	SS SINGLE STREAM	0.56	09/21/2023	$0.00	SPANISH FT KIDS RECY	MG	1758976	705965		
BCSW131	SS SINGLE STREAM	0.54	09/21/2023	$0.00	SPANISH FT KIDS RECY	MG	1759074	705965		
BCSW135	SS SINGLE STREAM	0.17	09/22/2023	$0.00	SPANISH FT KIDS RECY	MG	1759217	705965		
BCSW131	SS SINGLE STREAM	0.53	09/25/2023	$0.00	SPANISH FT KIDS RECY	MG	1759631	705965		
BCSW131	SS SINGLE STREAM	0.55	09/25/2023	$0.00	SPANISH FT KIDS RECY	MG	1759724	705965		
BCSW131	SS SINGLE STREAM	0.33	09/28/2023	$0.00	SPANISH FT KIDS RECY	MG	1760668	705965		
BCSW131	SS SINGLE STREAM	0.50	09/28/2023	$0.00	SPANISH FT KIDS RECY	MG	1760744	705965		
BCSW131	SS SINGLE STREAM	0.58	10/02/2023	$0.00	SPANISH FT KIDS RECY	MG	1761268	705965		
BCSW131	SS SINGLE STREAM	0.61	10/02/2023	$0.00	SPANISH FT KIDS RECY	MG	1761343	705965		
BCSW131	SS SINGLE STREAM	0.50	10/05/2023	$0.00	SPANISH FT KIDS RECY	MG	1762205	705965		
BCSW131	SS SINGLE STREAM	0.44	10/05/2023	$0.00	SPANISH FT KIDS RECY	MG	1762249	705965		
BCSW131	SS SINGLE STREAM	0.29	10/09/2023	$0.00	SPANISH FT KIDS RECY	MG	1762727	705965		

Truck	MTLabel	NetSTN	DateOut	DetailTotalFee	BillCompany	SiteCode	TranNum	BillAcct	STEntryLabel	Vol
BCSW131	SS SINGLE STREAM	0.45	10/09/2023	$0.00	SPANISH FT KIDS RECY	MG	1762816	705965		
BCSW131	SS SINGLE STREAM	0.38	10/12/2023	$0.00	SPANISH FT KIDS RECY	MG	1763759	705965		
BCSW131	SS SINGLE STREAM	0.39	10/12/2023	$0.00	SPANISH FT KIDS RECY	MG	1763689	705965		
BCSW131	SS SINGLE STREAM	0.58	10/16/2023	$0.00	SPANISH FT KIDS RECY	MG	1764258	705965		
BCSW131	SS SINGLE STREAM	0.62	10/16/2023	$0.00	SPANISH FT KIDS RECY	MG	1764331	705965		
BCSW131	SS SINGLE STREAM	0.46	10/19/2023	$0.00	SPANISH FT KIDS RECY	MG	1765200	705965		
BCSW131	SS SINGLE STREAM	0.54	10/19/2023	$0.00	SPANISH FT KIDS RECY	MG	1765271	705965		
BCSW131	SS SINGLE STREAM	0.61	10/23/2023	$0.00	SPANISH FT KIDS RECY	MG	1765849	705965		
BCSW131	SS SINGLE STREAM	0.69	10/23/2023	$0.00	SPANISH FT KIDS RECY	MG	1765937	705965		
BCSW131	SS SINGLE STREAM	0.10	10/26/2023	$0.00	SPANISH FT KIDS RECY	MG	1766733	705965		
BCSW131	SS SINGLE STREAM	0.45	10/26/2023	$0.00	SPANISH FT KIDS RECY	MG	1766816	705965		
BCSW131	SS SINGLE STREAM	0.41	10/30/2023	$0.00	SPANISH FT KIDS RECY	MG	1767372	705965		
BCSW131	SS SINGLE STREAM	0.47	10/30/2023	$0.00	SPANISH FT KIDS RECY	MG	1767465	705965		
BCSW131	SS SINGLE STREAM	0.34	11/02/2023	$0.00	SPANISH FT KIDS RECY	MG	1768254	705965		
BCSW131	SS SINGLE STREAM	0.42	11/02/2023	$0.00	SPANISH FT KIDS RECY	MG	1768318	705965		
BCSW131	SS SINGLE STREAM	0.62	11/06/2023	$0.00	SPANISH FT KIDS RECY	MG	1768799	705965		
BCSW131	SS SINGLE STREAM	0.73	11/06/2023	$0.00	SPANISH FT KIDS RECY	MG	1768870	705965		
BCSW131	SS SINGLE STREAM	0.23	11/09/2023	$0.00	SPANISH FT KIDS RECY	MG	1769738	705965		
BCSW131	SS SINGLE STREAM	0.37	11/09/2023	$0.00	SPANISH FT KIDS RECY	MG	1769803	705965		
BCSW131	SS SINGLE STREAM	0.91	11/13/2023	$0.00	SPANISH FT KIDS RECY	MG	1770299	705965		
BCSW131	SS SINGLE STREAM	0.71	11/13/2023	$0.00	SPANISH FT KIDS RECY	MG	1770374	705965		
BCSW131	SS SINGLE STREAM	0.57	11/16/2023	$0.00	SPANISH FT KIDS RECY	MG	1770950	705965		
BCSW135	SS SINGLE STREAM	0.37	11/17/2023	$0.00	SPANISH FT KIDS RECY	MG	1771244	705965		
BCSW135	SS SINGLE STREAM	0.73	11/20/2023	$0.00	SPANISH FT KIDS RECY	MG	1771624	705965		
BCSW131	SS SINGLE STREAM	0.63	11/20/2023	$0.00	SPANISH FT KIDS RECY	MG	1771738	705965		
BCSW131	SS SINGLE STREAM	0.40	11/24/2023	$0.00	SPANISH FT KIDS RECY	MG	1772492	705965		
BCSW131	SS SINGLE STREAM	0.54	11/24/2023	$0.00	SPANISH FT KIDS RECY	MG	1772538	705965		
BCSW131	SS SINGLE STREAM	0.19	11/27/2023	$0.00	SPANISH FT KIDS RECY	MG	1772720	705965		
BCSW131	SS SINGLE STREAM	0.40	11/27/2023	$0.00	SPANISH FT KIDS RECY	MG	1772786	705965		
BCSW131	SS SINGLE STREAM	0.32	11/30/2023	$0.00	SPANISH FT KIDS RECY	MG	1773640	705965		
BCSW131	SS SINGLE STREAM	0.48	11/30/2023	$0.00	SPANISH FT KIDS RECY	MG	1773700	705965		
BCSW135	SS SINGLE STREAM	0.12	12/01/2023	$0.00	SPANISH FT KIDS RECY	MG	1773955	705965		
BCSW131	SS SINGLE STREAM	0.17	12/04/2023	$0.00	SPANISH FT KIDS RECY	MG	1774095	705965		
BCSW131	SS SINGLE STREAM	0.43	12/04/2023	$0.00	SPANISH FT KIDS RECY	MG	1774171	705965		
BCSW131	SS SINGLE STREAM	0.53	12/07/2023	$0.00	SPANISH FT KIDS RECY	MG	1775012	705965		
BCSW131	SS SINGLE STREAM	0.44	12/07/2023	$0.00	SPANISH FT KIDS RECY	MG	1774954	705965		
BCSW135	SS SINGLE STREAM	0.08	12/08/2023	$0.00	SPANISH FT KIDS RECY	MG	1775153	705965		
BCSW131	SS SINGLE STREAM	0.40	12/11/2023	$0.00	SPANISH FT KIDS RECY	MG	1775557	705965		
BCSW131	SS SINGLE STREAM	0.50	12/11/2023	$0.00	SPANISH FT KIDS RECY	MG	1775476	705965		
BCSW131	SS SINGLE STREAM	0.33	12/14/2023	$0.00	SPANISH FT KIDS RECY	MG	1776502	705965		
BCSW131	SS SINGLE STREAM	0.58	12/14/2023	$0.00	SPANISH FT KIDS RECY	MG	1776574	705965		
BCSW135	SS SINGLE STREAM	0.09	12/15/2023	$0.00	SPANISH FT KIDS RECY	MG	1776730	705965		
BCSW131	SS SINGLE STREAM	0.31	12/18/2023	$0.00	SPANISH FT KIDS RECY	MG	1777061	705965		
BCSW131	SS SINGLE STREAM	0.39	12/18/2023	$0.00	SPANISH FT KIDS RECY	MG	1777148	705965		
BCSW131	SS SINGLE STREAM	0.41	12/21/2023	$0.00	SPANISH FT KIDS RECY	MG	1777951	705965		
BCSW131	SS SINGLE STREAM	0.51	12/21/2023	$0.00	SPANISH FT KIDS RECY	MG	1778023	705965		
BCSW135	SS SINGLE STREAM	0.23	12/22/2023	$0.00	SPANISH FT KIDS RECY	MG	1778216	705965		
BCSW131	SS SINGLE STREAM	0.61	12/26/2023	$0.00	SPANISH FT KIDS RECY	MG	1778522	705965		
BCSW131	SS SINGLE STREAM	0.63	12/26/2023	$0.00	SPANISH FT KIDS RECY	MG	1778567	705965		
BCSW131	SS SINGLE STREAM	0.29	12/29/2023	$0.00	SPANISH FT KIDS RECY	MG	1779356	705965		
BCSW131	SS SINGLE STREAM	0.40	12/29/2023	$0.00	SPANISH FT KIDS RECY	MG	1779433	705965		
BCSW131	SS SINGLE STREAM	0.50	01/02/2024	$0.00	SPANISH FT KIDS RECY	MG	1779813	705965		
BCSW131	SS SINGLE STREAM	0.42	01/02/2024	$0.00	SPANISH FT KIDS RECY	MG	1779720	705965		
BCSW131	SS SINGLE STREAM	0.26	01/05/2024	$0.00	SPANISH FT KIDS RECY	MG	1780566	705965		
BCSW131	SS SINGLE STREAM	0.36	01/05/2024	$0.00	SPANISH FT KIDS RECY	MG	1780633	705965		
BCSW131	SS SINGLE STREAM	0.40	01/08/2024	$0.00	SPANISH FT KIDS RECY	MG	1780973	705965		
BCSW131	SS SINGLE STREAM	0.60	01/08/2024	$0.00	SPANISH FT KIDS RECY	MG	1781034	705965		
BCSW131	SS SINGLE STREAM	0.23	01/11/2024	$0.00	SPANISH FT KIDS RECY	MG	1781580	705965		
BCSW131	SS SINGLE STREAM	0.32	01/11/2024	$0.00	SPANISH FT KIDS RECY	MG	1781627	705965		
BCSW135	SS SINGLE STREAM	0.09	01/12/2024	$0.00	SPANISH FT KIDS RECY	MG	1781864	705965		
BCSW131	SS SINGLE STREAM	0.63	01/15/2024	$0.00	SPANISH FT KIDS RECY	MG	1782171	705965		
BCSW131	SS SINGLE STREAM	0.58	01/15/2024	$0.00	SPANISH FT KIDS RECY	MG	1782233	705965		
BCSW131	SS SINGLE STREAM	0.27	01/18/2024	$0.00	SPANISH FT KIDS RECY	MG	1782981	705965		
BCSW131	SS SINGLE STREAM	0.43	01/22/2024	$0.00	SPANISH FT KIDS RECY	MG	1783490	705965		
BCSW131	SS SINGLE STREAM	0.34	01/22/2024	$0.00	SPANISH FT KIDS RECY	MG	1783562	705965		
BCSW131	SS SINGLE STREAM	0.38	01/25/2024	$0.00	SPANISH FT KIDS RECY	MG	1784394	705965		
BCSW131	SS SINGLE STREAM	0.33	01/26/2024	$0.00	SPANISH FT KIDS RECY	MG	1784345	705965		

Truck	MTLabel	NetSTN	DateOut	DetailTotalFee	BillCompany	SiteCode	TranNum	BillAcct	STEntryLabel	Vol
BCSW131	SS SINGLE STREAM	0.45	01/29/2024	$0.00	SPANISH FT KIDS RECY	MG	1784746	705965		
BCSW131	SS SINGLE STREAM	0.34	01/29/2024	$0.00	SPANISH FT KIDS RECY	MG	1784832	705965		
BCSW131	SS SINGLE STREAM	0.20	02/01/2024	$0.00	SPANISH FT KIDS RECY	MG	1785635	705965		
BCSW131	SS SINGLE STREAM	0.36	02/01/2024	$0.00	SPANISH FT KIDS RECY	MG	1785728	705965		
BCSW131	SS SINGLE STREAM	0.64	02/05/2024	$0.00	SPANISH FT KIDS RECY	MG	1786353	705965		
BCSW131	SS SINGLE STREAM	0.63	02/05/2024	$0.00	SPANISH FT KIDS RECY	MG	1786396	705965		
BCSW131	SS SINGLE STREAM	0.26	02/08/2024	$0.00	SPANISH FT KIDS RECY	MG	1787320	705965		
BCSW131	SS SINGLE STREAM	0.49	02/08/2024	$0.00	SPANISH FT KIDS RECY	MG	1787385	705965		
BCSW131	SS SINGLE STREAM	0.54	02/12/2024	$0.00	SPANISH FT KIDS RECY	MG	1787809	705965		
BCSW131	SS SINGLE STREAM	0.58	02/12/2024	$0.00	SPANISH FT KIDS RECY	MG	1787870	705965		
BCSW131	SS SINGLE STREAM	0.14	02/15/2024	$0.00	SPANISH FT KIDS RECY	MG	1788755	705965		
BCSW131	SS SINGLE STREAM	0.32	02/15/2024	$0.00	SPANISH FT KIDS RECY	MG	1788813	705965		
BCSW131	SS SINGLE STREAM	0.69	02/19/2024	$0.00	SPANISH FT KIDS RECY	MG	1789346	705965		
BCSW131	SS SINGLE STREAM	0.62	02/19/2024	$0.00	SPANISH FT KIDS RECY	MG	1789271	705965		
BCSW131	SS SINGLE STREAM	0.19	02/22/2024	$0.00	SPANISH FT KIDS RECY	MG	1790108	705965		
BCSW131	SS SINGLE STREAM	0.34	02/22/2024	$0.00	SPANISH FT KIDS RECY	MG	1790160	705965		
BCSW131	SS SINGLE STREAM	0.53	02/26/2024	$0.00	SPANISH FT KIDS RECY	MG	1790975	705965		
BCSW131	SS SINGLE STREAM	0.38	02/26/2024	$0.00	SPANISH FT KIDS RECY	MG	1791059	705965		
BCSW131	SS SINGLE STREAM	0.39	02/29/2024	$0.00	SPANISH FT KIDS RECY	MG	1792060	705965		
BCSW131	SS SINGLE STREAM	0.60	03/04/2024	$0.00	SPANISH FT KIDS RECY	MG	1792653	705965		
BCSW131	SS SINGLE STREAM	0.56	03/04/2024	$0.00	SPANISH FT KIDS RECY	MG	1792733	705965		
BCSW131	SS SINGLE STREAM	0.49	03/07/2024	$0.00	SPANISH FT KIDS RECY	MG	1793595	705965		
BCSW131	SS SINGLE STREAM	0.46	03/11/2024	$0.00	SPANISH FT KIDS RECY	MG	1794121	705965		
BCSW131	SS SINGLE STREAM	0.41	03/11/2024	$0.00	SPANISH FT KIDS RECY	MG	1794196	705965		
BCSW131	SS SINGLE STREAM	0.53	03/14/2024	$0.00	SPANISH FT KIDS RECY	MG	1795171	705965		
BCSW135	SS SINGLE STREAM	0.40	03/15/2024	$0.00	SPANISH FT KIDS RECY	MG	1795408	705965		
BCSW131	SS SINGLE STREAM	0.65	03/18/2024	$0.00	SPANISH FT KIDS RECY	MG	1795877	705965		
BCSW131	SS SINGLE STREAM	0.67	03/18/2024	$0.00	SPANISH FT KIDS RECY	MG	1795966	705965		
BCSW131	SS SINGLE STREAM	0.44	03/21/2024	$0.00	SPANISH FT KIDS RECY	MG	1796784	705965		
BCSW135	SS SINGLE STREAM	0.35	03/22/2024	$0.00	SPANISH FT KIDS RECY	MG	1797048	705965		
BCSW131	SS SINGLE STREAM	0.57	03/25/2024	$0.00	SPANISH FT KIDS RECY	MG	1797389	705965		
BCSW131	SS SINGLE STREAM	0.63	03/25/2024	$0.00	SPANISH FT KIDS RECY	MG	1797462	705965		
BCSW131	SS SINGLE STREAM	0.43	03/28/2024	$0.00	SPANISH FT KIDS RECY	MG	1798297	705965		
BCSW131	SS SINGLE STREAM	0.46	03/28/2024	$0.00	SPANISH FT KIDS RECY	MG	1798362	705965		
BCSW135	SS SINGLE STREAM	0.23	03/29/2024	$0.00	SPANISH FT KIDS RECY	MG	1798558	705965		
Grand Summaries										
		Sum = 99.83		Sum = $0.00			Count = 231			

Table 5-1 Baldwin County Phase II MS4

MCM 1-Public Involvement/Public Participation Strategies and Goals

NPDES Permit Section	SWMPP Section	5-Public Involvement/Participation Strategy	Goal	Pollution Targeted	Responsible Departments
Part III-B1bi	*5.2.2.2*	*Committees, Watershed Organizations & Groups*	*During the permit cycle the County EAC hold 8 meetings a year*	*ALL*	*P&Z*
Total	**Date**	**Meeting**	**Topics**	**Staff**	**Members/Guest**
1	4/4/2023	EAC Meeting	MS4 Outreach	2	14
2	5/2/2023	EAC Meeting	MS4 Outreach & Annual Report	2	11
3	6/6/2023	EAC Meeting	Bay Shoreline Erosion&Alternatives to Bulkheads	2	17
4	7/11/2023	EAC Meeting	Live Oak Landing Presentation	2	17
5	8/1/2023	EAC Meeting	BC Land Fill Expansion Discussion	2	13
6	9/5/2023	EAC Meeting	Waste Water Poluution	2	11
7	10/3/2023	EAC Meeting	State Land	2	12
8	11/7/2023	EAC Meeting	Carbon Sequestration	1	18
9	12/5/2023	EAC Meeting	Alabama Water Watch & How is My Waterway	1	12
10	1/9/2024	EAC Meeting	TNC Grant Letter of Support	2	10
11	2/6/2024	EAC Meeting	Grant Letter Discussion and Vote	2	12
12	3/5/2024	EAC Meeting	Nomination Discussion & Vote	2	14
			Total	22	161

BALDWIN
COUNTY, ALABAMA

Environmental Advisory Committee

MEETING MINUTES

April 4, 2023, 4:00 PM

Robertsdale Central Annex

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1. Call to Order @ 4:03 p.m.

2. Roll Call – Kim Burmeister, Steve Barnett, Tommy Cleverdon, Casey Fulford, Brett Gaar, Phillip Hinesley (Via WebEx), Vaughn Millner, Thomas Rachel & Dick Sute
   Staff – Ashley Campbell & Rebecca Peacock
   Guests – Michelle Pennington- EMA, Connie Whittaker- Gulf Coast Center for Ecotourism and Sustainability

3. Approval of EAC Meeting Minutes **(2023/03/07-Attachment 1)**
   Motion: Tommy Cleverdon Second: Dick Sute Vote: Unanimous Approval

4. New Business –
   a. 2022-2023- MS4 Annual Report and Audit Discussion
   b. MS4 Education Outreach Survey
   c. Discussed other utilities presentation: Fairhope, Daphne, Gulf Shores, Baldwin County Sewer. Staff will start scheduling the presentations.
   d. Other presentations and tours: A discussion was held regarding visiting Graham Creek Nature Preserve.
   e. Due to the 4th of July Holiday, the EAC's July meeting was moved to July 11, 2023

5. Old Business
   a. The EAC ECUA's Central Water Reclamation Facility Tour was discussed.
   b. The EAC was invited to the 2023 EAC Award Recommendations which will be presented to the County Commission on April 18, 2023, at 10:00am in Fairhope.
   c. Water Quality Monitoring Subcommittee Update-Ashley is still working with GSA to locate 10 ground water wells across Baldwin County for long term continuous monitoring. They have found six possible locations. They will continue the effort.
   d. Farmland Protection Subcommittee Update (**March-No Meeting)**

   e. Bon Secour Watershed Management Plan – Fort Morgan Road Beach Erosion

Study-Update-The letter of support to USACE requesting 2024 federal funding was not received in time for the annual budget request. The subcommittee will continue the effort for next year's funding.

6. Other Business/Announcements/Public Comments
    a. Tommy Rachel asked the committee to look into shoreline erosion and the use of perpendicular bulk heads (Jetties). A discussion was held, and it was recommended we ask an expert to give a presentation on shoreline erosion. Several recommendations of guest speakers' names were mentioned.
    b. Draft Template wetland ordinance was reviewed and discussed.
    c. Leslie Gahagan discussed the MBNEP Community Action Committee's upcoming meetings and asked interested EAC members to join the meetings. She will provide Staff with a list of upcoming dates.
    d. Jackie McGonigal with Orange Beach asked the EAC to help her with the City's first ADEM 319 Grant for Nature Base Solutions in the Wolf Bay Watershed by serving as its citizen's outreach component of the grant. A motion was made, seconded, and approved. Staff will work with ADEM and Jackie to get the letter of support ready for a future County Commission meeting.
    Motion: Leslie Gahagan Second: Vaughn Millner Vote: Unanimous Approval
    e. Casey Fulford discussed the Baldwin County Soil & Water Conservation District's Reducing Pollutant Loading into Baldwin County Waterways Gomesa Grant application. She mentioned that she may make a request for a letter of support during a future EAC meeting.
    f. Vaughn Millner requested that a presentation be given on the new Live Oak Landing/Bicentennial Boardwalk. Staff will contact County staff regarding a presentation.

7. Adjournment @ 5:29 p.m.

BALDWIN
COUNTY, ALABAMA

Environmental Advisory Committee

MEETING MINUTES

May 2, 2023, 4:00 PM

Robertsdale Central Annex

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1. Call to Order @ 4:01 p.m.

2. Roll Call – Kim Burmeister, Glenda Dean, Paige Felts, Casey Fulford, Brett Gaar, Leslie Gahagan (Webex), Phillip Hinesley, Vaughn Millner, Thomas Rachel, Thomas Schmitz & Dick Sute
   Staff – Ashley Campbell
   Guests-

3. Approval of EAC Meeting Minutes **(2023/04/04-Attachment 1)**
   Motion: Phillip Hinesley Second: Vaughn Millner Vote: Unanimous Approval

4. New Business
   a. 2022-2023- MS4 Annual Report and Audit Discussion was held.
   b. MS4 Education Outreach Survey was distributed and taken.

5. Old Business
   a. Water Quality Monitoring Subcommittee Update-Ashley is still working with GSA.
   b. Farmland Protection Subcommittee Update-Casey provided an update on the FPC efforts and discussed the FPC Survey ***(No Attachments-No Quorum for Meeting Minutes Approval)***
   c. Bon Secour Watershed Management Plan – Fort Morgan Road Beach Erosion-No Update.

6. Other Business/Announcements/Public Comments
   a. Live Oak Boardwalk Presentation will be scheduled for an upcoming meeting.
   b. Alabama Department of Health Fish Tissue Study Discussion was held.
   c. A discussion was held regarding potential new members. Jackie McGonigal and Dennis Hatfield were mentioned as potential new members.

7. Adjournment @ 5:15 p.m.

CREATE A Clean Water FUTURE

BALDWIN
COUNTY, ALABAMA

Environmental Advisory Committee

MEETING MINUTES

June 6, 2023 4:00 PM
Robertsdale Central Annex

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1. Call to Order @ 4:02 p.m.

2. Roll Call – Steve Barnett, Kim Burmeister, Robert Davis, Glenda Dean, Paige Felts (WebEx), Casey Fulford, Brett Gaar, Leslie Gahagan (WebEx), Phillip Hinesley, Vaughn Millner, Tim Mullek, Thomas Rachel, Thomas Schmitz & Dick Sute
   Staff – Ashley Campbell (P&Z), Rebecca Peacock (P&Z), & Michelle Pennington (EMA)
   Guests- Justice Manning (Daphne EAC), Carol Tebay, & Jim H. (Fairhope's EAB)

3. Approval of EAC Meeting Minutes **(2023/06/06-Attachment 1)**
   Motion: Dick Sute *Second Phillip Hinesley* *Vote: Unanimous Approval*

4. New Business:
   Bay Shoreline Erosion and Alternatives to Bulkheads Presentation- Dr. Scott Douglass

5. Old Business
   a. Water Quality Monitoring Subcommittee Update – No Update
   b. Farmland Protection Subcommittee Update-Casey provided an update on the FPC efforts and discussed the FPC Survey
   c. Bon Secour Watershed Management Plan – Fort Morgan Road Beach Erosion-Tommy Rachel requested to be added to the subcommittee.
   d. Ashley visited the water quality and environmental weblinks that she had sent out to the committee.

6. Other Business/Announcements/Public Comments

7. Adjournment @ 5:31 p.m.

CREATE A Clean Water FUTURE

BALDWIN
COUNTY, ALABAMA

Environmental Advisory Committee

MEETING MINUTES

July 11, 2023 4:00 PM
Robertsdale Central Annex

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1. Call to Order @ 4:00 p.m.

2. Roll Call – *Steve Barnett, Robert Davis, Glenda Dean (Webex), Paige Felts (WebEx), Brett Gaar, Phillip Hinesley, Vaughn Millner, Tim Mullek, Thomas Rachel, & Dick Sute*
   Staff – *Ashley Campbell (P&Z), Rebecca Peacock (P&Z), & Michelle Pennington (EMA)*
   Guests- *Andy Bobe (Dewberry), Cathy Barnette (Dewberry), Tyler Herschel (Dewberry), Lani Cameron (Western Perdido Bay)*

3. Approval of EAC Meeting Minutes (06/06/23-EAC MM – Attachment 1)
   Motion: Dick Sute *Second Leslie Gahagan* *Vote: Unanimous Approval*

4. New Business:
   Live Oak Landing Presentation – Dewberry – Andy Bobe & Cathy Barnette

5. Old Business
   a. Water Quality Monitoring Subcommittee Update - *GSA & ADEM Updates-Ashley gave an update regarding potential grant funding.*
   b. Farmland Protection Subcommittee Update-*Ashley read Casey's FPC update and discussed the FPC Survey.*
   c. Bon Secour Watershed Management Plan – Fort Morgan Road Beach Erosion-*This is tabled but will revisit.*
   d. Baldwin County Sanitary Sewer Utilities Inventory, Capacity and Overflows Data Collection - *Big discussion will different ideas discussed. Leslie spoke about the grant she is getting for The City of Foley where other communities can benefit from also regarding sewer.*
   e. Planning District 26 Wetland Preservation Subcommittee - *Is underway with a good first meeting.*

6. Other Business/Announcements/Public Comments

7. Adjournment @ 5:15 p.m.

CREATE A Clean Water FUTURE

BALDWIN
COUNTY, ALABAMA

Environmental Advisory Committee

MEETING MINUTES

August 1, 2023, 4:00 PM
Robertsdale Central Annex

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1. Call to Order @ 4:00 p.m.

2. Roll Call – *Steve Barnett, Kim Burmeister, Tommy Cleverdon, Paige Felts (WebEx), Casey Fulford, Brett Gaar, Leslie Gahagan, Phillip Hinesley, Vaughn Millner, Tom Schmitz, & Dick Sute*
   Staff – *Ashley Campbell (P&Z) & Rebecca Peacock (P&Z)*
   Guests- Terri Graham, Mr.& Mrs. Donald Joffe

3. Approval of EAC Meeting Minutes (Attachment 1-07/11/23-EAC Meeting Minutes)
   Motion: Leslie Gahagan Second: Dick Sute Vote: Unanimous Approval

4. New Business:
   Terri Graham-Solid Waste Director-Proposed Magnolia Landfill Expansion

5. Old Business
   a. Water Quality Monitoring Subcommittee Update - *GSA & ADEM Updates-Ashley will be meeting with ADEM this week. She will invite the subcommittee.*
   b. Farmland Protection Subcommittee Update-(Attachment 2-FPC Meeting Minutes 06/15/23 & 07/20/23)-*Casey's gave a FPC update.*
   c. Bon Secour Watershed Management Plan – Fort Morgan Road Beach Erosion-*Study is still being considered.*
   d. Baldwin County Sanitary Sewer Utilities Inventory, Capacity and Overflows Data Collection – *Casey and Ashley are working on the data collection and hope to have the map and data collected by December.*
   e. Planning District 26 Wetland Preservation Subcommittee – *No update*

6. Other Business/Announcements/Public Comments

7. Adjournment @ 5:15 p.m.

CREATE A Clean Water FUTURE

BALDWIN
COUNTY, ALABAMA

Environmental Advisory Committee

MEETING MINUTES

September 5, 2023, 4:00 PM
Robertsdale Central Annex

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1. Call to Order @ 4:04 p.m.

2. Roll Call - *Steve Barnett, Kim Burmeister, Tommy Cleverdon, Robert Davis, Paige Felts (WebEx), Casey Fulford, Brett Gaar, Phillip Hinesley (WebEx), Vaughn Millner, Tim Mullek & Dick Sute*
   Guest – Michelle Pennington & Don Joffe
   Staff – *Ashley Campbell, Rebecca Peacock*

3. Approval of the EAC Meeting Minutes **(2023-08-01-EAC MM- Attachment 1)**
   Motion: Robert Davis Second: Steve Barnett Vote: Unanimous

4. New Business-None

5. Old Business
   a. Water Quality Monitoring Plan Subcommittee Update-GSA & ADEM Updates
   MBNEP Finalized the Samling Location request document and sent it to ADEM.
   b. Farmland Protection Subcommittee Update- **(2023-06-15 & 2023-07-20 FPC MM-Attachment 2)**-Casey gave an update on the Committee's efforts. The FPC hopes to have a draft Conceptual Document to inform citizens about a Voluntary Open Space Protection Pilot Program in December.
   c. Bon Secour Watershed Management Plan – Fort Morgan Road Beach Erosion Study-Update – Ashley met with the USAC regarding a new type of shoreline protection. No additional update.
   d. Baldwin County Sanitary Sewer Utilities Inventory, Capacity and Overflows Data Collection – Casey provided a Sanitary Sewer Outfall map and a 2022 Sanitary Sewer Overflow (SSO) report for Fairhope. The group had a long discussion regarding sanitary sewer overflows and reporting.
   e. Planning District 26 Wetland Preservation Subcommittee- No update

6. Other Business/Announcements/Public Comments
   a. A discussion was held about ground water sampling in the Belforest area and Baldwin County.
   b. Phillip reminded everyone to join the Alabama Coastal Clean Up on September 16th.

7. Adjournment @ 6:15

CREATE A Clean Water FUTURE

BALDWIN COUNTY, ALABAMA
Planning and Zoning Department

Environmental Advisory Committee

MEETING MINUTES
October 3, 2023, 4:00 PM
Robertsdale Central Annex

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1. Call to Order @ 4:02 p.m.

2. Roll Call – *Steve Barnett, Tommy Cleverdon, Paige Felts, Casey Fulford, Tom Schmitz, & Dick Sute*
   Staff –*Matthew Brown, Buford King, Ashley Campbell (P&Z), Shawn Mitchell & Rebecca Peacock (P&Z)*
   Guests-Mr. Donald Joffe (BWS), Christina Wayne, Lani Cameron (WSPBAC)

3. Approval of EAC Meeting Minutes (Attachment 1-09/05/23-EAC Meeting Minutes)
   Motion: Dick Sute *Second: Thomas Schmitz* *Vote: Unanimous Approval*

4. New Business
   a. Guest Speaker: Forever Wild Land Trust Presentation
      Patti Powell McCurdy, State Lands Director,
      Alabama Department of Conservation and Natural Resources
      Committed to the Public Trust-*More than two decades after its establishment by constitutional amendment in 1992, the Forever Wild Land Trust (FWLT) has secured more than 284,000 acres of land in Alabama for public use – yet that's still a smaller percentage of public conservation land (3.66 percent) than nearly any other Southeastern state. Of this permanent land, the trust owns 223,466 acres, less than .67 percent of the total land area in Alabama. A long-term recreational lease has secured the balance of the total acreage. The FWLT's acquisitions have also created more than 363 miles of recreational trails within 23 new recreation areas and nature preserves, while providing additions to 9 State Parks and 20 Wildlife Management Areas.*
   b. Alabama Water Watch Demonstration-*Move to December*
   c. 2024 Officers; Chairman, Vice Chairman and Secretary Election – *Will vote in November.*
   d. Member Resignation – *Robert Davis resignation, will need to nominate someone to take his place from his district.*

5. Old Business
   a. Water Quality Monitoring Plan Subcommittee Update-GSA & ADEM Updates
      MBNEP Finalized the Samling Location request document and sent it to ADEM. *Working with MBE with ADEM on gauges.*
   b. Farmland Protection Subcommittee Update- Casey gave an update on the Committee's efforts. *The FPC hopes to have a draft Conceptual Document to inform citizens about a Voluntary Open Space Protection Pilot Program in December. Patti Powell will also be at the October 25 @ 8:30 Farm Land Committee meeting if anyone would like to join.*
   c. Bon Secour Watershed Management Plan – Fort Morgan Road Beach Erosion

Study-Update – *Ashley met with the USACE regarding a new type of shoreline protection. No additional update.*

d. Baldwin County Sanitary Sewer Utilities Inventory, Capacity and Overflows Data Collection – Casey provided a Sanitary Sewer Outfall map and a 2022 Sanitary Sewer Overflow (SSO) report for Fairhope. *Will be sending out a letter coming from the EAC, will email it to the members first.*

e. Planning District 26 Wetland Preservation Subcommittee- *No update*

6. Other Business/Announcements/Public Comments
   a. November-Carbon Sequestration Presentation -By Nick Tew with Geological Survey of Alabama (GSA)
   b. Environmental Stewardship Award Nominations Due Soon- *We will have the forms at the November meeting so everyone can start nominating.*

7. Adjournment @ 5:27 p.m.

BALDWIN COUNTY, ALABAMA
Planning and Zoning Department

Environmental Advisory Committee

MEETING MINUTES

November 7, 2023, 4:00 PM
Robertsdale Central Annex

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1. Call to Order @ 4:01 p.m.
2. Roll Call – *Steve Barnett, Kim Burmeister, Tommy Cleverdon, Glenda Dean, Casey Fulford, Brett Gaar, Leslie Gahagan, Tom Schmitz, Dick Sute, Vaughn Millner, & Tim Mullek*
   Staff –*Matthew Brown (P&Z), Ashley Campbell (P&Z), Rebecca Peacock (P&Z), & Michelle Pennington, EMA*
   Guests- *Nick Tew (GSA), Mr. Donald Joffe (Belforest Water System), Lani Cameron (WS Perdido Bay Watershed Action Committee), Gillard Strong (Fort Morgan Resident), Michael Ludvigsen (Fort Morgan Resident)*
3. Approval of EAC Meeting Minutes (Attachment 1-10/03/23-EAC Meeting Minutes)
   Motion: Dick Sute *Second: Tom Schmitz* *Vote: Unanimous Approval*
4. *New Business*
   Guest Speaker: Nick Tew-GSA Carbon Sequestration Presentation
5. *Old Business*
   a. Water Quality Monitoring Plan Subcommittee Update-GSA & ADEM Update- *- Flow Gauges.*
   b. Farmland Protection Subcommittee Update- *Casey gave an update on the Committee's efforts.*
   c. Bon Secour Watershed Management Plan – *Fort Morgan Road Beach Erosion Study-Update – Letter of Intent was reviewed, and a discussion was held. EAC recommended that the staff contact other partners along Fort Morgan to get their opinion/support of the letter of support. Ashley will initiate the communication with other agencies/partners.*
   d. Baldwin County Sanitary Sewer Utilities Inventory, Capacity and Overflows Data Collection –*No Update*
   e. Planning District 26 Wetland Preservation Subcommittee- *Next Meeting will be scheduled in January. Ashley mentioned that we need a Champion to lead the effort.*
   f. 2024 Officers; Chairman, Vice Chairman and Secretary Election – *Vote in May 2024*
   g. EAC Member Nomination Resumes to replace Rob Davis.
6. Other Business/Announcements/Public Comments
   a. December Alabama Water Watch
   b. Environmental Stewardship Award Nominations Due Soon- *We gave out the forms at the so everyone can start nominating.*
7. Adjournment @ 5:38 p.m.

CREATE A Clean Water FUTURE

BALDWIN COUNTY, ALABAMA
Planning and Zoning Department

Environmental Advisory Committee
MEETING MINUTES
December 5, 2023, 4:00 PM
Robertsdale Central Annex

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1. Call to Order @ 4:00 p.m.
2. Roll Call – *Steve Barnett, Kim Burmeister, Paige Felts, Casey Fulford, Brett Gaar, Leslie Gahagan, Phillip Hinesley, Tom Schmitz, Dick Sute, & Vaughn Millner*
   Staff – *Ashley Campbell (P&Z), Rebecca Peacock (P&Z), & Michelle Pennington, EMA*
   Guests- *Mr. Donald Joffe (Belforest Water System)*
   Approval of EAC Meeting Minutes (Attachment 1-11/07/23-EAC Meeting Minutes)
   Motion: Leslie Gahagan Second: Dick Sute Vote: Unanimous Approval
3. New Business
   Ashley presented the MEE Alabama Water Watch Lesson and gave the EAC a tutorial on the EPS's How's My Waterways Website. A discussion was held about other water quality data (GSA, AWW & Week's Bay NEER) being added to the website.
4. Old Business
   a. Water Quality Monitoring Plan Subcommittee Update-GSA & ADEM Update-*County will use AWW Water Monitoring Program & How's My Waterway to meet its Strategic Plan Goal.*
   b. Farmland Protection Subcommittee Update- *Casey gave an update on the Committee's efforts.*
   c. Bon Secour Watershed Management Plan – *Fort Morgan Road Beach Erosion Study-Update – Letter of Intent Ashley will schedule meeting in January with partners.*
   d. Baldwin County Sanitary Sewer Utilities Inventory, Capacity and Overflows Data Collection –*Ashley & Casey are working on completing the SSO data collection.*
   e. Planning District 26 Wetland Preservation Subcommittee- *Next Meeting will be scheduled in January. A discussion was held about Titi Swamp and the recent Pitman family 65 acres land donation to South Alabama Land Trust (SALT).*
   f. 2024 Officers; Chairman, Vice Chairman and Secretary Election – *Vote in May 2024*
   g. EAC Member Nomination Resumes-Update-None
5. Other Business/Announcements/Public Comments
   a. Environmental Stewardship Award Nominations Due Soon- Discussion held regarding nominations. Ashley will have the nomination forms placed on the County's website.
   b. A discussion was held about new county roads running through rural farmlands. Members recommend limiting driveway access to the new roads similar to the Beach Express.
6. Adjournment @ 5:08p.m.

CREATE A Clean Water FUTURE

BALDWIN COUNTY, ALABAMA
Planning and Zoning Department

Environmental Advisory Committee
MEETING MINUTES
January 09, 2024, 4:00 PM
Robertsdale Central Annex

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1. Call to Order @ 4:03 p.m.

2. Roll Call – Glenda Dean, Paige Felts, Casey Fulford, Brett Gaar, Leslie Gahagan, Phillip Hinesley, & Tom Schmitz
   Staff – Ashley Campbell (P&Z)
   Guests- Mr. Donald Joffe (Belforest Water System), Jane Herndon (South Alabama Land Trust)

3. Approval of EAC Meeting Minutes (Attachment 1-12/05/23-EAC Meeting Minutes)
   Motion: Tom Schmitz Second: Phillip Hinesley Vote: Unanimous Approval

4. New Business
   Mary Kate Brown with the Nature Conservancy gave a presentation for TNC's request for a Letter of Collaboration from the Baldwin County Commission for their NOAA Climate Regional Resilience Challenge Grant Application for the Perdido Watershed.

5. Old Business
   a. Water Quality Monitoring Plan Subcommittee Update-No Update

   b. Farmland Protection Subcommittee Update- Casey gave an update on the Committee's efforts. Casey and Ashley will meet with ALFA on January 16th.

   c. Bon Secour Watershed Management Plan – Fort Morgan Road Beach Erosion Study-Update – The EAC reviewed and approved a letter of support that will be sent from the EAC to the Fort Morgan Partners, ADCNR, ALDOT, FMCA, MBNEP, Mississippi Sea Grant, TNC, USFWS, & Bon Secour Refuge. The letter requests the partner's support of the study or a statement of no objection to the study.
      Motion: Glenda Dean Second: Tom Schmitz Vote: Unanimous Approval

   d. Baldwin County Sanitary Sewer Utilities Inventory, Capacity and Overflows Data Collection – Casey and Ashley continue work on completing the SSO data collection.

   e. Planning District 26 Wetland Preservation Subcommittee- Jane Herndon Director of the South Alabama Land Trust (SALT) informed the EAC that the SALT is working on an offer for the Cole 65-acre property adjacent to the recent Pitman Donation.

   f. 2024 Officers; Chairman, Vice Chairman and Secretary Election – Vote will occur in May.

   g. EAC Member Nomination Resume-Jessi Ward's resume (Attachment 2-Resume) was presented to the EAC. A vote will occur next month.

h. Environmental Stewardship Award Nominations-Discussion held regarding nominations. Vote will occur during March meeting.

6. Other Business/Announcements/Public Comments

7. Adjournment at 5:38 pm

BALDWIN COUNTY, ALABAMA
Planning and Zoning Department

Environmental Advisory Committee

MEETING MINUTES

February 6, 2024, 4:00 PM
Robertsdale Central Annex

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1. Call to Order *@4:00 p.m.*

2. Roll Call – *Kim Burmeister, Steve Barnett, Tommy Cleverdon, Casey Fulford (Webex), Leslie Gahagan (Webex), Phillip Hinesley, Thomas Rachel & Dick Sute*
   Staff – *Ashley Campbell (P&Z), Rebecca Peacock (P&Z)*
   Guests – *Donald Joffe (Belforest Water System), Jane Herndon (South Alabama Land Trust), Michelle Pennington (BCEMA), Gary Guyer (Fairhope EAB)*

3. Approval of the EAC Meeting Minutes **(2024-1-09-EAC MM-Attachment 1)**
   Motion: *Tommy Cleverdon* Second: *Dick Sute* Vote: *Unanimous Approval*

4. New Business

5. Old Business
   a. Water Quality Monitoring Plan Subcommittee Update-GSA & MBNEP No Update
   b. Farmland Protection Subcommittee Update-*Ashley Campbell gave a FPC committee update.*
   c. Bon Secour Watershed Management Plan-Fort Morgan Shoreline Erosion-*EAC Request for Letter of Support from partners for the EAC's USACE Letter Intent was emailed to the partners. Several have been received.*
   d. Baldwin County Sanitary Sewer Utilities Inventory, Capacity and Overflows Data Collection-No Update
   e. Planning District 26 Wetland Preservation Subcommittee-No Update
   f. EAC Member Nomination Resume Review and Vote (**Jesi Ward-Attachment 2)**
      Motion: *Phillip Hinesley* Second: *Tommy Cleverdon* Vote: *Unanimous Approval*
   g. Environmental Stewardship Award Nominations-Review and Discussion **(Nominations - Attachment 3)-***Nominations were reviewed, and several categories were expanded. Several EAC members will submit additional nominations for Non-profit and Student Initiated ASAP. Ashley and Rebecca will prepare the final nomination packet and email for review. The vote will take place during the next meeting and presentation will be during one of the April Commission Meetings (04/2/24 or 04/16/24).*

6. Other Business/Announcements/Public Comments

7. Adjournment *@ 5:16 p.m.*

CREATE A Clean Water FUTURE

BALDWIN COUNTY, ALABAMA
Planning and Zoning Department

Environmental Advisory Committee

MEETING MINUTES

March 5, 2024, 4:00 PM
Robertsdale Central Annex

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1. Call to Order *@ 4:02 p.m.*
2. Roll Call – *Kim Burmeister, Steve Barnett, Casey Fulford (Webex), Paige Felts (Webex), Brett Gaar (chair), Leslie Gahagan (Webex), Phillip Hinesley, Vaughn Millner, Tim Mullek, Thomas Rachel & Dick Sute*

   Staff – *Ashley Campbell (P&Z), Rebecca Peacock (P&Z)*

   Guests –*Jane Herndon (South Alabama Land Trust), Clark Strong (FMCA), Lani Cameron (WPBWAC)*
3. Approval of the EAC Meeting Minutes **(2024-02-06-EAC MM-Attachment 1)**
   Motion: *Kim Burmeister* Second: *Tommy Rachel* Vote: *Unanimous Approval*
4. New Business
5. Old Business
   a. Water Quality Monitoring Plan Subcommittee Update-GSA & MBNEP – *Working on How's my waterways data to be updated on the website.*
   b. Farmland Protection Subcommittee Update-*Casey Fulford- Provided an update on the Committee's efforts.*
   c. Bon Secour Watershed Management Plan-Fort Morgan Shoreline Erosion- *Letter of Support from partners for the EAC's USACE discussion and vote.*
      Motion: Leslie Gahagan Seconded: Vaughn Millner Vote: Unanimous Approval
   d. Baldwin County Sanitary Sewer Utilities Inventory, Capacity and Overflows Data Collection-*Waiting on updated information for 2022 & 2023 Data.*
   e. Planning District 26 Wetland Preservation Subcommittee-*Talked about getting Jeff Kitchens to come back and speak regarding erosion of the bay.*
   f. EAC New Member Approved by County Commission-*Jesi Ward*
   g. Environmental Stewardship Award Nominations-Review, Discussion & Vote **(Nominations -Attachment 3)-** *April Commission Meetings (04/2/24 or 04/16/24). Collected Votes for the nominations to be turned into the Commission.*
6. Other Business/Announcements/Public Comments- *Mr. Strong spoke regarding Fort Morgan.*
7. Adjournment *@ 4:52 p.m.*

CREATE A Clean Water FUTURE

Table 5-1 Baldwin County Phase II MS4

MCM 1-Public Involvement/Public Participation Strategies and Goals

NPDES Permit Section	**SWMPP Section**	**5-Public Involvement/Participation Strategy**	**Goal**	**Pollution Targeted**	**Responsible Departments**
Part III-B1bi	*5.2.2.2*	*Committees, Watershed Organizations & Groups*	*In year 1 of the permit cycle, the EAC Review and Update SWMPP*	*ALL*	*P&Z & EAC*
Date		**Meeting**	**Topic**		
5/7/2024		Environmental Advisory Committee	MS4 Storm Water Management Program Plan (SWMPP) Review		
4/4/2023		Environmental Advisory Committee	MS4 Storm Water Management Program Plan (SWMPP) Review		

BALDWIN COUNTY, ALABAMA
Planning and Zoning Department

Environmental Advisory Committee

MEETING AGENDA

May 7, 2024, 4:00 PM
Robertsdale Central Annex

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1. Call to Order - Roll Call

2. Approval of the EAC Meeting Minutes **(2024-04-02EAC MM-Attachment 1)**

3. New Business
   a. **CANCELLED** Special Guest Speaker-Auburn University's Thorsten Knappenberger, PhD, Associate Professor for Soil Physics and Critical Zone Hydrology, SSSA Board of Directors Soil & Ecosystem Processes Group Representative, Associate Editor *Vadose Zone* Journal Editorial Board Member STILL Dept. of Crop, Soil & Environmental Sciences-Presentation Title- *"Land Use Change Effects on Coastal Headwater Wetland Hydrology,* USGS Water Resources Research Institute Program."
   b. 2023-2024 MS4 Annual Report Review

4. Old Business
   a. Water Quality Monitoring Plan Subcommittee Update-
   b. Farmland Protection Subcommittee Update-Casey Fulford (
   c. Baldwin County Sanitary Sewer Utilities Inventory, Capacity and Overflows Data Collection-Update-Casey Fulford
   d. Planning District 26 Wetland Preservation Subcommittee-No Update
   e. EAC Member resignations and potential new members & vote (**Resumes – Attachment 2)**

5. Other Business/Announcements/Public Comments

6. Adjournment

CREATE A Clean Water FUTURE

BALDWIN
COUNTY, ALABAMA

Environmental Advisory Committee

MEETING AGENDA

April 4, 2023, 4:00 PM

Robertsdale Central Annex

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1. Call to Order

2. Roll Call

3. Approval of the EAC Meeting Minutes **(03/07/23-EAC MM- Attachment 1)**

4. New Business
   a. 2022-2023 MS4 Annual Report and 2023 Audit
   b. MS4 Education Outreach Survey
   c. Discuss Other Utilities Request to Give Presentations
   d. Other Presentations & Tours

5. Old Business
   a. ECUA's Central Water Tour-Wrap-up
   b. 2023 EAC Award Recommendations will be presented during the BC Commission meeting on April 18 at 10:00am at the Fairhope Satellite Court House
   c. Water Quality Monitoring Plan Subcommittee Update-GSA & ADEM Updates
   d. Farmland Protection Subcommittee Update-(**02/16/23 FPS MM will be submitted to the EAC with April's MM in May)**
   e. Bon Secour Watershed Management Plan – Fort Morgan Road Beach Erosion Study-Update

6. Other Business/Announcements/Public Comments

7. Adjournment

CREATE A Clean Water FUTURE

cleanwaterfuture.com

Table 5-1 Baldwin County Phase II MS4

MCM 1-Public Involvement/Public Participation Strategies and Goals

NPDES Permit Section	SWMPP Section	5-Public Involvement/Participation Strategy	Goal	Pollution Targeted	Responsible Departments
Part III-B1bv	*5.2.2.3*	*Committees, Watershed Organizations & Groups*	*Once per year, the County will host or attend Eastern Shore MS4 meeting*	*ALL*	*P&Z*

ESMS4 Me Permit Year 2023/2024		
Date	**Meeting Topic**	**Attendance**
4/27/2023	Template Ordinances	4

Daphne ALABAMA
The Jubilee City

BALDWIN COUNTY, ALABAMA

CITY OF FAIRHOPE ALABAMA

Environmental Advisory Coalition
Meeting Minutes
April 27, 2023, 1:30-2:30 Fairhope Satellite Office

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1. Attendance

Fairhope	Amy Paulson, Fairhope EAB Co-Chair / Joint-EAC Chair Gary Gover, Fairhope EAB Co-Chair
Daphne	Jesi Ward, Daphne Environmental Programs Manager
County	Ashley Campbell, BC Natural Resource Planner / Joint-EAC Secretary

2. New Items-The group discussed the next topic for review and ordinance creation. The group decided that Nature Base Solutions (NBS) would be our next ordinance. The NBS will include Public Properties Native Habitat, Low Impact Development for Stormwater, and Shoreline Stabilization.

3. Old Business –The group discussed the draft Stream and Wetland template ordinance. The group agreed to review the ordinance one more time to try to shorten it and make it easier to understand and enforce. The group also agreed to work with the Mobile Bay National Estuary Program to set up a template ordinance page for the Clean Water Future Stormwater Campaign. The partnership will allow the template ordinances to be available to any entity that wants to use them. Once we get the Stream and Wetland Ordinance finalized and set up on the page, we will work on a outreach campaign.

    a. Present the CWF Campaign to Our City, County
    b. Emails other cities and towns
    c. Attend Planning Commission and City Council Meetings
    d. Follow-up

4. The meeting ended around 2:40 pm.

5. Next Meeting Monday, June 26 at 1:30pm at Fairhope Satellite Court House.

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Table 5-1 Baldwin County Phase II MS4

MCM 1-Public Involvement/Public Participation Strategies and Goals

NPDES Permit Section	SWMPP Section	5-Public Involvement/Participation Strategy	Goal	Pollution Targeted
Part III-B1bv	*5.2.2.4*	*Committees, Watershed Organizations & Groups*	*County Staff will promote, participate and track attendance in County Watershed Management Plan Steering Committees*	*ALL*

Date	Watershed	
8/28/2023	Western Shore of Perdido Bay	Western Shore Perdido Bay Steering Committee Meeting
10/23/2023	Western Shore of Perdido Bay	AWW Presentation
11/14/2023	Eastern Delta Watershed	Watershed Citizen Meeting

Western Perdido Bay Watershed Action Committee Meeting
Monday, August 28, 2023, 6:00PM
Lillian Fire Department, 11331 County Rd 91

- Welcome & Introductions
- Who are we? Why do we exist?
- Mobile Bay National Estuary Program (MBNEP) Video-Alabama Coast: A Treasure Worth Preserving
- Where are we now: Christian Miller, Mobile Bay National Estuary Program; Ashley Campbell Natural Resource Planner for Baldwin County; Wade Burcham, Civil Engineer
- What's important to you?
    1. Water Quality
    2. Fish & Wildlife
    3. Environmental Health & Resilience
    4. Access
    5. Heritage & Culture
    6. Beaches & Shorelines
- Call to Action: How can you get involved?
- Adjourn

Participant Form
Perdido Bay Watershed – Monday, August 28, 2023

Name _____

Address _____

City/State/Zip _____

Preferred telephone number _____

Alternate telephone number _____

Email address _____

I'd like to get involved with or learn more about the following areas *(check as many as you would like):*

☐ Water Quality
☐ Fish & Wildlife
☐ Environmental Health & Resilience
☐ Access
☐ Heritage & Culture
☐ Beaches & Shorelines

Western Perdido Bay Watershed Action Committee Meeting

Monday, October 23, 2023, 6:00PM

Lillian Community Club

34148 Widell Ave, Lillian, AL

Agenda

- Welcome & Introductions
- Alabama Water Watch
- Water Testing Field Trip
- Committee Membership Volunteers
- Adjourn

email –
wpbwac@gmail.com

Western Perdido Bay Watershed Committee Meeting Sign In Sheet
Monday, October 23, 2024

Name	Email	Phone
Bobby Beck B	chair@spanishcove.org	(706) 831-1548
Tammy Robinson G	alaskarobnsns@yahoo	907-202-0821
Julie Hartley G	jlap424@gmail.com	251.689.5499
Melissa Powell G	MP11359@yahoo.	256-777-9020
STEVE POWELL B	GUNSMOKE928@YAHOO.COM	256-777-3737
DOUG B : NANCY G SCOTT		
Thornton B + Sharon G Garth	SharonWgarth@yahoo.com	850 292-1826
*Sheri Scarborough G		
*BILL HIGGINS B	higginsterpeg@gmail.com	301-452-1676
DAVE BERGSLAND B	1dbergsland@gmail.com	812 580 9812
*RON ROBSON B	RONROBSON@YAHOO.COM	706 662-4500
*JOELLE PAGEL G	joellepagel@yahoo.com	850-206-3601
Karen Baxter G	kbaxter99@yahoo.com	850-748-3135
Cathy Hearn G		901-827-6340
TYLER HEARN B		901-299-7065

Western Perdido Bay Watershed Committee Meeting Sign In Sheet Monday, October 23, 2024		
Name	Email	Phone
DAVID HEARN B	dhearn601@gmail.com	901-496-6509

ANCHOR QEA

Meeting Agenda

Public Stakeholder Meeting #1

Eastern Delta Watershed Management Plan

November 14, 2023, 5:30 p.m.

Spanish Fort City Hall

I. **Welcome and Introductions**

II. **Purpose of Watershed Planning**

III. **Introduction to Eastern Delta Watershed Management Plan**

IV. **Watershed Characterization and Conditions**

V. **Community Engagement**

VI. **Breakout/Tabling Session**

Table 5-1 Baldwin County Phase II MS4

MCM 1-Public Involvement/Public Participation Strategies and Goals

NPDES Permit Section	SWMPP Section	5-Public Involvement/Participation Strategy	Goal	Pollution Targeted	Responsible Departments
Part III-B1bv	*5.2.2.4*	*Committees, Watershed Organizations & Groups*	*County Staff will promote, participate and track watershed organization events*	*ALL*	*P&Z*
		Watershed	**Topic**		
		Eastern Delta Watershed	Eastern Watershed Management Plant Steering Committee		
		Tensaw Delta	Virtual Meeting Watershed Meeting		
		Western Shore of Perdido Bay	Western Shore Perdido Bay Steering Committee Meeting		
		Fly Creek	ES WMP Stakeholder Workshop		

Table 5-1 Baldwin County Phase II MS4

MCM 1-Public Involvement/Public Participation Strategies and Goals

NPDES Permit Section	SWMPP Section	5-Public Involvement/Participation Strategy	Goal	Pollution Targeted	Responsible Departments
Part III-B1bv	*5.2.2.5*	*Committees, Watershed Organizations & Groups*	*Alabama Water Watch Monitoring (AWW) Partner with the MBNEP to provide 2 AWW trainings per permit cycle.*	*ALL*	*P&Z*

2023/2024	Date	Workshop Title	Location
1	5/19/2023	AWW Volunteer Monitor Training	Graham Creek
2	2/23/2024	AWW Volunteer Monitor Training	Lillian
3	3/9/2024	AWW Volunteer Monitor Training	Lillian

AWW May 19, 2023 -Graham Creek

First Name	Last Name	Email	Phone	Mailing Address	City	State	County	Zip	Monitoring Certification	Have you ever Been Certified	Age
Allie	Quinley	aquinley@cityoffoley .org	251-923-4287	23030 Wolf Bay Drive	Foley	AL	Baldwin	36535	R-Card Bacteria	Yes	Adult (19 & up)
Rebecca	Peacock	rebecca.peacock@baldwincountyal.gov	251-689-4726	201 East Section Ave	Foley	AL	Baldwin	36535	R-Card Bacteria	No	Adult (19 & up)
Joe	Ryan	jlryan9384@gmail.com	251-253-9935	24938 Hack Road	Bay Minette	AL	Baldwin	36507	R-Card Bacteria & WQ		Adult (19 & up)
Narissa	Nelson	ngnelson@gulftel.com	251-978-6667	6777 Bon Secour Hwy	Foley	AL	Baldwin	36535	R-Card Bacteria & WQ		Adult (19 & up)
Rich	Nelson	ngnelson@gulftel.com	251-978-6667	6777 Bon Secour Hwy	Foley	AL	Baldwin	36535	R-Card Bacteria & WQ		

AWW Training Workshop

February 23, 2024

AWW Training Workshop 2/23

	First Name	Last Name	Email	Phone Number
1	Janet	Larson	janlarson55@gmail.com	215-668-7855
2	Steve	Powell	Gunsmoke928@yahoo.com	256-777-3737
3	Melissa	Powell	Mp11359@yahoo.com	256-777-9020
4	Joelle	Pagel	joellepagel@yahoo.com	850-206-3601
5				
6				
7				
8				
9				
10				

ALABAMA WATER WATCH
ALABAMA EXTENSION

CREATE A Clean Water FUTURE
www.CleanWaterFuture.com

AWW Volunteer Monitor Water Quality Training

When: March 9th

9am to 3pm

Where: Lillian Volunteer Fire Department

11331 County Road 91

Lillian, AL

For more information contact : Angie Eckman
aeckman@cityoffoley.org 251-923-4267

Foley

BALDWIN COUNTY, ALABAMA
Planning and Zoning Department

AWW Training Workshop 2024/03/09

	First Name	Last Name	Email	Phone Number
1	Tom	Baxter	Tbaxter99@yahoo.com	8503808783
2	Karen	Baxter	Kbaxter99@yahoo.com	8507483135
3	Julie	Hartley	jlap424@gmail.com	
4	Bill	Higgins	whiggins@umd.edu	301-452-1676
5	Ted	Hughes	tedncharge515@gmail.com	251-9795663
6	**Sherri**	Scarbrough	**Sas21118@gmail.com**	850-748-0509
7	Mike	Littlemoon	Mrtwowolves1387@gmail.com	
8				
9				
10				

Table 5-1 Baldwin County Phase II MS4

MCM 1-Public Involvement/Public Participation Strategies and Goals

NPDES Permit Section	SWMPP Section	5-Public Involvement/Participation Strategy	Goal	Pollution Targeted	Responsible Departments
Part III-B1bv	*5.2.3.2*	*Commissions, Board of Adjustment & Other Public Involvement Opportunities*	*Through out the permit cycle, track Commission, BOA & other Public Involvement Meetings*	*ALL*	*P&Z*
2023/2024			**Board/Commission**		
			Board of Adjustment 1		
			Board of Adjustment 2		
			Planning Commission		
			County Commission		

BALDWIN COUNTY PLANNING AND ZONING
BOARD OF ADJUSTMENT NUMBER 2

2024
MEETING DATES
&
APPLICATION DEADLINE DATES

Meeting time: 3:00 p.m.
Meeting location: Foley Satellite Courthouse Large Meeting Room

All applications to be considered by the Baldwin County Board of Adjustment #2 Planning and Zoning Board of Adjustment shall be submitted no later than 12:00 p.m. on the deadline date listed below. *There will be no exceptions*.

MEETING DATE	STAFF REPORTS DUE	APPLICATION DEADLINE DATE (@ NOON!)
January 11, 2024	January 2, 2024	December 19, 2023
February 8, 2024	January 30, 2024	January 16, 2024
March 14, 2024	March 5, 2024	February 20, 2024
April 11, 2024	April 2, 2024	March 19, 2024
May 9, 2024	April 30, 2024	April 16, 2024
June 13, 2024	June 4, 2024	May 21, 2024
July 11, 2024	July 2, 2024	June 18, 2024
August 8, 2024	July 30, 2024	July 16, 2024
September 12, 2024	September 3, 2024	August 20, 2024
October 10, 2024	October 1, 2024	September 17, 2024
November 7, 2024	October 29, 2024	October 15, 2024
December 12, 2024	December 3, 2024	November 19, 2024

Dates may differ from original meeting dates and/or application deadline dates due to holidays and may be subject to change upon request by the Chairman of the Board.

BALDWIN COUNTY PLANNING AND ZONING
BOARD OF ADJUSTMENT NUMBER 2

2023
MEETING DATES
&
APPLICATION DEADLINE DATES

Meeting time: 3:00 p.m.
Meeting location: Foley Satellite Courthouse Large Meeting Room

All applications to be considered by the Baldwin County Board of Adjustment #2 Planning and Zoning Board of Adjustment shall be submitted no later than 12:00 p.m. on the deadline date listed below. *There will be no exceptions*.

MEETING DATE	STAFF REPORTS DUE	APPLICATION DEADLINE DATE
January 12, 2023		December 20, 2022
February 09, 2023		January 17, 2023
March 09, 2023		February 14, 2023
April 13, 2023		March 21, 2023
May 11, 2023		April 18, 2023
June 08, 2023		May 16, 2023
July 13, 2023		June 20 2023
August 10, 2023		July 18, 2023
September 14, 2023		August 22, 2023
October 12, 2023		September 19, 2023
November 09, 2023		October 17, 2023
December 14, 2023		November 21, 2023

Dates may differ from original meeting dates and/or application deadline dates due to holidays and may be subject to change upon request by the Chairman of the Board.

BALDWIN COUNTY PLANNING AND ZONING
BOARD OF ADJUSTMENT NUMBER 1

2024
MEETING DATES
&
APPLICATION DEADLINE DATES

Meeting time: 4:00 p.m.
Meeting location: Baldwin County Central Annex Auditorium

All applications to be considered by the Baldwin County Planning and Zoning Board of Adjustment Number 1 shall be submitted no later than 4:30p.m. on the deadline date listed below. *There will be no exceptions*.

MEETING DATE		APPLICATION DEADLINE DATE
January 16, 2024		December 20, 2023
February 20, 2024		January 26, 2024
March 19, 2024		February 27, 2024
April 16, 2024		March 25, 2024
May 21, 2024		April 30, 2024
June 18, 2024		May 28, 2024
July 16, 2024		June 24, 2024
August 20, 2024		July 30, 2024
September 17, 2024		August 26, 2024
October 15, 2024		September 24, 2024
November 19. 2024		October 28, 2024
December 17, 2024		November 22, 2024

Dates may differ from original meeting dates and/or application deadline dates due to holidays and may be subject to change upon request by the Chairman of the Board.
U:\Zoning\Board of Adjustment Number 1 Deadline and Meeting Calendar 2024

BALDWIN COUNTY PLANNING AND ZONING
BOARD OF ADJUSTMENT NUMBER 1

2023
MEETING DATES
&
APPLICATION DEADLINE DATES

Meeting time: 4:00 p.m.
Meeting location: Baldwin County Central Annex Auditorium

All applications to be considered by the Baldwin County Planning and Zoning Board of Adjustment Number 1 shall be submitted no later than 12:00 p.m. on the deadline date listed below. *There will be no exceptions*.

MEETING DATE		APPLICATION DEADLINE DATE
January 17, 2023		December 22, 2022
February 28, 2023		February 3, 2023
March 21, 2023		February 28, 2023
April 18, 2023		March 27, 2023
May 16, 2023		April 25, 2023
June 20, 2023		May 26, 2023
July 18, 2023		June 26, 2023
August 15, 2023		July 25, 2023
September 19, 2023		August 28, 2023
October 17, 2023		September 26, 2023
November 21. 2023		October 30, 2023
December 19, 2023		November 28, 2023

Dates may differ from original meeting dates and/or application deadline dates due to holidays and may be subject to change upon request by the Chairman of the Board.
U:\Zoning\Board of Adjustment Number 1 Deadline and Meeting Calendar 2023

2023 MEETING AND APPLICATION SCHEDULE

MEETING LOCATION: Baldwin County Central Annex
22251 Palmer St.
Robertsdale, Al. 36567

MEETING TIME: 4:00 p.m.

BALDWIN COUNTY, ALABAMA
Planning and Zoning Department

MEETING DATE	APPLICATION DEADLINE DATE 12:00 NOON	ZONING CASE PRE-APP. MEETING DATE (REQUIRED) *Foley Office*	SUBDIVISION SKETCH PLAN APPLICATION DEADLINE 12:00 NOON	SUBDIVISION PRE-APP. MEETING (REQUIRED) *Robertsdale Office*
December 1, 2022	October 17, 2022	October 12, 2022	September 19, 2022	October 6, 2022
January 5, 2023	November 21, 2022	November 9, 2022	October 24, 2022	November 10, 2022
February 2, 2023	December 19, 2022	December 7, 2022	November 21, 2022	December 8, 2022
March 2, 2023	January 23, 2023	January 11, 2023	December 26, 2022	January 12, 2023
April 6, 2023	February 22,2023**	February 8, 2023	January 23, 2023	February 9, 2023
May 4, 2023	March 20, 2023	March 8, 2023	February 22, 2023**	March 9, 2023
June 1, 2023	April 17, 2023	April 12, 2023	March 20, 2023	April 13, 2023
July 6, 2023	May 22, 2023	May 10, 2023	April 24, 2023	May 11, 2023
August 3, 2023	June 20, 2023**	June 7, 2023	May 22, 2023	June 8, 2023
September 7, 2023	July 24, 2023	July 12, 2023	June 20, 2023**	July 13, 2023
October 5, 2023	August 21, 2023	August 9, 2023	July 24, 2023	August 10, 2023
November 2, 2023	September 18, 2023	September 13, 2023	August 28, 2023	September 14, 2023
December 7, 2023	October 23, 2023	October 11, 2023	September 25, 2023	October 12, 2023
January 4, 2024	November 20, 2023	November 8, 2023	October 23, 2023	November 9, 2023

Please Note: The Application Deadline Submittal time is 12:00 pm (noon)

** DATE MOVED FORWARD DUE TO A HOLIDAY**

APPROVED THE 6 DAY OF October, 2022

SIGNATURE OF CHAIRMAN Steven Murphy

2024 MEETING AND APPLICATION SCHEDULE

MEETING LOCATION: Baldwin County Central Annex
22251 Palmer St.
Robertsdale, Al. 36567

MEETING TIME: 4:00 p.m.

BALDWIN COUNTY, ALABAMA
Planning and Zoning Department

MEETING DATE	APPLICATION DEADLINE DATE 12:00 NOON	SUBDIVISION SKETCH PLAN MEETING (REQUIRED) *Robertsdale Office*	SUBDIVISION SKETCH PLAN APPLICATION DEADLINE 12:00 NOON
December 7, 2023	October 23, 2023	October 10, 2023	September 25, 2023
January 4, 2024	November 20, 2023	November 7, 2023	October 23, 2023
February 1, 2024	December 18, 2023	December 12, 2023	November 28, 2023
March 7, 2024	January 22, 2024	January 9, 2024	December 27, 2023**
April 4, 2024	February 20,2024**	February 14, 2024**	January 30, 2024
May 2, 2024	March 18, 2024	March 12, 2024	February 27, 2024
June 6, 2024	April 22, 2024	April 9, 2024	March 26, 2024
July 11, 2024**	May 20, 2024	May 14, 2024	April 30, 2024
August 1, 2024	June 17, 2024	June 11, 2024	May 28, 2024
September 5, 2024	July 22, 2024	July 9, 2024	June 25, 2024
October 3, 2024	August 19, 2024	August 13, 2024	July 30, 2024
November 7, 2024	September 23, 2024	September 10, 2024	August 27, 2024
December 5, 2024	October 21, 2024	October 8, 2024	September 24, 2024
January 9, 2025**	November 18, 2024	November 12, 2024	October 29, 2024

Please Note: The Application Deadline Submittal time is 12:00 pm (noon)

** DATE MOVED FORWARD DUE TO A HOLIDAY**

APPROVED THE 2 DAY OF November, 2023

SIGNATURE OF CHAIRMAN Steven Murphy

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Name	Meeting Date		Meeting Time	Meeting Location	Meeting Details	Agenda	Minutes	Video
Baldwin County Commission Regular	1/3/2023		10:00 AM	Baldwin County Administration Building County Commission Meeting Chambers 322 Courthouse Square Bay Minette, Alabama 36507	Meeting details	Agenda	Minutes	Video
Baldwin County Commission Regular	1/17/2023		10:00 AM	Baldwin County Fairhope Satellite Courthouse County Commission Meeting Chambers – 2nd Floor 1100 Fairhope Avenue Fairhope, Alabama 36532	Meeting details	Agenda	Minutes	Video
Baldwin County Commission Regular	2/7/2023		8:30 AM	Baldwin County Administration Building County Commission Meeting Chambers 322 Courthouse Square Bay Minette, Alabama 36507	Meeting details	Agenda	Minutes	Video
Baldwin County Commission Regular	2/24/2023		10:00 AM	Baldwin County Fairhope Satellite Courthouse County Commission Meeting Chambers – 2nd Floor 1100 Fairhope Avenue Fairhope, Alabama 36532	Meeting details	Agenda	Minutes	Video
Baldwin County Commission Regular	3/7/2023		8:30 AM	Baldwin County Administration Building County Commission Meeting Chambers 322 Courthouse Square Bay Minette, Alabama 36507	Meeting details	Agenda	Minutes	Video
Baldwin County Commission Regular	3/21/2023		8:30 AM	Baldwin County Fairhope Satellite Courthouse County Commission Meeting Chambers – 2nd Floor 1100 Fairhope Avenue Fairhope, Alabama 36532	Meeting details	Agenda	Minutes	Video
Baldwin County Commission Regular	4/4/2023		8:30 AM	Baldwin County Administration Building County Commission Meeting Chambers 322 Courthouse Square Bay Minette, Alabama 36507	Meeting details	Agenda	Minutes	Video
Baldwin County Commission Regular	4/18/2023		10:00 AM	Baldwin County Fairhope Satellite Courthouse County Commission Meeting Chambers – 2nd Floor 1100 Fairhope Avenue Fairhope, Alabama 36532	Meeting details	Agenda	Minutes	Video
Baldwin County Commission Regular	5/2/2023		8:30 AM	Baldwin County Administration Building County Commission Meeting Chambers 322 Courthouse Square Bay Minette, Alabama 36507	Meeting details	Agenda	Minutes	Video
Baldwin County Commission Regular	5/16/2023		8:30 AM	Baldwin County Fairhope Satellite Courthouse County Commission Meeting Chambers – 2nd Floor 1100 Fairhope Avenue Fairhope, Alabama 36532	Meeting details	Agenda	Minutes	Video
Baldwin County Commission Regular	6/6/2023		8:30 AM	Baldwin County Administration Building County Commission Meeting Chambers 322 Courthouse Square Bay Minette, Alabama 36507	Meeting details	Agenda	Minutes	Video
Baldwin County Commission Regular	6/20/2023		10:00 AM	Baldwin County Fairhope Satellite Courthouse County Commission Meeting Chambers – 2nd Floor 1100 Fairhope Avenue Fairhope, Alabama 36532	Meeting details	Agenda	Minutes	Video
Baldwin County Commission	7/5/2023		10:00 AM	Baldwin County Administration Building County Commission Meeting Chambers 322	Meeting details	Agenda	Minutes	Video

Name	Meeting Date		Meeting Time	Meeting Location	Meeting Details	Agenda	Minutes	Video
Regular				Courthouse Square Bay Minette, Alabama 36507				
Baldwin County Commission Regular	7/18/2023		8:30 AM	Baldwin County Fairhope Satellite Courthouse County Commission Meeting Chambers – 2nd Floor 1100 Fairhope Avenue Fairhope, Alabama 36532	Meeting details	Agenda	Minutes	Video
Baldwin County Commission Regular	8/1/2023		8:30 AM	Baldwin County Administration Building County Commission Meeting Chambers 322 Courthouse Square Bay Minette, Alabama 36507	Meeting details	Agenda	Minutes	Video
Baldwin County Commission Regular	8/15/2023		8:30 AM	Baldwin County Fairhope Satellite Courthouse County Commission Meeting Chambers – 2nd Floor 1100 Fairhope Avenue Fairhope, Alabama 36532	Meeting details	Agenda	Minutes	Video
Baldwin County Commission Regular	9/5/2023		10:00 AM	Baldwin County Administration Building County Commission Meeting Chambers 322 Courthouse Square Bay Minette, Alabama 36507	Meeting details	Agenda	Minutes	Video
Baldwin County Commission Regular	9/19/2023		8:30 AM	Baldwin County Fairhope Satellite Courthouse County Commission Meeting Chambers – 2nd Floor 1100 Fairhope Avenue Fairhope, Alabama 36532	Meeting details	Agenda	Minutes	Video
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Baldwin County Commission Regular	11/7/2023		10:00 AM	Baldwin County Administration Building County Commission Meeting Chambers 322 Courthouse Square Bay Minette, Alabama 36507	Meeting details	Agenda	Minutes	Video
Baldwin County Commission Regular	11/21/2023		10:00 AM	Baldwin County Fairhope Satellite Courthouse County Commission Meeting Chambers – 2nd Floor 1100 Fairhope Avenue Fairhope, Alabama 36532	Meeting details	Agenda	Minutes	Video
Baldwin County Commission Regular	12/5/2023		10:00 AM	Baldwin County Administration Building, County Commission Meeting Chambers, 322 Courthouse Square, Bay Minette, Alabama 36507	Meeting details	Agenda	Minutes	Video
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Baldwin County Commission Regular	5/21/2024		10:00 AM	Baldwin County Fairhope Satellite Courthouse, County Commission Meeting Chambers – 2nd Floor, 1100 Fairhope Avenue, Fairhope, Alabama 36532	Meeting details	Agenda	Not available	Not available
Baldwin County Commission Regular	6/4/2024		10:00 AM	Baldwin County Administration Building, County Commission Meeting Chambers, 322 Courthouse Square, Bay Minette, Alabama 36507	Meeting details	Not available	Not available	Not available

Name	Meeting Date		Meeting Time	Meeting Location	Meeting Details	Agenda	Minutes	Video
Baldwin County Commission Regular	6/18/2024		10:00 AM	Baldwin County Fairhope Satellite Courthouse, County Commission Meeting Chambers – 2nd Floor, 1100 Fairhope Avenue, Fairhope, Alabama 36532	Meeting details	Not available	Not available	Not available
Baldwin County Commission Regular	7/2/2024		10:00 AM	Baldwin County Administration Building, County Commission Meeting Chambers, 322 Courthouse Square, Bay Minette, Alabama 36507	Meeting details	Not available	Not available	Not available
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Baldwin County Commission Regular	8/6/2024		10:00 AM	Baldwin County Administration Building, County Commission Meeting Chambers, 322 Courthouse Square, Bay Minette, Alabama 36507	Meeting details	Not available	Not available	Not available
Baldwin County Commission Regular	8/20/2024		10:00 AM	Baldwin County Fairhope Satellite Courthouse, County Commission Meeting Chambers – 2nd Floor, 1100 Fairhope Avenue, Fairhope, Alabama 36532	Meeting details	Not available	Not available	Not available
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Baldwin County Commission Regular	11/5/2024		10:00 AM	Baldwin County Administration Building, County Commission Meeting Chambers, 322 Courthouse Square, Bay Minette, Alabama 36507	Meeting details	Not available	Not available	Not available
Baldwin County Commission Regular	11/19/2024		10:00 AM	Baldwin County Fairhope Satellite Courthouse, County Commission Meeting Chambers – 2nd Floor, 1100 Fairhope Avenue, Fairhope, Alabama 36532	Meeting details	Not available	Not available	Not available
Baldwin County Commission Regular	12/3/2024		10:00 AM	Baldwin County Administration Building, County Commission Meeting Chambers, 322 Courthouse Square, Bay Minette, Alabama 36507	Meeting details	Not available	Not available	Not available
Baldwin County Commission Regular	12/17/2024		10:00 AM	Baldwin County Fairhope Satellite Courthouse, County Commission Meeting Chambers – 2nd Floor, 1100 Fairhope Avenue, Fairhope, Alabama 36532	Meeting details	Not available	Not available	Not available

Table 5-1 Baldwin County Phase II MS4

MCM 1-Public Involvement/Public Participation Strategies and Goals

NPDES Permit Section	SWMPP Section	5-Public Involvement/Participation Strategy	Goal	Pollution Targeted	Responsible Departments
Part III-B1d	*5.4*	*Program Evaluation*	*Throughout the permit cycle, evaluate the Public Involvement and Participation. Minimum Control Measure strategies and goals achieved and submit an annual report*	*ALL*	*P&Z*
2023/2024			**Program Evaluation**		
	Part III-B1bv		*5.2.1 -County Clean Sweep-Household Amensty Day*	*Goal Not Met*	
			The Public Involvement/Participation Minimum Control		
			Measure strategies and goals have been tracked in the		
			Annual Report's Spreadsheets. Proposed uppdates will		
			be detailed in the MCM Evaluation Summary.		

Table 6-2 Baldwin County Phase II MS4
MCM 2 IDDE Strategies and Goals

NPDES Permit Section	SWMPP Section	6-Illicit Discharge Detection and Elimination Strategy	Goal	Pollution Targeted	Responsible Departments	2022 Proposed	2022 Achieved	2023 Proposed	2023 Achieved	2024 Proposed	2024 Achieved	2025 Proposed	2025 Achieved	2026 Proposed	2026 Achieved
Part III-2ai	6.4	Data Management	Throughout the permit cycle, the County will continue to improve and update its stormwater infrastructure inventory and inspection process	All	Hwy & P&Z	✓	✓	✓	✓						
Part III-2aiii	6.7	Outfalls Screened	The County will screen 15% a year of major outfalls with 100% being screened during permit cycle	All	Hwy & P&Z	✓	✓🗀 15%	✓	✓🗀 100 %	©	©	©	©	©	©
Part III-2aiii	6.8.4	Evaluation of Results	Evaluate field assessments and inspections to establish priority areas and major outfalls for more focused inspections	All	Hwy & P&Z	✓	✓	✓	✓						
Part III-2a	6.10	Spill Response	Throughout the permit cycle, the County's EMA is responsible for tracking reported spills and potential Illicit discharges. Data will be submit in annual report	All	EMA, Hwy & P&Z	✓	🗀	✓	✓🗀						
Part III-2avii	6.11	Website Citizen Complaint Reporting	Throughout the permit cycle, the environmental complaint form on the County website will be maintained and updated as needed	All	Hwy & P&Z	✓	🗀	✓	✓🗀						
Part III-2aii	6.13	Enforcement	In year one (1), the County's will have legal review its authority in zoned areas to determine if an IDDE ordinance can be implemented	All	Hwy & P&Z	✓	🗀	©	©	©	©	©	©	©	©
Part III-2aviii	6.14	Staff Training	Provide IDDE training to new employees with program responsibilities including but not limited to *Understanding Your Stormwater Management Plan*	All	Hwy & P&Z	✓	🗀	*	*						
Part III-2aviii	6.14	Staff Training	Provide additional stormwater training as needed during permit cycle to employees with program responsibilities	All	Hwy & P&Z	*	*	*	*						
Part III-2aiv	6.15	Standard Operating Guidance (SOG)	Throughout the permit cycle, the County will review and update its Standard Operating Guidance documents	All	P&Z	✓	🗀	*	*						
Part III-2b	6.17	Program Evaluation	Throughout the permit cycle, review the IDDE minimum control measure strategies and goals achieved , prepare an annual report and update the SWMPP	All	P&Z	✓	✓	✓	✓						
					Totals	9	9	6	6						
		P&Z	**Planning & Zoning**												
		©	**Completed for Permit Cycle**												
		*	**Not Proposed for Permit Year**												
		**	**Completed Prior to Proposed Year**												
		X	**Not Completed-Goal Not Met**												
		🗁	**Attachment Included in Report**												

Table 6-1 Baldwin County Phase II MS4
MCM 2 IDDE Strategies and Goals

NPDES Permit Section	SWMPP Section	6-Illicit Discharge and Elimination Strategy	Goal	Pollution Targeted	Responsible Departments
Part III-2ai	*6.4*	*Data Management*	*Throughout the permit cycle, the County will continue to improve and update its stormwater infrastructure inventory and inspection process*	*All*	*Hwy & P&Z*

2023/2024

Storm Water Pipe Inventory

Pipe Shape	Pipe Size (in)	Number (ea)	Length (ft)	Pipe Size (in)	Number (ea)	Length (ft)
Arch	18 X 11	1	64	58 X 36	2	276
	29 X 18	3	85	73 X 45	1	26
	36 X 23	5	386	88 X 54	1	238
	51 X 31	2	402	N/A	1	26
Circular	12	2	926	30	70	10,034
	15	4	427	36	84	10,896
	18	284	27,720	42	17	2,254
	21	138	14,240	48	9	1,472
	24	148	20,852	54	2	361
	27	41	7,120	60	3	416
Elliptical	14 X 23	13	752	32 X 49	4	138
	19 X 30	7	687	34 X 53	3	626
Elliptical	22 X 34	5	494	38 X 60	1	123
	24 X 38	6	692	43 X 68	2	216
	29 X 45	2	138			

Table 6-1 Baldwin County Phase II MS4
MCM 2 IDDE Strategies and Goals

Storm Water Inlet Inventory

Inlet Type	Number (ea)	Inlet Type	Number (ea)
Grate Inlet	16	Double Wing	331
Junction Box	98	Yard	67
Singe Wing	257	Slotted Drain	7
Curbed Inlet	5		

MS4 Area Cross Drain Pipe Inventory

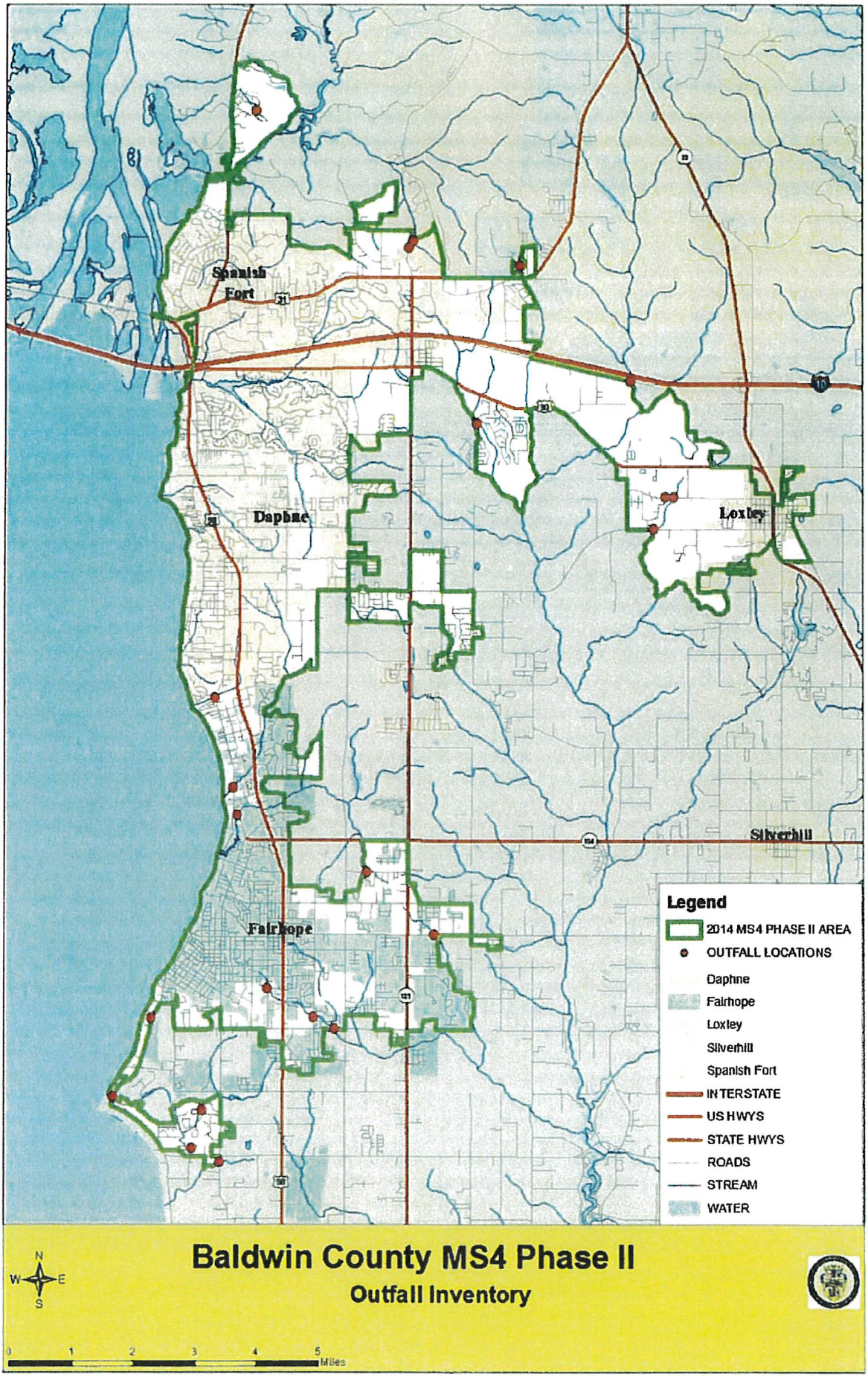
Pipe Shape	Pipe Size (in)	Number (ea)	Length (ft)	Pipe Size (in)	Number (ea)	Length (ft)
Arched	18 X 11	5	157	51 X 31	6	263
	22 X 13	1	16	58 X 36	3	72
	29 X 18	31	1,110	65 X 40	2	30
	36 X 23	23	898	73 X 45	2	78
	44 X 27	11	289			
Circular	12	3	115	36	3	60
	15	7	242	42	4	200
	18	67	2,966	48	5	267
	21	11	356	54	1	27
	24	49	1,635	60	3	75
	27	13	335	84	1	23
	30	15	383	96	1	43
Elliptical	14 X 23	18	681	27 X 42	1	82
	19 X 30	1	19	38 X 60	1	27
	24 X 38	2	95	43 X 68	1	12

Table 6-1 Baldwin County Phase II MS4
MCM 2 IDDE Strategies and Goals

NPDES Permit Section	SWMPP Section	6-Illicit Discharge and Elimination Strategy	Goal	Pollution Targeted	Responsible Departments
Part III-2ai	*6.7*	*Outfalls Screened*	*The County will screen 15% a year of major outfalls with 100% being screened during permit cycle*	*All*	*Hwy & P&Z*
2023/2024		**OUTFALL INVENTORY**			
DISCHARGE TYPE	**DISCHARGE ID**	**LOCATION**	**BASIN**	**LATITUDE**	**LONGITUDE**
PIPE	1	THREE MILE CREEK RD TURNS NORTH BEFORE I-10	MOBILE/FISH RIVER	30D 39M 9.164S	87D 47M 30.833S
BOX CULVERT	2	CR 64 - CORN BR. EAST OF HALL RD	MOBILE/CORN BRANCH	30D 47M 5.895S	87D 47M7.875S
PIPE	3	GREENO LN JUST EAST OF INGLESIDE AVE	MOBILE/COWPEN CREEK	30D 30M 39.672	87D 53M 24.951S
OPEN DITCH	4	WASP LN-WHERE IT DUMPS INTO POND	MOBILE/POINT CLEAR CREEK	30D 28M 26.261S	87D 54M 38.997S
PIPE	5	BOOTHE RD-BETWEEN LAKE VIEW & NORMAN LN	MOBILE/COWPEN CREEK	30D 30M 16.002S	87D 52M 39.695S
BOX CULVERT	6	Jimmy Faulkner Rd-North of Plaza De Toros Drive	MOBILE/SIBLEY CREEK	30D 41M 6.693S	87D 51M 5.611S
BRIDGE	7	SCENIC 98-ROCK CRK. SOUTH OF ECOR ROUGE LN	MOBILE/ROCK CREEK	30D 33M 27.932S	87D 53M 58.874S
BRIDGE	8	TURKEY BRANCH-TURKEY BRANCH DR	MOBILE/TURKEY BRANCH	30D 38M 33.83S	87D 50M 3.536S
BOX CULVERT	9	SCENIC 98-RED GULLY SOUTH OF N WINDING BROOK DR	MOBILE/RED GULLEY	30D 34M 42.480S	87D 54M 17.512S
BRIDGE	10	SCENIC 98-FLY CRK. SOUTH OF SEA CLIFF DR	MOBILE/FLY CREEK	30D 33M 4.416	87D 53M 55.041S
BOX CULVERT	11	CR 44-COWPEN CRK. WEST OF FAIRFIELD DR	MOBILE/COWPEN CREEK	30D 30M 6.374S	87D 52M 19.352S

Table 6-1 Baldwin County Phase II MS4
MCM 2 IDDE Strategies and Goals

DISCHARGE TYPE	DISCHARGE ID	LOCATION	BASIN	LATITUDE	LONGITUDE
BOX CULVERT	12	BR. OFF POINT CLEAR CR. WILLOWBRIDGE DR	MOBILE/POINT CLEAR CREEK	30D 28M 58.419S	87D 54M 29.019S
BRIDGE	13	CR 3 BAILEY CRK SOUTH OF COUNTY RD 32	MOBILE/BAILEY CREEK	30D 28M 14.797S	87D 54M 11.017S
BRIDGE	14	SCENIC 98-POINT CLEAR CRK. NORTH OF LAKEWOOD DR	MOBILE/POINT CLEAR CREEK	30D 29M 8.725S	87D 55M 56.413S
PIPE	15	COUNTY RD 66 EAST OF BOAZ RD E	MOBILE/CORN BRANCH	30D 37M 32.626S	87D 46M 56.187S
PIPE	16	COUNTY RD 66 EAST OF BOAZ RD E EAST OF DISCHARGE 15	MOBILE/CORN BRANCH	30D 37M 32.698S	87D 46M 48.239S
BOX CULVERT	17	BOARDWALK DR	MOBILE/MUDDY BRANCH	30D 42M 55.314S	87D 53M 40.18S
PIPE	18	MCFARLAND RD EAST OF JESSIE RD	MOBILE/BAY BRANCH	30D 40M 45.989S	87D 49M 20.674S
PIPE	19	JIMMY FAULKNER RD- SOUTH OF PLAZA DE TOROS DR	MOBILE/SIBLEY CREEK	30D 41M0.769S	87D 51M 9.728S
PIPE	20	MOSELEY RD EAST OF COUNTY RD 13	MOBILE/FLY CREEK	30D 32M 17.546S	87D 51M 47.752S
PIPE	21	COUNTY RD 48 WEST OF BLUEBERRY LN	MOBILE/FISH RIVER	30D 31M 25.095S	87D 50M 42.566S
BOX CULVERT	22	SCENIC HWY 98 SOUTH OF NELSON DR	MOBILE/TITI SWAMP	30D 30M 14.532S	87D 55M 18.894S
		REMOVED-Spanish Fort Annexed			
		INSPECTED 2022/2023 - 5 Outfalls			
		Inspected 2023/2024 - 16 Outfalls			
		22 X 15% = 3.4 = 4 Outfalls			



Baldwin County MS4 Phase II

Outfall Inventory

SWOF INSPECTIONS
100% COMPLETION
2022-2024

Baldwin County
Catch Basin and Outfall
Reconnaissance Inventory/Sample Collection Field Sheet

Section 1: Background Data

Sub watershed: Mobile Bay/Fish River Watershed at Fish River		Outfall ID:1A	Outfall not in inventory: ☐
Today's date: 3/4/2024		Time: 9:38 am	
Investigators: Ashley Campbell & Rebecca Peacock		Form completed by: Ashley Campbell	
Temperature: 66	Rainfall (in.): Last 24 hours: 0	Last 48 hours: 0	
Latitude:30D 39M 9.164S	Longitude: 87D 47M 30.833S	GPS Unit:	Location as mapped: ☒
Camera: iPhone-RP/AC		Photo #s:IMG_	

Land Use in Drainage Area (Check all that apply): ☐ Industrial ☒ Open Space ☐ Urban Residential ☐ Institutional ☐ Suburban Residential Other: ☐ Commercial Known Industries:	Maintenance Priority: ☐ Priority 1-High ☒ Priority 2-Medium ☐ Priority 3-Low Notes: Drain obstructed, Outfall covered by vegetation, speed limit sign down
Notes (e.g., origin of outfall, if known): Located Under/Near I10, 3 Outfall Pipes A, B, C	

Section 2: Outfall Description

Location	Material	Shape		
☒ Closed Pipe Diameter/Dimensions: 24"	☒ RCP ☐ CMP ☐ PVC ☐ HDPE ☐ Steel ☐ Other:	☒ Circular ☐ Elliptical ☐ Box ☐ Other:	☒ Single ☐ Double ☐ Triple ☐ Other:	In water: ☒ No ☐ Partially ☐ Fully With Sediment: ☒ No ☐ Partially ☐ Fully
☐ Open drainage	☐ Concrete/Paved ☐ Earthen ☐ rip-rap ☐ Other:	☐ Trapezoid ☐ Parabolic ☐ Other:		Depth: Top Width: Bottom Width:
☐ In-Stream	(applicable when collecting samples) NA			
Flow Present?	☒ Yes ☐ No (If No, Skip to Section 5)			
Flow Description	☒ Trickle- -Standing ☐ Moderate ☐ Substantial			

Section 3: Quantitative Characterization NA

Field Data For Flowing Outfalls				
Parameter		**Result**	**Unit**	**Equipment**
☐ Flow #1	Volume		Liter	Bottle
	Time to fill		Sec	Stop watch
☐ Flow #2	Flow Depth		In	Tape measure
	Flow Width	_____' _____"	Ft, In	Tape measure
	Measured length	_____' _____"	Ft, In	Tape measure
	Time of travel		Sec	Stop watch

Catch Basin and Outfall

Reconnaissance Inventory Field Sheet

Section 4: Physical Indicators for Flowing Outfalls Only

Are Any Physical Indicators Present in the flow? ☐Yes ☒No (If No, Skip to Section 5)

Indicator	Check if Present	Description	Relative Severity Index		
Odor	☐	☐Sewage ☐Rancid/Sour ☐Petroleum/Gas ☐Sulfide ☐Other:	☐1 – Faint	☐2 – Easily Detected	☐3 – Noticeable from a distance
Color	☐	☐Clear ☐Brown ☐Gray ☐Yellow ☐Green ☐Orange ☐Red ☐Other:	☐1 – Faint colors in sample bottle	☐2 – Clearly visible in sample bottle	☐3 – Clearly visible in outfall flow
Turbidity	☐	See severity	☐1 – Slight cloudiness	☐2 – Cloudy	☐3 – Opaque
Floatables - Does not Include Trash!!	☐	☐Sewage (Toilet Paper, etc.) ☐Suds ☐Petroleum (oil sheen) ☐Other:	☐1 – Few/slight: origin not obvious	☐2 – Some; indicators of origin (e.g., possible suds or oil sheen)	☐3 – Some; origin clear (e.g., obvious soil sheen, suds, or floating sanitary materials)

Section 5: Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? ☐Yes ☒No

Indicator	Check if Present	Description	Comments
Outfall Damage	☐	☐ Spalling, Cracking or Chipping ☐ Peeling Paint ☐Corrosion	
Deposits/Stains	☐	☐ Oily ☐Flow line ☐Paint ☐Other:	
Abnormal Vegetation	☐	☐ Excessive ☐Inhibited ☐ Invasive Species	
Poor Pool Quality	☐	☐ Odors ☐ Colors ☐ Floatables ☐Oil Sheen ☐ Suds ☐ Excessive Algae ☐ Other	
Pipe Benthic Growth	☐	☐Brown ☐Orange ☐ Green ☐ Other:	
Animal Life	☐	☐ None/ little presence ☐ Average presence ☐High presence	

Section 6: Overall Outfall Characterization

☒ Unlikely ☐ Potential (presence of two or more indicators) ☐ Suspect (one or more indicators with a severity of 3) ☐ Obvious

Section 7: Field Tests-NA

Test	Calibration Date And LOT#	Data
Ammonia		ppm
Chlorine		mg/L
Conductivity		µS/cm
Salinity		ppt
pH		

Test	Calibration Date And LOT#	Data
Temperature		°F
Nitrate		ppm
Nitrite		ppm
D.O.		mg/L

Section 8: Data Collection

Sample for the lab? ☐ Yes ☒ No

If yes, collected from: ☐ Flow ☐ Pool

If yes: Chain of Custody Number:

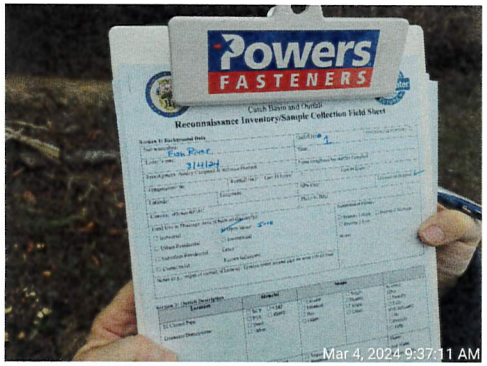
- ☐ Surfactants _____
- ☐ Aluminum _____
- ☐ Iron _____
- ☐ Phosphorous _____
- ☐ E. Coli _____

Section 9: Non-Illicit Discharge Concerns (eg. trash, repairs needed)

Notes:

Alligator carcass was dumped near site in ditch. The outfall is hidden by overgrowth, but the outfall upstream inlet is dry but covered with debris. Rural area, low traffic. Minor issues.

SWOF Outfall # 1 A
Mobile/Fish River



Baldwin County
Catch Basin and Outfall
Reconnaissance Inventory/Sample Collection Field Sheet

Section 1: Background Data

Sub watershed: Mobile Bay/Fish River Watershed at Fish River		Outfall ID:1B	Outfall not in inventory: ☐
Today's date: 3/4/2024		Time: 9:44am	
Investigators: Ashley Campbell & Rebecca Peacock		Form completed by: Ashley Campbell	
Temperature: 66	Rainfall (in.): Last 24 hours: 0	Last 48 hours: 0	
Latitude:30D 39M 9.164S	Longitude: 87D 47M 30.833S	GPS Unit:	Location as mapped: ☒
Camera: iPhone-RP/AC		Photo #s:IMG_	

Land Use in Drainage Area (Check all that apply): ☐ Industrial ☒ Open Space ☐ Urban Residential ☐ Institutional ☐ Suburban Residential Other: ☐ Commercial Known Industries:	Maintenance Priority: ☐ Priority 1-High ☐ Priority 2-Medium ☒ Priority 3-Low Notes: Drain obstructed, Outfall covered by vegetation, speed limit sign down
Notes (e.g., origin of outfall, if known): Located Under/Near I10	

Section 2: Outfall Description

Location	Material	Shape		
☒ Closed Pipe Diameter/Dimensions: 24"	☒ RCP ☐ CMP ☐ PVC ☐ HDPE ☐ Steel ☐ Other:	☒ Circular ☐ Elliptical ☐ Box ☐ Other:	☒ Single ☐ Double ☐ Triple ☐ Other:	In water: ☒ No ☐ Partially ☐ Fully With Sediment: ☒ No ☐ Partially ☐ Fully
☐ Open drainage	☐ Concrete/Paved ☐ Earthen ☐ rip-rap ☐ Other:	☐ Trapezoid ☐ Parabolic ☐ Other:		Depth: Top Width: Bottom Width:
☒ In-Stream	(applicable when collecting samples) N/A NO SAMPLES TAKEN			
Flow Present?	☒ Yes ☐ No (If No, Skip to Section 5)			
Flow Description	☒ Trickle ☒ Moderate ☐ Substantial			

Section 3: Quantitative Characterization NA

Field Data for Flowing Outfalls				
Parameter		**Result**	**Unit**	**Equipment**
☐ Flow #1	Volume		Liter	Bottle
	Time to fill		Sec	Stop watch
☐ Flow #2	Flow Depth		In	Tape measure
	Flow Width	_____' _____"	Ft, In	Tape measure
	Measured length	_____' _____"	Ft, In	Tape measure
	Time of travel		Sec	Stop watch

Catch Basin and Outfall

Reconnaissance Inventory Field Sheet

Section 4: Physical Indicators for Flowing Outfalls Only

Are Any Physical Indicators Present in the flow? ☐Yes ☒No (If No, Skip to Section 5)

Indicator	Check if Present	Description	Relative Severity Index		
Odor	☐	☐Sewage ☐Rancid/Sour ☐Petroleum/Gas ☐Sulfide ☐Other:	☐1 – Faint	☐2 – Easily Detected	☐3 – Noticeable from a distance
Color	☐	☐Clear ☐Brown ☐Gray ☐Yellow ☐Green ☐Orange ☐Red ☐Other:	☐1 – Faint colors in sample bottle	☐2 – Clearly visible in sample bottle	☐3 – Clearly visible in outfall flow
Turbidity	☐	See severity	☐1 – Slight cloudiness	☐2 – Cloudy	☐3 – Opaque
Floatables - Does not Include Trash!!	☐	☐Sewage (Toilet Paper, etc.) ☐Suds ☐Petroleum (oil sheen) ☐Other:	☐1 – Few/slight: origin not obvious	☐2 – Some; indicators of origin (e.g., possible suds or oil sheen)	☐3 – Some; origin clear (e.g., obvious soil sheen, suds, or floating sanitary materials)

Section 5: Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? ☐Yes ☒No

Indicator	Check if Present	Description	Comments
Outfall Damage	☐	☐ Spalling, Cracking or Chipping ☐ Peeling Paint ☐Corrosion	
Deposits/Stains	☐	☐ Oily ☐Flow line ☐Paint ☐Other:	
Abnormal Vegetation	☐	☐ Excessive ☐Inhibited ☐ Invasive Species	
Poor Pool Quality	☐	☐ Odors ☐ Colors ☐ Floatables ☐Oil Sheen ☐ Suds ☐ Excessive Algae ☐ Other	
Pipe Benthic Growth	☐	☐Brown ☐Orange ☐ Green ☐ Other:	
Animal Life	☐	☐ None/ little presence ☐ Average presence ☐High presence	

Section 6: Overall Outfall Characterization

☒ Unlikely ☐ Potential (presence of two or more indicators) ☐ Suspect (one or more indicators with a severity of 3) ☐ Obvious

Section 7: Field Tests-NA

Test	Calibration Date And LOT#	Data
Ammonia		ppm
Chlorine		mg/L
Conductivity		µS/cm
Salinity		ppt
pH		

Test	Calibration Date And LOT#	Data
Temperature		°F
Nitrate		ppm
Nitrite		ppm
D.O.		mg/L

Section 8: Data Collection

Sample for the lab? ☐ Yes ☒ No

If yes, collected from: ☐ Flow ☐ Pool

If yes: Chain of Custody Number:

- ☐ Surfactants _____
- ☐ Aluminum _____
- ☐ Iron _____
- ☐ Phosphorous _____
- ☐ E. Coli _____

Section 9: Non-Illicit Discharge Concerns (eg. trash, repairs needed)

Notes:

Rural area, low traffic. Minor issues.

SWOF Outfall # 1B
Mobile/Fish River

Baldwin County
Catch Basin and Outfall
Reconnaissance Inventory/Sample Collection Field Sheet

Section 1: Background Data

Sub watershed: Mobile Bay/Fish River Watershed at Fish River		Outfall ID:1C	Outfall not in inventory: ☐
Today's date: 3/4/2024		Time: 9:38 am	
Investigators: Ashley Campbell & Rebecca Peacock		Form completed by: Ashley Campbell	
Temperature: 66	Rainfall (in.): Last 24 hours: 0	Last 48 hours: 0	
Latitude:30D 39M 9.164S	Longitude: 87D 47M 30.833S	GPS Unit:	Location as mapped: ☒
Camera: iPhone-RP/AC		Photo #s:IMG_	

Land Use in Drainage Area (Check all that apply):

☐ Industrial ☒ Open Space

☐ Urban Residential ☐ Institutional

☐ Suburban Residential Other:

☐ Commercial Known Industries:

Maintenance Priority:

☐ Priority 1-High ☒ Priority 2-Medium

☐ Priority 3-Low

Notes: Drain obstructed, Outfall covered by vegetation, speed limit sign down

Notes (e.g., origin of outfall, if known): Located Under/Near I10, 3 Outfall Pipes A, B, C

Section 2: Outfall Description

Location	Material	Shape		
☒ Closed Pipe Diameter/Dimensions: 24"	☒ RCP ☐ CMP ☐ PVC ☐ HDPE ☐ Steel ☐ Other:	☒ Circular ☐ Elliptical ☐ Box ☐ Other:	☒ Single ☐ Double ☐ Triple ☐ Other:	In water: ☒ No ☐ Partially ☐ Fully With Sediment: ☒ No ☐ Partially ☐ Fully
☐ Open drainage	☐ Concrete/Paved ☐ Earthen ☐ rip-rap ☐ Other:	☐ Trapezoid ☐ Parabolic ☐ Other:		Depth: Top Width: Bottom Width:
☐ In-Stream	(applicable when collecting samples) NA			
Flow Present?	☒ Yes ☐ No (If No, Skip to Section 5)			
Flow Description	☒ Trickle- -Standing ☐ Moderate ☐ Substantial			

Section 3: Quantitative Characterization NA

Field Data For Flowing Outfalls				
Parameter		**Result**	**Unit**	**Equipment**
☐ Flow #1	Volume		Liter	Bottle
	Time to fill		Sec	Stop watch
☐ Flow #2	Flow Depth		In	Tape measure
	Flow Width	_____' _____"	Ft, In	Tape measure
	Measured length	_____' _____"	Ft, In	Tape measure
	Time of travel		Sec	Stop watch

Catch Basin and Outfall

Reconnaissance Inventory Field Sheet

Section 4: Physical Indicators for Flowing Outfalls Only

Are Any Physical Indicators Present in the flow? ☐Yes ☒No (If No, Skip to Section 5)

Indicator	Check if Present	Description	Relative Severity Index		
Odor	☐	☐Sewage ☐Rancid/Sour ☐Petroleum/Gas ☐Sulfide ☐Other:	☐1 – Faint	☐2 – Easily Detected	☐3 – Noticeable from a distance
Color	☐	☐Clear ☐Brown ☐Gray ☐Yellow ☐Green ☐Orange ☐Red ☐Other:	☐1 – Faint colors in sample bottle	☐2 – Clearly visible in sample bottle	☐3 – Clearly visible in outfall flow
Turbidity	☐	See severity	☐1 – Slight cloudiness	☐2 – Cloudy	☐3 – Opaque
Floatables - Does not Include Trash!!	☐	☐Sewage (Toilet Paper, etc.) ☐Suds ☐Petroleum (oil sheen) ☐Other:	☐1 – Few/slight: origin not obvious	☐2 – Some; indicators of origin (e.g., possible suds or oil sheen)	☐3 – Some; origin clear (e.g., obvious soil sheen, suds, or floating sanitary materials)

Section 5: Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? ☐Yes ☒No

Indicator	Check if Present	Description	Comments
Outfall Damage	☐	☐ Spalling, Cracking or Chipping ☐ Peeling Paint ☐Corrosion	
Deposits/Stains	☐	☐ Oily ☐Flow line ☐Paint ☐Other:	
Abnormal Vegetation	☐	☐ Excessive ☐Inhibited ☐ Invasive Species	
Poor Pool Quality	☐	☐ Odors ☐ Colors ☐ Floatables ☐Oil Sheen ☐ Suds ☐ Excessive Algae ☐ Other	
Pipe Benthic Growth	☐	☐Brown ☐Orange ☐ Green ☐ Other:	
Animal Life	☐	☐ None/ little presence ☐ Average presence ☐High presence	

Section 6: Overall Outfall Characterization

☒ Unlikely ☐ Potential (presence of two or more indicators) ☐ Suspect (one or more indicators with a severity of 3) ☐ Obvious

Section 7: Field Tests-NA

Test	Calibration Date And LOT#	Data
Ammonia		ppm
Chlorine		mg/L
Conductivity		µS/cm
Salinity		ppt
pH		

Test	Calibration Date And LOT#	Data
Temperature		°F
Nitrate		ppm
Nitrite		ppm
D.O.		mg/L

Section 8: Data Collection

Sample for the lab? ☐ Yes ☒ No

If yes, collected from: ☐ Flow ☐ Pool

If yes: Chain of Custody Number:

- ☐ Surfactants _____
- ☐ Aluminum _____
- ☐ Iron _____
- ☐ Phosphorous _____
- ☐ E. Coli _____

Section 9: Non-Illicit Discharge Concerns (eg. trash, repairs needed)

Notes:

The outfall is hidden by overgrowth, but the outfall upstream inlet ground water is clear. No signs of IDDE. Rural area, low traffic. Minor issues.

SWOF Outfall # 1C
Mobile/Fish River

Baldwin County
Catch Basin and Outfall

Reconnaissance Inventory/Sample Collection Field Sheet

Section 1: Background Data

Sub watershed: Mobile Bay/Corn Branch Watershed Drains to Fish River		Outfall ID: 02	Outfall not in inventory: ☐
Today's date: 3/4/2024		Time: 8:51 am	
Investigators: Ashley Campbell & Rebecca Peacock		Form completed by: Ashley Campbell	
Temperature: 66	Rainfall (in.): Last 24 hours: 0	Last 48 hours: 0	
Latitude:30D 47M 5.895S	Longitude: 87D 47M 7.875S	GPS Unit:	Location as mapped: ☒
Camera: iPhone-RP/AC		Photo #s:IMG_SWOF 2	

Land Use in Drainage Area (Check all that apply): ☐ Industrial ☒ Open Space ☐ Urban Residential ☐ Institutional ☐ Suburban Residential Other: ☐ Commercial Known Industries:	Maintenance Priority: ☐ Priority 1-High ☐ Priority 2-Medium ☒ Priority 3-Low Notes: SWOF Marker down on north side of road
Notes (e.g., origin of outfall, if known):	

Section 2: Outfall Description

Location	Material	Shape		
☒ Closed Pipe Diameter/Dimensions:	☐ RCP ☐ CMP ☐ PVC ☐ HDPE ☐ Steel ☒ Other: Concrete	☐ Circular ☐ Elliptical ☒ Box ☐ Other:	☐ Single ☒Double ☐ Triple ☐ Other:	In water: ☐No ☐ Partially ☒ Fully With Sediment: ☒ No ☐Partially ☐ Fully
☐ Open drainage	☐ Concrete/Paved ☐Earthen ☐ rip-rap ☐ Other:	☐ Trapezoid ☐ Parabolic ☐ Other:		Depth: Top Width: Bottom Width:
☒ In-Stream	(applicable when collecting samples) Box Culvert-No Evidence of ID			
Flow Present?	☒ Yes ☐ No (If No, Skip to Section 5)			
Flow Description	☒ Trickle- -Standing ☐ Moderate ☐ Substantial			

Section 3: Quantitative Characterization NA

Field Data For Flowing Outfalls				
Parameter		**Result**	**Unit**	**Equipment**
☐ Flow #1	Volume		Liter	Bottle
	Time to fill		Sec	Stop watch
☐ Flow #2	Flow Depth		In	Tape measure
	Flow Width	_____' _____"	Ft, In	Tape measure
	Measured length	_____' _____"	Ft, In	Tape measure
	Time of travel		Sec	Stop watch

Catch Basin and Outfall

Reconnaissance Inventory Field Sheet

Section 4: Physical Indicators for Flowing Outfalls Only

Are Any Physical Indicators Present in the flow? ☐Yes ☒No (If No, Skip to Section 5)

Indicator	Check if Present	Description	Relative Severity Index		
Odor	☐	☐Sewage ☐Rancid/Sour ☐Petroleum/Gas ☐Sulfide ☐Other:	☐1 – Faint	☐2 – Easily Detected	☐3 – Noticeable from a distance
Color	☐	☐Clear ☐Brown ☐Gray ☐Yellow ☐Green ☐Orange ☐Red ☐Other:	☐1 – Faint colors in sample bottle	☐2 – Clearly visible in sample bottle	☐3 – Clearly visible in outfall flow
Turbidity	☐	See severity	☐1 – Slight cloudiness	☐2 – Cloudy	☐3 – Opaque
Floatables - Does not Include Trash!!	☐	☐Sewage (Toilet Paper, etc.) ☐Suds ☐Petroleum (oil sheen) ☐Other:	☐1 – Few/slight: origin not obvious	☐2 – Some; indicators of origin (e.g., possible suds or oil sheen)	☐3 – Some; origin clear (e.g., obvious soil sheen, suds, or floating sanitary materials)

Section 5: Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? ☐Yes ☒No

Indicator	Check if Present	Description	Comments
Outfall Damage	☐	☐ Spalling, Cracking or Chipping ☐ Peeling Paint ☐Corrosion	
Deposits/Stains	☐	☐ Oily ☐Flow line ☐Paint ☐Other:	
Abnormal Vegetation	☐	☐ Excessive ☐Inhibited ☐ Invasive Species	
Poor Pool Quality	☐	☐ Odors ☐ Colors ☐ Floatables ☐Oil Sheen ☐ Suds ☐ Excessive Algae ☐ Other	
Pipe Benthic Growth	☐	☐Brown ☐Orange ☐ Green ☐ Other:	
Animal Life	☐	☐ None/ little presence ☐ Average presence ☐High presence	

Section 6: Overall Outfall Characterization

☒ Unlikely ☐ Potential (presence of two or more indicators) ☐ Suspect (one or more indicators with a severity of 3) ☐ Obvious

Section 7: Field Tests-NA

Test	Calibration Date And LOT#	Data
Ammonia		ppm
Chlorine		mg/L
Conductivity		µS/cm
Salinity		ppt
pH		

Test	Calibration Date And LOT#	Data
Temperature		°F
Nitrate		ppm
Nitrite		ppm
D.O.		mg/L

Section 8: Data Collection

Sample for the lab?	☐ Yes	☒ No
If yes, collected from:	☐ Flow	☐ Pool

If yes: Chain of Custody Number:

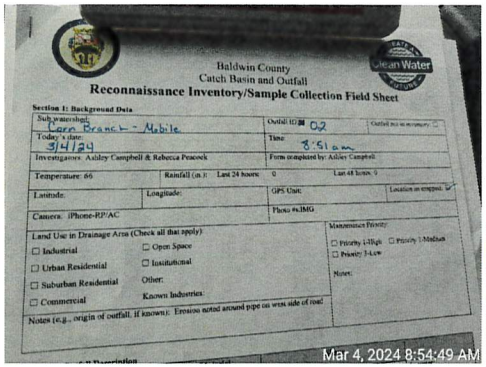
- ☐ Surfactants _____
- ☐ Aluminum _____
- ☐ Iron _____
- ☐ Phosphorous _____
- ☐ E. Coli _____

Section 9: Non-Illicit Discharge Concerns (eg. trash, repairs needed)

Notes:

Minor Trash noted on ROW on both sides of road.

SWOF OUTFALL # 2
Mobile/Corn Branch


Baldwin County
Catch Basin and Outfall
Reconnaissance Inventory/Sample Collection Field Sheet

Section 1: Background Data

Sub watershed: Corn Branch - Mobile
Outfall ID: 02
Today's date: 3/4/24
Time: 8:51 am
Investigators: Ashley Campbell & Rebecca Peacock
Form completed by: Ashley Campbell
Temperature: 66
Rainfall (in.): Last 24 hours: 0 Last 48 hours: 0
Latitude:
Longitude:
GPS Unit:
Location in stream:
Camera: iPhone-RP/AC
Photo #s IMG
Land Use in Drainage Area (Check all that apply):
☐ Industrial
☐ Urban Residential
☐ Suburban Residential
☐ Commercial
☐ Open Space
☐ Institutional
Other:
Known Industries:
Maintenance Priority:
☐ Priority 1-High ☐ Priority 1-Medium
☐ Priority 3-Low
Notes:
Notes (e.g., origin of outfall, if known): Erosion noted around pipe on west side of road

Mar 4, 2024 8:54:49 AM

Mar 4, 2024 9:01:15 AM

Mar 4, 2024 8:57:02 AM

Mar 4, 2024 9:01:25 AM

Mar 4, 2024 8:57:42 AM

SWOF OUTFALL # 2
Mobile/Corn Branch

Baldwin County
Catch Basin and Outfall
Reconnaissance Inventory/Sample Collection Field Sheet

Section 1: Background Data

Sub watershed: Mobile/Point		Outfall ID:03-Greeno Lane	Outfall not in inventory: ☐
Today's date: 03/28/2023		Time: 09:34 am	
Investigators: Ashley Campbell		Form completed by: Ashley Campbell	
Temperature: 69	Rainfall (in.): Last 24 hours: 2"	Last 48 hours: 2.5"	
Latitude:30' 30 39.672	Longitude:87' 53 24.95	GPS Unit:	Location as mapped: ☒
Camera: iPhone-AC		Photo #s:IMG_8872, 8873, 8874, 8875, & 8876	

Land Use in Drainage Area (Check all that apply): ☐ Industrial ☐ Open Space ☒ Urban Residential ☐ Institutional ☐ Suburban Residential Other: ☐ Commercial Known Industries:	Maintenance Priority: ☐ Priority 1-High ☐ Priority 2-Medium ☒ Priority 3-Low Notes: Low
Notes (e.g., origin of outfall, if known): Erosion noted around pipe on west side of road	

Section 2: Outfall Description

Location	Material	Shape		
☒ Closed Pipe Diameter/Dimensions: 24"	☐ RCP ☒ CMP ☐ PVC ☐ HDPE ☐ Steel ☐ Other:	☒ Circular ☐ Elliptical ☐ Box ☐ Other:	☒ Single ☐Double ☐ Triple ☐ Other:	In water: ☒No ☐ Partially ☐ Fully With Sediment: ☐ No ☐Partially ☐ Fully
☐ Open drainage	☐ Concrete/Paved ☐Earthen ☐ rip-rap ☐ Other:	☐ Trapezoid ☐ Parabolic ☐ Other:		Depth: Top Width: Bottom Width:
☐ In-Stream-**NA**	(applicable when collecting samples)			
Flow Present?	☐ Yes ☒ No (If No, Skip to Section 5)			
Flow Description	☐ Trickle ☐ Moderate ☐ Substantial			

Section 3: Quantitative Characterization

Field Data For Flowing Outfalls				
Parameter		**Result**	**Unit**	**Equipment**
☐ Flow #1	Volume		Liter	Bottle
	Time to fill		Sec	Stop watch
☐ Flow #2	Flow Depth		In	Tape measure
	Flow Width	_____' _____"	Ft, In	Tape measure
	Measured length	_____' _____"	Ft, In	Tape measure
	Time of travel		Sec	Stop watch

Catch Basin and Outfall

Reconnaissance Inventory Field Sheet

Section 4: Physical Indicators for Flowing Outfalls Only

Are Any Physical Indicators Present in the flow? ☐Yes ☒No (If No, Skip to Section 5)

Indicator	Check if Present	Description	Relative Severity Index		
Odor	☐	☐Sewage ☐Rancid/Sour ☐Petroleum/Gas ☐Sulfide ☐Other:	☐1 – Faint	☐2 – Easily Detected	☐3 – Noticeable from a distance
Color	☐	☐Clear ☐Brown ☐Gray ☐Yellow ☐Green ☐Orange ☐Red ☐Other:	☐1 – Faint colors in sample bottle	☐2 – Clearly visible in sample bottle	☐3 – Clearly visible in outfall flow
Turbidity	☐	See severity	☐1 – Slight cloudiness	☐2 – Cloudy	☐3 – Opaque
Floatables - Does not Include Trash!!	☐	☐Sewage (Toilet Paper, etc.) ☐Suds ☐Petroleum (oil sheen) ☐Other:	☐1 – Few/slight: origin not obvious	☐2 – Some; indicators of origin (e.g., possible suds or oil sheen)	☐3 – Some; origin clear (e.g., obvious soil sheen, suds, or floating sanitary materials)

Section 5: Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? ☐Yes ☒No

Indicator	Check if Present	Description	Comments
Outfall Damage	☐	☐ Spalling, Cracking or Chipping ☐ Peeling Paint ☐Corrosion	
Deposits/Stains	☐	☐ Oily ☐Flow line ☐Paint ☐Other:	
Abnormal Vegetation	☐	☐ Excessive ☐Inhibited ☐ Invasive Species	
Poor Pool Quality	☐	☐ Odors ☐ Colors ☐ Floatables ☐Oil Sheen ☐ Suds ☐ Excessive Algae ☐ Other	
Pipe Benthic Growth	☐	☐Brown ☐Orange ☐ Green ☐ Other:	
Animal Life	☐	☐ None/ little presence ☐ Average presence ☐High presence	

Section 6: Overall Outfall Characterization

☒ Unlikely ☐ Potential (presence of two or more indicators) ☐ Suspect (one or more indicators with a severity of 3) ☐ Obvious

Section 7: Field Tests-NA

Test	Calibration Date And LOT#	Data
Ammonia		ppm
Chlorine		mg/L
Conductivity		µS/cm
Salinity		ppt
pH		

Test	Calibration Date And LOT#	Data
Temperature		°F
Nitrate		ppm
Nitrite		ppm
D.O.		mg/L

Section 8: Data Collection

Sample for the lab? ☐ Yes ☒ No

If yes, collected from: ☐ Flow ☐ Pool

If yes: Chain of Custody Number:

- ☐ Surfactants _____
- ☐ Aluminum _____
- ☐ Iron _____
- ☐ Phosphorous _____
- ☐ E. Coli _____

Section 9: Non-Illicit Discharge Concerns (eg. trash, repairs needed)

Notes:

Minor erosion noted around pipe on the western side of Greeno Lane.

SWOF-03
Mobile/Cowpen
Greeno Lane Just East of Ingleside Ave
Upstream

SWOF-03
Mobile/Cowpen
Greeno Lane Just East of Ingleside Ave
Downstream

Baldwin County
Catch Basin and Outfall

Reconnaissance Inventory/Sample Collection Field Sheet

Section 1: Background Data

Sub watershed: Mobile/Point Clear Creek		Outfall ID:04-Wasp Lane	Outfall not in inventory: ☐
Today's date: 03/28/2023		Time: 08:24 am	
Investigators: Ashley Campbell		Form completed by: Ashley Campbell	
Temperature: 69	Rainfall (in.): Last 24 hours: 2"	Last 48 hours: 2.5"	
Latitude:30' 28 26.261	Longitude:87' 54 38.997	GPS Unit:	Location as mapped: ☒
Camera: iPhone-AC		Photo #s:IMG_8837, 8838, 8839, & 8840	

Land Use in Drainage Area (Check all that apply): ☐ Industrial ☐ Open Space ☐ Urban Residential ☐ Institutional ☒ Suburban Residential Other: ☐ Commercial Known Industries:	Maintenance Priority: ☐ Priority 1-High ☐ Priority 2-Medium ☒ Priority 3-Low Notes: Low
Notes (e.g., origin of outfall, if known): Snakes noted	

Section 2: Outfall Description

Location	Material	Shape		
☒ Closed Pipe Diameter/Dimensions: 18"	☐ RCP ☒ CMP ☐ PVC ☐ HDPE ☐ Steel ☐ Other:	☒ Circular ☐ Elliptical ☐ Box ☐ Other:	☒ Single ☐ Double ☐ Triple ☐ Other:	In water: ☐ No ☒ Partially ☐ Fully With Sediment: ☒ No ☐ Partially ☐ Fully
☐ Open drainage	☐ Concrete/Paved ☐ Earthen ☐ rip-rap ☐ Other:	☐ Trapezoid ☐ Parabolic ☐ Other:		Depth: Top Width: Bottom Width:
☐ In-Stream-	(applicable when collecting samples)			
Flow Present?	☒ Yes ☐ No (If No, Skip to Section 5)			
Flow Description	☒ Trickle ☐ Moderate ☐ Substantial			

Section 3: Quantitative Characterization

Field Data For Flowing Outfalls				
Parameter		**Result**	**Unit**	**Equipment**
☐ Flow #1	Volume		Liter	Bottle
	Time to fill		Sec	Stop watch
☐ Flow #2	Flow Depth		In	Tape measure
	Flow Width	_____ ' _____ "	Ft, In	Tape measure
	Measured length	_____ ' _____ "	Ft, In	Tape measure
	Time of travel		Sec	Stop watch

Catch Basin and Outfall

Reconnaissance Inventory Field Sheet

Section 4: Physical Indicators for Flowing Outfalls Only

Are Any Physical Indicators Present in the flow? ☐Yes ☒No (If No, Skip to Section 5)

Indicator	Check if Present	Description	Relative Severity Index		
Odor	☐	☐Sewage ☐Rancid/Sour ☐Petroleum/Gas ☐Sulfide ☐Other:	☐1 – Faint	☐2 – Easily Detected	☐3 – Noticeable from a distance
Color	☐	☐Clear ☐Brown ☐Gray ☐Yellow ☐Green ☐Orange ☐Red ☐Other:	☐1 – Faint colors in sample bottle	☐2 – Clearly visible in sample bottle	☐3 – Clearly visible in outfall flow
Turbidity	☐	See severity	☐1 – Slight cloudiness	☐2 – Cloudy	☐3 – Opaque
Floatables - Does not Include Trash!!	☐	☐Sewage (Toilet Paper, etc.) ☐Suds ☐Petroleum (oil sheen) ☐Other:	☐1 – Few/slight: origin not obvious	☐2 – Some; indicators of origin (e.g., possible suds or oil sheen)	☐3 – Some; origin clear (e.g., obvious soil sheen, suds, or floating sanitary materials)

Section 5: Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? ☐Yes ☒No

Indicator	Check if Present	Description	Comments
Outfall Damage	☐	☐ Spalling, Cracking or Chipping ☐ Peeling Paint ☐Corrosion	
Deposits/Stains	☐	☐ Oily ☐Flow line ☐Paint ☐Other:	
Abnormal Vegetation	☐	☐ Excessive ☐Inhibited ☐ Invasive Species	
Poor Pool Quality	☐	☐ Odors ☐ Colors ☐ Floatables ☐Oil Sheen ☐ Suds ☐ Excessive Algae ☐ Other	
Pipe Benthic Growth	☐	☐Brown ☐Orange ☐ Green ☐ Other:	
Animal Life	☐	☐ None/ little presence ☐ Average presence ☐High presence	

Section 6: Overall Outfall Characterization

☒ Unlikely ☐ Potential (presence of two or more indicators) ☐ Suspect (one or more indicators with a severity of 3) ☐ Obvious

Section 7: Field Tests-NA

Test	Calibration Date And LOT#	Data
Ammonia		ppm
Chlorine		mg/L
Conductivity		µS/cm
Salinity		ppt
pH		

Test	Calibration Date And LOT#	Data
Temperature		°F
Nitrate		ppm
Nitrite		ppm
D.O.		mg/L

Section 8: Data Collection

Sample for the lab? ☐ Yes ☒ No

If yes, collected from: ☐ Flow ☐ Pool

If yes: Chain of Custody Number:

- ☐ Surfactants _____
- ☐ Aluminum _____
- ☐ Iron _____
- ☐ Phosphorous _____
- ☐ E. Coli _____

Section 9: Non-Illicit Discharge Concerns (eg. trash, repairs needed)

Notes:

Historic Pond has altered flow. Trickle if any. Water clear. Snakes noted.

SWOF-04
Mobile/Point Clear Creek
Wasp Lane
Downstream

SWOF-04
Mobile/Point Clear Creek
Wasp Lane
Upstream

Baldwin County
Catch Basin and Outfall
Reconnaissance Inventory/Sample Collection Field Sheet

Section 1: Background Data

Sub watershed: Mobile Bay/Cowpen Creek Watershed Drains to Fish River		Outfall ID: 05	Outfall not in inventory: ☐
Today's date: 3/4/2024		Time: 12:34 pm	
Investigators: Ashley Campbell & Rebecca Peacock		Form completed by: Ashley Campbell	
Temperature: 71	Rainfall (in.): Last 24 hours: 0	Last 48 hours: 0	
Latitude:30D 30M 16.002S	Longitude: 87D 52M 39.695S	GPS Unit:	Location as mapped: ☒
Camera: iPhone-RP/AC		Photo #s:IMG_SWOF #05	

Land Use in Drainage Area (Check all that apply): ☐ Industrial ☐ Open Space ☐ Urban Residential ☐ Institutional ☒ Suburban Residential Other: ☐ Commercial Known Industries:	Maintenance Priority: ☐ Priority 1-High ☐ Priority 2-Medium ☒ Priority 3-Low Notes: SWOF Area Part of Private Subdivision Infall of Stormwater
Notes (e.g., origin of outfall, if known):	

Section 2: Outfall Description

Location	Material	Shape		
☒ Closed Pipe Diameter/Dimensions: 36"	☐ RCP ☒ CMP ☐ PVC ☐ HDPE ☐ Steel ☐ Other: Concrete	☒ Circular ☐ Elliptical ☐ Box ☐ Other:	☐ Single ☐ Double ☒ Triple ☐ Other:	In water: ☒ No ☐ Partially ☐ Fully With Sediment: ☒ No ☐ Partially ☐ Fully
☐ Open drainage	☐ Concrete/Paved ☐ Earthen ☐ rip-rap ☐ Other:	☐ Trapezoid ☐ Parabolic ☐ Other:		Depth: Top Width: Bottom Width:
☐ In-Stream	(applicable when collecting samples)			
Flow Present?	☐ Yes ☒ No (If No, Skip to Section 5)			
Flow Description	☐ Trickle- -Standing ☐ Moderate ☐ Substantial			

Section 3: Quantitative Characterization NA

Field Data For Flowing Outfalls				
Parameter		**Result**	**Unit**	**Equipment**
☐ Flow #1	Volume		Liter	Bottle
	Time to fill		Sec	Stop watch
☐ Flow #2	Flow Depth		In	Tape measure
	Flow Width	_____' _____"	Ft, In	Tape measure
	Measured length	_____' _____"	Ft, In	Tape measure
	Time of travel		Sec	Stop watch

Catch Basin and Outfall

Reconnaissance Inventory Field Sheet

Section 4: Physical Indicators for Flowing Outfalls Only

Are Any Physical Indicators Present in the flow? ☐Yes ☒No (If No, Skip to Section 5)

Indicator	Check if Present	Description	Relative Severity Index		
Odor	☐	☐Sewage ☐Rancid/Sour ☐Petroleum/Gas ☐Sulfide ☐Other:	☐1 – Faint	☐2 – Easily Detected	☐3 – Noticeable from a distance
Color	☐	☐Clear ☐Brown ☐Gray ☐Yellow ☐Green ☐Orange ☐Red ☐Other:	☐1 – Faint colors in sample bottle	☐2 – Clearly visible in sample bottle	☐3 – Clearly visible in outfall flow
Turbidity	☐	See severity	☐1 – Slight cloudiness	☐2 – Cloudy	☐3 – Opaque
Floatables - Does not Include Trash!!	☐	☐Sewage (Toilet Paper, etc.) ☐Suds ☐Petroleum (oil sheen) ☐Other:	☐1 – Few/slight: origin not obvious	☐2 – Some; indicators of origin (e.g., possible suds or oil sheen)	☐3 – Some; origin clear (e.g., obvious soil sheen, suds, or floating sanitary materials)

Section 5: Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? ☐Yes ☒No

Indicator	Check if Present	Description	Comments
Outfall Damage	☐	☐ Spalling, Cracking or Chipping ☐ Peeling Paint ☐Corrosion	
Deposits/Stains	☐	☐ Oily ☐Flow line ☐Paint ☐Other:	
Abnormal Vegetation	☐	☐ Excessive ☐Inhibited ☐ Invasive Species	
Poor Pool Quality	☐	☐ Odors ☐ Colors ☐ Floatables ☐Oil Sheen ☐ Suds ☐ Excessive Algae ☐ Other	
Pipe Benthic Growth	☐	☐Brown ☐Orange ☐ Green ☐ Other:	
Animal Life	☐	☐ None/ little presence ☐ Average presence ☐High presence	

Section 6: Overall Outfall Characterization

☒ Unlikely ☐ Potential (presence of two or more indicators) ☐ Suspect (one or more indicators with a severity of 3) ☐ Obvious

Section 7: Field Tests-NA

Test	Calibration Date And LOT#	Data
Ammonia		ppm
Chlorine		mg/L
Conductivity		µS/cm
Salinity		ppt
pH		

Test	Calibration Date And LOT#	Data
Temperature		°F
Nitrate		ppm
Nitrite		ppm
D.O.		mg/L

Section 8: Data Collection

Sample for the lab? ☐ Yes ☒ No

If yes, collected from: ☐ Flow ☐ Pool

If yes: Chain of Custody Number:

- ☐ Surfactants _____
- ☐ Aluminum _____
- ☐ Iron _____
- ☐ Phosphorous _____
- ☐ E. Coli _____

Section 9: Non-Illicit Discharge Concerns (eg. trash, repairs needed)

Notes:

SWOF #05
Mobile Bay/Cowpen Creek

03/04/2024

SWOF #05
Mobile Bay/Cowpen Creek

03/04/2024

Baldwin County
Catch Basin and Outfall

Reconnaissance Inventory/Sample Collection Field Sheet

Section 1: Background Data

Sub watershed: Mobile Bay/Rock Creek Watershed Drains to Mobile Bay		Outfall ID: 07	Outfall not in inventory: ☐
Today's date: 3/4/2024		Time: 11:39 am pm	
Investigators: Ashley Campbell & Rebecca Peacock		Form completed by: Ashley Campbell	
Temperature: 72	Rainfall (in.): Last 24 hours: 0	Last 48 hours: 0	
Latitude:30D 33M 27.932S	Longitude: 87D 53M 58.874S	GPS Unit:	Location as mapped: ☒
Camera: iPhone-RP/AC		Photo #s:IMG_SWOF #07	

Land Use in Drainage Area (Check all that apply): ☐ Industrial ☐ Open Space ☐ Urban Residential ☐ Institutional ☒ Suburban Residential Other: ☐ Commercial Known Industries:	Maintenance Priority: ☐ Priority 1-High ☐ Priority 2-Medium ☒ Priority 3-Low Notes: Bridge – Sewer Lines Noted in Water
Notes (e.g., origin of outfall, if known):	

Section 2: Outfall Description

Location	Material	Shape		
☐ Closed Pipe Diameter/Dimensions:	☐ RCP ☐ CMP ☐ PVC ☐ HDPE ☐ Steel ☐ Other: Concrete	☐ Circular ☐ Elliptical ☐ Box ☐ Other: Bridge	☐ Single ☐Double ☐ Triple ☐ Other:	In water: ☐No ☐ Partially ☐ Fully With Sediment: ☐ No ☐Partially ☐ Fully
☒ Open drainage	☐ Concrete/Paved ☐Earthen ☐ rip-rap ☒ Other: Concrete	☐ Trapezoid ☐ Parabolic ☒ Other: Bridge		Depth: Top Width: Bottom Width:
☒ In-Stream	(applicable when collecting samples) Not Sampled. No evidence of Illicit Discharge			
Flow Present?	☒ Yes ☐ No (If No, Skip to Section 5)			
Flow Description	☐ Trickle- -Standing ☐ Moderate ☒ Substantial			

Section 3: Quantitative Characterization NA

Field Data For Flowing Outfalls				
Parameter		**Result**	**Unit**	**Equipment**
☐ Flow #1	Volume		Liter	Bottle
	Time to fill		Sec	Stop watch
☐ Flow #2	Flow Depth		In	Tape measure
	Flow Width	_____' _____"	Ft, In	Tape measure
	Measured length	_____' _____"	Ft, In	Tape measure
	Time of travel		Sec	Stop watch

Catch Basin and Outfall

Reconnaissance Inventory Field Sheet

Section 4: Physical Indicators for Flowing Outfalls Only

Are Any Physical Indicators Present in the flow? ☐Yes ☒No (If No, Skip to Section 5)

Indicator	Check if Present	Description	Relative Severity Index		
Odor	☐	☐Sewage ☐Rancid/Sour ☐Petroleum/Gas ☐Sulfide ☐Other:	☐1 – Faint	☐2 – Easily Detected	☐3 – Noticeable from a distance
Color	☐	☐Clear ☐Brown ☐Gray ☐Yellow ☐Green ☐Orange ☐Red ☐Other:	☐1 – Faint colors in sample bottle	☐2 – Clearly visible in sample bottle	☐3 – Clearly visible in outfall flow
Turbidity	☐	See severity	☐1 – Slight cloudiness	☐2 – Cloudy	☐3 – Opaque
Floatables - Does not Include Trash!!	☐	☐Sewage (Toilet Paper, etc.) ☐Suds ☐Petroleum (oil sheen) ☐Other:	☐1 – Few/slight: origin not obvious	☐2 – Some; indicators of origin (e.g., possible suds or oil sheen)	☐3 – Some; origin clear (e.g., obvious soil sheen, suds, or floating sanitary materials)

Section 5: Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? ☐Yes ☒No

Indicator	Check if Present	Description	Comments
Outfall Damage	☐	☐ Spalling, Cracking or Chipping ☐ Peeling Paint ☐Corrosion	
Deposits/Stains	☐	☐ Oily ☐Flow line ☐Paint ☐Other:	
Abnormal Vegetation	☐	☐ Excessive ☐Inhibited ☐ Invasive Species	
Poor Pool Quality	☐	☐ Odors ☐ Colors ☐ Floatables ☐Oil Sheen ☐ Suds ☐ Excessive Algae ☐ Other	
Pipe Benthic Growth	☐	☐Brown ☐Orange ☐ Green ☐ Other:	
Animal Life	☐	☐ None/ little presence ☐ Average presence ☐High presence	

Section 6: Overall Outfall Characterization

☒ Unlikely ☐ Potential (presence of two or more indicators) ☐ Suspect (one or more indicators with a severity of 3) ☐ Obvious

Section 7: Field Tests-NA

Test	Calibration Date And LOT#	Data
Ammonia		ppm
Chlorine		mg/L
Conductivity		µS/cm
Salinity		ppt
pH		

Test	Calibration Date And LOT#	Data
Temperature		°F
Nitrate		ppm
Nitrite		ppm
D.O.		mg/L

Section 8: Data Collection

Sample for the lab? ☐ Yes ☒ No

If yes, collected from: ☐ Flow ☐ Pool

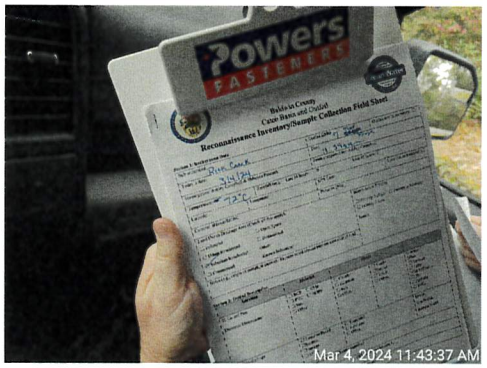
If yes: Chain of Custody Number:

- ☐ Surfactants _____
- ☐ Aluminum _____
- ☐ Iron _____
- ☐ Phosphorous _____
- ☐ E. Coli _____

Section 9: Non-Illicit Discharge Concerns (eg. trash, repairs needed)

Notes:

SWOF Outfall #7 Ecor Rouge Mobile Bay/Rock Creek



03/04/2024

Baldwin County
Catch Basin and Outfall
Reconnaissance Inventory/Sample Collection Field Sheet

Section 1: Background Data

Sub watershed: Mobile Bay/Turkey Branch/Drains to Fish River		Outfall ID: 08	Outfall not in inventory: ☐
Today's date: 3/4/2024		Time: 10:20 am	
Investigators: Ashley Campbell & Rebecca Peacock		Form completed by: Ashley Campbell	
Temperature: 69	Rainfall (in.): Last 24 hours: 0	Last 48 hours: 0	
Latitude:30D 38M 33.83S	Longitude: 87D 50M 3.536S	GPS Unit:	Location as mapped: ☒
Camera: iPhone-RP/AC		Photo #s:IMG_SWOF #08	

Land Use in Drainage Area (Check all that apply): ☐ Industrial ☐ Open Space ☐ Urban Residential ☐ Institutional ☒ Suburban Residential Other: ☐ Commercial Known Industries:	Maintenance Priority: ☐ Priority 1-High ☐ Priority 2-Medium ☒ Priority 3-Low Notes: Bridge-Trash Noted,
Notes (e.g., origin of outfall, if known):	

Section 2: Outfall Description

Location	Material	Shape		
☐ Closed Pipe Diameter/Dimensions:	☐ RCP ☐ CMP ☐ PVC ☐ HDPE ☐ Steel ☐ Other: Concrete	☐ Circular ☐ Elliptical ☐ Box ☐ Other: Bridge	☐ Single ☐Double ☐ Triple ☐ Other:	In water: ☐No ☐ Partially ☐ Fully With Sediment: ☐ No ☐Partially ☐ Fully
☒ Open drainage	☐ Concrete/Paved ☐Earthen ☐ rip-rap ☒ Other: Concrete	☐ Trapezoid ☐ Parabolic ☒ Other: Bridge		Depth: Top Width: Bottom Width:
☒ In-Stream	(applicable when collecting samples) Not Sampled. No evidence of Illicit Discharge			
Flow Present?	☒ Yes ☐ No (If No, Skip to Section 5)			
Flow Description	☐ Trickle- -Standing ☐ Moderate ☒ Substantial			

Section 3: Quantitative Characterization NA

Field Data For Flowing Outfalls				
Parameter		**Result**	**Unit**	**Equipment**
☐ Flow #1	Volume		Liter	Bottle
	Time to fill		Sec	Stop watch
☐ Flow #2	Flow Depth		In	Tape measure
	Flow Width	_____' _____"	Ft, In	Tape measure
	Measured length	_____' _____"	Ft, In	Tape measure
	Time of travel		Sec	Stop watch

Catch Basin and Outfall

Reconnaissance Inventory Field Sheet

Section 4: Physical Indicators for Flowing Outfalls Only

Are Any Physical Indicators Present in the flow? ☐Yes ☒No (If No, Skip to Section 5)

Indicator	Check if Present	Description	Relative Severity Index		
Odor	☐	☐Sewage ☐Rancid/Sour ☐Petroleum/Gas ☐Sulfide ☐Other:	☐1 – Faint	☐2 – Easily Detected	☐3 – Noticeable from a distance
Color	☐	☐Clear ☐Brown ☐Gray ☐Yellow ☐Green ☐Orange ☐Red ☐Other:	☐1 – Faint colors in sample bottle	☐2 – Clearly visible in sample bottle	☐3 – Clearly visible in outfall flow
Turbidity	☐	See severity	☐1 – Slight cloudiness	☐2 – Cloudy	☐3 – Opaque
Floatables - Does not Include Trash!!	☐	☐Sewage (Toilet Paper, etc.) ☐Suds ☐Petroleum (oil sheen) ☐Other:	☐1 – Few/slight: origin not obvious	☐2 – Some; indicators of origin (e.g., possible suds or oil sheen)	☐3 – Some; origin clear (e.g., obvious soil sheen, suds, or floating sanitary materials)

Section 5: Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? ☐Yes ☒No

Indicator	Check if Present	Description	Comments
Outfall Damage	☐	☐ Spalling, Cracking or Chipping ☐ Peeling Paint ☐Corrosion	
Deposits/Stains	☐	☐ Oily ☐Flow line ☐Paint ☐Other:	
Abnormal Vegetation	☐	☐ Excessive ☐Inhibited ☐ Invasive Species	
Poor Pool Quality	☐	☐ Odors ☐ Colors ☐ Floatables ☐Oil Sheen ☐ Suds ☐ Excessive Algae ☐ Other	
Pipe Benthic Growth	☐	☐Brown ☐Orange ☐ Green ☐ Other:	
Animal Life	☐	☐ None/ little presence ☐ Average presence ☐High presence	

Section 6: Overall Outfall Characterization

☒ Unlikely ☐ Potential (presence of two or more indicators) ☐ Suspect (one or more indicators with a severity of 3) ☐ Obvious

Section 7: Field Tests-NA

Test	Calibration Date And LOT#	Data
Ammonia		ppm
Chlorine		mg/L
Conductivity		µS/cm
Salinity		ppt
pH		

Test	Calibration Date And LOT#	Data
Temperature		°F
Nitrate		ppm
Nitrite		ppm
D.O.		mg/L

Section 8: Data Collection

Sample for the lab? ☐ Yes ☒ No

If yes, collected from: ☐ Flow ☐ Pool

If yes: Chain of Custody Number:

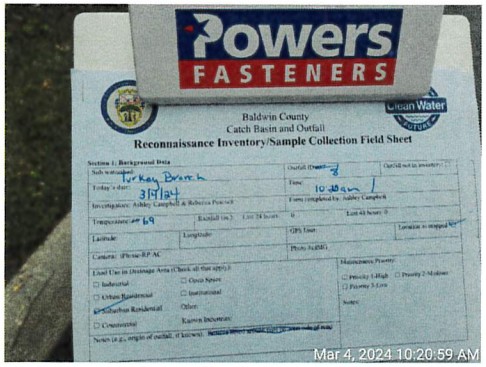
- ☐ Surfactants _____
- ☐ Aluminum _____
- ☐ Iron _____
- ☐ Phosphorous _____
- ☐ E. Coli _____

Section 9: Non-Illicit Discharge Concerns (eg. trash, repairs needed)

Notes:

5- Utility Lines noted exposed in creek.

SWOF Outfalls #8
Mobile Bay/Turkey Branch



03/04/2024

SWOF Outfalls #8
Mobile Bay/Turkey Branch

03/04/2024

Baldwin County
Catch Basin and Outfall
Reconnaissance Inventory/Sample Collection Field Sheet

Section 1: Background Data

Sub watershed: Mobile Bay/Red Gully Creek flows to Mobile Bay		Outfall ID: 09	Outfall not in inventory: ☐
Today's date: 3/4/2024		Time: 11:23 am	
Investigators: Ashley Campbell & Rebecca Peacock		Form completed by: Ashley Campbell	
Temperature: 70	Rainfall (in.): Last 24 hours: 0	Last 48 hours: 0	
Latitude:30D 34M 42.480S	Longitude: 87D 54M 17.512S	GPS Unit:	Location as mapped: ☒
Camera: iPhone-RP/AC		Photo #s:IMG_SWOF #09	

Land Use in Drainage Area (Check all that apply):		Maintenance Priority:
☐ Industrial	☐ Open Space	☐ Priority 1-High ☐ Priority 2-Medium
☐ Urban Residential	☐ Institutional	☒ Priority 3-Low
☒ Suburban Residential	Other:	Notes: Box Culvert -Erosion Noted on ROW at Guard Rail, ditch undermining & debris noted-Reported to Hwy
☐ Commercial	Known Industries:	
Notes (e.g., origin of outfall, if known):		

Section 2: Outfall Description

Location	Material	Shape		
☒ Closed Pipe Diameter/Dimensions:	☐ RCP ☐ CMP ☐ PVC ☐ HDPE ☐ Steel ☐ Other: Concrete	☐ Circular ☐ Elliptical ☒ Box ☐ Other: Bridge	☒ Single ☐Double ☐ Triple ☐ Other:	In water: ☐No ☒ Partially ☐ Fully With Sediment: ☐ No ☒Partially ☐ Fully
☐ Open drainage	☐ Concrete/Paved ☐Earthen ☐ rip-rap ☐ Other: Concrete	☐ Trapezoid ☐ Parabolic ☐ Other: Bridge		Depth: Top Width: Bottom Width:
☐ In-Stream	(applicable when collecting samples) Not Sampled. No evidence of Illicit Discharge			
Flow Present?	☒ Yes ☐ No (If No, Skip to Section 5)			
Flow Description	☐ Trickle- -Standing ☒ Moderate ☒ Substantial			

Section 3: Quantitative Characterization NA

Field Data For Flowing Outfalls				
Parameter		**Result**	**Unit**	**Equipment**
☐ Flow #1	Volume		Liter	Bottle
	Time to fill		Sec	Stop watch
☐ Flow #2	Flow Depth		In	Tape measure
	Flow Width	_____ ' _____ "	Ft, In	Tape measure
	Measured length	_____ ' _____ "	Ft, In	Tape measure
	Time of travel		Sec	Stop watch

Catch Basin and Outfall

Reconnaissance Inventory Field Sheet

Section 4: Physical Indicators for Flowing Outfalls Only

Are Any Physical Indicators Present in the flow? ☐Yes ☒No (If No, Skip to Section 5)

Indicator	Check if Present	Description	Relative Severity Index		
Odor	☐	☐Sewage ☐Rancid/Sour ☐Petroleum/Gas ☐Sulfide ☐Other:	☐1 – Faint	☐2 – Easily Detected	☐3 – Noticeable from a distance
Color	☐	☐Clear ☐Brown ☐Gray ☐Yellow ☐Green ☐Orange ☐Red ☐Other:	☐1 – Faint colors in sample bottle	☐2 – Clearly visible in sample bottle	☐3 – Clearly visible in outfall flow
Turbidity	☐	See severity	☐1 – Slight cloudiness	☐2 – Cloudy	☐3 – Opaque
Floatables - Does not Include Trash!!	☐	☐Sewage (Toilet Paper, etc.) ☐Suds ☐Petroleum (oil sheen) ☐Other:	☐1 – Few/slight: origin not obvious	☐2 – Some; indicators of origin (e.g., possible suds or oil sheen)	☐3 – Some; origin clear (e.g., obvious soil sheen, suds, or floating sanitary materials)

Section 5: Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? ☐Yes ☒No

Indicator	Check if Present	Description	Comments
Outfall Damage	☐	☐ Spalling, Cracking or Chipping ☐ Peeling Paint ☐Corrosion	
Deposits/Stains	☐	☐ Oily ☐Flow line ☐Paint ☐Other:	
Abnormal Vegetation	☐	☐ Excessive ☐Inhibited ☐ Invasive Species	
Poor Pool Quality	☐	☐ Odors ☐ Colors ☐ Floatables ☐Oil Sheen ☐ Suds ☐ Excessive Algae ☐ Other	
Pipe Benthic Growth	☐	☐Brown ☐Orange ☐ Green ☐ Other:	
Animal Life	☐	☐ None/ little presence ☐ Average presence ☐High presence	

Section 6: Overall Outfall Characterization

☒ Unlikely ☐ Potential (presence of two or more indicators) ☐ Suspect (one or more indicators with a severity of 3) ☐ Obvious

Section 7: Field Tests-NA

Test	Calibration Date And LOT#	Data
Ammonia		ppm
Chlorine		mg/L
Conductivity		µS/cm
Salinity		ppt
pH		

Test	Calibration Date And LOT#	Data
Temperature		°F
Nitrate		ppm
Nitrite		ppm
D.O.		mg/L

Section 8: Data Collection

Sample for the lab? ☐ Yes ☒ No

If yes, collected from: ☐ Flow ☐ Pool

If yes: Chain of Custody Number:

- ☐ Surfactants _____
- ☐ Aluminum _____
- ☐ Iron _____
- ☐ Phosphorous _____
- ☐ E. Coli _____

Section 9: Non-Illicit Discharge Concerns (eg. trash, repairs needed)

Notes:

5- Utility Lines noted exposed in creek.

SWOF Outfall #9
Mobile Bay/Red Gully

03/04/2024

SWOF Outfall #9
Mobile Bay/Red Gully

03/04/2024

SWOF Outfall #9
Mobile Bay/Red Gully

03/04/2024

Baldwin County
Catch Basin and Outfall

Reconnaissance Inventory/Sample Collection Field Sheet

Section 1: Background Data

Sub watershed: Mobile Bay/Fly Creek flows to Mobile Bay		Outfall ID: 10	Outfall not in inventory: ☐
Today's date: 3/4/2024		Time: 11:48 am	
Investigators: Ashley Campbell & Rebecca Peacock		Form completed by: Ashley Campbell	
Temperature: 72	Rainfall (in.): Last 24 hours: 0	Last 48 hours: 0	
Latitude:30D 33M 4.416S	Longitude: 87D 53M 55.041S	GPS Unit:	Location as mapped: ☒
Camera: iPhone-RP/AC		Photo #s:IMG_SWOF #10	

Land Use in Drainage Area (Check all that apply): ☐ Industrial ☐ Open Space ☐ Urban Residential ☐ Institutional ☒ Suburban Residential Other: ☐ Commercial Known Industries:	Maintenance Priority: ☐ Priority 1-High ☐ Priority 2-Medium ☒ Priority 3-Low Notes: Bridge-Trash noted on ROW
Notes (e.g., origin of outfall, if known):	

Section 2: Outfall Description

Location	Material	Shape		
☐ Closed Pipe Diameter/Dimensions:	☐ RCP ☐ CMP ☐ PVC ☐ HDPE ☐ Steel ☐ Other: Concrete	☐ Circular ☐ Elliptical ☐ Box ☐ Other: Bridge	☐ Single ☐Double ☐ Triple ☐ Other:	In water: ☐No ☐ Partially ☐ Fully With Sediment: ☐ No ☐Partially ☐ Fully
☒ Open drainage	☐ Concrete/Paved ☐Earthen ☐ rip-rap ☒ Other: Concrete	☐ Trapezoid ☐ Parabolic ☒ Other: Bridge		Depth: Top Width: Bottom Width:
☒ In-Stream	(applicable when collecting samples) Not Sampled. No evidence of Illicit Discharge			
Flow Present?	☒ Yes ☐ No (If No, Skip to Section 5)			
Flow Description	☐ Trickle- -Standing ☒ Moderate ☒ Substantial Tidal			

Section 3: Quantitative Characterization NA

Field Data For Flowing Outfalls				
Parameter		**Result**	**Unit**	**Equipment**
☐ Flow #1	Volume		Liter	Bottle
	Time to fill		Sec	Stop watch
☐ Flow #2	Flow Depth		In	Tape measure
	Flow Width	_____' _____"	Ft, In	Tape measure
	Measured length	_____' _____"	Ft, In	Tape measure
	Time of travel		Sec	Stop watch

Catch Basin and Outfall

Reconnaissance Inventory Field Sheet

Section 4: Physical Indicators for Flowing Outfalls Only

Are Any Physical Indicators Present in the flow? ☐Yes ☒No (If No, Skip to Section 5)

Indicator	Check if Present	Description	Relative Severity Index		
Odor	☐	☐Sewage ☐Rancid/Sour ☐Petroleum/Gas ☐Sulfide ☐Other:	☐1 – Faint	☐2 – Easily Detected	☐3 – Noticeable from a distance
Color	☐	☐Clear ☐Brown ☐Gray ☐Yellow ☐Green ☐Orange ☐Red ☐Other:	☐1 – Faint colors in sample bottle	☐2 – Clearly visible in sample bottle	☐3 – Clearly visible in outfall flow
Turbidity	☐	See severity	☐1 – Slight cloudiness	☐2 – Cloudy	☐3 – Opaque
Floatables - Does not Include Trash!!	☐	☐Sewage (Toilet Paper, etc.) ☐Suds ☐Petroleum (oil sheen) ☐Other:	☐1 – Few/slight: origin not obvious	☐2 – Some; indicators of origin (e.g., possible suds or oil sheen)	☐3 – Some; origin clear (e.g., obvious soil sheen, suds, or floating sanitary materials)

Section 5: Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? ☐Yes ☒No

Indicator	Check if Present	Description	Comments
Outfall Damage	☐	☐ Spalling, Cracking or Chipping ☐ Peeling Paint ☐Corrosion	
Deposits/Stains	☐	☐ Oily ☐Flow line ☐Paint ☐Other:	
Abnormal Vegetation	☐	☐ Excessive ☐Inhibited ☐ Invasive Species	
Poor Pool Quality	☐	☐ Odors ☐ Colors ☐ Floatables ☐Oil Sheen ☐ Suds ☐ Excessive Algae ☐ Other	
Pipe Benthic Growth	☐	☐Brown ☐Orange ☐ Green ☐ Other:	
Animal Life	☐	☐ None/ little presence ☐ Average presence ☐High presence	

Section 6: Overall Outfall Characterization

☒ Unlikely ☐ Potential (presence of two or more indicators) ☐ Suspect (one or more indicators with a severity of 3) ☐ Obvious

Section 7: Field Tests-NA

Test	Calibration Date And LOT#	Data
Ammonia		ppm
Chlorine		mg/L
Conductivity		µS/cm
Salinity		ppt
pH		

Test	Calibration Date And LOT#	Data
Temperature		°F
Nitrate		ppm
Nitrite		ppm
D.O.		mg/L

Section 8: Data Collection

Sample for the lab? ☐ Yes ☒ No

If yes, collected from: ☐ Flow ☐ Pool

If yes: Chain of Custody Number:

- ☐ Surfactants _____
- ☐ Aluminum _____
- ☐ Iron _____
- ☐ Phosphorous _____
- ☐ E. Coli _____

Section 9: Non-Illicit Discharge Concerns (eg. trash, repairs needed)

Notes:

5- Utility Lines noted exposed in creek.

SWOF #10
Mobile Bay/Fly Creek

03/04/2024

Baldwin County
Catch Basin and Outfall
Reconnaissance Inventory/Sample Collection Field Sheet

Section 1: Background Data

Sub watershed: Mobile Bay/ Cowpen Creek flows to Fish River		Outfall ID: 11	Outfall not in inventory: ☐
Today's date: 3/4/2024		Time: 12:15 pm	
Investigators: Ashley Campbell & Rebecca Peacock		Form completed by: Ashley Campbell	
Temperature: 71	Rainfall (in.): Last 24 hours: 0	Last 48 hours: 0	
Latitude:30D 30M 6.374S	Longitude: 87D 52M 19.352S	GPS Unit:	Location as mapped: ☒
Camera: iPhone-RP/AC		Photo #s:IMG_SWOF #11	

Land Use in Drainage Area (Check all that apply): ☐ Industrial ☐ Open Space ☐ Urban Residential ☐ Institutional ☒ Suburban Residential Other: ☐ Commercial Known Industries:	Maintenance Priority: ☐ Priority 1-High ☐ Priority 2-Medium ☒ Priority 3-Low Notes: Box Culvert-Trash noted on ROW-Upstream residential
Notes (e.g., origin of outfall, if known):	

Section 2: Outfall Description

Location	Material	Shape		
☒ Closed Pipe Diameter/Dimensions:	☐ RCP ☐ CMP ☐ PVC ☐ HDPE ☐ Steel ☒ Other: Concrete	☐ Circular ☐ Elliptical ☒ Box ☐ Other: Bridge	☐ Single ☐Double ☐ Triple ☒ Other: 4	In water: ☒No ☐ Partially ☐ Fully With Sediment: ☒ No ☐Partially ☐ Fully
☐ Open drainage	☐ Concrete/Paved ☐Earthen ☐ rip-rap ☐ Other: Concrete	☐ Trapezoid ☐ Parabolic ☐ Other: Bridge		Depth: Top Width: Bottom Width:
☐ In-Stream	(applicable when collecting samples) Not Sampled. No evidence of Illicit Discharge			
Flow Present?	☐ Yes ☒ No (If No, Skip to Section 5)			
Flow Description	☐ Trickle- -Standing ☐ Moderate ☒ Substantial Tidal			

Section 3: Quantitative Characterization NA

Field Data For Flowing Outfalls				
Parameter		**Result**	**Unit**	**Equipment**
☐ Flow #1	Volume		Liter	Bottle
	Time to fill		Sec	Stop watch
☐ Flow #2	Flow Depth		In	Tape measure
	Flow Width	_____ ' _____ "	Ft, In	Tape measure
	Measured length	_____ ' _____ "	Ft, In	Tape measure
	Time of travel		Sec	Stop watch

Catch Basin and Outfall

Reconnaissance Inventory Field Sheet

Section 4: Physical Indicators for Flowing Outfalls Only

Are Any Physical Indicators Present in the flow? ☐Yes ☒No (If No, Skip to Section 5)

Indicator	Check if Present	Description	Relative Severity Index		
Odor	☐	☐Sewage ☐Rancid/Sour ☐Petroleum/Gas ☐Sulfide ☐Other:	☐1 – Faint	☐2 – Easily Detected	☐3 – Noticeable from a distance
Color	☐	☐Clear ☐Brown ☐Gray ☐Yellow ☐Green ☐Orange ☐Red ☐Other:	☐1 – Faint colors in sample bottle	☐2 – Clearly visible in sample bottle	☐3 – Clearly visible in outfall flow
Turbidity	☐	See severity	☐1 – Slight cloudiness	☐2 – Cloudy	☐3 – Opaque
Floatables - Does not Include Trash!!	☐	☐Sewage (Toilet Paper, etc.) ☐Suds ☐Petroleum (oil sheen) ☐Other:	☐1 – Few/slight: origin not obvious	☐2 – Some; indicators of origin (e.g., possible suds or oil sheen)	☐3 – Some; origin clear (e.g., obvious soil sheen, suds, or floating sanitary materials)

Section 5: Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? ☐Yes ☒No

Indicator	Check if Present	Description	Comments
Outfall Damage	☐	☐ Spalling, Cracking or Chipping ☐ Peeling Paint ☐Corrosion	
Deposits/Stains	☐	☐ Oily ☐Flow line ☐Paint ☐Other:	
Abnormal Vegetation	☐	☐ Excessive ☐Inhibited ☐ Invasive Species	
Poor Pool Quality	☐	☐ Odors ☐ Colors ☐ Floatables ☐Oil Sheen ☐ Suds ☐ Excessive Algae ☐ Other	
Pipe Benthic Growth	☐	☐Brown ☐Orange ☐ Green ☐ Other:	
Animal Life	☐	☐ None/ little presence ☐ Average presence ☐High presence	

Section 6: Overall Outfall Characterization

☒ Unlikely ☐ Potential (presence of two or more indicators) ☐ Suspect (one or more indicators with a severity of 3) ☐ Obvious

Section 7: Field Tests-NA

Test	Calibration Date And LOT#	Data
Ammonia		ppm
Chlorine		mg/L
Conductivity		µS/cm
Salinity		ppt
pH		

Test	Calibration Date And LOT#	Data
Temperature		°F
Nitrate		ppm
Nitrite		ppm
D.O.		mg/L

Section 8: Data Collection

Sample for the lab? ☐ Yes ☒ No

If yes, collected from: ☐ Flow ☐ Pool

If yes: Chain of Custody Number:

- ☐ Surfactants _____
- ☐ Aluminum _____
- ☐ Iron _____
- ☐ Phosphorous _____
- ☐ E. Coli _____

Section 9: Non-Illicit Discharge Concerns (eg. trash, repairs needed)

Notes:

5- Utility Lines noted exposed in creek.

SWOF #11
Mobile Bay/Cowpen Creek

03/04/2024

SWOF #11
Mobile Bay/Cowpen Creek

03/04/2024

Baldwin County
Catch Basin and Outfall
Reconnaissance Inventory/Sample Collection Field Sheet

Section 1: Background Data

Sub watershed: Mobile Bay/Point Clear Creek flow to Mobile Bay		Outfall ID: 12	Outfall not in inventory: ☐
Today's date: 3/4/2024		Time: 1:00 pm	
Investigators: Ashley Campbell & Rebecca Peacock		Form completed by: Ashley Campbell	
Temperature: 71	Rainfall (in.): Last 24 hours: 0	Last 48 hours: 0	
Latitude:30D 28M 58.419S	Longitude: 87D 54M 29.019S	GPS Unit:	Location as mapped: ☒
Camera: iPhone-RP/AC		Photo #s:IMG_SWOF #12	

Land Use in Drainage Area (Check all that apply): ☐ Industrial ☐ Open Space ☐ Urban Residential ☐ Institutional ☒ Suburban Residential Other: ☐ Commercial Known Industries:	Maintenance Priority: ☐ Priority 1-High ☐ Priority 2-Medium ☒ Priority 3-Low Notes: Box Culvert-
Notes (e.g., origin of outfall, if known):	

Section 2: Outfall Description

Location	Material	Shape		
☒ Closed Pipe Diameter/Dimensions:	☐ RCP ☐ CMP ☐ PVC ☐ HDPE ☐ Steel ☒ Other: Concrete	☐ Circular ☐ Elliptical ☒ Box ☐ Other: Bridge	☐ Single ☐Double ☐ Triple ☒ Other: 4	In water: ☐No ☒ Partially ☐ Fully With Sediment: ☒ No ☐Partially ☐ Fully
☐ Open drainage	☐ Concrete/Paved ☐Earthen ☐ rip-rap ☐ Other: Concrete	☐ Trapezoid ☐ Parabolic ☐ Other: Bridge		Depth: Top Width: Bottom Width:
☒ In-Stream	(applicable when collecting samples) Not Sampled. No evidence of Illicit Discharge-Upstream Dry-Down Stream Subdivision Pond that discharges to creek.			
Flow Present?	☐ Yes ☒ No (If No, Skip to Section 5)			
Flow Description	☐ Trickle- -Standing ☐ Moderate ☐ Substantial Tidal NA			

Section 3: Quantitative Characterization NA

Field Data For Flowing Outfalls				
Parameter		**Result**	**Unit**	**Equipment**
☐ Flow #1	Volume		Liter	Bottle
	Time to fill		Sec	Stop watch
☐ Flow #2	Flow Depth		In	Tape measure
	Flow Width	_____' _____"	Ft, In	Tape measure
	Measured length	_____' _____"	Ft, In	Tape measure
	Time of travel		Sec	Stop watch

Catch Basin and Outfall

Reconnaissance Inventory Field Sheet

Section 4: Physical Indicators for Flowing Outfalls Only

Are Any Physical Indicators Present in the flow? ☐Yes ☒No (If No, Skip to Section 5)

Indicator	Check if Present	Description	Relative Severity Index		
Odor	☐	☐Sewage ☐Rancid/Sour ☐Petroleum/Gas ☐Sulfide ☐Other:	☐1 – Faint	☐2 – Easily Detected	☐3 – Noticeable from a distance
Color	☐	☐Clear ☐Brown ☐Gray ☐Yellow ☐Green ☐Orange ☐Red ☐Other:	☐1 – Faint colors in sample bottle	☐2 – Clearly visible in sample bottle	☐3 – Clearly visible in outfall flow
Turbidity	☐	See severity	☐1 – Slight cloudiness	☐2 – Cloudy	☐3 – Opaque
Floatables - Does not Include Trash!!	☐	☐Sewage (Toilet Paper, etc.) ☐Suds ☐Petroleum (oil sheen) ☐Other:	☐1 – Few/slight: origin not obvious	☐2 – Some; indicators of origin (e.g., possible suds or oil sheen)	☐3 – Some; origin clear (e.g., obvious soil sheen, suds, or floating sanitary materials)

Section 5: Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? ☐Yes ☒No

Indicator	Check if Present	Description	Comments
Outfall Damage	☐	☐ Spalling, Cracking or Chipping ☐ Peeling Paint ☐Corrosion	
Deposits/Stains	☐	☐ Oily ☐Flow line ☐Paint ☐Other:	
Abnormal Vegetation	☐	☐ Excessive ☐Inhibited ☐ Invasive Species	
Poor Pool Quality	☐	☐ Odors ☐ Colors ☐ Floatables ☐Oil Sheen ☐ Suds ☐ Excessive Algae ☐ Other	
Pipe Benthic Growth	☐	☐Brown ☐Orange ☐ Green ☐ Other:	
Animal Life	☐	☐ None/ little presence ☐ Average presence ☐High presence	

Section 6: Overall Outfall Characterization

☒ Unlikely ☐ Potential (presence of two or more indicators) ☐ Suspect (one or more indicators with a severity of 3) ☐ Obvious

Section 7: Field Tests-NA

Test	Calibration Date And LOT#	Data
Ammonia		ppm
Chlorine		mg/L
Conductivity		µS/cm
Salinity		ppt
pH		

Test	Calibration Date And LOT#	Data
Temperature		°F
Nitrate		ppm
Nitrite		ppm
D.O.		mg/L

Section 8: Data Collection

Sample for the lab? ☐ Yes ☒ No

If yes, collected from: ☐ Flow ☐ Pool

If yes: Chain of Custody Number:

- ☐ Surfactants _____
- ☐ Aluminum _____
- ☐ Iron _____
- ☐ Phosphorous _____
- ☐ E. Coli _____

Section 9: Non-Illicit Discharge Concerns (eg. trash, repairs needed)

Notes:

5- Utility Lines noted exposed in creek.

SWOF #14
Mobile Bay/Point Clear Creek

03/04/2024

SWOF #12
Mobile Bay/Point Clear Creek

03/04/2024

Baldwin County
Catch Basin and Outfall

Reconnaissance Inventory/Sample Collection Field Sheet

Section 1: Background Data

Sub watershed: Mobile/Bailey Creek		Outfall ID:13-CR3 Bailey Creek	Outfall not in inventory: ☐
Today's date: 03/28/2023		Time: 08:18 am	
Investigators: Ashley Campbell		Form completed by: Ashley Campbell	
Temperature: 69	Rainfall (in.): Last 24 hours: 2"	Last 48 hours: 2.5"	
Latitude:30' 28 14.79	Longitude:87' 54 11.017	GPS Unit:	Location as mapped: ☒
Camera: iPhone-AC		Photo #s:IMG_8831 thorugh-8836	

Land Use in Drainage Area (Check all that apply): ☐ Industrial ☐ Open Space ☐ Urban Residential ☐ Institutional ☒ Suburban Residential Other: ☐ Commercial Known Industries:	Maintenance Priority: ☐ Priority 1-High ☐ Priority 2-Medium ☒ Priority 3-Low Notes: Low
Notes (e.g., origin of outfall, if known):	

Section 2: Outfall Description

Location	Material	Shape		
☒ Closed Pipe Diameter/Dimensions: Bridge 68'	☐ RCP ☐ CMP ☐ PVC ☐ HDPE ☐ Steel ☒ Other: Bridge-Concrete	☐ Circular ☐ Elliptical ☐ Box ☐ Other:	☐ Single ☐Double ☐ Triple ☐ Other:	In water: ☒No ☐ Partially ☐ Fully With Sediment: ☒ No ☐Partially ☐ Fully
☐ Open drainage	☐ Concrete/Paved ☐Earthen ☐ rip-rap ☐ Other:	☐ Trapezoid ☐ Parabolic ☐ Other:		Depth: Top Width: Bottom Width:
☐ In-Stream-NA	(applicable when collecting samples)			
Flow Present?	☐ Yes ☒ No (If No, Skip to Section 5)			
Flow Description	☐ Trickle ☐ Moderate ☐ Substantial			

Section 3: Quantitative Characterization

Field Data For Flowing Outfalls				
Parameter		**Result**	**Unit**	**Equipment**
☐ Flow #1	Volume		Liter	Bottle
	Time to fill		Sec	Stop watch
☐ Flow #2	Flow Depth		In	Tape measure
	Flow Width	_____' _____"	Ft, In	Tape measure
	Measured length	_____' _____"	Ft, In	Tape measure
	Time of travel		Sec	Stop watch

Catch Basin and Outfall

Reconnaissance Inventory Field Sheet

Section 4: Physical Indicators for Flowing Outfalls Only

Are Any Physical Indicators Present in the flow? ☐Yes ☒No (If No, Skip to Section 5)

Indicator	Check if Present	Description	Relative Severity Index		
Odor	☐	☐Sewage ☐Rancid/Sour ☐Petroleum/Gas ☐Sulfide ☐Other:	☐1 – Faint	☐2 – Easily Detected	☐3 – Noticeable from a distance
Color	☐	☐Clear ☐Brown ☐Gray ☐Yellow ☐Green ☐Orange ☐Red ☐Other:	☐1 – Faint colors in sample bottle	☐2 – Clearly visible in sample bottle	☐3 – Clearly visible in outfall flow
Turbidity	☐	See severity	☐1 – Slight cloudiness	☐2 – Cloudy	☐3 – Opaque
Floatables - Does not Include Trash!!	☐	☐Sewage (Toilet Paper, etc.) ☐Suds ☐Petroleum (oil sheen) ☐Other:	☐1 – Few/slight: origin not obvious	☐2 – Some; indicators of origin (e.g., possible suds or oil sheen)	☐3 – Some; origin clear (e.g., obvious soil sheen, suds, or floating sanitary materials)

Section 5: Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? ☐Yes ☒No

Indicator	Check if Present	Description	Comments
Outfall Damage	☐	☐ Spalling, Cracking or Chipping ☐ Peeling Paint ☐Corrosion	
Deposits/Stains	☐	☐ Oily ☐Flow line ☐Paint ☐Other:	
Abnormal Vegetation	☐	☐ Excessive ☐Inhibited ☐ Invasive Species	
Poor Pool Quality	☐	☐ Odors ☐ Colors ☐ Floatables ☐Oil Sheen ☐ Suds ☐ Excessive Algae ☐ Other	
Pipe Benthic Growth	☐	☐Brown ☐Orange ☐ Green ☐ Other:	
Animal Life	☐	☐ None/ little presence ☐ Average presence ☐High presence	

Section 6: Overall Outfall Characterization

☒ Unlikely ☐ Potential (presence of two or more indicators) ☐ Suspect (one or more indicators with a severity of 3) ☐ Obvious

Section 7: Field Tests-NA

Test	Calibration Date And LOT#	Data
Ammonia		ppm
Chlorine		mg/L
Conductivity		µS/cm
Salinity		ppt
pH		

Test	Calibration Date And LOT#	Data
Temperature		°F
Nitrate		ppm
Nitrite		ppm
D.O.		mg/L

Section 8: Data Collection

Sample for the lab? ☐ Yes ☒ No

If yes, collected from: ☐ Flow ☐ Pool

If yes: Chain of Custody Number:

- ☐ Surfactants _____
- ☐ Aluminum _____
- ☐ Iron _____
- ☐ Phosphorous _____
- ☐ E. Coli _____

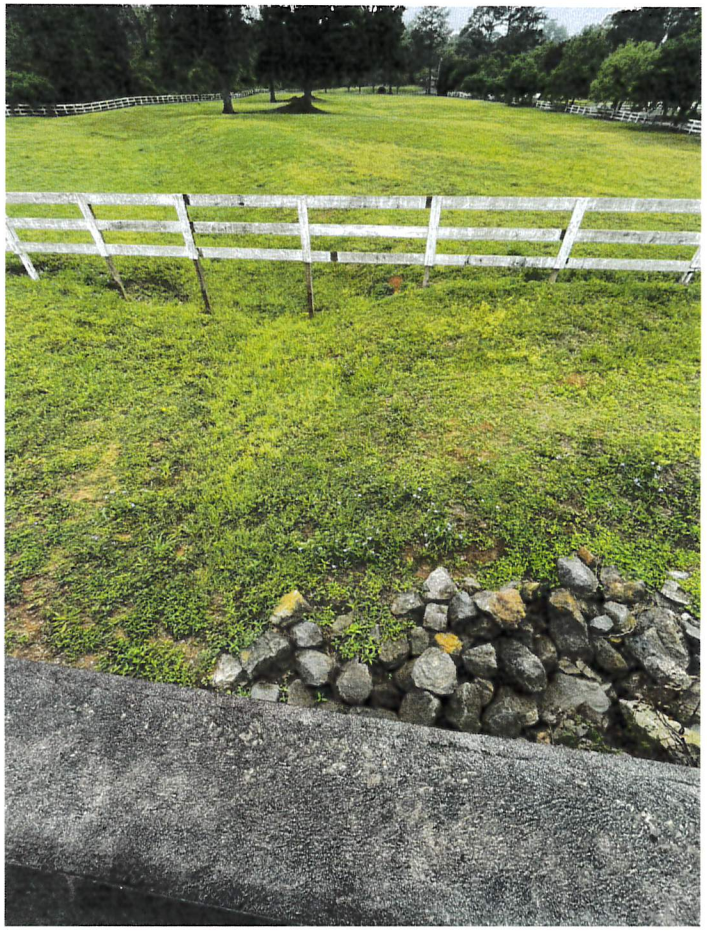
Section 9: Non-Illicit Discharge Concerns (eg. trash, repairs needed)

Notes:

Upstream has ponded water. Clear

SWOF-13
CR 3 South of CR 32
Bailey's Creek
Upstream

SWOF-13
CR 3 South of CR 32
Bailey's Creek
Downstream



SWOF-13
CR 3 South of CR 32
Bailey's Creek
Side Views

Baldwin County
Catch Basin and Outfall

Reconnaissance Inventory/Sample Collection Field Sheet

Section 1: Background Data

Sub watershed: Mobile Bay/Point Clear Creek flow to Mobile Bay		Outfall ID: 14	Outfall not in inventory: ☐
Today's date: 3/4/2024		Time: 1:20 pm	
Investigators: Ashley Campbell & Rebecca Peacock		Form completed by: Ashley Campbell	
Temperature: 71	Rainfall (in.): Last 24 hours: 0	Last 48 hours: 0	
Latitude:30D 29M 8,725S	Longitude: 87D 55M 56.413S	GPS Unit:	Location as mapped: ☒
Camera: iPhone-RP/AC		Photo #s:IMG_SWOF #14	

Land Use in Drainage Area (Check all that apply):		Maintenance Priority:
☐ Industrial	☐ Open Space	☐ Priority 1-High ☐ Priority 2-Medium
☐ Urban Residential	☐ Institutional	☒ Priority 3-Low
☒ Suburban Residential	Other:	Notes: Bridge-Tidal
☐ Commercial	Known Industries:	
Notes (e.g., origin of outfall, if known):		

Section 2: Outfall Description

Location	Material	Shape		
☐ Closed Pipe Diameter/Dimensions:	☐ RCP ☐ CMP ☐ PVC ☐ HDPE ☐ Steel ☐ Other: Concrete	☐ Circular ☐ Elliptical ☐ Box ☐ Other: Bridge	☐ Single ☐Double ☐ Triple ☐ Other:	In water: ☐No ☐ Partially ☐ Fully With Sediment: ☐ No ☐Partially ☐ Fully
☒ Open drainage	☐ Concrete/Paved ☐Earthen ☐ rip-rap ☒ Other: Concrete	☐ Trapezoid ☐ Parabolic ☒ Other: Bridge		Depth: Top Width: Bottom Width:
☒ In-Stream	(applicable when collecting samples) Not Sampled. No evidence of Illicit Discharge			
Flow Present?	☒ Yes ☐ No (If No, Skip to Section 5)			
Flow Description	☐ Trickle- -Standing ☐ Moderate ☒ Substantial Tidal			

Section 3: Quantitative Characterization NA

Field Data For Flowing Outfalls				
Parameter		**Result**	**Unit**	**Equipment**
☐ Flow #1	Volume		Liter	Bottle
	Time to fill		Sec	Stop watch
☐ Flow #2	Flow Depth		In	Tape measure
	Flow Width	_____' _____"	Ft, In	Tape measure
	Measured length	_____' _____"	Ft, In	Tape measure
	Time of travel		Sec	Stop watch

Catch Basin and Outfall

Reconnaissance Inventory Field Sheet

Section 4: Physical Indicators for Flowing Outfalls Only

Are Any Physical Indicators Present in the flow? ☐Yes ☒No (If No, Skip to Section 5)

Indicator	Check if Present	Description	Relative Severity Index		
Odor	☐	☐Sewage ☐Rancid/Sour ☐Petroleum/Gas ☐Sulfide ☐Other:	☐1 – Faint	☐2 – Easily Detected	☐3 – Noticeable from a distance
Color	☐	☐Clear ☐Brown ☐Gray ☐Yellow ☐Green ☐Orange ☐Red ☐Other:	☐1 – Faint colors in sample bottle	☐2 – Clearly visible in sample bottle	☐3 – Clearly visible in outfall flow
Turbidity	☐	See severity	☐1 – Slight cloudiness	☐2 – Cloudy	☐3 – Opaque
Floatables - Does not Include Trash!!	☐	☐Sewage (Toilet Paper, etc.) ☐Suds ☐Petroleum (oil sheen) ☐Other:	☐1 – Few/slight: origin not obvious	☐2 – Some; indicators of origin (e.g., possible suds or oil sheen)	☐3 – Some; origin clear (e.g., obvious soil sheen, suds, or floating sanitary materials)

Section 5: Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? ☐Yes ☒No

Indicator	Check if Present	Description	Comments
Outfall Damage	☐	☐ Spalling, Cracking or Chipping ☐ Peeling Paint ☐Corrosion	
Deposits/Stains	☐	☐ Oily ☐Flow line ☐Paint ☐Other:	
Abnormal Vegetation	☐	☐ Excessive ☐Inhibited ☐ Invasive Species	
Poor Pool Quality	☐	☐ Odors ☐ Colors ☐ Floatables ☐Oil Sheen ☐ Suds ☐ Excessive Algae ☐ Other	
Pipe Benthic Growth	☐	☐Brown ☐Orange ☐ Green ☐ Other:	
Animal Life	☐	☐ None/ little presence ☐ Average presence ☐High presence	

Section 6: Overall Outfall Characterization

☒ Unlikely ☐ Potential (presence of two or more indicators) ☐ Suspect (one or more indicators with a severity of 3) ☐ Obvious

Section 7: Field Tests-NA

Test	Calibration Date And LOT#	Data
Ammonia		ppm
Chlorine		mg/L
Conductivity		µS/cm
Salinity		ppt
pH		

Test	Calibration Date And LOT#	Data
Temperature		°F
Nitrate		ppm
Nitrite		ppm
D.O.		mg/L

Section 8: Data Collection

Sample for the lab? ☐ Yes ☒ No

If yes, collected from: ☐ Flow ☐ Pool

If yes: Chain of Custody Number:

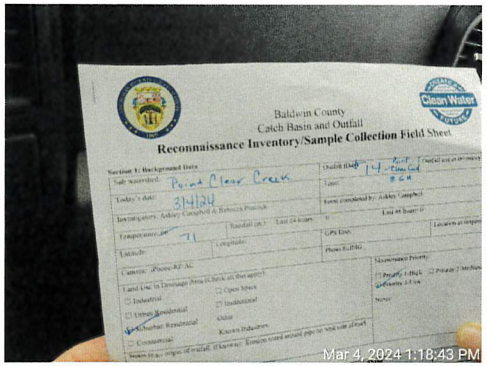
- ☐ Surfactants _____
- ☐ Aluminum _____
- ☐ Iron _____
- ☐ Phosphorous _____
- ☐ E. Coli _____

Section 9: Non-Illicit Discharge Concerns (eg. trash, repairs needed)

Notes:

5- Utility Lines noted exposed in creek.

SWOF #14
Mobile Bay/Point Clear Creek



03/04/2024

Baldwin County
Catch Basin and Outfall

Reconnaissance Inventory/Sample Collection Field Sheet

Section 1: Background Data

Sub watershed: Mobile Bay/Corn Branch		Outfall ID: 15	Outfall not in inventory: ☐
Today's date: 3/4/2024		Time: 9:17 am pm	
Investigators: Ashley Campbell & Rebecca Peacock		Form completed by: Ashley Campbell	
Temperature: 66	Rainfall (in.): Last 24 hours: 0	Last 48 hours: 0	
Latitude:30D 37M 32.626S	Longitude: 87D 46M 56.187S	GPS Unit:	Location as mapped: ☒
Camera: iPhone-RP/AC		Photo #s:IMG_SWOF #15	

Land Use in Drainage Area (Check all that apply): ☐ Industrial ☒ Open Space ☐ Urban Residential ☐ Institutional ☐ Suburban Residential Other: ☐ Commercial Known Industries:	Maintenance Priority: ☐ Priority 1-High ☐ Priority 2-Medium ☒ Priority 3-Low Notes: Bridge-Tidal
Notes (e.g., origin of outfall, if known):	

Section 2: Outfall Description

Location	Material	Shape		
☒ Closed Pipe Diameter/Dimensions: 36"	☒ RCP ☐ CMP ☐ PVC ☐ HDPE ☐ Steel ☐ Other: Concrete	☐ Circular ☒ Elliptical ☐ Box ☐ Other: Bridge	☒ Single ☐Double ☐ Triple ☐ Other:	In water: ☒No ☐ Partially ☐ Fully With Sediment: ☒ No ☐Partially ☐ Fully
☐ Open drainage	☐ Concrete/Paved ☐Earthen ☐ rip-rap ☐ Other: Concrete	☐ Trapezoid ☐ Parabolic ☐ Other: Bridge		Depth: Top Width: Bottom Width:
☐ In-Stream	(applicable when collecting samples) Not Sampled. No evidence of Illicit Discharge			
Flow Present?	☐ Yes ☒ No (If No, Skip to Section 5)			
Flow Description	☐ Trickle- -Standing ☐ Moderate ☐ Substantial Tidal			

Section 3: Quantitative Characterization NA

Field Data For Flowing Outfalls				
Parameter		**Result**	**Unit**	**Equipment**
☐ Flow #1	Volume		Liter	Bottle
	Time to fill		Sec	Stop watch
☐ Flow #2	Flow Depth		In	Tape measure
	Flow Width	_____ ' _____ "	Ft, In	Tape measure
	Measured length	_____ ' _____ "	Ft, In	Tape measure
	Time of travel		Sec	Stop watch

Catch Basin and Outfall

Reconnaissance Inventory Field Sheet

Section 4: Physical Indicators for Flowing Outfalls Only

Are Any Physical Indicators Present in the flow? ☐Yes ☒No (If No, Skip to Section 5)

Indicator	Check if Present	Description	Relative Severity Index		
Odor	☐	☐Sewage ☐Rancid/Sour ☐Petroleum/Gas ☐Sulfide ☐Other:	☐1 – Faint	☐2 – Easily Detected	☐3 – Noticeable from a distance
Color	☐	☐Clear ☐Brown ☐Gray ☐Yellow ☐Green ☐Orange ☐Red ☐Other:	☐1 – Faint colors in sample bottle	☐2 – Clearly visible in sample bottle	☐3 – Clearly visible in outfall flow
Turbidity	☐	See severity	☐1 – Slight cloudiness	☐2 – Cloudy	☐3 – Opaque
Floatables - Does not Include Trash!!	☐	☐Sewage (Toilet Paper, etc.) ☐Suds ☐Petroleum (oil sheen) ☐Other:	☐1 – Few/slight: origin not obvious	☐2 – Some; indicators of origin (e.g., possible suds or oil sheen)	☐3 – Some; origin clear (e.g., obvious soil sheen, suds, or floating sanitary materials)

Section 5: Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? ☐Yes ☒No

Indicator	Check if Present	Description	Comments
Outfall Damage	☐	☐ Spalling, Cracking or Chipping ☐ Peeling Paint ☐Corrosion	
Deposits/Stains	☐	☐ Oily ☐Flow line ☐Paint ☐Other:	
Abnormal Vegetation	☐	☐ Excessive ☐Inhibited ☐ Invasive Species	
Poor Pool Quality	☐	☐ Odors ☐ Colors ☐ Floatables ☐Oil Sheen ☐ Suds ☐ Excessive Algae ☐ Other	
Pipe Benthic Growth	☐	☐Brown ☐Orange ☐ Green ☐ Other:	
Animal Life	☐	☐ None/ little presence ☐ Average presence ☐High presence	

Section 6: Overall Outfall Characterization

☒ Unlikely ☐ Potential (presence of two or more indicators) ☐ Suspect (one or more indicators with a severity of 3) ☐ Obvious

Section 7: Field Tests-NA

Test	Calibration Date And LOT#	Data
Ammonia		ppm
Chlorine		mg/L
Conductivity		µS/cm
Salinity		ppt
pH		

Test	Calibration Date And LOT#	Data
Temperature		°F
Nitrate		ppm
Nitrite		ppm
D.O.		mg/L

Section 8: Data Collection

Sample for the lab? ☐ Yes ☒ No

If yes, collected from: ☐ Flow ☐ Pool

If yes: Chain of Custody Number:

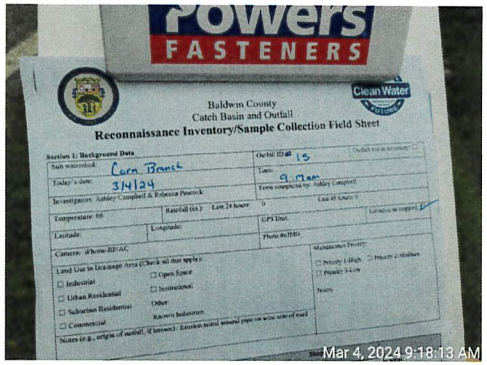
- ☐ Surfactants _____
- ☐ Aluminum _____
- ☐ Iron _____
- ☐ Phosphorous _____
- ☐ E. Coli _____

Section 9: Non-Illicit Discharge Concerns (eg. trash, repairs needed)

Notes:

5- Utility Lines noted exposed in creek.

SWOF Outfall #15
Mobile Bay/Corn Branch



03/04/2024

SWOF Outfall #15
Mobile Bay/Corn Branch

03/04/2024

Baldwin County
Catch Basin and Outfall

Reconnaissance Inventory/Sample Collection Field Sheet

Section 1: Background Data

Sub watershed: Mobile Bay/Corn Branch		Outfall ID: 16	Outfall not in inventory: ☐
Today's date: 3/4/2024		Time: 9:17 am pm	
Investigators: Ashley Campbell & Rebecca Peacock		Form completed by: Ashley Campbell	
Temperature: 66	Rainfall (in.): Last 24 hours: 0	Last 48 hours: 0	
Latitude:30D 37M 32.626S	Longitude: 87D 46M 56.187S	GPS Unit:	Location as mapped: ☒
Camera: iPhone-RP/AC		Photo #s:IMG_SWOF #16	

Land Use in Drainage Area (Check all that apply): ☐ Industrial ☒ Open Space ☐ Urban Residential ☐ Institutional ☐ Suburban Residential Other: ☐ Commercial Known Industries:	Maintenance Priority: ☐ Priority 1-High ☒ Priority 2-Medium ☐ Priority 3-Low Notes: Pipe-Trash Noted in ROW-Sink Hole Note at headwall.
Notes (e.g., origin of outfall, if known):	

Section 2: Outfall Description

Location	Material	Shape		
☒ Closed Pipe Diameter/Dimensions: 36"	☐ RCP ☒ CMP ☐ PVC ☐ HDPE ☐ Steel ☐ Other: Concrete	☒ Circular ☐ Elliptical ☐ Box ☐ Other: Bridge	☐ Single ☒Double ☐ Triple ☐ Other:	In water: ☒No ☐ Partially ☐ Fully With Sediment: ☒ No ☐Partially ☐ Fully
☐ Open drainage	☐ Concrete/Paved ☐Earthen ☐ rip-rap ☐ Other: Concrete	☐ Trapezoid ☐ Parabolic ☐ Other: Bridge		Depth: Top Width: Bottom Width:
☐ In-Stream	(applicable when collecting samples) Not Sampled. No evidence of Illicit Discharge			
Flow Present?	☐ Yes ☒ No (If No, Skip to Section 5)			
Flow Description	☐ Trickle- -Standing ☐ Moderate ☐ Substantial Tidal			

Section 3: Quantitative Characterization NA

Field Data For Flowing Outfalls				
Parameter		**Result**	**Unit**	**Equipment**
☐ Flow #1	Volume		Liter	Bottle
	Time to fill		Sec	Stop watch
☐ Flow #2	Flow Depth		In	Tape measure
	Flow Width	_____ ' _____ "	Ft, In	Tape measure
	Measured length	_____ ' _____ "	Ft, In	Tape measure
	Time of travel		Sec	Stop watch

Catch Basin and Outfall

Reconnaissance Inventory Field Sheet

Section 4: Physical Indicators for Flowing Outfalls Only

Are Any Physical Indicators Present in the flow? ☐Yes ☒No (If No, Skip to Section 5)

Indicator	Check if Present	Description	Relative Severity Index		
Odor	☐	☐Sewage ☐Rancid/Sour ☐Petroleum/Gas ☐Sulfide ☐Other:	☐1 – Faint	☐2 – Easily Detected	☐3 – Noticeable from a distance
Color	☐	☐Clear ☐Brown ☐Gray ☐Yellow ☐Green ☐Orange ☐Red ☐Other:	☐1 – Faint colors in sample bottle	☐2 – Clearly visible in sample bottle	☐3 – Clearly visible in outfall flow
Turbidity	☐	See severity	☐1 – Slight cloudiness	☐2 – Cloudy	☐3 – Opaque
Floatables - Does not Include Trash!!	☐	☐Sewage (Toilet Paper, etc.) ☐Suds ☐Petroleum (oil sheen) ☐Other:	☐1 – Few/slight: origin not obvious	☐2 – Some; indicators of origin (e.g., possible suds or oil sheen)	☐3 – Some; origin clear (e.g., obvious soil sheen, suds, or floating sanitary materials)

Section 5: Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? ☐Yes ☒No

Indicator	Check if Present	Description	Comments
Outfall Damage	☐	☐ Spalling, Cracking or Chipping ☐ Peeling Paint ☐Corrosion	
Deposits/Stains	☐	☐ Oily ☐Flow line ☐Paint ☐Other:	
Abnormal Vegetation	☐	☐ Excessive ☐Inhibited ☐ Invasive Species	
Poor Pool Quality	☐	☐ Odors ☐ Colors ☐ Floatables ☐Oil Sheen ☐ Suds ☐ Excessive Algae ☐ Other	
Pipe Benthic Growth	☐	☐Brown ☐Orange ☐ Green ☐ Other:	
Animal Life	☐	☐ None/ little presence ☐ Average presence ☐High presence	

Section 6: Overall Outfall Characterization

☒ Unlikely ☐ Potential (presence of two or more indicators) ☐ Suspect (one or more indicators with a severity of 3) ☐ Obvious

Section 7: Field Tests-NA

Test	Calibration Date And LOT#	Data
Ammonia		ppm
Chlorine		mg/L
Conductivity		µS/cm
Salinity		ppt
pH		

Test	Calibration Date And LOT#	Data
Temperature		°F
Nitrate		ppm
Nitrite		ppm
D.O.		mg/L

Section 8: Data Collection

Sample for the lab? ☐ Yes ☒ No

If yes, collected from: ☐ Flow ☐ Pool

If yes: Chain of Custody Number:

- ☐ Surfactants _____
- ☐ Aluminum _____
- ☐ Iron _____
- ☐ Phosphorous _____
- ☐ E. Coli _____

Section 9: Non-Illicit Discharge Concerns (eg. trash, repairs needed)

Notes:

5- Utility Lines noted exposed in creek.

SWOF #16
Mobile Bay/ Corn Branch

03/04/2024

Baldwin County
Catch Basin and Outfall

Reconnaissance Inventory/Sample Collection Field Sheet

Section 1: Background Data

Sub watershed: Mobile Bay/Muddy Branch flows to Fish River		Outfall ID: 17	Outfall not in inventory: ☐
Today's date: 3/4/2024		Time: 10:55 am	
Investigators: Ashley Campbell & Rebecca Peacock		Form completed by: Ashley Campbell	
Temperature: 70	Rainfall (in.): Last 24 hours: 0	Last 48 hours: 0	
Latitude:30D 42M 55.314S	Longitude: 87D 53M 40.18S	GPS Unit:	Location as mapped: ☒
Camera: iPhone-RP/AC		Photo #s:IMG_SWOF #17	

Land Use in Drainage Area (Check all that apply):

☐ Industrial ☐ Open Space
☐ Urban Residential ☐ Institutional
☒ Suburban Residential Other:
☐ Commercial Known Industries:

Notes (e.g., origin of outfall, if known):

Maintenance Priority:

☐ Priority 1-High ☐ Priority 2-Medium
☒ Priority 3-Low

Notes: Box Culvert

Section 2: Outfall Description

Location	Material	Shape		
☒ Closed Pipe Diameter/Dimensions: 36"	☐ RCP ☐ CMP ☐ PVC ☐ HDPE ☐ Steel ☒ Other: Concrete	☐ Circular ☐ Elliptical ☒ Box ☐ Other: Bridge	☒ Single ☐Double ☐ Triple ☐ Other:	In water: ☐No ☒ Partially ☐ Fully With Sediment: ☐ No ☒Partially ☐ Fully
☐ Open drainage	☐ Concrete/Paved ☐Earthen ☐ rip-rap ☐ Other: Concrete	☐ Trapezoid ☐ Parabolic ☐ Other: Bridge		Depth: Top Width: Bottom Width:
☒ In-Stream	(applicable when collecting samples) Not Sampled. No evidence of Illicit Discharge			
Flow Present?	☒ Yes ☐ No (If No, Skip to Section 5)			
Flow Description	☐ Trickle- -Standing ☒ Moderate ☐ Substantial Tidal			

Section 3: Quantitative Characterization NA

Field Data For Flowing Outfalls				
Parameter		**Result**	**Unit**	**Equipment**
☐ Flow #1	Volume		Liter	Bottle
	Time to fill		Sec	Stop watch
☐ Flow #2	Flow Depth		In	Tape measure
	Flow Width	_____ ' _____ "	Ft, In	Tape measure
	Measured length	_____ ' _____ "	Ft, In	Tape measure
	Time of travel		Sec	Stop watch

Catch Basin and Outfall

Reconnaissance Inventory Field Sheet

Section 4: Physical Indicators for Flowing Outfalls Only

Are Any Physical Indicators Present in the flow? ☐Yes ☒No (If No, Skip to Section 5)

Indicator	Check if Present	Description	Relative Severity Index		
Odor	☐	☐Sewage ☐Rancid/Sour ☐Petroleum/Gas ☐Sulfide ☐Other:	☐1 – Faint	☐2 – Easily Detected	☐3 – Noticeable from a distance
Color	☐	☐Clear ☐Brown ☐Gray ☐Yellow ☐Green ☐Orange ☐Red ☐Other:	☐1 – Faint colors in sample bottle	☐2 – Clearly visible in sample bottle	☐3 – Clearly visible in outfall flow
Turbidity	☐	See severity	☐1 – Slight cloudiness	☐2 – Cloudy	☐3 – Opaque
Floatables - Does not Include Trash!!	☐	☐Sewage (Toilet Paper, etc.) ☐Suds ☐Petroleum (oil sheen) ☐Other:	☐1 – Few/slight: origin not obvious	☐2 – Some; indicators of origin (e.g., possible suds or oil sheen)	☐3 – Some; origin clear (e.g., obvious soil sheen, suds, or floating sanitary materials)

Section 5: Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? ☐Yes ☒No

Indicator	Check if Present	Description	Comments
Outfall Damage	☐	☐ Spalling, Cracking or Chipping ☐ Peeling Paint ☐Corrosion	
Deposits/Stains	☐	☐ Oily ☐Flow line ☐Paint ☐Other:	
Abnormal Vegetation	☐	☐ Excessive ☐Inhibited ☐ Invasive Species	
Poor Pool Quality	☐	☐ Odors ☐ Colors ☐ Floatables ☐Oil Sheen ☐ Suds ☐ Excessive Algae ☐ Other	
Pipe Benthic Growth	☐	☐Brown ☐Orange ☐ Green ☐ Other:	
Animal Life	☐	☐ None/ little presence ☐ Average presence ☐High presence	

Section 6: Overall Outfall Characterization

☒ Unlikely ☐ Potential (presence of two or more indicators) ☐ Suspect (one or more indicators with a severity of 3) ☐ Obvious

Section 7: Field Tests-NA

Test	Calibration Date And LOT#	Data
Ammonia		ppm
Chlorine		mg/L
Conductivity		µS/cm
Salinity		ppt
pH		

Test	Calibration Date And LOT#	Data
Temperature		°F
Nitrate		ppm
Nitrite		ppm
D.O.		mg/L

Section 8: Data Collection

Sample for the lab? ☐ Yes ☒ No

If yes, collected from: ☐ Flow ☐ Pool

If yes: Chain of Custody Number:

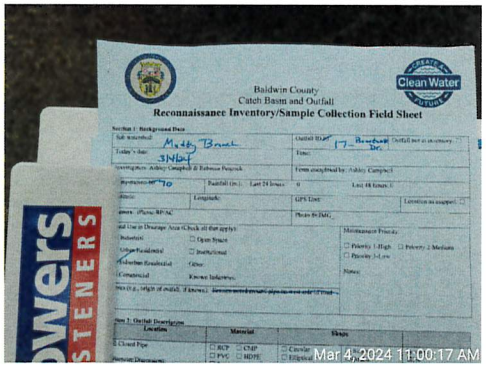
- ☐ Surfactants _____
- ☐ Aluminum _____
- ☐ Iron _____
- ☐ Phosphorous _____
- ☐ E. Coli _____

Section 9: Non-Illicit Discharge Concerns (eg. trash, repairs needed)

Notes:

5- Utility Lines noted exposed in creek.

SWOF Outfall #17- Boardwalk Dr. Mobile Bay/Muddy Branch



03/04/2024

SWOF Outfall #17- Boardwalk Dr. Mobile Bay/Muddy Branch

03/04/2024

Baldwin County
Catch Basin and Outfall
Reconnaissance Inventory/Sample Collection Field Sheet

Section 1: Background Data

Sub watershed: Mobile Bay/Bay Branch flows to Fish River		Outfall ID: 18	Outfall not in inventory: ☐
Today's date: 3/4/2024		Time: 10:38 am	
Investigators: Ashley Campbell & Rebecca Peacock		Form completed by: Ashley Campbell	
Temperature: 69	Rainfall (in.): Last 24 hours: 0	Last 48 hours: 0	
Latitude:30D 40M 45.989S	Longitude: 87D 49M 20.674S	GPS Unit:	Location as mapped: ☒
Camera: iPhone-RP/AC		Photo #s:IMG_SWOF #18	

Land Use in Drainage Area (Check all that apply): ☐ Industrial ☐ Open Space ☐ Urban Residential ☐ Institutional ☒ Suburban Residential Other: ☐ Commercial Known Industries:	Maintenance Priority: ☐ Priority 1-High ☐ Priority 2-Medium ☒ Priority 3-Low Notes: Pipe-Vegetation Overgrowth, Trash
Notes (e.g., origin of outfall, if known):	

Section 2: Outfall Description

Location	Material	Shape		
☒ Closed Pipe Diameter/Dimensions: 20"	☐ RCP ☒ CMP ☐ PVC ☐ HDPE ☐ Steel ☐ Other: Concrete	☐ Circular ☐ Elliptical ☒ Box ☐ Other: Bridge	☒ Single ☐ Double ☐ Triple ☐ Other:	In water: ☒ No ☐ Partially ☐ Fully With Sediment: ☒ No ☐ Partially ☐ Fully
☐ Open drainage	☐ Concrete/Paved ☐ Earthen ☐ rip-rap ☐ Other: Concrete	☐ Trapezoid ☐ Parabolic ☐ Other: Bridge		Depth: Top Width: Bottom Width:
☐ In-Stream	(applicable when collecting samples) Not Sampled. No evidence of Illicit Discharge			
Flow Present?	☐ Yes ☒ No (If No, Skip to Section 5)			
Flow Description	☐ Trickle- -Standing ☐ Moderate ☐ Substantial Tidal			

Section 3: Quantitative Characterization NA

Field Data For Flowing Outfalls				
Parameter		**Result**	**Unit**	**Equipment**
☐ Flow #1	Volume		Liter	Bottle
	Time to fill		Sec	Stop watch
☐ Flow #2	Flow Depth		In	Tape measure
	Flow Width	_____' _____"	Ft, In	Tape measure
	Measured length	_____' _____"	Ft, In	Tape measure
	Time of travel		Sec	Stop watch

Catch Basin and Outfall

Reconnaissance Inventory Field Sheet

Section 4: Physical Indicators for Flowing Outfalls Only

Are Any Physical Indicators Present in the flow? ☐Yes ☒No (If No, Skip to Section 5)

Indicator	Check if Present	Description	Relative Severity Index		
Odor	☐	☐Sewage ☐Rancid/Sour ☐Petroleum/Gas ☐Sulfide ☐Other:	☐1 – Faint	☐2 – Easily Detected	☐3 – Noticeable from a distance
Color	☐	☐Clear ☐Brown ☐Gray ☐Yellow ☐Green ☐Orange ☐Red ☐Other:	☐1 – Faint colors in sample bottle	☐2 – Clearly visible in sample bottle	☐3 – Clearly visible in outfall flow
Turbidity	☐	See severity	☐1 – Slight cloudiness	☐2 – Cloudy	☐3 – Opaque
Floatables - Does not Include Trash!!	☐	☐Sewage (Toilet Paper, etc.) ☐Suds ☐Petroleum (oil sheen) ☐Other:	☐1 – Few/slight: origin not obvious	☐2 – Some; indicators of origin (e.g., possible suds or oil sheen)	☐3 – Some; origin clear (e.g., obvious soil sheen, suds, or floating sanitary materials)

Section 5: Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? ☐Yes ☒No

Indicator	Check if Present	Description	Comments
Outfall Damage	☐	☐ Spalling, Cracking or Chipping ☐ Peeling Paint ☐Corrosion	
Deposits/Stains	☐	☐ Oily ☐Flow line ☐Paint ☐Other:	
Abnormal Vegetation	☐	☐ Excessive ☐Inhibited ☐ Invasive Species	
Poor Pool Quality	☐	☐ Odors ☐ Colors ☐ Floatables ☐Oil Sheen ☐ Suds ☐ Excessive Algae ☐ Other	
Pipe Benthic Growth	☐	☐Brown ☐Orange ☐ Green ☐ Other:	
Animal Life	☐	☐ None/ little presence ☐ Average presence ☐High presence	

Section 6: Overall Outfall Characterization

☒ Unlikely ☐ Potential (presence of two or more indicators) ☐ Suspect (one or more indicators with a severity of 3) ☐ Obvious

Section 7: Field Tests-NA

Test	Calibration Date And LOT#	Data
Ammonia		ppm
Chlorine		mg/L
Conductivity		µS/cm
Salinity		ppt
pH		

Test	Calibration Date And LOT#	Data
Temperature		°F
Nitrate		ppm
Nitrite		ppm
D.O.		mg/L

Section 8: Data Collection

Sample for the lab? ☐ Yes ☒ No

If yes, collected from: ☐ Flow ☐ Pool

If yes: Chain of Custody Number:

- ☐ Surfactants _____
- ☐ Aluminum _____
- ☐ Iron _____
- ☐ Phosphorous _____
- ☐ E. Coli _____

Section 9: Non-Illicit Discharge Concerns (eg. trash, repairs needed)

Notes:

5- Utility Lines noted exposed in creek.

SWOF Outfall #18-McFarland
Mobile Bay/Bay Branch

03/04/2024

Baldwin County
Catch Basin and Outfall

Reconnaissance Inventory/Sample Collection Field Sheet

Section 1: Background Data

Sub watershed: Mobile Bay/Fly Creek flows to Mobile Bay		Outfall ID: 20	Outfall not in inventory: ☐
Today's date: 3/4/2024		Time: 12:05 pm	
Investigators: Ashley Campbell & Rebecca Peacock		Form completed by: Ashley Campbell	
Temperature: 72	Rainfall (in.): Last 24 hours: 0	Last 48 hours: 0	
Latitude:30D 32M 17.546S	Longitude: 87D 51M 47.752S	GPS Unit:	Location as mapped: ☒
Camera: iPhone-RP/AC		Photo #s:IMG_SWOF #20	

Land Use in Drainage Area (Check all that apply): ☐ Industrial ☐ Open Space ☐ Urban Residential ☐ Institutional ☒ Suburban Residential Other: ☐ Commercial Known Industries:	Maintenance Priority: ☐ Priority 1-High ☐ Priority 2-Medium ☒ Priority 3-Low Notes: Pipe-
Notes (e.g., origin of outfall, if known):	

Section 2: Outfall Description

Location	Material	Shape		
☒ Closed Pipe Diameter/Dimensions: 24"	☐ RCP ☐ CMP ☐ PVC ☐ HDPE ☐ Steel ☐ Other: Concrete	☐ Circular ☒ Elliptical ☐ Box ☐ Other: Bridge	☐ Single ☐Double ☐ Triple ☒ Other: 4	In water: ☒No ☐ Partially ☐ Fully With Sediment: ☒ No ☐Partially ☐ Fully
☐ Open drainage	☐ Concrete/Paved ☐Earthen ☐ rip-rap ☐ Other: Concrete	☐ Trapezoid ☐ Parabolic ☐ Other: Bridge		Depth: Top Width: Bottom Width:
☐ In-Stream	(applicable when collecting samples) Not Sampled. No evidence of Illicit Discharge			
Flow Present?	☐ Yes ☒ No (If No, Skip to Section 5)			
Flow Description	☐ Trickle- -Standing ☐ Moderate ☐ Substantial Tidal			

Section 3: Quantitative Characterization NA

Field Data For Flowing Outfalls				
Parameter		**Result**	**Unit**	**Equipment**
☐ Flow #1	Volume		Liter	Bottle
	Time to fill		Sec	Stop watch
☐ Flow #2	Flow Depth		In	Tape measure
	Flow Width	_____' _____"	Ft, In	Tape measure
	Measured length	_____' _____"	Ft, In	Tape measure
	Time of travel		Sec	Stop watch

Catch Basin and Outfall

Reconnaissance Inventory Field Sheet

Section 4: Physical Indicators for Flowing Outfalls Only

Are Any Physical Indicators Present in the flow? ☐Yes ☒No (If No, Skip to Section 5)

Indicator	Check if Present	Description	Relative Severity Index		
Odor	☐	☐Sewage ☐Rancid/Sour ☐Petroleum/Gas ☐Sulfide ☐Other:	☐1 – Faint	☐2 – Easily Detected	☐3 – Noticeable from a distance
Color	☐	☐Clear ☐Brown ☐Gray ☐Yellow ☐Green ☐Orange ☐Red ☐Other:	☐1 – Faint colors in sample bottle	☐2 – Clearly visible in sample bottle	☐3 – Clearly visible in outfall flow
Turbidity	☐	See severity	☐1 – Slight cloudiness	☐2 – Cloudy	☐3 – Opaque
Floatables - Does not Include Trash!!	☐	☐Sewage (Toilet Paper, etc.) ☐Suds ☐Petroleum (oil sheen) ☐Other:	☐1 – Few/slight: origin not obvious	☐2 – Some; indicators of origin (e.g., possible suds or oil sheen)	☐3 – Some; origin clear (e.g., obvious soil sheen, suds, or floating sanitary materials)

Section 5: Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? ☐Yes ☒No

Indicator	Check if Present	Description	Comments
Outfall Damage	☐	☐ Spalling, Cracking or Chipping ☐ Peeling Paint ☐Corrosion	
Deposits/Stains	☐	☐ Oily ☐Flow line ☐Paint ☐Other:	
Abnormal Vegetation	☐	☐ Excessive ☐Inhibited ☐ Invasive Species	
Poor Pool Quality	☐	☐ Odors ☐ Colors ☐ Floatables ☐Oil Sheen ☐ Suds ☐ Excessive Algae ☐ Other	
Pipe Benthic Growth	☐	☐Brown ☐Orange ☐ Green ☐ Other:	
Animal Life	☐	☐ None/ little presence ☐ Average presence ☐High presence	

Section 6: Overall Outfall Characterization

☒ Unlikely ☐ Potential (presence of two or more indicators) ☐ Suspect (one or more indicators with a severity of 3) ☐ Obvious

Section 7: Field Tests-NA

Test	Calibration Date And LOT#	Data
Ammonia		ppm
Chlorine		mg/L
Conductivity		µS/cm
Salinity		ppt
pH		

Test	Calibration Date And LOT#	Data
Temperature		°F
Nitrate		ppm
Nitrite		ppm
D.O.		mg/L

Section 8: Data Collection

Sample for the lab? ☐ Yes ☒ No

If yes, collected from: ☐ Flow ☐ Pool

If yes: Chain of Custody Number:

- ☐ Surfactants _____
- ☐ Aluminum _____
- ☐ Iron _____
- ☐ Phosphorous _____
- ☐ E. Coli _____

Section 9: Non-Illicit Discharge Concerns (eg. trash, repairs needed)

Notes:

5- Utility Lines noted exposed in creek.

SWOF #20
Mobile Bay/Fly Creek

03/04/2024

SWOF #20
Mobile Bay/Fly Creek

03/04/2024

Baldwin County
Catch Basin and Outfall

Reconnaissance Inventory/Sample Collection Field Sheet

Section 1: Background Data

Sub watershed: Mobile/Fish River		Outfall ID:21 CR 48/Blueberry	Outfall not in inventory: ☐
Today's date: 03/28/2023		Time: 09:09 am	
Investigators: Ashley Campbell		Form completed by: Ashley Campbell	
Temperature: 69	Rainfall (in.): Last 24 hours: 2"	Last 48 hours: 2.5"	
Latitude:30' 31 25.095	Longitude:87' 50 42.566	GPS Unit:	Location as mapped: ☒
Camera: iPhone-AC		Photo #s:IMG_8850 thorugh-8858	

Land Use in Drainage Area (Check all that apply): ☐ Industrial ☐ Open Space ☐ Urban Residential ☐ Institutional ☒ Suburban Residential Other: ☐ Commercial Known Industries:	Maintenance Priority: ☐ Priority 1-High ☐ Priority 2-Medium ☒ Priority 3-Low Notes: Low
Notes (e.g., origin of outfall, if known):	

Section 2: Outfall Description

Location	Material	Shape		
☒ Closed Pipe Diameter/Dimensions: 44" x 72"	☒ RCP ☐ CMP ☐ PVC ☐ HDPE ☐ Steel ☐ Other:	☐ Circular ☒ Elliptical ☐ Box ☐ Other:	☐ Single ☒ Double ☐ Triple ☐ Other:	In water: ☐ No ☒ Partially ☐ Fully With Sediment: ☒ No ☐ Partially ☐ Fully
☐ Open drainage	☐ Concrete/Paved ☐ Earthen ☐ rip-rap ☐ Other:	☐ Trapezoid ☐ Parabolic ☐ Other:		Depth: Top Width: Bottom Width:
☐ In-Stream-NA	(applicable when collecting samples)			
Flow Present?	☐ Yes ☒ No (If No, Skip to Section 5)			
Flow Description	☐ Trickle ☐ Moderate ☐ Substantial			

Section 3: Quantitative Characterization

Field Data For Flowing Outfalls				
Parameter		**Result**	**Unit**	**Equipment**
☐ Flow #1	Volume		Liter	Bottle
	Time to fill		Sec	Stop watch
☐ Flow #2	Flow Depth		In	Tape measure
	Flow Width	_____ ' _____ "	Ft, In	Tape measure
	Measured length	_____ ' _____ "	Ft, In	Tape measure
	Time of travel		Sec	Stop watch

Catch Basin and Outfall

Reconnaissance Inventory Field Sheet

Section 4: Physical Indicators for Flowing Outfalls Only

Are Any Physical Indicators Present in the flow? ☐Yes ☒No (If No, Skip to Section 5)

Indicator	Check if Present	Description	Relative Severity Index		
Odor	☐	☐Sewage ☐Rancid/Sour ☐Petroleum/Gas ☐Sulfide ☐Other:	☐1 – Faint	☐2 – Easily Detected	☐3 – Noticeable from a distance
Color	☐	☐Clear ☐Brown ☐Gray ☐Yellow ☐Green ☐Orange ☐Red ☐Other:	☐1 – Faint colors in sample bottle	☐2 – Clearly visible in sample bottle	☐3 – Clearly visible in outfall flow
Turbidity	☐	See severity	☐1 – Slight cloudiness	☐2 – Cloudy	☐3 – Opaque
Floatables - Does not Include Trash!!	☐	☐Sewage (Toilet Paper, etc.) ☐Suds ☐Petroleum (oil sheen) ☐Other:	☐1 – Few/slight: origin not obvious	☐2 – Some; indicators of origin (e.g., possible suds or oil sheen)	☐3 – Some; origin clear (e.g., obvious soil sheen, suds, or floating sanitary materials)

Section 5: Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? ☐Yes ☒No

Indicator	Check if Present	Description	Comments
Outfall Damage	☐	☐ Spalling, Cracking or Chipping ☐ Peeling Paint ☐Corrosion	
Deposits/Stains	☐	☐ Oily ☐Flow line ☐Paint ☐Other:	
Abnormal Vegetation	☐	☐ Excessive ☐Inhibited ☐ Invasive Species	
Poor Pool Quality	☐	☐ Odors ☐ Colors ☐ Floatables ☐Oil Sheen ☐ Suds ☐ Excessive Algae ☐ Other	
Pipe Benthic Growth	☐	☐Brown ☐Orange ☐ Green ☐ Other:	
Animal Life	☐	☐ None/ little presence ☐ Average presence ☐High presence	

Section 6: Overall Outfall Characterization

☒ Unlikely ☐ Potential (presence of two or more indicators) ☐ Suspect (one or more indicators with a severity of 3) ☐ Obvious

Section 7: Field Tests-NA

Test	Calibration Date And LOT#	Data
Ammonia		ppm
Chlorine		mg/L
Conductivity		µS/cm
Salinity		ppt
pH		

Test	Calibration Date And LOT#	Data
Temperature		°F
Nitrate		ppm
Nitrite		ppm
D.O.		mg/L

Section 8: Data Collection

Sample for the lab? ☐ Yes ☒ No

If yes, collected from: ☐ Flow ☐ Pool

If yes: Chain of Custody Number:

- ☐ Surfactants _____
- ☐ Aluminum _____
- ☐ Iron _____
- ☐ Phosphorous _____
- ☐ E. Coli _____

Section 9: Non-Illicit Discharge Concerns (eg. trash, repairs needed)

Notes:

Standing water due to historical modification of drainage.

SWOF-21
Mobile/Fish River
County Road 48 West of Blueberry
Upstream

SWOF-21
Mobile/Fish River
County Road 48 West of Blueberry
Downstream

Baldwin County
Catch Basin and Outfall

Reconnaissance Inventory/Sample Collection Field Sheet

Section 1: Background Data

Sub watershed: Mobile/Fish River		Outfall ID:22-Scenic 98 Sweetwater	Outfall not in inventory: ☐
Today's date: 03/28/2023		Time: 09:09 am	
Investigators: Ashley Campbell		Form completed by: Ashley Campbell	
Temperature: 69	Rainfall (in.): Last 24 hours: 2"	Last 48 hours: 2.5"	
Latitude:30' 30 14.532	Longitude:87' 55 18.894	GPS Unit:	Location as mapped: ☒
Camera: iPhone-AC		Photo #s:IMG_8878 thorugh-8884	

Land Use in Drainage Area (Check all that apply): ☐ Industrial ☐ Open Space ☐ Urban Residential ☐ Institutional ☒ Suburban Residential Other: ☐ Commercial Known Industries:	Maintenance Priority: ☐ Priority 1-High ☐ Priority 2-Medium ☒ Priority 3-Low Notes: Low
Notes (e.g., origin of outfall, if known):	

Section 2: Outfall Description

Location	Material	Shape		
☒ Closed Pipe Diameter/Dimensions: 44" x 72"	☐ RCP ☐ CMP ☐ PVC ☐ HDPE ☐ Steel ☒ Other: Concrete	☐ Circular ☐ Elliptical ☒ Box ☐ Other:	☒ Single ☐Double ☐ Triple ☐ Other:	In water: ☐No ☒ Partially ☐ Fully With Sediment: ☒ No ☐Partially ☐ Fully
☐ Open drainage	☐ Concrete/Paved ☐Earthen ☐ rip-rap ☐ Other:	☐ Trapezoid ☐ Parabolic ☐ Other:		Depth: Top Width: Bottom Width:
☐ In-Stream-NA	(applicable when collecting samples)			
Flow Present?	☒ Yes ☐ No (If No, Skip to Section 5)			
Flow Description	☐ Trickle ☒ Moderate ☐ Substantial			

Section 3: Quantitative Characterization

Field Data For Flowing Outfalls				
Parameter		**Result**	**Unit**	**Equipment**
☐ Flow #1	Volume		Liter	Bottle
	Time to fill		Sec	Stop watch
☐ Flow #2	Flow Depth		In	Tape measure
	Flow Width	_____ ' _____ "	Ft, In	Tape measure
	Measured length	_____ ' _____ "	Ft, In	Tape measure
	Time of travel		Sec	Stop watch

Catch Basin and Outfall

Reconnaissance Inventory Field Sheet

Section 4: Physical Indicators for Flowing Outfalls Only

Are Any Physical Indicators Present in the flow? ☐Yes ☒No (If No, Skip to Section 5)

Indicator	Check if Present	Description	Relative Severity Index		
Odor	☐	☐Sewage ☐Rancid/Sour ☐Petroleum/Gas ☐Sulfide ☐Other:	☐1 – Faint	☐2 – Easily Detected	☐3 – Noticeable from a distance
Color	☐	☐Clear ☐Brown ☐Gray ☐Yellow ☐Green ☐Orange ☐Red ☐Other:	☐1 – Faint colors in sample bottle	☐2 – Clearly visible in sample bottle	☐3 – Clearly visible in outfall flow
Turbidity	☐	See severity	☐1 – Slight cloudiness	☐2 – Cloudy	☐3 – Opaque
Floatables - Does not Include Trash!!	☐	☐Sewage (Toilet Paper, etc.) ☐Suds ☐Petroleum (oil sheen) ☐Other:	☐1 – Few/slight: origin not obvious	☐2 – Some; indicators of origin (e.g., possible suds or oil sheen)	☐3 – Some; origin clear (e.g., obvious soil sheen, suds, or floating sanitary materials)

Section 5: Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? ☐Yes ☒No

Indicator	Check if Present	Description	Comments
Outfall Damage	☐	☐ Spalling, Cracking or Chipping ☐ Peeling Paint ☐Corrosion	
Deposits/Stains	☐	☐ Oily ☐Flow line ☐Paint ☐Other:	
Abnormal Vegetation	☐	☐ Excessive ☐Inhibited ☐ Invasive Species	
Poor Pool Quality	☐	☐ Odors ☐ Colors ☐ Floatables ☐Oil Sheen ☐ Suds ☐ Excessive Algae ☐ Other	
Pipe Benthic Growth	☐	☐Brown ☐Orange ☐ Green ☐ Other:	
Animal Life	☐	☐ None/ little presence ☐ Average presence ☐High presence	

Section 6: Overall Outfall Characterization

☒ Unlikely ☐ Potential (presence of two or more indicators) ☐ Suspect (one or more indicators with a severity of 3) ☐ Obvious

Section 7: Field Tests-NA

Test	Calibration Date And LOT#	Data
Ammonia		ppm
Chlorine		mg/L
Conductivity		µS/cm
Salinity		ppt
pH		

Test	Calibration Date And LOT#	Data
Temperature		°F
Nitrate		ppm
Nitrite		ppm
D.O.		mg/L

Section 8: Data Collection

Sample for the lab? ☐ Yes ☒ No

If yes, collected from: ☐ Flow ☐ Pool

If yes: Chain of Custody Number:

- ☐ Surfactants _____
- ☐ Aluminum _____
- ☐ Iron _____
- ☐ Phosphorous _____
- ☐ E. Coli _____

Section 9: Non-Illicit Discharge Concerns (eg. trash, repairs needed)

Notes:

Sweetwater Branch-Sanitary Sewer Pump Station on SE Corner of Branch.

SWOF-22
Mobile/Titi/Swamp Sweetwater Branch
Scenic 98 South of Nelson Drive
Upstream

SWOF-22
Mobile/Titi/Swamp Sweetwater Branch
Scenic 98 South of Nelson Drive
Downstream

Table 6-1 Baldwin County Phase II MS4
MCM 2 IDDE Strategies and Goals

NPDES Permit Section	SWMPP Section	6-Illicit Discharge and Elimination Strategy	Goal	Pollution Targeted	Responsible Departments
Part III-2ai	*6.8.4*	*Evaluation of Results*	*Evaluate field assessments and inspections to establish priority area and major outfalls for more focused inspections*	*All*	*Hwy & P&Z*
2023/2024			**No Illicit Discharges were noted during the outfall inspections.**		
			Erosion and Trash Was Documented and Reported to Highway and Solid Waste		

Table 6-1 Baldwin County Phase II MS4
MCM 2 IDDE Strategies and Goals

NPDES Permit Section	SWMPP Section	6-Illicit Discharge and Elimination Strategy	Goal	Pollution Targeted	Responsible Departments
Part III-2ai	*6.10*	*Spill Response*	*Throughout the permit cycle, the County's EMA is responsible for tracking reported spill and potential Illicit discharges. Data will be summited in an annual report.*	*All*	*EMA, Hwy & P&Z*

2023/2024 EMA NRC Data

2023-2024 No NRC Spill Data

Table 6-1 Baldwin County Phase II MS4
MCM 2 IDDE Strategies and Goals

NPDES Permit Section	SWMPP Section	6-Illicit Discharge and Elimination Strategy	Goal	Pollution Targeted	Responsible Departments
Part III-2ai	*6.10*	*Spill Response*	*Throughout the permit cycle, the County's EMA is responsible for tracking reported spill and potential Illicit discharges. Data will be summited in an annual report.*	*All*	*EMA, Hwy & P&Z*
Qty	***Date***	**Location**	***Response Agencey***	***IDDE Descriptio***	***Resolved***
1	08/03/2023	Gable Street & 3rd Street, Daphne	Baldwin County Highway Department	Product Release/Du	Yes
			(Full Report with Sampling Data in Binder)		

October 17, 2023

Mr. Mark Acreman
Assistant County Engineer
Baldwin County Highway Department
Bay Minette, Alabama

RE: Summary of Soil and Water Analytical Data along Right of Way of Gable Street and 3rd Street
Daphne, Baldwin County, Alabama
PPM Project No.: 22057001.PO4

Dear Mr. Acreman:

PPM Consultants, Inc. (PPM) has completed the laboratory analyses for soil and water samples collected from along a section of the drainage ditch located at the intersection of Gabel and 3rd Streets in Daphne, Alabama. The collection of soil and water samples and the subsequent laboratory analysis was conducted to determine if shallow soils and surface waters were impacted by petroleum products that were found in the drainage ditch. The following is a brief summary of the field activities and findings.

1.0 AREA OF INVESTIGATION

The area of investigation is a section of the drainage ditch located on the north side of Gable Street and immediately adjacent to the Sportsman's Marine, which sells and services boats. The drainage ditch continues west passing beneath 3rd Street and continues north along the west side of 3rd Street. Residential properties adjoin the ditch on the west side. A PVC pipe that appears to extend into the Sportsman's Marine facility discharges into the ditch east of the intersection of Gable and 3rd Streets. The area of investigation is shown in **Figure 1, Site Location Map** and **Figure 2, Site Map, Attachment A**.

2.0 SITE RECONNAISSANCE

At the request of the Baldwin County Emergency Management Agency (EMA), PPM first mobilized to the area on August 3, 2023 to investigate the suspected presence of petroleum products within the drainage ditch. Oil stained and dead vegetation, along with a petroleum odor was observed along the drainage ditch immediately south of the Sportsman's Marine property and continued along 3rd Street. The visual extent of the release (oil stained vegetation) continued for approximately 45 to 50 feet north of the

driveway of the residential property at the northwest corner of the intersection of Gabel and 3rd Streets.

3.0 SOIL AND WATER SAMPLING

On August 2, 2023, PPM received an automatic notification of a possible release of petroleum products from the Baldwin County EMA. The release was believed to have occurred over the previous weekend. During the initial site visit by PPM on August 3, 2023, one soil sample (Ditch) was collected at the north side of the driveway of the residential property (See **Figure 2**). The soil sample was submitted to Eurofins Testing Laboratories (Eurofins) in Pensacola, Florida for analysis of volatile organic compounds (VOC) per Environmental Protection Agency (EPA) Method 8260D, polycyclic aromatic hydrocarbons (PAH) per EPA Method 8270E, and lead per EPA Method 6010D.

On August 5, 2023, PPM mobilized to the site and collected a water sample (Ditch) from the ditch immediately adjacent to the PVC pipe that exits the Sportsman's Marine facility. The water sample was submitted to Eurofins for analysis of VOCs per EPA Method 8260D, PAHs per EPA Method 8270E, and lead per EPA Method 6010D.

PPM mobilized to the site on August 8, 2023 and collected a second water sample (Ditch) from the same location of the drainage ditch as the sample collected on August 5, 2023. The second sample was submitted to Eurofins for analysis of Oil and Grease per EPA Method 1664A to determine if the material being discharged exceeded National Pollution Discharge Elimination System (NPDES) limits.

Between August 18 and August 31, 2023, remediation of the ditch was conducted by the Baldwin County Highway Department and their subcontractor Badger Inc. (Badger). Shallow surface soils were removed along the section of the ditch where impact by petroleum products (stained vegetation and or petroleum odor) was observed. Approximately 79 tons of soil was transported to the Baldwin County Landfill in Magnolia Springs, Alabama for proper disposal.

On August 30, 2023, approximately 11.5 tons of material from within three concrete culverts that could not be removed by the highway department's excavation, were extracted by Badger using flush and vacuum methods. The material was transported to Ecosouth (Axis) Landfill, in Axis, Alabama for solidification and disposal. **Disposal Documentation** for both the Baldwin County and Axis landfills is provided in **Attachment B**.

Following the removal and disposal of the impacted soils, PPM personnel mobilized to the site on August 31, 2023 and collected 19 confirmation soil samples along the extent of the drainage ditch following the removal of the surface soil. The sample locations (SS-1 through SS-19) are shown in **Figure 2, Attachment A**.

On September 7, 2023, a water sample was collected from the drainage ditch where the pipe from Sportsman's Marine discharges to the ditch after an observance of an oil like substance was reported. The water sample was submitted to Eurofins for analysis of VOCs, PAHs, and Oil and Grease.

On September 20, 2023, the Baldwin County Highway Department conducted additional soil removal in the areas of the ditch where soil analytical results had reported exceedances of EPA Region 4 RSLs. One additional soil sample was collected in the area of soil sample SS-12 following the removal of additional soil.

A soil and a water sample were also collected at the point where the pipe from Sportsman's Marine discharges to the ditch. The soil and water samples were analyzed by Eurofins for VOCs (per EPA Method 8260D), PAHs (per EPA Method 8270E), and lead (EPA Method 6010D). Additionally, the water sample was analyzed for Oil and Grease (per EPA Method 1664A).

4.0 SOIL ANALYTICAL RESULTS

Laboratory analytical results indicated the following petroleum hydrocarbon constituents at concentrations above the EPA Region 4 RSLs:

August 3, 2023 (Initial Site Visit Soil Sampling)

- The naphthalene concentration (5.0 mg/kg) exceeded the Residential RSL of 2.0 mg/kg.
- The method detection limit (MDL) for dibenz(a,h)anthracene exceeded the Residential RSL of 0.11 mg/kg.

August 31, 2023 (Soil Sampling Following Initial Soil Removal and Disposal)

An exceedance of the EPA Region 4 Residential RSL was reported in the following sample collected on August 31, 2023:

- Benzo(b)fluoranthene (1.40 mg/kg) in sample SS-12 slightly exceeded the Residential RSL of 1.10 mg/kg.

An exceedance of EPA Region 4 Maximum Contamination Limit (MCL) was reported in the following sample collected on August 31, 2023:

- Benzo(a)pyrene (0.69 mg/kg) exceeded the MCL of 0.11 mg/kg in sample SS-12.

It should be noted that the area where soil sample SS-12 was collected was over excavated and re-sampled on September 20, 2023 (SS-20). All COCs, with the exception of lead were below detection limits (BDL) in SS-20.

September 20, 2023 (Soil Sampling following Second Soil Removal in Area of SS-12)

An exceedance of the EPA Region 4 MCL for lead (14 mg/kg) was reported in the following samples collected on September 20, 2023:

- Sample SS-20 (37 mg/kg) and SS-21 (29 mg/kg). Neither concentration exceeded the Residential RSL of 400 mg/kg.

Soil sample locations and concentrations of chemicals of concern (COC) exceedances are shown in **Figure 3, Petroleum Concentrations, Attachment A.** Soil analytical results are provided in **Table 1, Summary of Soil Analytical Data – VOC and PAH, Attachment C. Soil and Water Analytical Reports** are provided in **Attachment D.**

5.0 WATER ANALYTICAL RESULTS

August 5 and 8, 2023 (Initial Water Sample Collected from Area Near Discharge Pipe)

None of the COCs in the sample collected on August 5, 2023 had reported concentrations exceeding their respective MCL.

The water sample collected on August 8, 2023 had a reported Oil and Grease concentration of 1,470 mg/L.

September 7, 2023 (Sample Collected following an Observance of an Oil Like Substance in Ditch Near the Discharge Pipe)

The following COCs had reported concentrations exceeding EPA Region 4 MCL:

Benzene at 0.0071 mg/L slightly exceeded the MCL of 0.005 mg/L.

September 20, 2023 (Sample Collected Based on Observation of a Unknown Material in the Ditch)

There were no exceedances of MCLs in the water sample collected on September 20, 2023. Water sample locations and COC exceedances are shown in **Figure 3, Attachment A.** Water analytical results are provided in **Table 2, Summary of Water Analytical Data – VOC and PAH, Attachment C. Soil and Water Analytical Reports** are provided in **Attachment D.**

6.0 CHRONOLOGICAL SUMMARY AND CONCLUSIONS

The following activities were conducted as part of the assessment and remediation of the Gabel Street petroleum release:

- August 2, 2023 – Release notification;
- August 3, 2023 – Site visit and initial soil sample collection;
- August 5 and 8, 2023 – Initial water sample collection;
- August 18 – 31, 2023 – Remediation of site through soil removal and disposal;
- August 31, 2023 – Confirmational soil sampling following soil removal;
- September 7, 2023 – Second water sample collected due to observance of an oil like substance;
- September 20, 2023 - Additional soil removal in area of SS-12, followed by resampling of soil and water.

Based on the results of the soil and analytical data, shallow soils within the drainage ditch had been impacted by petroleum products found in the ditch. Remedial efforts of soil removal (followed by confirmational laboratory analysis) have successfully reduced impact in the ditch to an acceptable level.

Given the proximity of Sportsman's Marine to the drainage ditch and the common practice of handling various petroleum products in day to day operations of Sportsman's Marine, it

is plausible that the source of the petroleum product observed in the drainage ditch originated from their property.

If you have any questions or need additional information, please contact me at (251) 266-7915.

Sincerely,
PPM Consultants, Inc.

Rodney Kilgore
Senior Geologist/Project Manager

Table 6-1 Baldwin County Phase II MS4
MCM 2 IDDE Strategies and Goals

NPDES Permit Section	SWMPP Section	6-Illicit Discharge and Elimination Strategy	Goal	Pollution Targeted	Responsible Departments
Part III-2ai	*6.11*	*Website Citizen Complaint Reporting*	*Throughout the permit cycle, the Environmental complaint form on the County website will be maintained and updated as needed.*	*All*	*Hwy & P&Z*
2022/2023			**Complaint Form Maintained -No Updates**		
			Throughout the remainder of the permit cycle, the County		
			will try to use the TextMyGov App to create a new .		
			avenue for IDDE Complaints		

Table 6-1 Baldwin County Phase II MS4
MCM 2 IDDE Strategies and Goals

NPDES Permit Section	SWMPP Section	6-Illicit Discharge and Elimination Strategy	Goal	Pollution Targeted	Responsible Departments
Part III-2ai	*6.13*	*Enforcement*	*In year one(1), the County will legal review its authority in zoned area to determine if an IDDE ordinance can be implemented*	*All*	*Hwy & P&Z*

Date	Document/Meeting
2023/2024	New Management - No updates
5/9/2023	Conference Call Regarding MS4 Authority
	It has been initially determined that the County has authority in its Zoned Areas
	to enforce the MS4 Permit. The County will continue to investigate its authority
	while staff works on MS4 Ordinances.
3/13/2023	Email to Matthew for the County's Attorney

Table 6-1 Baldwin County Phase II MS4
MCM 2 IDDE Strategies and Goals

NPDES Permit Section	SWMPP Section	6-Illicit Discharge and Elimination Strategy	Goal	Pollution Targeted	Responsible Departments
Part III-2ai	*6.14*	*Staff Training*	*Provide IDDE training to new employees with program responsibilities including but not limited to Understanding Your Stormwater Management Plan*	*All*	*Hwy & P&Z*
		Date	**Training Description**		
		2023/2024	No Training		

Table 6-1 Baldwin County Phase II MS4
MCM 2 IDDE Strategies and Goals

NPDES Permit Section	SWMPP Section	6-Illicit Discharge and Elimination Strategy	Goal	Pollution Targeted	Responsible Departments
Part III-2ai	*6.14*	*Staff Training*	*Provide additional stormwater training as needed during permit cycle to employees with program responsibilities*	*All*	*Hwy & P&Z*
2023/2024			No additional training		

Table 6-1 Baldwin County Phase II MS4
MCM 2 IDDE Strategies and Goals

NPDES Permit Section	SWMPP Section	6-Illicit Discharge and Elimination Strategy	Goal	Pollution Targeted	Responsible Departments
Part III-2ai	*6.15*	*Standard Operating Guidance (SOG)*	*Throughout the permit cycle, the County will review and update its Standard Operating Guidance documents*	*All*	*P&Z*
2023/2024			No updates to SOGs-Forms		

Table 6-1 Baldwin County Phase II MS4
MCM 2 IDDE Strategies and Goals

NPDES Permit Section	SWMPP Section	6-Illicit Discharge and Elimination Strategy	Goal	Pollution Targeted	Responsible Departments
Part III-2ai	*6.17*	*Program Evaluation*	*Throughout the permit cycle, review the IDDE minimum control measure strategies and goals achieved, prepare an annual report and update the SWMPP*	*All*	*P&Z*
2023/2024			**Program Evaluation**		
			The IDDE Minimum Control Measure strategies		
			and goals have been achieved and tracked in the		
			Annual Report's Spreadsheets. Proposed uppdates will		
			be detailed in the MCM Evaluation Summary.		

Table 7-1 Baldwin County Phase II MS4
MCM 3 Construction Site Stormwater Runoff Control Strategies and Goals

NPDES Permit Section	SWMPP Section	7-Construction Site Stormwater Runoff Control Strategies	Goal	Pollution Targeted	Responsible Departments	2022 Proposed	2022 Achieved	2023 Proposed	2023 Achieved	2024 Proposed	2024 Achieved	2025 Proposed	2025 Achieved	2026 Proposed	2026 Achieved
Part III-3a	7.1	Construction Site Stormwater Runoff Control	Review and updated as needed the ordinances (Zoning, Subdivision, & Territory with Probable Exposure to Flooding) that regulate erosion control review procedures, & inspections.	Sediment, Oils, Paints, & Trash	P&Z	✓	🗀	*	*						
Part III-3a	7.1	Construction Site Stormwater Runoff Control	In year one (1), review existing Construction Runoff Program and update as needed to meet new permit requirements.	Sediment, Oils, Paints, & Trash	P&Z	✓	🗀	*	*						
Part III-3ai	7.3	Construction Site Stormwater Runoff Control	In year one (1), review Standard Operating Guidance/Checklist/Flow Charts and update as needed to meet new permit requirements.	Sediment, Oils, Paints, & Trash	P&Z	✓	✓	*	*						
Part III-3ai	7.4	Plan Review & Permitting-Construction sites associated with Sensitive Areas Such as Beaches, Waterways and Wetlands	Within the County's MS4 boundary, review subdivision and zoning applications that contain beaches, waterways and wetlands to ensure compliance with County, State and Federal permit requirements.	Sediment, Oils, Paints, & Trash	P&Z	✓	🗀	✓	✓🗀						
Part III-3ai	7.4	Plan Review & Permitting-Subdivision & Zoning Ordinance Erosion Control Sections	Within the County's MS4 Boundary, review subdivisions & zoning applications for compliance with the County's Erosion Control Ordinance & ADEM's NPDES General Construction Permit, track and submit data in annual SWMPP report.	Sediment, Oils, Paints, & Trash	Hwy & P&Z	✓	🗀	✓	✓🗀						
Part III-3avi	7.6	Inspections	In years one (1) through five(5),within the County's MS4 boundary, inspect qualifying subdivision & zoned construction sites as per permit requirements.	Sediment, Oils, Paints, & Trash	Hwy & P&Z	✓	✓	✓	✓🗀						
Part III-3avi	7.6 & 7.7	Inspections	In years one (1) through five(5),track construction site inspections including enforcement actions, and complaints within the County's MS4 boundary.	Sediment, Oils, Paints, & Trash	Hwy & P&Z	✓	🗀	✓	✓🗀						
Part III-3aix	7.8	Website Citizen Complaints Reporting	Throughout the permit cycle, the County will maintain and update as needed the Environmental Complaint Form on the Baldwin County Website.	Sediment, Oils, Paints, & Trash	Solid Waste & P&Z	✓	🗀	*	*						
Part III-3aiii	7.9	Staff Training	Throughout the permit cycle, County staff responsible for erosion and sediment control inspections and complaints will be trained in the identification of appropriate construction BMPs. Training will be tracked in the annual report.	Sediment, Oils, Paints, & Trash	P&Z	✓	🗀	✓	✓🗀						
Part III-3e	7.11	Program Evaluation	Throughout the permit cycle, review the Construction Site Stormwater Runoff minimum control measure strategies and goals achieved and prepare an annual report and update the SWMPP.	Sediment, Oils, Paints, & Trash	P&Z	✓	✓	✓	✓						
					Totals	10	10	6	6						
	P&Z	**Planning & Zoning**													
	Hwy	**Highway**													
	*	**Not Proposed for Permit Year**													
	**	**Completed Prior to Proposed Year**													
	X	**Not Completed-Goal Not Met**													
	🗀	**Attachment Included in Report**													

Table 7-1 Baldwin County Phase II MS4 MCM3
Construction Site Stormwater Runoff Control Strategies and Goals

NPDES Permit Section	SWMPP Section	7-Construction Site Stormwater Runoff Control Strategies	Goal	Pollution Targeted	Responsible Departments
Part III-3a	*7.1*	*Construction Site Stormwater Runoff Control*	*Review and updated as needed the ordinances (Zoning, Subdivision, & Territory with Probable Exposure to Flooding) that regulate erosion control review procedures, & inspections*	*Sediment, Oils, Paints, & Trash*	*P&Z*
2023/2024	**Ordinance**	**No Updates**		**Updates**	

Table 7-1 Baldwin County Phase II MS4 MCM3
Construction Site Stormwater Runoff Control Strategies and Goals

NPDES Permit Section	SWMPP Section	7-Construction Site Stormwater Runoff Control Strategies	Goal	Pollution Targeted	Responsible Departments
Part III-3aiii	*7.1*	*Construction Site Stormwater Runoff Control*	*In year one(1) review existing Construction Runoff Program and update as needed to meet new permit requirements*	*Sediment, Oils, Paints, & Trash*	*P&Z*
2023/2024		**Ordinance**	**No Updates**		

Table 7-1 Baldwin County Phase II MS4 MCM3
Construction Site Stormwater Runoff Control Strategies and Goals

NPDES Permit Section	SWMPP Section	7-Construction Site Stormwater Runoff Control Strategies	Goal	Pollution Targeted	Responsible Departments
Part III-3a	*7.1*	*Construction Site Stormwater Runoff Control*	In year one (1), review Standard Operating Guidance/Checklist/Flow Charts and update as needed to meet new permit requirements	*Sediment, Oils, Paints, & Trash*	*P&Z*
2023/2024		**Form/Checklist/Charts**	**Action**		
		Permitting and Plan Review Flow Chart	No Update		
		Enforcement Action Flow Chart	No Update		
		CBMPP-Minor Project Review	No Update		
		CBMPP-Major Project Review	No Update		
		CBMPP Form-Minor Projects	No Update		

NPDES Permit Section	SWMPP Section	7-Construction Site Stormwater Runoff Control Strategies	Goal	Pollution Targeted	Responsible Departments
Part III-3a	*7.4*	*Plan Review & Permitting Construction Sites associated with Sensitive Areas such as beaches, Waterways, and Wetlands*	*Within the County's MS4 boundary, review subdivision and zoning applications that contain beaches waterways and wetlands to ensure compliance with County, State and Federal permit requirements*	*Sediment, Oils, Paints, & Trash*	*P&Z*
		Document/Form	**Description**		
		Permit Application Online	Environmental Questions/Attachments		
			Permit Acronyms		
			ARB-Arch Review Board, CSP-Commercial Site Plan		
			PF-Exemption Verification, SC-Subdivision Concurrent, SN-Sign,		
			ULD-Unzone Land Disturbance, ZLD Zoning Land Disturbance,		
			ZSP-Zoning Site Plan, ZSV-Zoning Verification		
		Permit#	**Address**		
		ZSP22-000672	10391 COUNTY RD 64		
		ZSP22-000831	17242 POLO RIDGE BLVD (See attached example)		
		ZSP22-001245	5648 LAKEWOOD DR		
		PF22-000358	23820 -D U S HWY 98		
		CSP23-000011	9522,9543,9547,9549,9553 Firefly CT		
		CSP23-000001	9985 GAYFER RD		
		PF23-000013	8067 OBAMA RD		
		ZSP23-000072	16944 PROVENCHER RD		
		ZV23-000031	26648 S HOLLEY ST		
		ZLD23-000010	19070 GREENO RD		
		ZSP23-000516	10770 GAYFER RD		
		ZSP23-000234	2 ARMADILLO		
		ZSP23-000249	19147 BOOTHE RD		
		CSP23-000013	17457 CONFEDERATE REST RD		
		ZSP23-000398	13601 -A CEDAR ST		
		ZLD23-000035	7058 WINDMERE PL		
		ZSP23-000402	6487 SADDLE WOOD LN		

Table 7-1 Baldwin County Phase II MS4 MCM3
Construction Site Stormwater Runoff Control Strategies and Goals

	CSP23-000013	17457 CONFEDERATE REST RD	
	ZSP23-000398	13601 -A CEDAR ST	
	ZLD23-000035	7058 WINDMERE PL	
	ZSP23-000402	6487 SADDLE WOOD LN	
	PF23-000153	27890 OTTS RD	
	ZSP23-000509	25366 POLLARD RD	
	ZSP23-000506	2785 MANUEL DR	
	ZSP23-000513	19153 BOOTHE RD	
	ZSP23-000578	25006 RAYNAGUA BLVD	
	ZSP23-000570	24960 RAYNAGUA BLVD	
	ZSP23-000569	24948 RAYNAGUA BLVD Lot 8	
	ZSP23-000564	24877 RAYNAGUA BLVD	
	ZSP23-000563	24895 RAYNAGUA BLVD	
	PF23-000101	13601 CEDAR ST	
	ZSP23-000548	25210 THISTLE CHASE DR	
	ZSP23-000547	25198 THISTLE CHASE DR	
	ZSP23-000546	25186 THISTLE CHASE DR Lot 33	
	ZSP23-000545	25189 THISTLE CHASE DR Lot 34	
	ZSP23-000544	25201 THISTLE CHASE DR Lot 35	
	ZSP23-000540	25299 THISTLE CHASE DR Lot 39	
	ZSP23-000527	8189 RIVER RD	
	ARB23-000010	18263 -B SCENIC HWY 98	
	CSP23-000015	18305 SCENIC HWY 98	
	ZSP23-000590	11430 BRADFORD CT	
	ZSP23-000629	6735 WILLOWBRIDGE DR	
	ZSP23-000593	1310 CANEY LOOP	
	ZSP23-000594	28708 BAY BRANCH DR	
	ZV23-000126	6960 OAK LN	
	ZSP23-000596	25939 CAPRA CT	
	ZV23-000128	10748 County Road 64 ste 1	
	ZSP23-000613	18109 WOODLAND DR	
	ZLD23-000045	10756 GAYFER RD	
	ZSP23-000649	13297 US HWY 90	
	ZV23-000144	8243 TWIN BEECH RD	

Table 7-1 Baldwin County Phase II MS4 MCM3
Construction Site Stormwater Runoff Control Strategies and Goals

	ZSP23-000627	13063 6TH ST	
	ZSP23-000638	7897 LAKE BLVD	
	ZSP23-000662	17541 POLO RIDGE BLVD	
	ZSP23-000686	13050 6TH ST	
	ZSP23-000690	936 SEA CLIFF DR	
	ZSP23-000696	22519 MAIN ST	
	ZSP23-000703	13711 COUNTY RD 66	
	ZV23-000171	Dale RD	
	ZSP23-000708	17197 -A STILLWOOD LN	
	ZSP23-000743	1392 RIDGEWOOD DR	
	PF23-000169	9655 MILTON JONES RD	
	ZV23-000183	6378 JACKSON OAK DR	
	ZSP23-000736	9927 -C TIFTON WAY	
	ZSP23-000741	6671 N WINDING BROOK DR	
	ZSP23-000745	8450 SAMUEL JONES LN	
	SN23-000005	8096 TWIN BEECH RD	
	ZLD23-000065	8370 GAYFER RD	
	ZSP23-000771	16545 EDGEWATER CIR	
	ZSP23-000773	20929 BISHOP RD	
	ZSP23-000777	6671 N WINDING BROOK DR	
	ZSP23-000780	25959 CHAMBERLAIN DR	
	ZSP23-000796	9701 WIDGEON CT	
	HCA23-000001	18305 SCENIC HWY 98	
	ZSP23-000801	87 -A ROBBINS BLVD	
	ZLD23-000076	GENERAL CANBY DR	
	ZSP23-000861	33097 BOARDWALK DR	
	CSP23-000027	9135 MILTON JONES RD	
	ZSP23-000844	25766 CHAMBERLAIN DR	
	PF23-000198	18654 HARMS RD	
	ZSP23-000858	9365 MOSLEY RD	
	ZV23-000240	19800 -A BOOTHE RD	
	ZV23-000248	10430 COUNTY RD 64	
	ZSP23-000874	26 GENERAL CANBY DR	
	ZSP23-000876	24805 POLLARD RD	

Table 7-1 Baldwin County Phase II MS4 MCM3
Construction Site Stormwater Runoff Control Strategies and Goals

	ZSP23-000882	23924 3RD ST	
	ZSP23-000924	20900 Liberty LN	
	ZV23-000267	26072 ST Hwy 181	
	ZSP23-000923	25055 FAIRFAX RD	
	ZV23-000272	18541 -A SCENIC HWY 98	
	ZSP23-000962	17340 SELDON ST	
	ARB23-000019	McIntire ST	
	ARB23-000021	6576 N WINDING BROOK DR	
	ZSP23-000988	6659 COUNTY RD 32	
	ZSP23-001004	19252 YOUNG ST	
	ZSP23-001005	19252 YOUNG ST	
	ZSP23-001032	6985 McInyre ST	
	PF23-000258	8127 -A COUNTY RD 64	
	ZSP23-001072	9144 Harvest Ridge	
	ZSP23-001036	9113 FAIRHOPE AVE	
	PF23-000254	0 CALLOWAY DR	
	ZSP23-001066	14217 U S HWY 90	
	ZSP23-001049	17245 POLO RIDGE BLVD	
	ZSP23-001054	18305 SCENIC HWY 98	
	ZV23-000338	17245 POLO RIDGE BLVD	
	ZV23-000351	6875 CEDAR	
	ZV23-000352	19081 SCENIC HWY 98	
	ZSP23-001223	17260 POLO RIDGE BLVD	
	ZV23-000358	7361 SPANISH FORT BLVD	
	ZV23-000359	23780 -B U S HWY 98	
	SN23-000009	10430 COUNTY RD 64	
	ZSP23-001164	23812 SECOND ST	
	SN23-000010	0 U.S. HIGHWAY 98	
	ZV23-000386	9059 LAWSON RD	
	ZV23-000387	29000 Hwy 98	
	PF23-000320	0 181 HWY	
	ZLD23-000133	18564 GREENO RD	
	ZSP23-001188	19273 SCENIC HWY 98	
	ZSP23-001192	23868 MAIN ST	

	ZSP23-001206	9391 GAYFER RD	
	ZV23-000410	8249 GAYFER RD	
	ZSP23-001365	16366 COVERED BRIDGE LN	
	ZSP23-001227	28148 BAY BRANCH DR	
	ZLD23-000139	25900 STATE HWY 181	
	ZSP23-001232	7864 LAKE BLVD	
	ZSP23-001249	17786 Burwick LOOP	
	ZSP23-001236	25852 CHAMBERLAIN DR	
	ZLD23-000142	17795 POLO RIDGE BLVD	
	ZSP23-001254	26564 JAN CT S	
	ZSP23-001258	7216 CHARBON DR	
	ZSP23-001281	7844 LAKE BLVD	
	ZLD23-000147	6979 MCINTYRE ST	
	ZSP23-001300	14492 SMITH LN	
	ZSP23-001299	24455 HOLY CROSS CIR	
	ZSP23-001302	22440 SEA CLIFF DR	
	ZSP23-001514	21399 BRICK STACK LN	
	PF23-000360	16123 -C THOMPSON RD	
	ZLD23-000158	6671 N WINDING BROOK DR	
	ZSP23-001344	19896 STATE HWY 181	
	ZSP23-001345	52 SPECKLE TROUT RTE	
	ZV23-000481	24044 -A U S HWY 98	
	SN23-000014	18968 GREENO RD	
	ZSP23-001373	16336 POLO CLUB RD	
	ZSP23-001394	25213 THISTLE CHASE DR	
	ZSP23-001390	12301 CRESSIDA LOOP	
	ZSP23-001389	8392 DELTA WOODS DR	
	ZSP23-001388	10700 WARRENTON RD	
	PF23-000361	12050 MARY ANN BEACH RD	
	ZSP23-001473	16372 Laurelbrooke LOOP	
	ZSP23-001530	7209 PENBRIDGE AVE	
	ZV23-000525	17457 CONFEDERATE REST RD	
	ZV23-000526	25883 FRIENDSHIP RD	
	ZSP23-001518	55 SPECKLE TROUT RTE	

Table 7-1 Baldwin County Phase II MS4 MCM3
Construction Site Stormwater Runoff Control Strategies and Goals

	PF23-000397	9725 KELLY MCQUILLEN DR	
	ZSP24-000037	21422 BRICK STACK LN	
	PF23-000400	8923 OLD MOBILE RD	
	ZSP24-000031	6801 CEDAR	
	ZSP24-000038	21414 BRICK STACK LN	
	ZSP24-000019	6757 PEYTON CT	
	ZV24-000010	10284 U S HWY 31	
	ZSP24-000029	20445 Temash River Alley	
	ZLD24-000007	10274 STATE HWY 104	
	ZV24-000011	21085 JUBILEE TRL	
	ZLD24-000006	18175 SCENIC HWY 98	
	ZSP24-000059	6971 MCINTYRE ST	
	ZLD24-000010	17475 SCENIC HWY 98	
	ZLD24-000011	BOOTHE RD	
	ZSP24-000060	21201 AYRSHIRE LN	
	PF24-000042	19245 -A WILSON LN	
	ZV24-000029	18968 GREENO RD	
	SN24-000002	9102 INDEPENDENCE AVE	
	ZLD24-000016	18175 SCENIC HWY 98	
	ZSP24-000113	33046 FLINTWOOD CIR	
	PF24-000041	20858 -A PITMAN LN	
	ZV24-000062	26648 S HOLLEY ST	
	CSP24-000007	8477 -A COUNTY RD 64	
	ZSP24-000159	8450 WHISPERING PINES RD	
	ZSP24-000223	12915 Shoshoney CIR	
	ZSP24-000191	19153 BOOTHE RD	
	ZV24-000090	10652 WINDMILL RD	
	ZSP24-000228	17310 Seldon ST	
	ZSP24-000253	20929 BISHOP RD	
	PF24-000065	18564 GREENO RD	
	ZSP24-000271	9575 MOSLEY RD	
	ZSP24-000275	6515 AGEE LN	
	ZV24-000110	7100 SUNSREIGN DR	
	ZSP24-000277	11201 WARRENTON RD	

Table 7-1 Baldwin County Phase II MS4 MCM3
Construction Site Stormwater Runoff Control Strategies and Goals

	ZV24-000115	7100 SUNSREIGN DR	
	ZV24-000118	23780 -B U S HWY 98	
	ZSP24-000301	17415 Burwick LOOP	
	ZSP24-000305	6471 AGEE LN	

PERMIT PROJECT

FILE #: 23-000472
9985 GAYFER RD FAIRHOPE AL 36532
INSTALLATION OF 40,650 SF STORAGE BUILDING

PERMIT #: CSP23-000001

Permit Type
Zoning - Commercial Site Plan Approval

Subtype
Commission Site Plan

Work Description:
Installation of 40,650 SF storage building

Applicant
S.E. Civil Engineering & Surveying - Larry Smith

Status
Approved

Valuation
0.00

FEES & PAYMENTS

Plan Check Fees	0.00
Permit Fees	1,294.11
Total Amount	1,294.11
Amount Paid	1,294.11
Balance Due	0.00

☐ Non-Billable

PERMIT DATES

Application Date
01/19/2023

Approval Date
10/09/2023

Issue Date:
10/09/2023

Expiration Date:
11/09/2024

Close Date
10/09/2023

Last Inspection
Site Inspection on 05/09/2024 (Complete)

PRE APPLICATION MEETING INFORMATION

Have you had a pre application meeting with Planning and Zoning staff?
Yes

Enter the date of your pre-application meeting
11/09/22

CONTACTS

Property Owner Information

Is the property owned by a LLC or Incorporation
Yes

Provide copy of Articles of Incorporation
GSG Fairhope Cert of Formation.pdf

Current Property Owner Name(s) PZ
FST AND GULF STORAGE GROUP FAIRHOPE LLC

Property Owner Mailing Address PZ
122 LOWER WOODVILLE RD NATCHEZ MS 39120

Property Owner Phone Number PZ
601-597-1732

Property Owner Email Address PZ

charles@gulfstoragegroup.com

Applicant Contact Information

Is the applicant also the current property owner?

No

Agent Authorization Form

Authorized Agent Form - Gary Guido & SE Civil.pdf

Applicant's Mailing Address

9969 Windmill Rd. Fairhope, AL 36532

Applicant's Phone Number

251-990-6566

Applicant's Email Address

JLandry@secivileng.com

Developer's Contact Information

Developer's Name

Developer's Phone Number

Developer's Email Address

Engineer/Surveyor's Contact Information

Engineer/Surveyor's Name

Engineer/Surveyor's Phone Number

Engineer/Surveyor's Email Address

Contractor/Builder's Contact Information

Contractor/Builder's Name

SE Civil

Contractor/Builder's Phone Number

Contractor/Builder's Email Address

SITE INFORMATION

Physical Address assigned by Baldwin County E-911 (include the city or town).

9985 Gayfer Road Extension

Is the site parcel number the same as the information listed in the grey boxes above?

Yes

To obtain a Parcel Number, locate it on the property tax bill, contact the local Revenue Commissioner office, or search online (click this link). - PZ

Please provide Parcel ID Number(s) in this format: 05-XX-XX-XX-X-XXX-XXX.XXX:- PZ

05-46-02-10-0-000-041.504

Is the property located in Gulf Shores or Fort Morgan in District 25?

No

Is the property in an existing subdivision? - PZ

No

Actual Lot Size (in acres)

7.71

Approximate Lot Dimensions

626' x 691' irregular shaped

Are there existing structures on the property- PZ

Yes

Please describe the existing structures:

Two existing storage building structures and pond.

PROJECT INFORMATION

Provide a Detailed Scope of Work- P&Z field added 04.10.24

Provide total square footage of proposed structure(s) OR if not proposing any new structure(s), the existing structure(s) where the change of use will take place. PZ

40,650

If fill material will be brought onsite, will the existing grade anywhere on the property be raised by more than two (2) feet? - ZSP 2

No

Will you be disturbing more than an acre? - ZSP

Yes

Please upload a copy of your Construction Best Management Practices Plan prepared by a QCP or Civil Engineer -3

CBMPP - 20231197 Gayfer Ext. Self Storage Expansion.pdf

Are there potential wetlands on your property? - ZSP

No

Will you be performing any land disturbing activity including clearing, grading, filling, removing stumps or excavation? (OLD FIELD DO NOT USE AS of 5.18.22) - ZSP

WATER & SEWER INFORMATION

How will water service be provided to the property? - CSP

Public Provider

Name of Water provider

City of Fairhope

Please attach a copy of the water release or copy of utility bill from current water provider

Jason Langley - Water Email.pdf

How will sewer service be provided to the property? - CSP

N/A - Sewer will not be connected to this structure.

OTHER SUBMITTAL DOCUMENTS THAT MAY BE REQUIRED

NOTE: Documents marked with a red line must be uploaded before application can be submitted. Other documents may be deemed necessary and requested during the review of the application.

Master Site Plan including the following
Site.pdf

a.) the actual shape, dimensions and size of property
b.) the size, shape, and location of building(s) to be created
c.) the minimum required and proposed front, rear and side yards
d.) the lot coverage
e.) the number, location, size and angle of parking spaces
f.) the site access drives and dimensions
g.) the paving material for the parking lot and access drives

Basic Floor Plan and Front, Rear, and Side Elevation Drawings. - CSP
Elevations 2023.01.19.pdf
Floor Plans 2023.01.19.pdf

Floor plans must contain sufficient detail to determine the size and use of all areas within the proposed structure. Elevation drawings must include dimensions that demonstrate the height of the proposed structure. -CSP

Commercial turnout permit
Commercial Turnout Permit Letter.pdf

Landscaping plan - CSP
2303-Gayfer Storage Addition LA 11923.pdf

A landscaping plan with specifications that show what existing trees, shrubbery, and other vegetation will be retained on the side, and what trees, shrubbery , and other vegetation will be added to complete the required landscaping/buffering of the property

Construction Best Management Practices Plan-
CBMPP - 20231197 Gayfer Ext. Self Storage Expansion.pdf
Erosion.pdf

A CBMPP must be prepared by a QCP or Civil Engineer

Utility Plan - CSP
Utility.pdf

Upload copies of plans and specifications for the proposed water supply, sewage disposal, refuse facilities, fire protection, electricity, street lighting, telephone and gas.

Stormwater Management Plan - CSP

Drainage.pdf

Pond.pdf

Upload copy of drainage plan and approval from Baldwin County permit manager.

Parking Plan

Site.pdf

Exterior/Parking Lighting Plan - CSP

Floor Plans 2023.01.19.pdf

Provide a statement signed by the property owner indicating no covenants or deed restrictions exist that would prohibit this project on this property.- CSP

(Optional) Please attach E-911 Address Verification letter- (this will be required for your building permit application)

Verification Letter requests may be submitted online by clicking this link.

(Optional) Proof of Property Ownership (ex. Deed or Tax Bill)

Are there Variance, Subdivision Exemption Verification, or ARB approvals associated with this property- CSP

No

Miscellaneous Documents

Paste Dropbox link below (for individual files that are more than 25MB)

https://www.dropbox.com/s/eajii23vvu1spyh/Gayfer%20Ph%202%20-%20Drainage%20

TERMS OF SERVICE

I hereby certify that the information stated and submitted with this application is true and correct. I also understand that the submittal of incorrect information will result in the revocation of this permit and any work performed will be at the risk of the applicant. I understand further that any changes which vary from the approved plans will result in the requirement of a new Site Plan Approval Application. Site Plan Approvals are valid for a six (6) month period after date of issuance.

☑ By checking this required box, I acknowledge agreement to the Terms of Service

********** FOR OFFICE USE ONLY BELOW THIS LINE **********

Please review the contact sections above that the applicant filled out to add in the contacts below. Search the database for an existing match for the contact before adding a new contact. Adding the contacts here will automatically add them to the Contacts Tab which will help when calling/emailing applicable contacts.

Property Owner/Developer

Engineer/Surveyor

Contractor/Builder

Commission/Commercial

Commission

Commercial - Gross SF of Floor Area ($25 per 1000 SF)

40,650

Residential - Number of Dwelling Units and/or Structures ($25 each)

Zoning Classification

B-3 General Business District

Planning District

37: East/North Fairhope

Flood Zone 1

AE

Flood Zone 2

X

Flood Zone 3

Does the site contain Potential Wetlands and/or streams?

ARB

MS4

Yes

Comments (to be printed on applicant's generated document)

TYPE OF USE (check ALL boxes that apply)

- [ ] Addition
- [ ] Alteration
- [ ] Repair
- [ ] Demolition
- [ ] Accessory Structure
- [ ] Accessory Structure (ex. storage building, pole barn, carport, etc.)
- [ ] Swimming Pool
- [ ] Pier/Boathouse (Ono Island - multi-slips)
- [ ] Dune Walkover
- [x] New Construction
- [ ] Single Family
- [ ] Site Built
- [ ] Manufactured Home
- [ ]

- [ ] Two-Family
- [ ] Multi-Family
- [x] Commercial
  - [ ] RV Park
  - [ ] Manufactured Home Park
  - [ ] Professional Business
  - [ ] Neighborhood Business
  - [ ] General Business
  - [ ] Major Business
  - [ ] Limited Business
- [ ] Industrial
  - [ ] Light Industrial
  - [ ] General Industrial
- [ ] Agriculture
- [ ] Institutional
  - [ ] Church
  - [ ] Schools
  - [ ] Daycare Center
  - [ ] Boarding/Group Home
- [ ] Transportation/Utility
  - [ ] Cell Tower
- [ ] Tourist/Resort
- [ ] Outdoor Recreation
- [ ] Marine Recreation

- [ ] CONVENIENCE FEE: *Check to apply Convenience Fee ONLY if customer is paying in the office or over the phone with a credit/debit card and is not paying online in the portal.*

FEES

FEE	DES	QUANTITY	AMOUNT	TOTAL
Commission Site Plan				1,016.25
Commission Site Plan				250.00
Convenience Fee		1.0	27.8600	27.86
			Plan Check Fees	**0.00**
			Permit Fees	**1,294.11**
			Total Fees	**1,294.11**

PAYMENTS

DATE	TYPE	REFERENCE	NOTE	RECEIPT #	RECEIVED FROM	AMOUNT
01/23/2023	Amex	A-43893157	CSP2	701	S.E. Civil E	1,294.11
					Amount Paid	**1,294.11**
					Balance Due	**0.00**

Construction Stormwater (ALR100000) - NOI - New (Form 024)

version 4.16

(Submission #: HPQ-MM2C-71E02, version 1)

Details

Submission ID HPQ-MM2C-71E02
Status Signing

Fees

Default Fee	$1,385.00
Payments/Adjustments	$0.00
Balance Due	$1,385.00 (None)

Form Input

Permittee Information

Permittee

Permittee Name
Gulf Storage Group Fairhope LLC

Phone Type	Number	Extension
Business	601-597-1732	

Mailing Address
122 Lower Woodville Road
Natchez, MS 39121

Are you adding a Co-Permittee?
No

Responsible Official

Prefix
Mr.

First Name	Middle Name	Last Name
Charles	*NONE PROVIDED*	*Caldwell*

Title
Member of LLC

Organization Name
Gulf Storage Group Fairhope LLC

Phone Type	Number	Extension
Business	601-597-1732	

Email
charles@keg-solutions.com

Physical/Delivery Address

122 Lower Woodville Road

Natches, MS 39121

Additional Permit Contact(s) (1 of 1)

Please provide the contact information for any person needing notifications regarding this Notice of Intent (NOI).

Permit Contact

Prefix
NONE PROVIDED

First Name	Middle Name	Last Name
NONE PROVIDED	*NONE PROVIDED*	*NONE PROVIDED*

Title
NONE PROVIDED

Company Name
NONE PROVIDED

Phone Type	Number	Extension
NONE PROVIDED		

Email
NONE PROVIDED

Facility/Site Information

Facility/Site Name
Gayfer Road Self Storage Expansion

Permittee Organization Type
LLC

Facility/Site Contact

Prefix
Mr.

First Name	Last Name
Charles	*Caldwell*

Title
Member of LLC

Organization Name
Gulf Storage Group Fairhope LLC

Phone Type	Number	Extension
Business	601-597-1732	

Email
charles@keg-solutions.com

Do you have additional contacts associated with this site?
No

Facility/Site Address or Location Description
9985 Gayfer Road Ext.
Fairhope, AL 36532

Facility/Site County
Baldwin

Detailed Directions to the Facility/Site
Take I-10 East from Mobile. Exit South on State Hwy 181. Take State Hwy 181 to Gayfer Rd. Ext. The site will be on your right.

Facility/Site Front Gate Latitude and Longitude
30.530997,-87.853728

Is this a linear project?
No

Construction Site Type
Commercial

Primary SIC Code
1542-General Contractors-Nonresidential Buildings Other than Industrial Buildings and Warehouses

Primary NAICS Code
238910-Site Preparation Contractors

Project Information

Brief Description of activity(s):
Site will be cleared and graded. Existing detention pond will be modified. Storm pipe system will be installed. Utilities will be installed. Storage building will be constructed. Curb will be poured and site will be paved.

Total Facility/Site Area (acres)
7.71

Total Disturbed Area (acres)
2.24

Anticipated Commencement Date
03/01/2023

Anticipated Completion Date
03/01/2024

Will flocculants or other chemical stabilization products be used on site?
No

Are there any surface waters within 25 feet of your project's land disturbances?
No

Is this facility/site a part of a subdivision and/or common plan of development or sale?
No

Inspection Status

Was this facility/site inspected and found to be either under construction or in operation prior to a NPDES permit application being submitted to the Department?
No

Priority Construction Site

Is this a Priority Construction Site as defined by Part V of the construction stormwater general permit? If yes, please attach a copy of the CBMPP that meets or exceeds the requirements of the construction stormwater general permit.
Yes

Attach CBMPP
CBMPP - 20231197 Gayfer Ext. Self Storage Expansion.pdf - 01/13/2023 11:12 AM
Comment
NONE PROVIDED

Outfalls (1 of 2)

Outfall: OF001

Please click below if this outfall was entered in error or no longer exists or required:
NONE PROVIDED

Feature Type
Outfall

Outfall - Point where the discharge leaves the site and will be identified by the system with a prefix of "OF" (i.e. OF001, OF002, etc.)

Outfall Identifier
OF001

Topo Map Identifier-Provide the point label from the topo map that correlates to the Outfall Point above.
OF001

Location of Outfall
30.530997,-87.853872

Outfalls (2 of 2)

Outfall: OF002

Please click below if this outfall was entered in error or no longer exists or required:
Delete this Outfall

The reason for the deletion of this outfall.
Entered in Error

Feature Type
Outfall

Outfall - Point where the discharge leaves the site and will be identified by the system with a prefix of "OF" (i.e. OF001, OF002, etc.)

Outfall Identifier
OF002

Receiving Water(s)

RECEIVING WATER(S)

ID	Receiving Water	UT	Strm Sewer	MS4	A&I	F&W	LWF	PWS	SH	S
1	Cowpen Creek	X	NONE PROVIDED	NONE PROVIDED	NONE PROVIDED	X	NONE PROVIDED	NONE PROVIDED	NONE PROVIDED	X

WATER USE CLASSIFICATION DESCRIPTIONS:
A&I - Agricultural and Industrial Water Supply
F&W - Fish and Wildlife
LWF - Limited Warmwater Fishery
PWS - Public Water Supply
SH - Shell Harvesting
S - Swimming and Other Whole Body Contact Sports

Topographic Map Submittal

Topographic Map
Gayfer Ext. Topo.pdf - 01/13/2023 11:09 AM
Comment
NONE PROVIDED

Qualified Credentialed Professional (QCP) Certification

QCP Designation
Professional Engineer (PE)

Registration / Certification Number
26348

Qualified Credentialed Professional

Prefix
NONE PROVIDED

First Name	Middle Name	Last Name
Thomas	*NONE PROVIDED*	*Smith*

Title
Partner

Organization Name
S.E. Civil, LLC

Phone Type	Number	Extension
Business	251-990-6566	

Email
lsmith@secivileng.com

Address
9969 Windmill Road
Fairhope, AL 36532

Duly Authorized Representative (DAR)

Pursuant to ADEM Administrative Code Rule 335-6-6-.09 (1), this NOI must be signed by a responsible official, as indicated below:

(a) In the case of a corporation, by a principal executive officer of at least the level of vice president, or a manager assigned or delegated in accordance with corporate procedures, with such delegation submitted in writing if required by the Department, who is responsible for manufacturing, production, or operating facilities and is authorized to make management decisions which govern the operation of the regulated facility;
(b) In the case of a partnership, by a general partner;
(c) In the case of a sole proprietorship, by the proprietor; or
(d) In the case of a municipal, state, federal, or other public entity by either a principal executive officer, or ranking elected official.

ADEM Administrative Code Rule 335-6-.09(2):

All reports required by permits and other information requested by the Department shall be signed by a person described in paragraph 335-6-6-.09(1) or by a duly authorized representative of that person. A person is a duly authorized representative only if:
(a) The authorization is made in writing by a person described in paragraph 335-6-6-.09(1);
(b) The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity and;
(c) The written authorization is submitted to the Department.

Will a duly authorized representative be submitting this NOI?
No

Attachments

Date	Attachment Name	Context	Confidential?	User
1/13/2023 11:12 AM	CBMPP - 20231197 Gayfer Ext. Self Storage Expansion.pdf	Attachment	No	Thomas Smith
1/13/2023 11:09 AM	Gayfer Ext. Topo.pdf	Attachment	No	Thomas Smith

Status History

	User	Processing Status
1/12/2023 7:26:22 AM	Thomas Smith	Draft
1/17/2023 8:07:57 AM	Thomas Smith	Signing

Agreements and Signature(s)

SUBMISSION AGREEMENTS

- ☑ I am the owner of the account used to perform the electronic submission and signature.
- ☑ I have the authority to submit the data on behalf of the facility I am representing.
- ☑ I agree that providing the account credentials to sign the submission document constitutes an electronic signature equivalent to my written signature.
- ☑ I have reviewed the electronic form being submitted in its entirety, and agree to the validity and accuracy of the information contained within it to the best of my knowledge.

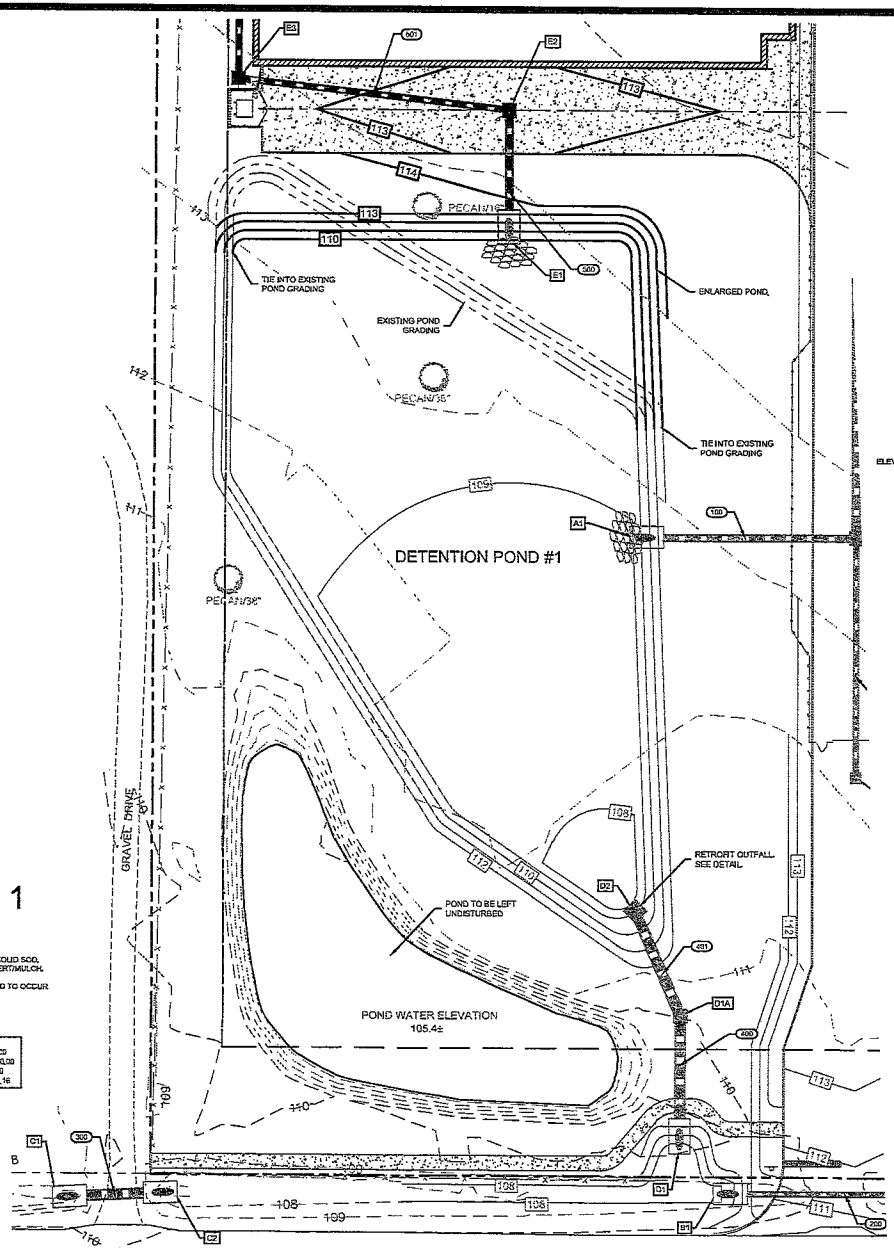
QCP

"I certify under penalty of law that a comprehensive Construction Best Management Practices Plan (CBMPP) for the prevention and minimization of all sources of pollution in stormwater and authorized related process wastewater runoff has been prepared under my supervision for this site/activity, and associated regulated areas/activities. The CBMPP meets the requirements of this permit and if properly implemented and maintained by the operator, discharges of pollutants in stormwater runoff can reasonably be expected to be effectively minimized to the maximum extent practicable according to the requirements of ADEM Administrative Code Chapter 335-6-6-.23 and this Permit. The CBMPP describes the erosion and sediment control measures that must be fully implemented and regularly maintained as needed at the permitted site in accordance with sound sediment and erosion control practices to ensure the protection of water quality."

Signed By Thomas Smith on 01/17/2023 at 8:08 AM

Responsible Official

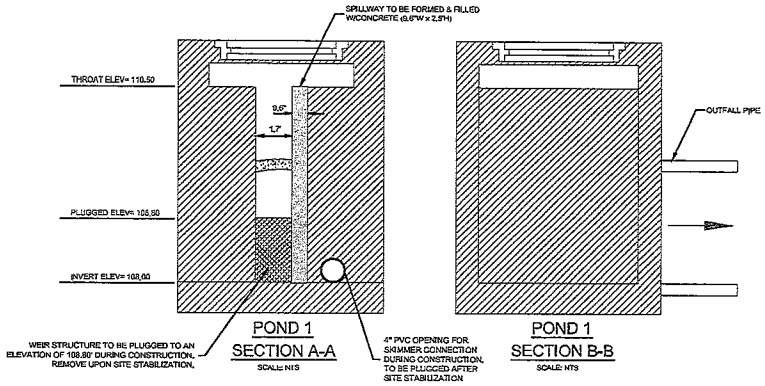
"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."



POND 1

NOTES:
1. POND SIDE SLOPES TO BE SOLID SOD, POND BOTTOM TO BE SEED/FERT/MULCH.
2. STABILIZATION OF THE POND TO OCCUR PRIOR TO MASS GRADING.

POND 1
TOP OF POND=112.00
BOTTOM OF POND=110.00
DHW (25-YR)=110.80
DHW (100-YR)=111.16

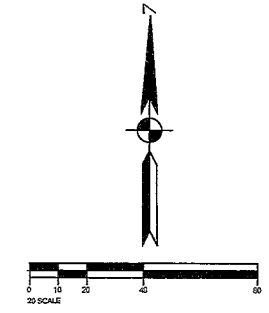


POND 1
SECTION A-A
SCALE: NTS

POND 1
SECTION B-B
SCALE: NTS

OUTLET STRUCTURE - POND 1

SCALE: NTS



Know what's below. Call before you dig.

REVISION	DATE

S.E. Civil
Engineering & Surveying
www.secivil.com
251.968.1338

POND PLAN & OUTFALL DETAILS

Gayfer Road Self Storage
Phase 2
Fairhope, Alabama

JOB No.	DATE
20231197	01/10/23
DRAWN JDL	SCALE SEE DWG

SHEET
C7

Know what's below. Call before you dig.

GRADING & DRAINAGE PLAN LEGEND

EXISTING		PROPOSED
	STORM SEWER PIPING	
	UNDERDRAIN	UD
	ROOF DRAIN	X'
	JUNCTION BOX (JB)	
	DROP INLET (DI)	
	WASHINLET (YI)	
D'	TYPE "S" 1- WING INLET (SW1I)	
D'	TYPE "S" 2- WING INLET (DWCB)	
	MITERED END SECTION (MES)	
XXX	CONTOURS	XXX
+ XXX.XX	SPOT ELEVATION	XXX.XX
	HIGH POINT	HP

GRADING & DRAINAGE NOTES

1. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANIES AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.
2. ALL CUT OR FILL SLOPES SHALL BE 3:1 OR FLATTER UNLESS OTHERWISE NOTED.
3. ALL DISTURBED AREAS NOT OTHERWISE COVERED BY BUILDINGS OR PAVEMENT SHALL RECEIVE FOUR INCHES OF TOPSOIL AND STABILIZED PER THE LANDSCAPE PLAN.
4. ALL STRUCTURES SHALL BE PRECAST CONCRETE PER ASTM C-478/C-913 AND ALDOT STANDARDS UNLESS APPROVED OTHERWISE BY THE ENGINEER.
5. STORM PIPE SHALL BE AS FOLLOWS:
   RCP, CLASS III PER ALDOT SPECIFICATIONS,
   HDPE, ADS N12 PIPE PER SPECIFICATIONS,
   PVC, SCH. 40 PIPE PER SPECIFICATIONS,
   THE TYPE OF PIPE MAY BE ALTERED IF APPROVED BY THE ENGINEER.
6. ALL CAST IN PLACE CONCRETE TO HAVE A MIN. 28 DAY COMPRESSION STRENGTH OF 3000 P.S.I.
7. EXISTING DRAINAGE STRUCTURES TO BE INSPECTED AND REPAIRED AS NEEDED, AND EXISTING PIPES TO BE CLEANED OUT TO REMOVE ALL SILT AND DEBRIS.
8. THE CONTOUR INTERVAL IS ONE FOOT OR AS SHOWN.
9. THE ELEVATION OF MANHOLE/INLET TOPS ARE TO BE AT THE FINISH ELEVATION SHOWN. THE DEFINITION OF THE TYPE OF TOP IS AS LISTED:
   WASHINLET = THROAT: ELEVATION OF THE POINT AT WHICH WATER PASSES INTO THE BOX,
   DROP INLET = GRATE: THE TOP MOST PART OF THE FRAME AND GRATE,
   CATCH BASIN = THROAT: ELEVATION OF THE POINT AT WHICH WATER PASSES INTO THE BOX,
   JUNCTION BOX = TOP: THE TOP MOST PART OF THE RIM AND COVER CASTING.
10. FIRM NO. 01003C0601M EFFECTIVE DATE APRIL 19, 2019, SHOWS THE PROPERTY TO BE SITUATED IN ZONE X, ZONE X (SHADED), AND AE.
11. UTILITY TRENCHES SHALL BE DEWATERED AS RECOMMENDED BY THE GEOTECHNICAL ENGINEER AND THE SPECIFICATIONS. APPROVED MEASURES SHALL BE TAKEN TO ENSURE THE PROPER INSTALLATION OF THE PIPING SYSTEM. THE CONTRACTOR SHALL HOLD THE OWNER AND ENGINEER HARMLESS FOR ADDITIONAL COSTS FOR DEWATERING AND BACKFILL LABOR & MATERIALS.
12. THE CONTRACTOR SHALL PROVIDE TO THE ENGINEER RECORD DRAWINGS OF AS-BUILT CONDITIONS FOR THE DEVELOPMENT OF THE SITE.
13. ALL STRUCTURAL FILL AREAS TO BE CONSTRUCTED UNDER THE DIRECTION OF A SOILS ENGINEER. REFER TO THE GEOTECHNICAL REPORT BY GEOCON ENGINEERING & MATERIALS TESTING, INC. FOR COMPACTION REQUIREMENTS.
14. GRADES NOT OTHERWISE INDICATED ON THE PLANS SHALL BE UNIFORM LEVELS OR SLOPES BETWEEN POINTS WHERE ELEVATIONS ARE GIVEN. ABRUPT CHANGES IN SLOPE SHALL BE WELL ROUNDED. ELEVATIONS REPRESENT FINAL GRADE.
15. ALL SILT BARRIERS SHALL BE PLACED AS ACCESS IS OBTAINED DURING CLEARING. NO GRADING SHALL BE DONE UNTIL THE TREE PROTECTION, SAVE AREAS, SILT BARRIER INSTALLATION AND DETENTION FACILITIES ARE CONSTRUCTED.
16. THE LAND DISTURBANCE PERMIT MUST BE DISPLAYED ON SITE AT ALL TIMES DURING CONSTRUCTION AND IN PLAN VIEW FROM A PUBLIC ROAD OR STREET.
17. ALL O.S.H.A. CONSTRUCTION REQUIREMENTS SHALL BE STRICTLY ADHERED TO.
18. PIPE LENGTHS SHOWN ARE LINEAR DISTANCES BETWEEN CENTER TO CENTER OF STRUCTURES. THE CONTRACTOR SHALL DETERMINE THE QUANTITY OF PIPE NEEDED FOR THE JOB, BASED ON SLOPE LENGTH AND WHOLE STANDARD PIPE SECTIONS.
19. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING PROPER TRAFFIC CONTROL FOR PUBLIC SAFETY ADJACENT TO THE CONSTRUCTION SITE.
20. THE CONTRACTOR SHALL FURNISH, ERECT AND MAINTAIN BARRICADES, WARNING SIGNS, LIGHTS AND OTHER TRAFFIC CONTROL DEVICES IN CONFORMITY WITH THE FEDERAL HIGHWAY ADMINISTRATION MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS, LATEST EDITION.
21. MAXIMUM CUT OR FILL SLOPE IS 3H:1V
22. CONTRACTOR TO CLEAN OUT ACCUMULATED SILT IN THE STORM SYSTEM AT THE END OF CONSTRUCTION WHEN DISTURBED AREAS HAVE BEEN STABILIZED.
23. SITE SHALL BE GRADED TO ASSURE DRAINAGE OF SURFACE WATER AWAY FROM THE BUILDING PAD.
24. ALL EXTERIOR PAVED AREAS ADJACENT TO THE BUILDING (SIDEWALKS, PATIOS, ETC.) SHALL SLOPE AWAY FROM THE BUILDING AT A MINIMUM SLOPE OF TWO PERCENT.
25. REFER TO THE GEOTECHNICAL REPORT FOR PREPARATION OF THE SUBGRADE.
26. RIP RAP WILL BE REQUIRED AT ALL HEADWALL STRUCTURES. THE RIP RAP SHALL BE PLACED AT THE TIME OF STRUCTURE PLACEMENT AND CLEANED/REPLACED AS NECESSARY OR PER THE ENGINEERS INSTRUCTIONS.
27. TEMPORARY SEDIMENT BASIN FEATURES ARE TO BE CONSTRUCTED AND FULLY OPERATIONAL PRIOR TO ANY OTHER CONSTRUCTION OR GRADING.
28. ALL ELEVATIONS ARE REFERENCED TO NAVD 88 DATUM.
29. CONTRACTOR SHALL PROVIDE A SURVEYED AS-BUILT OF THE DETENTION POND, OUTLET CONTROL STRUCTURE, AND STORM SYSTEM.
30. CONTRACTOR IS RESPONSIBLE FOR DEMOLITION OF EXISTING STRUCTURES INCLUDING REMOVAL OF ANY EXISTING UTILITIES SERVING THE STRUCTURE. UTILITIES ARE TO BE REMOVED TO THE RIGHT OF WAY.

STRUCTURES

STRUCTURE:	DETAILS:
A1-MES	INV IN = 109.00(100)
A2-DI	GRATE = 112.98 INV IN = 109.40(102) INV IN = 109.55(101) INV OUT = 109.40(100)
A3-DI	GRATE = 112.88 INV IN = 110.23(600) INV OUT = 110.23(102)
A4-DI	GRATE = 112.88 INV OUT = 110.00(18")
B1-MES	INV IN = 107.50(200)
B2-MES	INV OUT = 108.50(200)
C1-MES	INV IN = 105.64(300)
C2-MES	INV OUT = 108.25(300)
D1-MES	INV IN = 107.80(400)
D1A-JB	RIM = 111.00 INV IN = 107.80(401) INV OUT = 107.80(+/-400)
D2-OCS	TOP = 112.00 INV OUT = 106.00(+/-)
E1-MES	INV IN = 110.00(500)
E2-DI	GRATE = 113.01 INV IN = 110.40(501) INV OUT = 110.15(500)
E3-WI	THROAT = 113.00 INV IN = 110.70(502) INV OUT = 110.70(501)
E4-DI	GRATE = 114.75 INV OUT = 111.40(502)
F1-DI	GRATE = 114.00 INV OUT = 111.10(600)

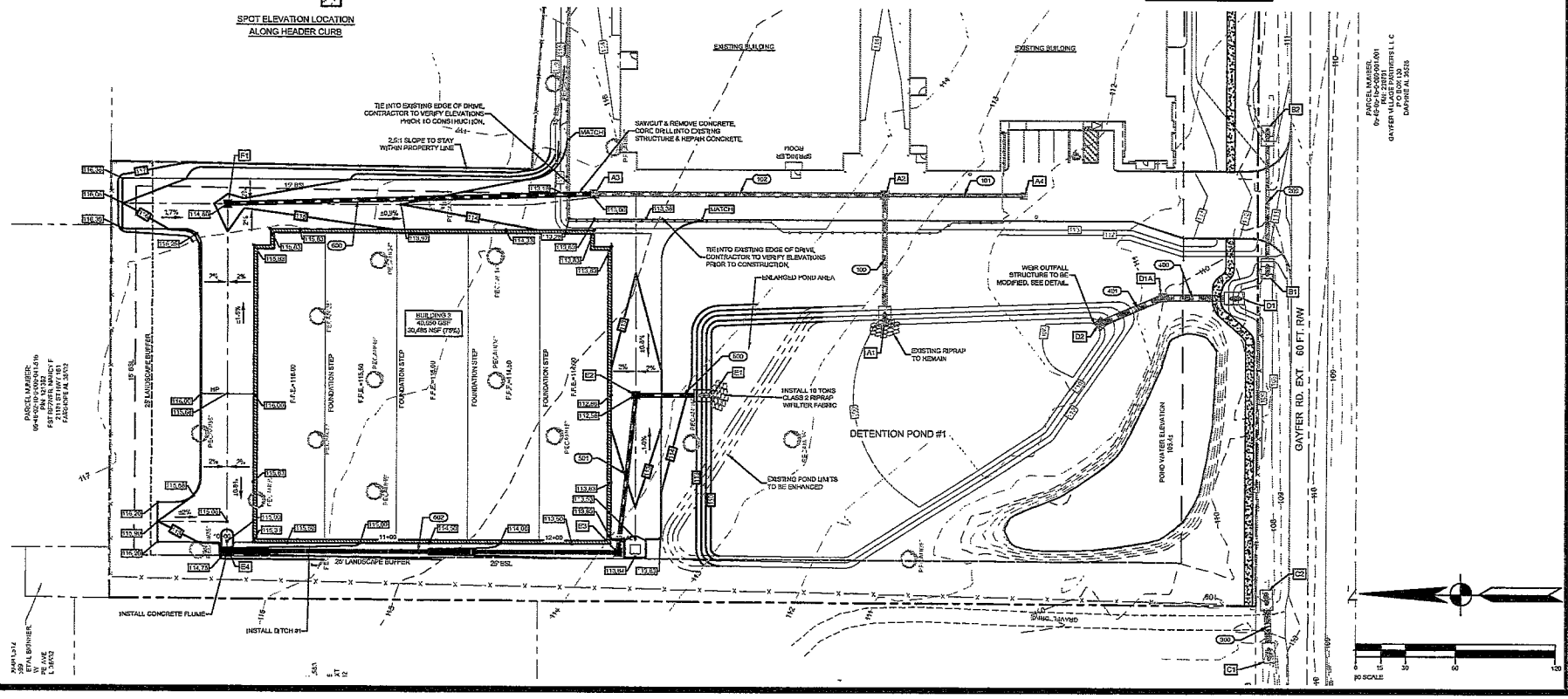
PIPES

NAME	SIZE & TYPE	LENGTH	SLOPE
100	24" RCP	78 LF	0.51%
101	18" RCP	84 LF	0.54%
102	18"x28.5" ARCP	175 LF	0.47%
200	18" RCP	90 LF	0.56%
300	22.5"x36.25" ARCP	41 LF	1.00%
400	22.5"x36.25" ARCP	47 LF	0.42%
401	22.5"x33.9" ARCP	41 LF	0.49%
500	24" RCP	46 LF	0.33%
501	18" RCP	95 LF	0.21%
502	18" RCP	215 LF	0.47%
600	18" RCP	221 LF	0.25%

EXISTING - PHASE 1

PROPOSED - PHASE 2

SPOT ELEVATION LOCATION ALONG HEADER CURB



PHASE	DATE

S.E. Civil Engineering & Surveying, LLC
Fairhope, AL 36532
251-929-3566

Gayfer Road Self Storage Phase 2

Fairhope, Alabama

GRADING & DRAINAGE PLAN

JOB No.	DATE
20231107	01/15/25
DRAWN	SCALE
JDL	1"=30'

SHEET

C2

811 Know what's below. Call before you dig.

LEGEND:

CEP	CONSTRUCTION EXIT PAD
SB	SEDIMENT BARRIER
RIP	FABRIC DROP INLET PROTECTION
MU	MULCHING
TS	TEMPORARY SEEDING
PS	PERMANENT SEEDING
ECB	EROSION CONTROL BLANKET
OP	OUTLET PROTECTION
DV	DIVERSION
CIP	CURB INLET PROTECTION
W	STONE WATTLES
RIP CIP	FABRIC & CURB INLET PROTECTION

EROSION CONTROL NOTES

1. THE EXISTING SITE IS PARTIALLY DEVELOPED.
2. CONTACT DAVID KING, 251-459-4586.
3. AREA TO BE DISTURBED = ±2.21 ACRES
4. ALL VEGETATION SHALL BE PLANTED AND MAINTAINED PER THE ALABAMA HANDBOOK FOR EROSION CONTROL, SEDIMENT CONTROL AND STORMWATER MANAGEMENT ON CONSTRUCTION SITES AND URBAN AREAS (ALABAMA HANDBOOK).
5. ALL EROSION CONTROL MEASURES SHALL BE PER THE DIRECTION OF THE ENGINEER, SOIL AND WATER CONSERVATION COMMITTEE OFFICER, AND THE FEDERAL E.P.A. GUIDELINES FOR THE NPDES PROGRAM.
6. ABSOLUTELY NO SEDIMENT SHALL BE PERMITTED TO LEAVE THE SITE DURING CONSTRUCTION. IF HEAVY RAINS OR UNUSUAL SITE CONDITIONS RESULT IN THE POLLUTION OF ROADWAYS OR ADJACENT PARCELS THEN THE GRADING CONTRACTOR SHALL CLEAN THE DISTURBED AREAS IMMEDIATELY AND RESTORE THE AREAS TO THE ORIGINAL CONDITION WITHIN 24 HOURS.
7. ALL DISTURBED AREAS SHALL BE TEMPORARILY AND PERMANENTLY SEEDED WITH "SOUTH" TYPE SEEDINGS PER THE ALABAMA HANDBOOK.
8. ADDITIONAL EROSION CONTROL MEASURES MAY BE REQUIRED BY THE GOVERNING OFFICIALS. IT IS THE RESPONSIBILITY OF THE GRADING CONTRACTOR TO BE INTIMATE WITH THE LOCAL EROSION CONTROL LAWS AND TO APPLY THESE KNOWLEDGE IN HIS/HER ACTIONS AND QUOTATIONS.
9. REFERENCE THE CONSTRUCTION SEQUENCE FOR THE RELATIONSHIP BETWEEN THE INSTALLATION OF EROSION CONTROL FEATURES AND GENERAL CONSTRUCTION.
10. THE ESCAPE OF SEDIMENT FROM THE SITE SHALL BE PREVENTED BY THE INSTALLATION OF EROSION AND SEDIMENT CONTROL MEASURES AND PRACTICES PRIOR TO, OR CONCURRENT WITH LAND DISTURBING ACTIVITIES.
11. ALL EROSION AND SEDIMENT CONTROL MEASURES WILL BE CHECKED DAILY AND ANY DEFICIENCIES NOTED WILL BE CORRECTED BY THE END OF EACH DAY. ADDITIONAL EROSION CONTROL MEASURES WILL BE INSTALLED IF DEEMED NECESSARY AFTER ON-SITE INSPECTION BY THE GOVERNING OFFICIAL OR ENGINEER OF RECORD.
12. ALL SILT BARRIERS SHALL BE PLACED AS ACCESS IS OBTAINED DURING CLEARING, NO GRADING SHALL BE DONE UNTIL THE SEDIMENT BARRIERS HAVE BEEN CONSTRUCTED.
13. CONTRACTOR SHALL REMOVE EROSION CONTROL DEVICES AFTER PERMANENT GRASSING IS IN PLACE AND ESTABLISHED.
14. THE CONSTRUCTION EXIT PAD SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF MUD ONTO PUBLIC RIGHT-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH STONE, AS CONDITIONS DEMAND, AND REPAIR AND/OR CLEAN OUT OF ANY STRUCTURES USED TO TRAP SEDIMENT. ALL MATERIALS SPILLED, DROPPED, WASHED, OR TRACKED FROM VEHICLE OR SITE ONTO PUBLIC ROADWAY MUST BE REMOVED IMMEDIATELY.
15. DISTURBED AREAS LEFT IDLE FOR TEN DAYS OR LONGER ARE TO BE SEEDED AND MULCHED.
16. SEDIMENT / EROSION CONTROL DEVICES MUST BE CHECKED AFTER EACH STORM EVENT. EACH DEVICE IS TO BE MAINTAINED OR REPLACED IF SEDIMENT ACCUMULATION HAS REACHED 1/2 OF THE CAPACITY OF THE DEVICE.
17. MAINTENANCE OF ALL SOIL EROSION AND SEDIMENTATION CONTROL MEASURES AND PRACTICES, WHETHER TEMPORARY OR PERMANENT, SHALL BE AT ALL TIMES THE RESPONSIBILITY OF THE OWNER'S CONTRACTOR.
18. THE CONTRACTOR SHALL PREVENT THE LOSS OF SEDIMENT DUE TO WIND VIA WATERING DRY SOILS. CAUTION SHOULD BE TAKEN TO ENSURE THAT THE SITE IS NOT OVER WATERED.
19. THE SITE IS TO BE CLEARED AND GRADED AS TO MINIMIZE THE AMOUNT OF SOIL EXPOSED AT ONE TIME.
20. EROSION CONTROL MEASURES SHALL BE MAINTAINED AT ALL TIMES. IF FULL IMPLEMENTATION OF THE APPROVED PLAN DOES NOT PROVIDE FOR EFFECTIVE EROSION CONTROL, ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IMPLEMENTED TO CONTROL OR TREAT THE SEDIMENT SOURCE.
21. CONTRACTOR IS RESPONSIBLE FOR MONITORING DOWNSTREAM CONDITIONS THROUGHOUT THE CONSTRUCTION PERIOD AND CLEARING ANY DEBRIS AND SEDIMENT CAUSED BY CONSTRUCTION.
22. BMP'S SHALL BE INSTALLED AS PER THE ALABAMA HANDBOOK STANDARDS.
23. BMP'S SHALL BE INSTALLED WITH MINIMAL CLEARING ACTIVITY.
24. REFER TO THE LANDSCAPE PLANS FOR FINAL STABILIZATION MEASURES.
25. ALL CUT AND FILL SLOPES MUST BE SURFACE ROUGHENED AND VEGETATED WITHIN 7 DAYS OF THEIR CONSTRUCTION.
26. ALL FILL SLOPES HAVE SILT FENCE AT THE TOE OF SLOPES.
27. CONTRACTOR TO CLEAN OUT ACCUMULATED SEDIMENT IN THE DETENTION POND AT THE END OF CONSTRUCTION WHEN DISTURBED AREAS HAVE BEEN STABILIZED.
28. SEDIMENT STORAGE INDICATIONS MUST BE INSTALLED IN SEDIMENT STORAGE STRUCTURES, INDICATING THE 1/3 FULL VOLUME.

CONSTRUCTION SEQUENCE - PHASE 1

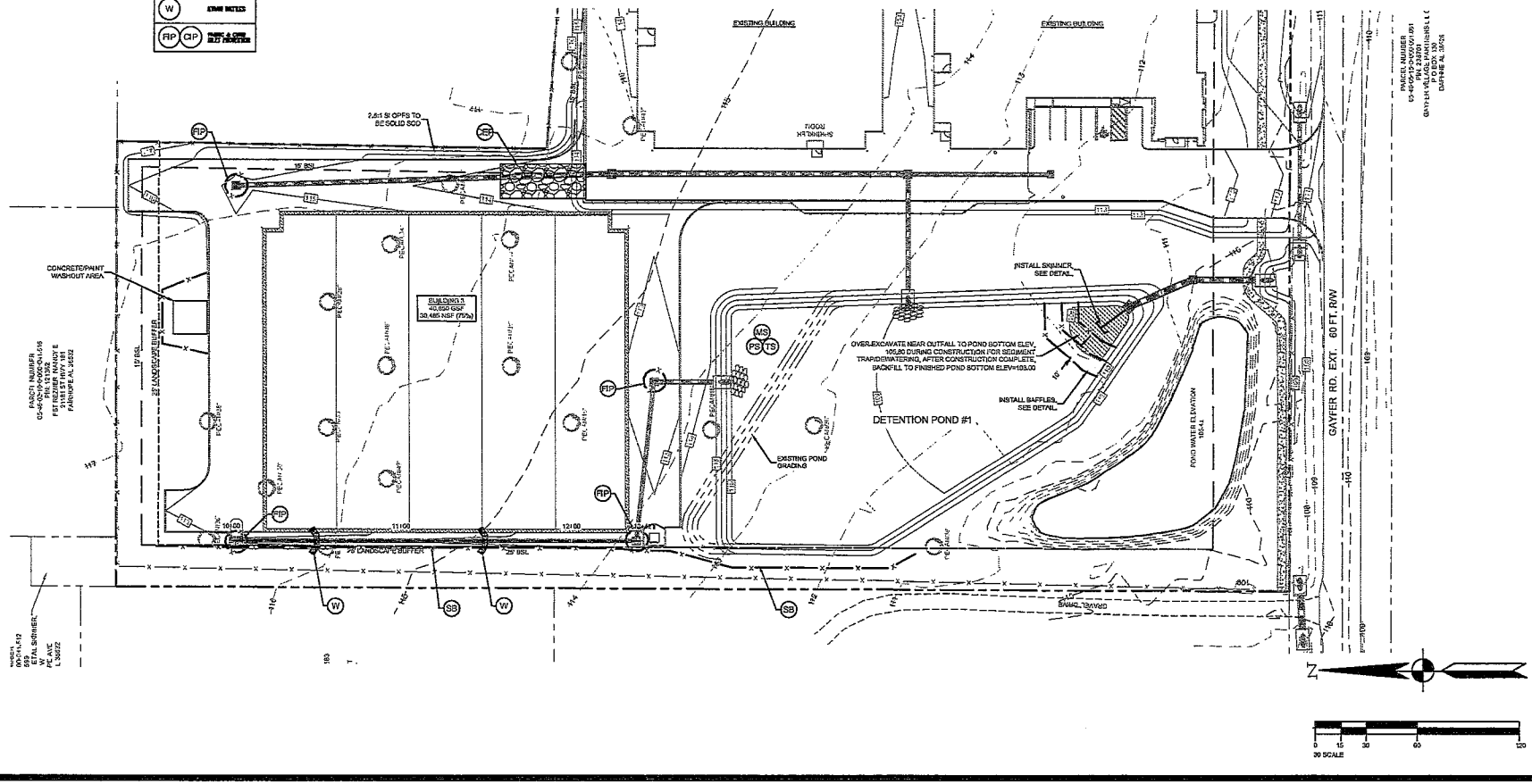
1. REMOVE VEGETATION ONLY IN AREAS OF THE PERIMETER SEDIMENT BARRIERS, SEDIMENT POND, AND CONSTRUCTION EXIT.
2. INSTALL THE CONSTRUCTION EXIT PER DETAILS.
3. INSTALL PERIMETER SEDIMENT BARRIERS PER DETAILS.
4. INSTALL SEDIMENT BASIN AND ASSOCIATED STORM PIPE.
5. REQUEST BMP INSPECTION PRIOR TO CLEARING.
6. ONCE INSPECTION IS COMPLETE AND APPROVED, CLEARING & SITE WORK CAN BEGIN (PHASE 2).

CONSTRUCTION SEQUENCE - PHASE 2

1. PERFORM CLEARING & ROUGH GRADING ON THE LOT AND ESTABLISH COVER ON AREAS WHEN BROUGHT TO GRADE.
2. INSTALL STORM SYSTEM AND UTILITIES.
3. CONSTRUCT BUILDING AND INSTALL STONE BASE.
4. ESTABLISH VEGETATION ON AREAS NOT IMPACTED BY PAVING OPERATIONS.

CONSTRUCTION SEQUENCE - PHASE 3

1. INSTALL PAVING AND FINAL LANDSCAPING.
2. CALL FOR AN INSPECTION FROM THE OCI.
3. ONCE THE OCI HAS CERTIFIED THAT ALL AREAS ARE STABILIZED, REMOVE BMPS.
4. STABILIZE ANY AREAS DISTURBED BY BMP REMOVAL.



S.E. Civil Engineering & Surveying
9965 Windingbrook Pkwy
Fairhope, AL 36532
251.929.4558

REVISION	DATE

EROSION & SEDIMENT CONTROL PLAN

Gayfer Road Self Storage Phase 2
Fairhope, Alabama

JOB No.	DATE
20231107	01/16/23
DRAWN	SCALE
JDL	1"=30'

SHEET
C3

SITE PLAN NOTES

1. ALL WORK AND MATERIALS SHALL COMPLY WITH BALDWIN COUNTY REGULATIONS AND CODES AS WELL AS OSHA, AND ALDOT STANDARDS.
2. ALL CURBED OR STRIPED RADII ARE TO BE 4' UNLESS OTHERWISE NOTED.
3. ALL DIMENSIONS AND RADII ARE TO THE FACE OF CURB UNLESS OTHERWISE NOTED.
4. EXISTING STRUCTURES WITHIN CONSTRUCTION LIMITS ARE TO BE ABANDONED, REMOVED OR RELOCATED AS NECESSARY. ALL COST SHALL BE INCLUDED IN THE BASE BID.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL RELOCATIONS, INCLUDING BUT NOT LIMITED TO ALL UTILITIES, STORM DRAINAGE, SIGNS, TRAFFIC SIGNALS & POLES, ETC. AS REQUIRED FOR SITE WORK. ALL WORK SHALL BE IN ACCORDANCE WITH GOVERNING AUTHORITIES SPECIFICATIONS AND SHALL BE APPROVED BY SUCH. ALL COST SHALL BE INCLUDED IN BASE BID.
6. THE SURVEY OF EXISTING CONDITIONS SHOWN WITHIN THESE PLANS, ALL EXISTING CONDITIONS SHALL BE VERIFIED TO BE TRUE AND ACCURATE PRIOR TO BEGINNING WORK.
7. REFER TO THE LANDSCAPING PLANS FOR PLANTING LOCATIONS.
8. PAINTED STRIPING SHALL BE BRIGHT AND CLEAR, STRIPES SHALL BE PER PLAN AND PAINTED ON CLEAN ASPHALT OR CONCRETE.
9. CURBING SHALL BE FORMED AND POURED CONCRETE UNLESS OTHERWISE DETAILED WITHIN THE DRAWINGS. CONCRETE FOR CURBING SHALL BE 3000 PSI.
10. HANDICAP RAMPS AND PARKING STALLS SHALL BE PER ADA REQUIREMENTS AND LOCAL REGULATIONS.
11. THIS SITE IS BALDWIN COUNTY ZONED.
12. TOTAL SITE ACREAGE = 7.71 ACRES.
13. NOTIFY BALDWIN COUNTY FOR INSPECTIONS 24 HOURS BEFORE THE BEGINNING OF EVERY PHASE OF CONSTRUCTION.
14. ALL STRIPING IN ROW, TO BE CLASS A TYPE 2 THERMOPLASTIC.
15. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL REQUIRED GOVERNMENTAL INSPECTIONS.
16. A COPY OF THE APPROVED LAND DISTURBANCE PLAN AND PERMIT SHALL BE PRESENT ON SITE WHENEVER LAND DISTURBANCE ACTIVITY IS IN PROGRESS.
17. CONSTRUCTION EQUIPMENT SHALL NOT BE PARKED IN REQUIRED ROW'S AND MUST BE STORED WITHIN THE SITE.
18. DURING CONSTRUCTION, ACCESS ROADWAYS CONSTRUCTED OF AN ALL WEATHER SURFACE CAPABLE OF SUPPORTING 75,000 POUNDS GROSS WEIGHT SHALL BE PROVIDED. THE WIDTH OF THE ACCESS ROADWAY, DURING CONSTRUCTION, SHALL BE 20 FT PER STANDARD FIRE PREVENTION CODE, LATEST EDITION.
19. ALL NON-HANDICAP PARKING SPACE LINES WILL BE WHITE.
20. ALL TRAFFIC CONTROL SIGNS AND MARKINGS USED ON THE SITE WILL CONFORM WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), FHWA, LATEST EDITION, REFERENCE THE SIGN CODES CONTAINED IN THE MUTCD FOR ALL TRAFFIC CONTROL SIGNS, NOTE THE COLOR AND SIZE OF ALL PAVEMENT MARKINGS, REFERENCING DETAILS IN ALDOT'S ROADWAY AND TRAFFIC DESIGN STANDARDS WHERE APPLICABLE.
21. NO "PROTECTED TREES" WILL BE REMOVED, DESTRUCTIVELY DAMAGED, MUTILATED, RELOCATED, DISFIGURED, DESTROYED, CUT DOWN, OR EXCESSIVELY PRUNED DURING CONSTRUCTION ACTIVITIES.
22. FIRE LANES AND SIGNAGE TO MEET REQUIREMENTS OF NFPA 1 CHAPTER 18.
23. THE CONTRACTOR SHALL FAMILIARIZE THEMSELVES WITH ALL OF THE EXISTING CONDITIONS AT THE SITE INCLUDING UTILITIES, SURFACES, ETC. AND SHALL BE FULLY RESPONSIBLE FOR ANY DAMAGES THEY CAUSE TO NEW AND EXISTING CONSTRUCTION, PROPERTY AND ANY UNAUTHORIZED DISRUPTION TO UTILITIES ON SITE AND TO ADJACENT PROPERTIES.
24. PRIOR TO CONSTRUCTION, EXISTING UTILITIES AT PROPOSED CONNECTIONS AND CROSSINGS SHALL BE FIELD EXCAVATED TO VERIFY LOCATIONS, ELEVATION AND SIZE. NOTIFY THE ENGINEER IMMEDIATELY WITH ANY DEVIATIONS OR CONFLICTS.
25. CONTRACTOR SHALL REFER TO THE ARCH. PLANS FOR EXACT LOCATIONS AND DIMENSIONS OF EXIT PORCHES; PRECISE BUILDING DIMENSIONS AND EXACT BUILDING UTILITY ENTRANCE LOCATIONS.
26. THE DIMENSIONS SHOWN ARE TO THE FACE OF BUILDING UNLESS OTHERWISE NOTED.
27. REFER TO STRUCTURAL PLANS FOR THE COLUMN GRID LAYOUT AND INFORMATION REQUIRED TO LAYOUT THE BUILDING WITHIN THE FOUNDATIONS.

SITE ANALYSIS

SITE ACREAGE (PROPOSED)	BUILDING HEIGHT	BUILDING UNDER ROOF
±7.71 AC (336,029 SF)	±12'-6"	40,650 SF
REQUIRED PARKING: 0 SPACES		PROVIDED PARKING: 0 SPACES
JURISDICTION: BALDWIN COUNTY		ZONING: B-3
IMPERVIOUS AREA: 4.12 AC (53.44%)		PERVIOUS AREA: 3.59 AC (46.56%)

BUILDING SETBACKS:	REQUIRED:
FRONT YARD:	N/A
SIDE YARD:	15 FT
SIDE YARD:	15 FT
REAR YARD:	15 FT
LANDSCAPE BUFFER:	25 FT

N

0 15 30 60 120
30 SCALE

GRASS PAVERS FOR EMERGENCY VEHICLE TURNAROUND, REFERENCE LS PLANS FOR DETAILS, INSTALL HEADER CURB AROUND PAVERS.

FIRE TRUCK WHEEL PATH

HEADER CURB POURED MONOLITHICALLY WITH CONCRETE PAVING (TYP.). SEE DETAIL

1' OFFSET FROM EXISTING CONCRETE TO PREVENT CRACKING

REMOVE CURBING & TIE INTO EXISTING CONCRETE

REMOVE FENCING

EXISTING PAVEMENT

INSTALL SIDEWALK RAMP, CUT EXISTING CURB AND TAPER BACK TO GRADE.

EXISTING PARKING SPACES INSTALLED WITH PHASE 1

EXISTING BUILDING

EXISTING PAVEMENT

CONCRETE PAVING

BOLLARDS (TYP.) SEE DETAIL

BUILDING 3
40,650 GSF
36,485 NSF (78%)

SEE CONCRETE PAVING JOINT DETAILS

DETENTION POND #1

INSTALL 5' SIDEWALK

GAYFER RD. EXT. 60 FT. R/W

25' LANDSCAPE BUFFER

25' BSL

DUMPSTER LOCATION, SEE DETAIL

END OF SIDEWALK

GRAVEL DRIVE

811 Know what's below. Call before you dig.

REVISION	DATE

S.E. Civil Engineering & Surveying
599 Wharf Rd
Fairhope, AL 36532

SITE PLAN

Gayfer Road
Self Storage
Phase 2
Fairhope, Alabama

JOB No.	DATE
2023119	01/16/23
DRAWN: JDL	SCALE: 1"=30'

SHEET
C1

LANCE R. LEFLEUR
DIRECTOR

KAY IVEY
GOVERNOR

Alabama Department of Environmental Management
adem.alabama.gov
1400 Coliseum Blvd. 36110-2400 ■ Post Office Box 301463
Montgomery, Alabama 36130-1463
(334) 271-7700 ■ FAX (334) 271-7950

January 25, 2023

CHARLES CALDWELL
GULF STORAGE GROUP FAIRHOPE LLC
122 LOWER WOODVILLE ROAD
NATCHES, MS 39121

RE: Gayfer Road Self Storage Expansion
Baldwin County (003)

Dear Mr. Caldwell:

Based on your request, coverage under **General NPDES Permit Number ALR10C3DF** is granted. The effective date of coverage is January 25, 2023.

Coverage under this permit does not authorize the discharge of any pollutant or wastewater that is not specifically identified in the permit and by the Notice of Intent.

You are responsible for compliance with all provisions of the permit including, but not limited to, the performance of required inspections and/or monitoring, and the preparation and implementation of a Construction Best Management Practices Plan (CBMPP) required by the permit.

The Alabama Department of Environmental Management encourages you to exercise pollution prevention practices and alternatives at your facility. Pollution prevention will assist you in complying with permit requirements.

Prior to commencing land disturbance activities, the Department encourages you to view the video "Most Common Compliance Issues at Construction Sites" on the ADEM webpage at https://www.youtube.com/watch?v=xG-SIlJ2Mgc.

A copy of the General NPDES Permit under which coverage of your discharges has been granted is enclosed. If you have any questions concerning this permit, please contact Stephanie Fontaine by email at stephanie.fontaine@adem.alabama.gov or by phone at (334) 274-4249.

Sincerely,

Jeffery W. Kitchens

Jeffery W. Kitchens, Chief
Water Division

Birmingham Branch
110 Vulcan Road
Birmingham, AL 35209-4702
(205) 942-6168
(205) 941-1603 (FAX)

Decatur Branch
2715 Sandlin Road, S.W.
Decatur, AL 35603-1333
(256) 353-1713
(256) 340-9359 (FAX)

Mobile Branch
2204 Perimeter Road
Mobile, AL 36615-1131
(251) 450-3400
(251) 479-2593 (FAX)

Mobile-Coastal
3664 Dauphin Street, Suite B
Mobile, AL 36608-1211
(251) 304-1176
(251) 304-1189 (FAX)

ADEM
Alabama Department of Environmental Management

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM GENERAL PERMIT

DISCHARGE AUTHORIZED: DISCHARGES FROM CONSTRUCTION ACTIVITIES THAT RESULT IN A TOTAL LAND DISTURBANCE OF ONE ACRE OR GREATER AND SITES LESS THAN ONE ACRE BUT ARE PART OF A COMMON PLAN OF DEVELOPMENT OR SALE

AREA OF COVERAGE: THE STATE OF ALABAMA

PERMIT NUMBER: ALR10C3DF

RECEIVING WATERS: ALL WATERS OF THE STATE OF ALABAMA

In accordance with and subject to the provisions of the Federal Water Pollution Control Act, as amended, 33 U.S.C. §§1251-1378 (the "FWPCA'J, the Alabama Water Pollution Control Act, as amended, Code of Alabama 1975, §§ 22-22-1 to 22-22-14 (the "AWPCA'J , the Alabama Environmental Management Act, as amended, Code of Alabama 1975, §§22-22A-1 to 22-22A-15, and rules and regulations adopted thereunder, and subject further to the terms and conditions set forth in this permit, the Permittee is hereby authorized to discharge into the above-named receiving waters.

ISSUANCE DATE: March 12, 2021

EFFECTIVE DATE: April 1, 2021

EXPIRATION DATE: March 31, 2026

Jeffery W. Kitchen

Alabama Department of Environmental Management

Table 7-1 Baldwin County Phase II MS4 MCM3
Construction Site Stormwater Runoff Control Strategies and Goals

NPDES Permit Section	SWMPP Section	7-Construction Site Stormwater Runoff Control Strategies	Goal	Pollution Targeted	Responsible Departments
Part III-3a	*7.4*	*Plan Review & Permitting Subdivision & Zoning Ordinance Erosion Control Sections*	*Within the County's MS4 Boundary, review subdivisions & zoning applications for compliance with the County's Erosion Control Ordinance & ADEM's NPDES General Construction Permit, track and submit data in annual SWMPP report*	*Sediment, Oils, Paints, & Trash*	*Hwy & P&Z*
	Document/Form	**Description**			
	CBMPP Form	Lot Level CBMPP Form			
	CBMPP Minor Project Review	CBMPP Minor Project Technical Review in Citizen Serve Database			
	CBMPP Major Project Review	CBMPP Major Project Technical Review in Citizen Serve Database			
		Permit Acronyms			
		ARB-Arch Review Board, CSP-Commercial Site Plan			
		PF-Exemption Verification, SC-Subdivision Concurrent, SN-Sign,			
		ULD-Unzone Land Disturbance, ZLD Zoning Land Disturbance,			
		ZSP-Zoning Site Plan, ZSV-Zoning Verification			
	2023/2024				
	Permit#	**Address**			
	ZSP22-000672	10391 COUNTY RD 64			
	ZSP22-000831	17242 POLO RIDGE BLVD			
	ZSP22-001245	5648 LAKEWOOD DR			
	PF22-000358	23820 -D U S HWY 98			
	CSP23-000011	9522,9543,9547,9549,9553 Firefly CT			
	CSP23-000001	9985 GAYFER RD (See attached example)			
	PF23-000013	8067 OBAMA RD			
	ZSP23-000072	16944 PROVENCHER RD			
	ZV23-000031	26648 S HOLLEY ST			
	ZLD23-000010	19070 GREENO RD			
	ZSP23-000516	10770 GAYFER RD			
	ZSP23-000234	2 ARMADILLO			
	ZSP23-000249	19147 BOOTHE RD			

	PF23-000153	27890 OTTS RD	
	ZSP23-000509	25366 POLLARD RD	
	ZSP23-000506	2785 MANUEL DR	
	ZSP23-000513	19153 BOOTHE RD	
	ZSP23-000578	25006 RAYNAGUA BLVD	
	ZSP23-000570	24960 RAYNAGUA BLVD	
	ZSP23-000569	24948 RAYNAGUA BLVD Lot 8	
	ZSP23-000564	24877 RAYNAGUA BLVD	
	ZSP23-000563	24895 RAYNAGUA BLVD	
	PF23-000101	13601 CEDAR ST	
	ZSP23-000548	25210 THISTLE CHASE DR	
	ZSP23-000547	25198 THISTLE CHASE DR	
	ZSP23-000546	25186 THISTLE CHASE DR Lot 33	
	ZSP23-000545	25189 THISTLE CHASE DR Lot 34	
	ZSP23-000544	25201 THISTLE CHASE DR Lot 35	
	ZSP23-000540	25299 THISTLE CHASE DR Lot 39	
	ZSP23-000527	8189 RIVER RD	
	ARB23-000010	18263 -B SCENIC HWY 98	
	CSP23-000015	18305 SCENIC HWY 98	
	ZSP23-000590	11430 BRADFORD CT	
	ZSP23-000629	6735 WILLOWBRIDGE DR	
	ZSP23-000593	1310 CANEY LOOP	
	ZSP23-000594	28708 BAY BRANCH DR	
	ZV23-000126	6960 OAK LN	
	ZSP23-000596	25939 CAPRA CT	
	ZV23-000128	10748 County Road 64 ste 1	
	ZSP23-000613	18109 WOODLAND DR	
	ZLD23-000045	10756 GAYFER RD	
	ZSP23-000649	13297 US HWY 90	
	ZV23-000144	8243 TWIN BEECH RD	
	ZSP23-000627	13063 6TH ST	
	ZSP23-000638	7897 LAKE BLVD	
	ZSP23-000662	17541 POLO RIDGE BLVD	
	ZSP23-000686	13050 6TH ST	

	ZSP23-000690	936 SEA CLIFF DR	
	ZSP23-000696	22519 MAIN ST	
	ZSP23-000703	13711 COUNTY RD 66	
	ZV23-000171	Dale RD	
	ZSP23-000708	17197 -A STILLWOOD LN	
	ZSP23-000743	1392 RIDGEWOOD DR	
	PF23-000169	9655 MILTON JONES RD	
	ZV23-000183	6378 JACKSON OAK DR	
	ZSP23-000736	9927 -C TIFTON WAY	
	ZSP23-000741	6671 N WINDING BROOK DR	
	ZSP23-000745	8450 SAMUEL JONES LN	
	SN23-000005	8096 TWIN BEECH RD	
	ZLD23-000065	8370 GAYFER RD	
	ZSP23-000771	16545 EDGEWATER CIR	
	ZSP23-000773	20929 BISHOP RD	
	ZSP23-000777	6671 N WINDING BROOK DR	
	ZSP23-000780	25959 CHAMBERLAIN DR	
	ZSP23-000796	9701 WIDGEON CT	
	HCA23-000001	18305 SCENIC HWY 98	
	ZSP23-000801	87 -A ROBBINS BLVD	
	ZLD23-000076	GENERAL CANBY DR	
	ZSP23-000861	33097 BOARDWALK DR	
	CSP23-000027	9135 MILTON JONES RD	
	ZSP23-000844	25766 CHAMBERLAIN DR	
	PF23-000198	18654 HARMS RD	
	ZSP23-000858	9365 MOSLEY RD	
	ZV23-000240	19800 -A BOOTHE RD	
	ZV23-000248	10430 COUNTY RD 64	
	ZSP23-000874	26 GENERAL CANBY DR	
	ZSP23-000876	24805 POLLARD RD	
	ZSP23-000882	23924 3RD ST	
	ZSP23-000924	20900 Liberty LN	
	ZV23-000267	26072 ST Hwy 181	
	ZSP23-000923	25055 FAIRFAX RD	

	ZV23-000272	18541 -A SCENIC HWY 98	
	ZSP23-000962	17340 SELDON ST	
	ARB23-000019	McIntire ST	
	ARB23-000021	6576 N WINDING BROOK DR	
	ZSP23-000988	6659 COUNTY RD 32	
	ZSP23-001004	19252 YOUNG ST	
	ZSP23-001005	19252 YOUNG ST	
	ZSP23-001032	6985 McInyre ST	
	PF23-000258	8127 -A COUNTY RD 64	
	ZSP23-001072	9144 Harvest Ridge	
	ZSP23-001036	9113 FAIRHOPE AVE	
	PF23-000254	0 CALLOWAY DR	
	ZSP23-001066	14217 U S HWY 90	
	ZSP23-001049	17245 POLO RIDGE BLVD	
	ZSP23-001054	18305 SCENIC HWY 98	
	ZV23-000338	17245 POLO RIDGE BLVD	
	ZV23-000351	6875 CEDAR	
	ZV23-000352	19081 SCENIC HWY 98	
	ZSP23-001223	17260 POLO RIDGE BLVD	
	ZV23-000358	7361 SPANISH FORT BLVD	
	ZV23-000359	23780 -B U S HWY 98	
	SN23-000009	10430 COUNTY RD 64	
	ZSP23-001164	23812 SECOND ST	
	SN23-000010	0 U.S. HIGHWAY 98	
	ZV23-000386	9059 LAWSON RD	
	ZV23-000387	29000 Hwy 98	
	PF23-000320	0 181 HWY	
	ZLD23-000133	18564 GREENO RD	
	ZSP23-001188	19273 SCENIC HWY 98	
	ZSP23-001192	23868 MAIN ST	
	ZSP23-001206	9391 GAYFER RD	
	ZV23-000410	8249 GAYFER RD	
	ZSP23-001365	16366 COVERED BRIDGE LN	
	ZSP23-001227	28148 BAY BRANCH DR	

	ZLD23-000139	25900 STATE HWY 181	
	ZSP23-001232	7864 LAKE BLVD	
	ZSP23-001249	17786 Burwick LOOP	
	ZSP23-001236	25852 CHAMBERLAIN DR	
	ZLD23-000142	17795 POLO RIDGE BLVD	
	ZSP23-001254	26564 JAN CT S	
	ZSP23-001258	7216 CHARBON DR	
	ZSP23-001281	7844 LAKE BLVD	
	ZLD23-000147	6979 MCINTYRE ST	
	ZSP23-001300	14492 SMITH LN	
	ZSP23-001299	24455 HOLY CROSS CIR	
	ZSP23-001302	22440 SEA CLIFF DR	
	ZSP23-001514	21399 BRICK STACK LN	
	PF23-000360	16123 -C THOMPSON RD	
	ZLD23-000158	6671 N WINDING BROOK DR	
	ZSP23-001344	19896 STATE HWY 181	
	ZSP23-001345	52 SPECKLE TROUT RTE	
	ZV23-000481	24044 -A U S HWY 98	
	SN23-000014	18968 GREENO RD	
	ZSP23-001373	16336 POLO CLUB RD	
	ZSP23-001394	25213 THISTLE CHASE DR	
	ZSP23-001390	12301 CRESSIDA LOOP	
	ZSP23-001389	8392 DELTA WOODS DR	
	ZSP23-001388	10700 WARRENTON RD	
	PF23-000361	12050 MARY ANN BEACH RD	
	ZSP23-001473	16372 Laurelbrooke LOOP	
	ZSP23-001530	7209 PENBRIDGE AVE	
	ZV23-000525	17457 CONFEDERATE REST RD	
	ZV23-000526	25883 FRIENDSHIP RD	
	ZSP23-001518	55 SPECKLE TROUT RTE	
	PF23-000397	9725 KELLY MCQUILLEN DR	
	ZSP24-000037	21422 BRICK STACK LN	
	PF23-000400	8923 OLD MOBILE RD	
	ZSP24-000031	6801 CEDAR	

	ZSP24-000038	21414 BRICK STACK LN	
	ZSP24-000019	6757 PEYTON CT	
	ZV24-000010	10284 U S HWY 31	
	ZSP24-000029	20445 Temash River Alley	
	ZLD24-000007	10274 STATE HWY 104	
	ZV24-000011	21085 JUBILEE TRL	
	ZLD24-000006	18175 SCENIC HWY 98	
	ZSP24-000059	6971 MCINTYRE ST	
	ZLD24-000010	17475 SCENIC HWY 98	
	ZLD24-000011	BOOTHE RD	
	ZSP24-000060	21201 AYRSHIRE LN	
	PF24-000042	19245 -A WILSON LN	
	ZV24-000029	18968 GREENO RD	
	SN24-000002	9102 INDEPENDENCE AVE	
	ZLD24-000016	18175 SCENIC HWY 98	
	ZSP24-000113	33046 FLINTWOOD CIR	
	PF24-000041	20858 -A PITMAN LN	
	ZV24-000062	26648 S HOLLEY ST	
	CSP24-000007	8477 -A COUNTY RD 64	
	ZSP24-000159	8450 WHISPERING PINES RD	
	ZSP24-000223	12915 Shoshoney CIR	
	ZSP24-000191	19153 BOOTHE RD	
	ZV24-000090	10652 WINDMILL RD	
	ZSP24-000228	17310 Seldon ST	
	ZSP24-000253	20929 BISHOP RD	
	PF24-000065	18564 GREENO RD	
	ZSP24-000271	9575 MOSLEY RD	
	ZSP24-000275	6515 AGEE LN	
	ZV24-000110	7100 SUNSREIGN DR	
	ZSP24-000277	11201 WARRENTON RD	
	ZV24-000115	7100 SUNSREIGN DR	
	ZV24-000118	23780 -B U S HWY 98	
	ZSP24-000301	17415 Burwick LOOP	
	ZSP24-000305	6471 AGEE LN	

PERMIT PROJECT

FILE #: 23-006022
17242 POLO RIDGE BLVD FAIRHOPE AL 36532
VARIANCE FROM WETLAND BUFFER
*****VARIANCE NOT REQUIRED. SMALLER FOOTPRINT THAN PREVIOUSLY APPROVED.*****

ZONING: RSF-2

PERMIT #: ZVA23-000049

Permit Type
Zoning - Variance

Subtype
Variance

Work Description:
Variance from Wetland Buffer

Applicant
Hutchison Homes Inc - John Hutchison

Status
Withdrawn Application

Valuation
0.00

FEES & PAYMENTS

Plan Check Fees	0.00
Permit Fees	250.00
Total Amount	250.00
Amount Paid	0.00
Balance Due	250.00

☐ Non-Billable

PERMIT DATES

Application Date
07/07/2023

Approval Date

Issue Date:

Expiration Date:

Close Date
07/14/2023

Last Inspection

From which requirements are you seeking a variance? - SV
Zoning Ordinance

Great. You have the right application. Please proceed.

What type of Zoning Variance are you requesting?
Wetland Setback

E911 Physical Address (Include City)
17242 Polo Ridge Blvd

Please provide Parcel ID Number in this format: 05-XX-XX-XX-X-XXX-XXX.XXX
na

In what planning and zoning district is the property located? - S
19

To determine the answer this question visit the Revenue Online Map Viewer Under the Baldwin County Data select the Planning District layer.- CSP

What is the current zoning designation of the property - S
RSF-2 - Single Family

In what type of flood zone is the property located? - S
X

To determine your flood zone visit alabamaflood.com. Areas with no flood zone displayed are generally flood zone X.

CONTACTS

Is the property owned by a LLC or Incorporation
Yes

Provide copy of Articles of Incorporation
hutchison homes articles (1).pdf

Property Owner Contact Information

Property Owner Name
Hutchison Homes Inc

Property Owner Mailing Address
PO Box 2168

Property Owner Telephone
2512095646

Property Owner Email
hutchjbmf@aol.com

Is the applicant also the current property owner?
Yes

VARIANCE INFORMATION

The purpose of this Variance is to allow:- SV
single family dwelling

Please answer the following questions to the best of your ability:- ZVA

1. Is your property exceptionally narrow, shallow, or otherwise shaped in a way that makes this variance necessary?- ZVA
No

2. Does your property have exceptional topographic conditions or other extraordinary situations or conditions that warrant the variance?- ZVA
No

3. Is the granting of a variance necessary for the preservation of a property right and not merely to serve as a convenience to the applicant or based solely upon economic loss?- ZVA
No

4. Will the granting of a variance impair an adequate supply of light and air to adjacent property or unreasonably increase the congestion in public streets, or increase the danger of fire, or imperil the public safety, or unreasonably diminish or impair established property values within the surrounding areas, or in any other respect impair the health, safety, comfort, morals, or general welfare of the inhabitants of Baldwin County?- ZVA
No

OTHER SUBMITTAL DOCUMENTS THAT MAY BE REQUIRED

Please attach a plot plan or survey depicting any existing structures (with dimensions), proposed structure(s) (with dimensions), setbacks from property lines, and characteristics of the property that support the granting of a variance.- ZVA
0233496SI.pdf

Please attach written evidence of applications for all required state and federal permits (if applicable) showing compliance with regulations of Army Corps of Engineers, Alabama Department of Environmental Management, Alabama Coastal Area Management Program, US Fish and Wildlife and Baldwin County Health Department.- ZVA

Attach written evidence- ZVA
2023-02-23.PERM.22-1019. Final NWP Letter.pdf

Please attach approval from any active neighborhood associations or a signed statement from the property owner stating there is not an active association.- ZVA

IMG_1247 (1).jpg

Do you have additional attachments you would like to submit in support of your request? - SE

Yes

Miscellaneous Documents

Wetland Delineation Report - Lot 9 Polo Ridge.pdf

ZONING VARIANCE SUBMITTAL CHECKLIST

1Have you uploaded a plot plan or survey depicting any existing structures (with dimensions), proposed structure(s) (with dimensions), setbacks from property lines, and characteristics of the property that support the granting of a variance.? - ZVA

Yes

2Have you uploaded written evidence of applications for all required state and federal permits? - ZVA

Yes

3Have you uploaded approval from active neighborhood associations or statement from the property owner stating there is not an active association? - ZVA

Yes

TERMS OF SERVICE

☑ By checking this required box, I certify that: - S

1) I have reviewed a copy of the applicable zoning ordinance.- ZVA

2) I understand the mere submittal of an application and payment of fees does not entitle me to approval of this variance and that no refund of these fees will be made.- ZVA

3) I understand I must be present on the date of the Board of Adjustments meeting for my case to be heard.- ZVA

Please sign here - S

signature.png

☐ CONVENIENCE FEE: *Check to apply Convenience Fee ONLY if customer is paying in the office or over the phone with a credit/debit card and is not paying online in the portal.*

FEES

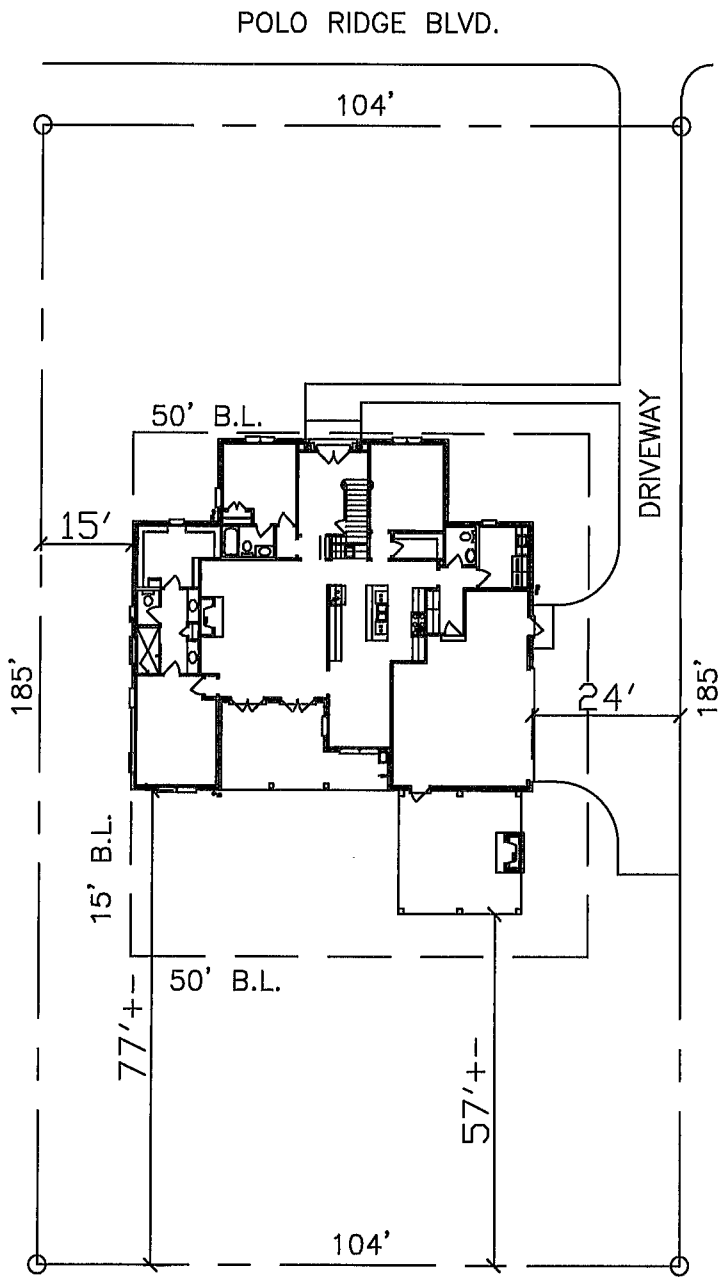
FEE	D	QUANTITY	AMOUNT	TOTAL
Zoning Variance Fee				250.00
			Plan Check Fees	**0.00**

Permit Fees	**250.00**
Total Fees	**250.00**

PAYMENTS

DATE	TYPE	REFERENCE	NOTE	RECEIPT #	RECEIVED FROM	AMOUNT

Amount Paid	**0.00**
Balance Due	**250.00**



SITE PLAN

SCALE: 1"=30'-0"
LOT 9
POLO RIDGE SUBDIVISION
BALDWIN COUNTY, AL
PLAN #0233496

WETLAND SCIENCES INCORPORATED

September 28, 2022

Hunter C. Smith, P.L.S.
P.O. Box 7082
Spanish Fort, AL 36577

Re: ***Wetland Assessment Report***
Lot 9, Polo Ridge Subdivision, Baldwin County, Al
WSI Project 2022-692

Dear Mr. Smith

As requested, Wetland Sciences, Inc. has completed a field wetland delineation for Lot 9 in the Polo Ridge Subdivision located in the unincorporated areas of Fairhope, Baldwin County, Alabama (See site location map in **Exhibit A**). Baldwin County Revenue commission identifies the subject property by the following identification number: 240020. The intent of this effort is to identify wetlands and surface waters within the subject property. The following is a summary of our findings.

Wetland Delineation

The purpose of performing the wetland assessment was to assess if wetlands or Waters of the United States (WOTUS) are present and, if so, to identify the boundaries. The wetland delineation was conducted in accordance with the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Atlantic and Gulf Coastal Plain Region (Federal – Corps). The following is a summary of our findings.

Desktop Review

Prior to performing the delineation, several remote data sources were reviewed to assist with identifying potential WOTUS and wetland areas at the site. Each source of data is described in detail below.

Natural Resource Conservation Service Soil Survey

WSI reviewed the Natural Resources Conservation Service (NRCS) on-line Web Soil Survey (WSS) to identify soil types within the subject property (See Custom Soil Survey Report in **Exhibit B**). The soil survey identifies a single soil complex within the subject property: Lynchburg fine sandy loam. The following is a description of the identified soil complex.

Lynchburg fine sandy loam

The Lynchburg series consists of very deep, somewhat poorly drained soil in the coastal plain. It is in areas of nearly level marine terraces. Slopes are flat or slightly concave and are generally less than 5 percent. Lynchburg has a hydric soil rating of 15% (See Hydric Soil Map in **Exhibit C**). This rating indicates the percentage of map units that meets the criteria for hydric soils. Map units are composed of one or more map unit components or soil types, each of which is rated as hydric soil or not hydric. Hydric soils are defined by the National Technical Committee for Hydric Soils (NTCHS) as soils that formed under

conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part (Federal Register, 1994). Under natural conditions, these soils are either saturated or inundated long enough during the growing season to support the growth and reproduction of hydrophytic vegetation. The NTCHS definition identifies general soil properties that are associated with wetness. To determine whether a specific soil is a hydric soil or nonhydric soil, however, more specific information, such as information about the depth and duration of the water table, is needed. Thus, criteria that identify those estimated soil properties unique to hydric soils have been established (Federal Register, 2002). These criteria are used to identify map unit components that normally are associated with wetlands. The criteria used are selected estimated soil properties that are described in "Soil Taxonomy" (Soil Survey Staff, 1999) and "Keys to Soil Taxonomy" (Soil Survey Staff, 2006) and in the "Soil Survey Manual" (Soil Survey Division Staff, 1993). If soils are wet enough for a long enough period to be considered hydric, they should exhibit certain properties that can be easily observed in the field. These visible properties are indicators of hydric soils. The indicators used to make onsite determinations of hydric soils are specified in "Field Indicators of Hydric Soils in the United States" (Hurt and Vasilas, 2006).

Aerial Photograph

WSI reviewed current and historic aerial photographs to identify suspected wetland areas on the site and to determine changes in wetland areas over time (See Current and historic aerial photographs in **Exhibit D**). There were no obvious wetland or surface water signatures within the subject property.

National Wetland Inventory Map

The US Fish and Wildlife Service (FWS) is the principal US Federal agency tasked with providing information to the public on the status and trends of our Nation's wetlands. The USFWS National Wetlands Inventory (NWI) is a publicly available resource that provides detailed information on the abundance, characteristics, and distribution of US wetlands. Prior to our field inspection of the property, Wetland Sciences, Inc. researched the U.S. Fish and Wildlife Service's National Wetland Inventory Data (See NWI Map in **Exhibit E**). The National Wetlands Inventory suggests a riverine feature that bisects the property in a general north/south direction.

USGS Quadrangle Map

The USGS 7.5-minute quadrangle map was reviewed (See Quad Map in **Exhibit F**). The quadrangle map suggests the entire property is comprised of wetlands.

FEMA Flood Hazards

The property is in Flood Zone X as determined from the Federal Emergency Management Agency Flood Insurance Rate Map (**Exhibit G**). No representation is made from such FIRM.

National Hydrography Dataset

The NHD is a geospatial dataset that map the Nation's surface water network and hydrologic drainage areas. A review of NHD data suggests a riverine or headwater complex that generally bisects the property in a north/south direction. This complex is an unnamed headwater of Point Clear Creek (**Exhibit H**).

Field Review

The desktop review was followed by a pedestrian survey. I personally inspected the property on September 27, 2022. I used technical criteria, field indicators, historic aerial photographs, and other sources of information to assess the site. The evaluation methods followed the routine on-site determination method referenced in the Corps of Engineers Wetland Delineation Manual, 1987 and Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Atlantic and Gulf Coastal Plain Region.

Wetlands generally have three essential characteristics: hydrophytic vegetation, hydric soils, and wetland hydrology. The techniques for evaluating the plant community, soils, and hydrology are described in the following sections.

Hydric Soils Assessment

Several soil test holes were evaluated to identify field indications of hydric soils. WSI utilized the hydric soil definition provided by the National Technical Committee for Hydric Soils and criteria to determine whether soils within the site are considered hydric. It was determined during the desktop review that the property did not contain any hydric soils. A specific area is not necessarily considered to have hydric soils because it is dominated by soils on a hydric soils list. Hydric soils must be identified by verifying the presence of one of more of the hydric soil indicators.

During our field inspection, WSI verified the presence of hydric soils within a small isolated area along the western margins of the subject property.

Wetland Hydrology Assessment

Visual indicators of wetland hydrology were evaluated. Examples of primary wetland hydrology indicators include, but are not limited to, surface water, high water table, soil saturation, water marks, sediment deposits, drift deposits, iron deposits, inundation visible on aerial imagery, sparsely vegetated concave surface, and water-stained leaves. If at least one primary or two secondary indicators are observed, the data point location was considered to have wetland hydrology. Both primary and secondary indicators were noted in a small, isolated depression located in the western margins of the subject property.

Plant Community Assessment

The subject property is highly disturbed from prior land disturbance activities. The plant community structure is highly altered. Only four trees remain within the subject property, and they are mainly concentrated along the west boundary. The four trees that remain consists of a water oak (Quercus nigra), two black gum (Nyssa sylvatica), and one sweetbay magnolia (Magnolia viriginia). These are hardwood tree species that are generally found within headwater or ecotonal (between the upland/wetland) communities. There was an area along the western property boundary that did contain a variety of successional wetland shrubs and herbaceous plants. This area was primarily dominated by wild taro (*Colocasia esculenta*), evening primrose (*Ludwigia repens*), Mexican primrose (*Ludwigia octovalvis*), water pepper (*Persicaria hydropiper*), manyflower marsh-pennywort (*Hydrocotyle umbellate*), Carolina willow (*Salix carolinana*), partridge pea (*Chamaecrista fasiculata*), and jointed flat sedge (*Carex haspan*).

The remaining portion of the property was largely dominated bahia grass and partridge pea. No trees or shrubs remained in the areas of the small, isolated area along the western property line.

Field Identification of Wetlands

During this assessment, Wetland Sciences, Inc. identified a singular isolated wetland depression within the western margins of the subject property (See attached sketch – **Exhibit I**). The wetland boundary was identified in the field by progressively locating points along the upland/wetland boundary at 15-20-ft. intervals or corresponding with directional changes with the boundary. Each point was identified and located by an experienced wetland scientist. Pink flags were placed at each point clearly marked "Wetland Delineation". Each flagged point also contains specific alpha numeric designator for later tracking of its location. Wetland Sciences, Inc. used a Trimble Geo7x GNSS system to locate each point. Data was collected using Trimble's TerraSync Professional Software with further data refinement using Trimble's Pathfinder Professional Software.

The wetland identified on the attached sketch is 0.07-acre isolated depressional wetland feature that appears to have no hydrologic or ecological connection to a surface tributary system. Desktop resources, however, suggests that this system was historically connected to Point Clear Creek. The hydrologic connection may have been severed via historic land development activities including the development of the Polo Ridge subdivision. Given the disturbed nature of the site I would assume this isolated wetland feature meets the definition of waters of the U.S. as defined by 33 CFR Part 328.3(a) and is jurisdictional under the Clean Water Act.

Please keep in mind that there are many variables that affect the accuracy of the GPS data used to generate the attached sketch. This sketch should be considered approximate unless verified by a survey or other appropriate means.

Conclusions

The conclusions regarding status and presence of Waters of the United States are not final or "binding" until such time as they are confirmed by the Corps through field inspection. As such, the status and boundary of the resources described may be subject to minor changes upon such inspection/approval.

Finally, I have attached a statement of our firm for services rendered associated with this effort. You may mail a check to the letterhead address, or we can take a credit card payment over the phone.

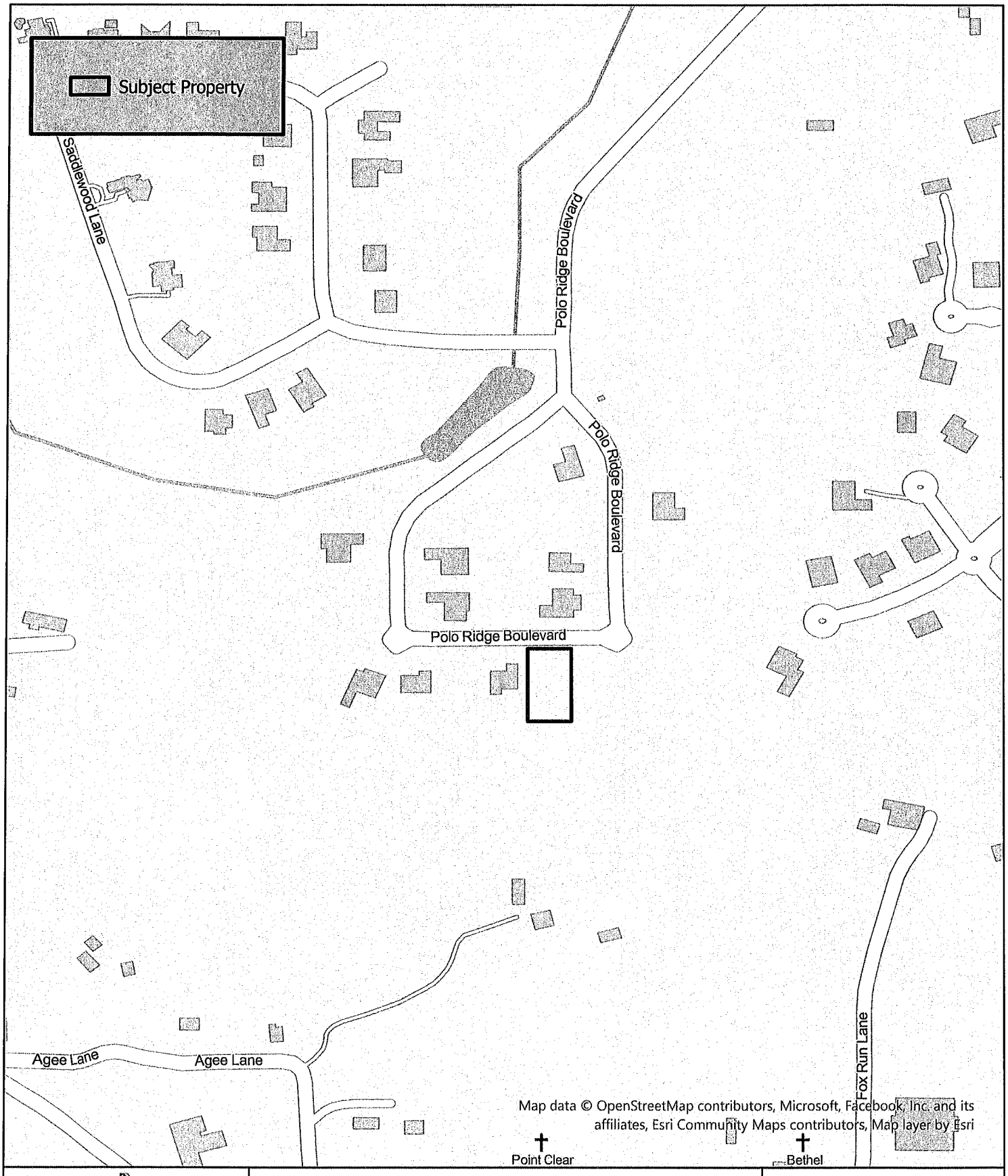
If you have any questions, please do not hesitate to me at (850) 453-4700.

Respectfully,
WETLAND SCIENCES, INC.

Keith Johnson
Environmental Scientist

Exhibit A

Site Location Map



WETLAND SCIENCES INCORPORATED

All data within this map are supplied as is, without warranty. This product has not been prepared for legal, engineering, or survey purposes. Users of this information should review or consult the primary data sources to ascertain the usability of the information.

Site Location Map

Lot 9 Polo Ridge S/D
Baldwin County, AL

0 0.02 0.05 0.1 0.14 0.19
Miles

Data Source:
ERSI
Imagery Source:
ESRI

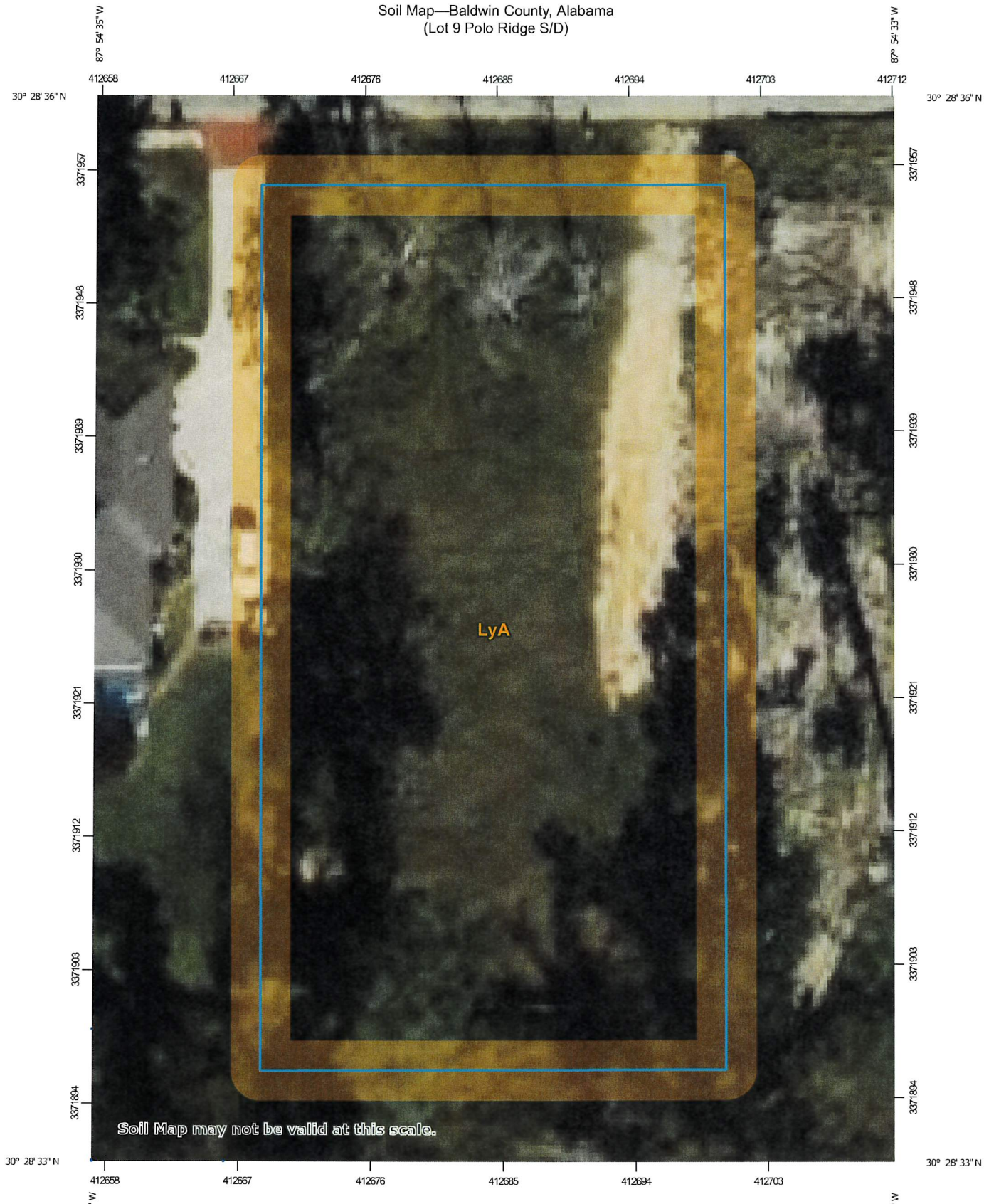
N
W E
S

Coordinate System:
NAD 1983 Al
State Plane West

Exhibit B

Soils Map

Soil Map—Baldwin County, Alabama
(Lot 9 Polo Ridge S/D)



Map Scale: 1:351 if printed on A portrait (8.5" x 11") sheet.

N

Meters: 0 5 10 20 30

Feet: 0 15 30 60 90

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 16N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Baldwin County, Alabama
Survey Area Data: Version 13, Sep 13, 2021

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Nov 12, 2021—Dec 22, 2021

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

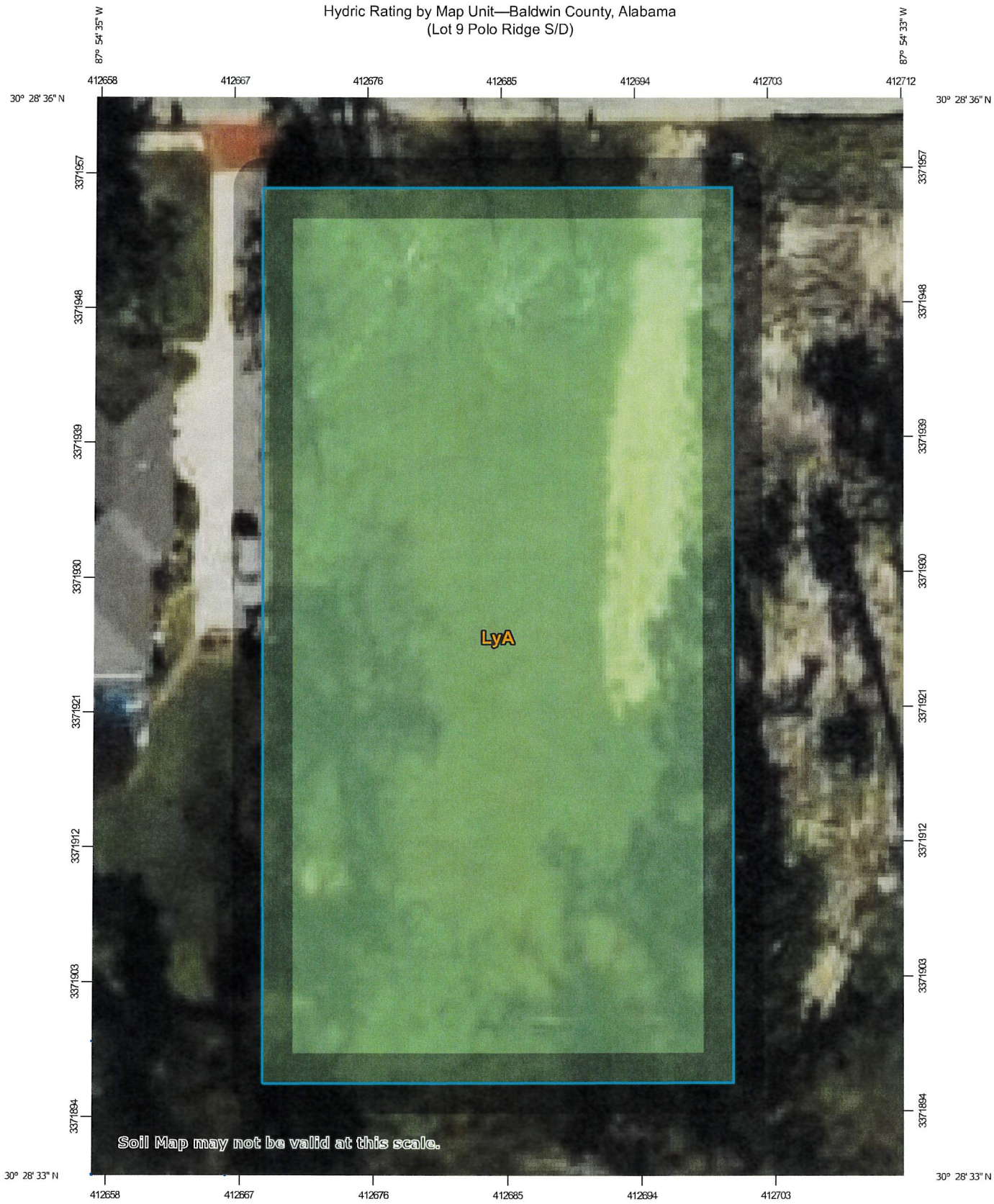
Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
LyA	Lynchburg fine sandy loam, 0 to 2 percent slopes	0.5	100.0%
Totals for Area of Interest		**0.5**	**100.0%**

Exhibit C

Hydric Soils Map

Hydric Rating by Map Unit—Baldwin County, Alabama
(Lot 9 Polo Ridge S/D)



Map Scale: 1:351 if printed on A portrait (8.5" x 11") sheet.

N

Meters: 0 5 10 20 30

Feet: 0 15 30 60 90

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 16N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils

Soil Rating Polygons
- Hydric (100%)
- Hydric (66 to 99%)
- Hydric (33 to 65%)
- Hydric (1 to 32%)
- Not Hydric (0%)
- Not rated or not available

Soil Rating Lines
- Hydric (100%)
- Hydric (66 to 99%)
- Hydric (33 to 65%)
- Hydric (1 to 32%)
- Not Hydric (0%)
- Not rated or not available

Soil Rating Points
- Hydric (100%)
- Hydric (66 to 99%)
- Hydric (33 to 65%)
- Hydric (1 to 32%)
- Not Hydric (0%)
- Not rated or not available

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Baldwin County, Alabama
Survey Area Data: Version 13, Sep 13, 2021

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Nov 12, 2021—Dec 22, 2021

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Hydric Rating by Map Unit

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
LyA	Lynchburg fine sandy loam, 0 to 2 percent slopes	15	0.5	100.0%
Totals for Area of Interest			**0.5**	**100.0%**

Description

This rating indicates the percentage of map units that meets the criteria for hydric soils. Map units are composed of one or more map unit components or soil types, each of which is rated as hydric soil or not hydric. Map units that are made up dominantly of hydric soils may have small areas of minor nonhydric components in the higher positions on the landform, and map units that are made up dominantly of nonhydric soils may have small areas of minor hydric components in the lower positions on the landform. Each map unit is rated based on its respective components and the percentage of each component within the map unit.

The thematic map is color coded based on the composition of hydric components. The five color classes are separated as 100 percent hydric components, 66 to 99 percent hydric components, 33 to 65 percent hydric components, 1 to 32 percent hydric components, and less than one percent hydric components.

In Web Soil Survey, the Summary by Map Unit table that is displayed below the map pane contains a column named 'Rating'. In this column the percentage of each map unit that is classified as hydric is displayed.

Hydric soils are defined by the National Technical Committee for Hydric Soils (NTCHS) as soils that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part (Federal Register, 1994). Under natural conditions, these soils are either saturated or inundated long enough during the growing season to support the growth and reproduction of hydrophytic vegetation.

The NTCHS definition identifies general soil properties that are associated with wetness. In order to determine whether a specific soil is a hydric soil or nonhydric soil, however, more specific information, such as information about the depth and duration of the water table, is needed. Thus, criteria that identify those estimated soil properties unique to hydric soils have been established (Federal Register, 2002). These criteria are used to identify map unit components that normally are associated with wetlands. The criteria used are selected estimated soil properties that are described in "Soil Taxonomy" (Soil Survey Staff, 1999) and "Keys to Soil Taxonomy" (Soil Survey Staff, 2006) and in the "Soil Survey Manual" (Soil Survey Division Staff, 1993).

If soils are wet enough for a long enough period of time to be considered hydric, they should exhibit certain properties that can be easily observed in the field. These visible properties are indicators of hydric soils. The indicators used to make onsite determinations of hydric soils are specified in "Field Indicators of Hydric Soils in the United States" (Hurt and Vasilas, 2006).

References:

Federal Register. July 13, 1994. Changes in hydric soils of the United States.

Federal Register. September 18, 2002. Hydric soils of the United States.

Hurt, G.W., and L.M. Vasilas, editors. Version 6.0, 2006. Field indicators of hydric soils in the United States.

Soil Survey Division Staff. 1993. Soil survey manual. Soil Conservation Service. U.S. Department of Agriculture Handbook 18.

Soil Survey Staff. 1999. Soil taxonomy: A basic system of soil classification for making and interpreting soil surveys. 2nd edition. Natural Resources Conservation Service. U.S. Department of Agriculture Handbook 436.

Soil Survey Staff. 2006. Keys to soil taxonomy. 10th edition. U.S. Department of Agriculture, Natural Resources Conservation Service.

Rating Options

Aggregation Method: Percent Present

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Exhibit D

Current Aerial

WETLAND SCIENCES INCORPORATED

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Current Aerial

Lot 9 Polo Ridge S/D
Baldwin County, AL

0 0.01 0.01 0.03 0.04 0.05
Miles

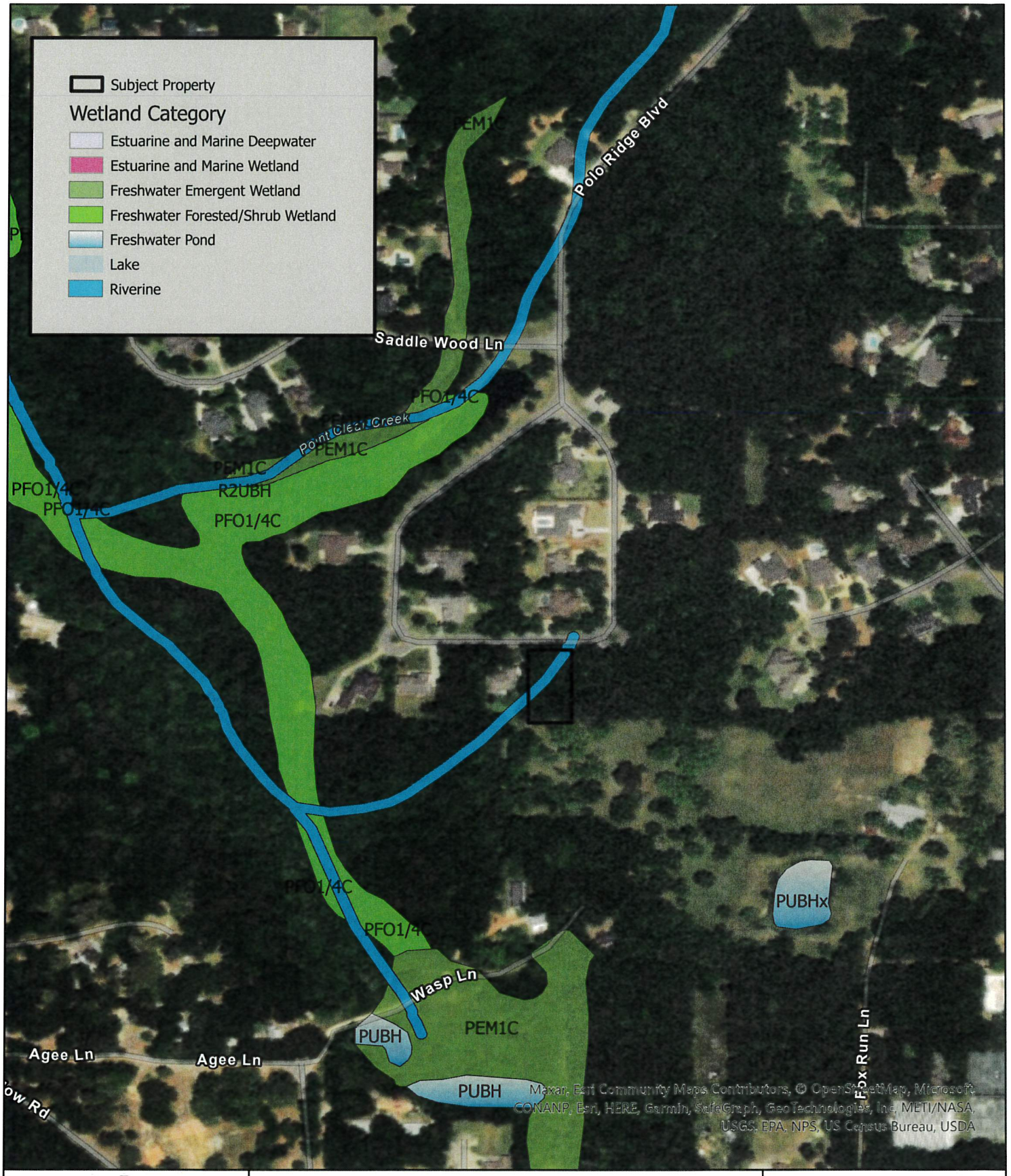
Data Source:
ERSI
Imagery Source:
ESRI

N
W E
S

Coordinate System:
NAD 1983 Al
State Plane West

Exhibit E

National Wetland Inventory Map



WETLAND SCIENCES INCORPORATED

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National Wetland Inventory Map

Lot 9 Polo Ridge S/D
Baldwin County, AL

0 0.02 0.05 0.1 0.14 0.19 Miles

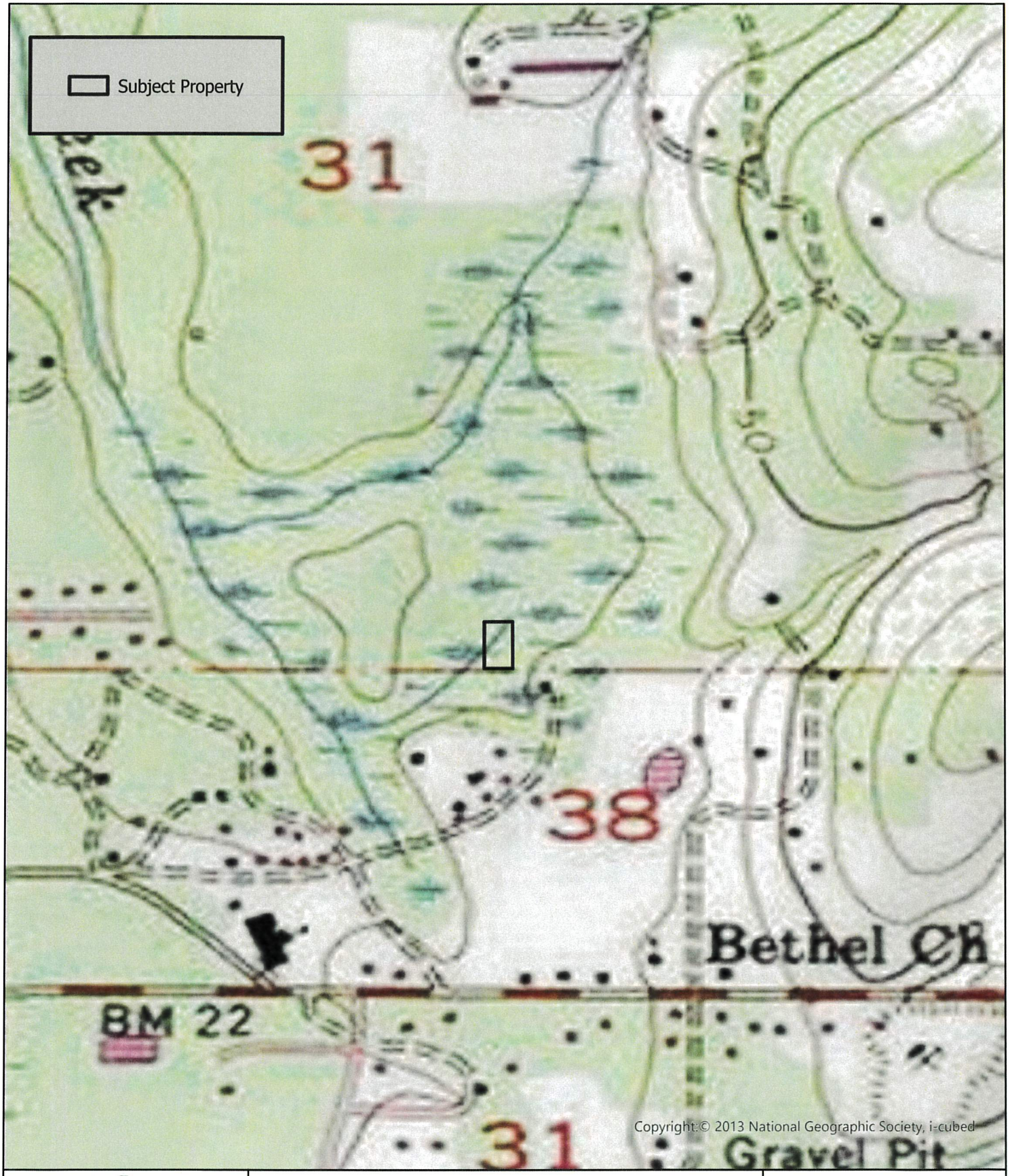
Data Source: USFWS
Imagery Source: ESRI

N W E S

Coordinate System: NAD 1983 Al State Plane West

Exhibit F

Quad Map



WETLAND SCIENCES INCORPORATED

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Quad Map

Lot 9 Polo Ridge S/D
Baldwin County, AL

0 0.04 0.07 0.15 0.22 0.3
Miles

Data Source:
USGS
Imagery Source:
ESRI

N
W E
S

Coordinate System:
NAD 1983 Al
State Plane West

Exhibit G

FEMA Flood Hazard Areas Map

WETLAND SCIENCES INCORPORATED

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FEMA Flood Hazard Areas

Lot 9 Polo Ridge S/D
Baldwin County, AL

0 0.06 0.12 0.23 0.35 0.46 Miles

Data Source:
ERSI
Imagery Source:
ESRI

N
W E
S

Coordinate System:
NAD 1983 Al
State Plane West

Exhibit H

National Hydrography Data

National Hydrography Data

9/28/2022, 12:41:09 PM

mygeodata - 2022-09-28T123332 - 22092811b-polygon

Waterbody - Large Scale
- Estuary
- Ice Mass
- Lake Pond
- Playa
- Reservoir
- Swamp Marsh

Area - Large Scale
- Area of Complex Channels
- Area to be Submerged
- BayInlet
- Bridge
- CanalDitch
- DamWeir
- Flume
- Foreshore
- Hazard Zone
- Inundation Area
- Lock Chamber
- Rapids
- SeaOcean
- Special Use Zone
- Spillway
- StreamRiver
- Submerged Stream
- Wash
- Water IntakeOutflow

Flowline - Large Scale
- Perennial
- Intermittent
- Ephemeral
- Artificial Path
- Canal Ditch
- Coastline
- Connector
- Pipeline
- Underground Conduit

Flow Direction
- Connector
- CanalDitch
- Underground Conduit
- StreamRiver
- StreamRiver - Perennial
- StreamRiver - Intermittent
- StreamRiver - Ephemeral

1:9,028

0 0.07 0.15 0.3 mi

0 0.13 0.25 0.5 km

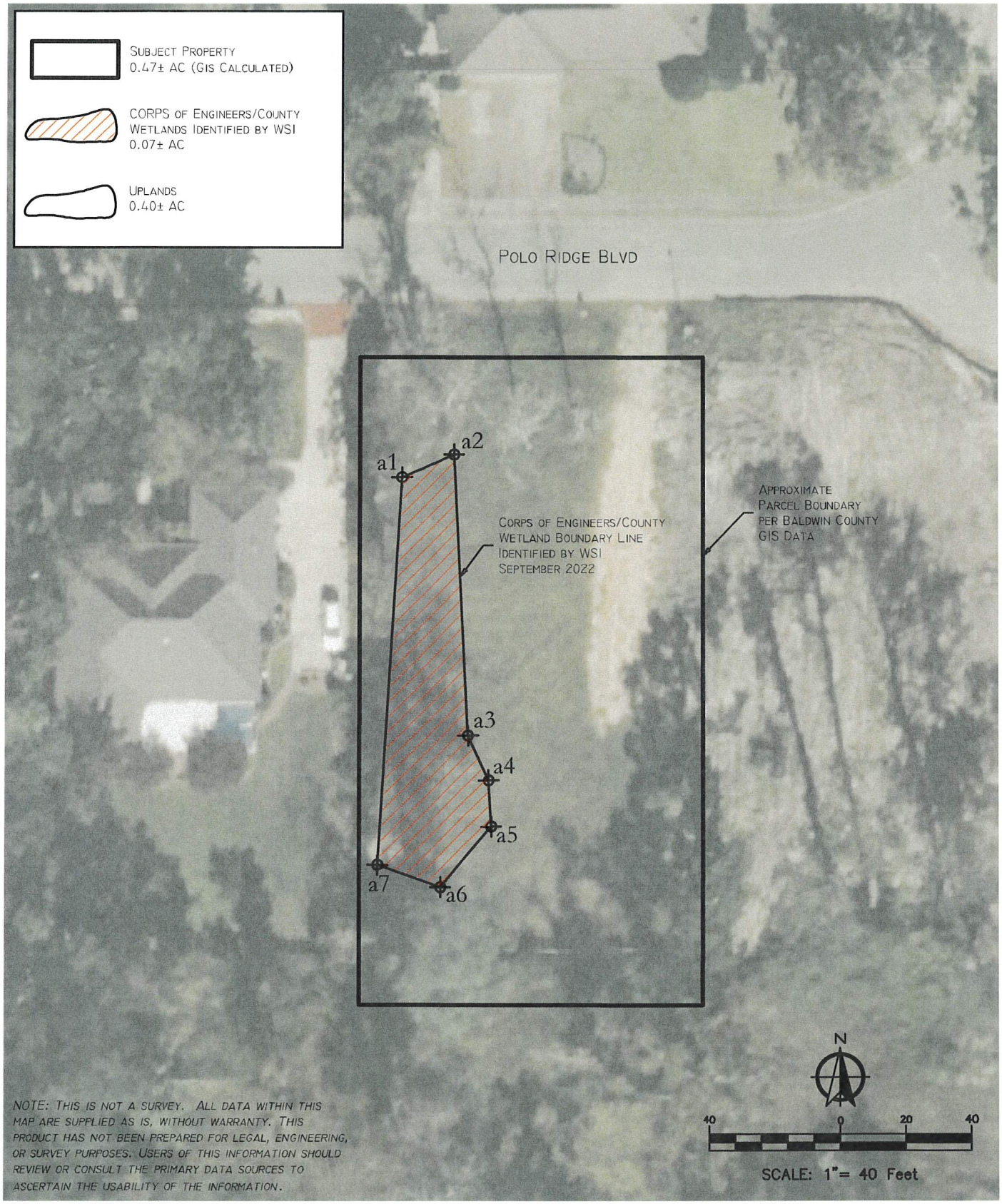
USGS National Map 3D Elevation Program (3DEP). September 7, 2022., USGS TNM – National Hydrography Dataset. Data Refreshed July, 2022., USGS The National Map: Orthoimagery. Data refreshed December, 2021.

USGS

2021 USGS

Exhibit I

Sketch of Wetland Resources



NOTE: THIS IS NOT A SURVEY. ALL DATA WITHIN THIS MAP ARE SUPPLIED AS IS, WITHOUT WARRANTY. THIS PRODUCT HAS NOT BEEN PREPARED FOR LEGAL, ENGINEERING, OR SURVEY PURPOSES. USERS OF THIS INFORMATION SHOULD REVIEW OR CONSULT THE PRIMARY DATA SOURCES TO ASCERTAIN THE USABILITY OF THE INFORMATION.

WETLAND SCIENCES INCORPORATED

ENVIRONMENTAL CONSULTANTS

3308 GULF BEACH HIGHWAY
PENSACOLA, FLORIDA 32507
TEL: 850.453.4700
CRAIG@WETLANDSCIENCES.COM

PROJECT NAME:	LOT 9 POLO RIDGE SUBDIVISION
JURISDICTIONAL WETLAND SKETCH	
PROJECT NO.:	2022-691
DRAWN BY: GEJ	DATE: 9/28/2022
SHEET: 1 OF 1	

Table 7-1 Baldwin County Phase II MS4 MCM3
Construction Site Stormwater Runoff Control Strategies and Goals

NPDES Permit Section	SWMPP Section	7-Construction Site Stormwater Runoff Control Strategies	Goal	Pollution Targeted	Responsible Departments
Part III-3avi	*7.6*	*Inspections*	*In years one through five within the County's MS4 boundary, inspect qualifying subdivision & zoned construction sites as per permit requirements.*	*Sediment, Oils, Paints, & Trash*	*Hwy & P&Z*

2023/2024	**MS4 Inspections**		
Gayfer Storage Building - CSP23-000001			
	Erosion Control Inspection Date	**Inspector**	
WAWA Gas Station US HWY98/CR 44-ULD22-000002			
	Erosion Control Inspection Date	Inspector	
	5/31/2023	Rebecca Peacock	
	6/12/2023	Rebecca Peacock	
	6/22/2023	Rebecca Peacock	
	7/21/2023	Rebecca Peacock	
	8/9/2023	Rebecca Peacock	
	9/13/2023	Rebecca Peacock	
	10/16/2023	Rebecca Peacock	
	11/14/2023	Rebecca Peacock	
	12/21/2023	Rebecca Peacock	
	1/19/2024	Rebecca Peacock	
Wells Road Building- CSP22-000008			
	Erosion Control Inspection Date	**Inspector**	
	5/1/2023	Rebecca Peacock	
	5/31/2023	Rebecca Peacock	
	6/14/2023	Ashley Campbell	
	6/30/2023	Rebecca Peacock	
	7/7/2023	Rebecca Peacock	
	7/14/2023	Rebecca Peacock	
	8/9/2023	Rebecca Peacock	
	9/13/2023	Rebecca Peacock	
	10/4/2023	Rebecca Peacock	
	11/13/2023	Rebecca Peacock	
	12/21/2023	Rebecca Peacock	
	1/25/2024	Rebecca Peacock	
	4/23/2024	Rebecca Peacock	
Firefly Commons - CSP23-000011			
	Erosion Control Inspection Date	Inspector	
	10/30/2023	Rebecca Peacock	
	11/30/2023	Rebecca Peacock	
	1/31/2024	Rebecca Peacock	
	2/29/2024	Rebecca Peacock	
	3/15/2024	Rebecca Peacock	

Table 7-1 Baldwin County Phase II MS4 MCM3

Construction Site Stormwater Runoff Control Strategies and Goals

NPDES Permit Section	SWMPP Section	7-Construction Site Stormwater Runoff Control Strategies	Goal	Pollution Targeted	Responsible Departments
Part III-3e	*7.9*	*Staff Training*	Throughout the permit cycle, County staff responsible for erosion and sediment control inspectionsand complaints will be trained in the identification of appropriate construction BMPs. Training will be tracked in the annual report.	*Sediment, Oils, Paints, & Trash*	*P&Z*
			Erosion & Sediment Control Training		
Department	**2023/2024**				
Planning & Zoning		*Name*	*Training Description*	*Certification*	*Date*
		Robert Brown	QCI	T7237	5/31/2025
		Ashley Campbell	CPESC	4184	12/31/2024
		Ben Guerrera	QCI	T7632	5/31/2025
		Buford King	QCI	T7682	5/31/2025
		Rebecca Peacock	QCI	T7631	5/31/2025
		Vince Ramer	QCI	T0771	5/31/2025
Highway					
		Dylan Carlisle	QCI	T3262	5/31/2025
		James Bradley	QCI	T7431	5/31/2025
		Jeremy Howell	QCI	T1348	5/31/2025
		Joey Kelmer	QCI	T2780	5/31/2025
		Randy Black	QCI	T7430	5/31/2025
		Robert Gentry	QCI	T3264	5/31/2025
		Robert White	QCI	T4158	5/31/2025
		Forrest Davis	QCI	T7433	5/31/2025
		Calvin Glass	QCI	T7435	5/31/2025
		James Allen	QCI	T7433	5/31/2025
		Pete Peterson	QCI	T0797	5/31/2025
		Adam Harville	QCI	T7436	5/31/2025
		Charley Weekley	QCI	T3269	5/31/2025
		Jeremy Ringler	QCI	T7437	5/31/2025
		Matt Ulrich	QCI	T5358	5/31/2025

Table 7-1 Baldwin County Phase II MS4 MCM3

Construction Site Stormwater Runoff Control Strategies and Goals

	Todd Reed	QCI	T6010	5/31/2025
	Orie King	QCI	T6888	5/31/2025
	Josh Chiasson	QCI	T6939	5/31/2025
	Christian Mooth	QCI	T8112	5/31/2025
	Gavin Venema	QCI		5/31/2025
	Brady Thoennes	QCI		5/31/2025
	Michael Campbell	QCI	T3560	5/31/2025

ALDOT Annual QCI Refresher Training

2024

4.00 Course Hours

Presented to:

Buford King

Baldwin Co

Has successfully completed the certification requirements as a

QCI # T7682

EXP.05/31/2025

ALDOT QCI Trainer

Richard Klinger, PE

ALABAMA DEPARTMENT OF TRANSPORTATION

ALDOT Annual QCI Refresher Training

2024

4.00 Course Hours

Presented to:

Christian Mooth

Baldwin Co.

Has successfully completed the certification requirements as a

QCI # T8112

EXP.05/31/2025

ALDOT QCI Trainer

Richard Klinger, PE

ALABAMA DEPARTMENT OF TRANSPORTATION

ALDOT Annual QCI Refresher Training

2024

4.00 Course Hours

Presented to:

Jeremy Ringler

Baldwin Co.

Has successfully completed the certification requirements as a

QCI # T7438

EXP.05/31/2025

ALDOT QCI Trainer

Richard Klinger, PE

ALABAMA ★ DEPARTMENT OF TRANSPORTATION ★

ALDOT Annual QCI Refresher Training

2024

4.00 Course Hours

Presented to:

Pete Peterson

Baldwin Co.

Has successfully completed the certification requirements as a

QCI # T0797

EXP.05/31/2025

ALDOT QCI Trainer

Richard Klinger, PE

ALABAMA ★ DEPARTMENT OF TRANSPORTATION ★

ALDOT Annual QCI Refresher Training

2024

4.00 Course Hours

Presented to:

Todd Reed

Baldwin Co.

Has successfully completed the certification requirements as a

QCI # T6010

EXP.05/31/2025

ALDOT QCI Trainer

Richard Klinger, PE

ALABAMA DEPARTMENT OF TRANSPORTATION

ALDOT Annual QCI Refresher Training

2024

4.00 Course Hours

Presented to:

Vincent Ramer

Baldwin Co.

Has successfully completed the certification requirements as a

QCI # T0771

EXP.05/31/2025

ALDOT QCI Trainer

Richard Klinger, PE

ALABAMA ★ DEPARTMENT OF TRANSPORTATION ★

ALDOT Annual QCI Refresher Training

2024

4.00 Course Hours

Presented to:

Rebecca Peacock

Baldwin Co

Has successfully completed the certification requirements as a

QCI # T7631

EXP.05/31/2025

ALDOT QCI Trainer

Richard Klinger, PE

ALABAMA DEPARTMENT OF TRANSPORTATION

ALDOT Annual QCI Refresher Training

2024

4.00 Course Hours

Presented to:

Michael Campbell

Baldwin Co.

Has successfully completed the certification requirements as a

QCI # T3560

EXP.05/31/2025

ALDOT QCI Trainer

Richard Klinger, PE

ALABAMA DEPARTMENT OF TRANSPORTATION

ALDOT Annual QCI Refresher Training

2024

4.00 Course Hours

Presented to:

Forrest Davis

Baldwin Co

Has successfully completed the certification requirements as a

QCI # T7434

EXP.05/31/2025

ALDOT QCI Trainer

Richard Klinger, PE

ALABAMA DEPARTMENT OF TRANSPORTATION

ALDOT Annual QCI Refresher Training

2024

4.00 Course Hours

Presented to:

Calvin Glass

Baldwin Co.

Has successfully completed the certification requirements as a

QCI # T7436

EXP.05/31/2025

ALDOT QCI Trainer

Richard Klinger, PE

ALABAMA DEPARTMENT OF TRANSPORTATION

ALDOT Annual QCI Refresher Training

2024

4.00 Course Hours

Presented to:

Adam Harville

Baldwin Co.

Has successfully completed the certification requirements as a

QCI # T7437

EXP.05/31/2025

ALDOT QCI Trainer

Richard Klinger, PE

ALABAMA ★ DEPARTMENT OF TRANSPORTATION ★

ALDOT Annual QCI Refresher Training

2024

4.00 Course Hours

Presented to:

Ben Guerrera

Baldwin Co.

Has successfully completed the certification requirements as a

QCI # T7632

EXP.05/31/2025

ALDOT QCI Trainer

Richard Klinger, PE

ALABAMA ★ DEPARTMENT OF TRANSPORTATION ★

ALDOT Annual QCI Refresher Training

2024

4.00 Course Hours

Presented to:

Charley Weekley

Baldwin Co.

Has successfully completed the certification requirements as a

QCI # T3269

EXP.05/31/2025

ALDOT QCI Trainer

Richard Klinger, PE

ALABAMA ★ DEPARTMENT OF TRANSPORTATION ★

ALDOT Annual QCI Refresher Training

2024

4.00 Course Hours

Presented to:

James Allen

Baldwin Co.

Has successfully completed the certification requirements as a

QCI # T7433

EXP.05/31/2025

ALDOT QCI Trainer

Richard Klinger, PE

ALABAMA DEPARTMENT OF TRANSPORTATION

ALDOT Annual QCI Refresher Training

2024

4.00 Course Hours

Presented to:

Orie King

Baldwin Co.

Has successfully completed the certification requirements as a

QCI # T6888

EXP.05/31/2025

ALDOT QCI Trainer

Richard Klinger, PE

ALABAMA DEPARTMENT OF TRANSPORTATION

ALDOT Annual QCI Refresher Training

2024

4.00 Course Hours

Presented to:

Robert Brown

Baldwin Co.

Has successfully completed the certification requirements as a

QCI # T7237

EXP.05/31/2025

ALDOT QCI Trainer

Richard Klinger, PE

ALABAMA ★ DEPARTMENT OF TRANSPORTATION ★

Table 7-1 Baldwin County Phase II MS4 MCM3 Construction Site Stormwater Runoff Control Strategies and Goals

NPDES Permit Section	SWMPP Section	7-Construction Site Stormwater Runoff Control Strategies	Goal	Pollution Targeted	Responsible Departments
Part III-3aiii	*7.6*	*Inspections*	*In years one through five track construction site inspections including enforcement actions, and complaints within the County's MS4 Boundary*	*Sediment, Oils, Paints, & Trash*	*Hwy & P&Z*
	2023/2024	**MS4 Inspections**			
Permit#	**Inspection**	**Address**	**Inspection Status**	**Completion**	**Completed By**
CSP22-000029	Final Site Inspection	10758 COUNTY RD 64	Approved	08/03/2023	Ashley Campbell
CSP23-000006	Final Site Inspection	9917 SPANISH FORT BLVD	Approved with Comments	08/03/2023	Ashley Campbell
CSP22-000039	Final Site Inspection	14472 COUNTY RD 64	Not Approved	12/04/2023	Ashley Campbell
CSP22-000039	Final Site Inspection	14472 COUNTY RD 64	Not Approved	02/23/2024	Ashley Campbell
ULD22-000002	Site Inspection	0 TWIN BEECH RD	Complete	04/05/2023	Rebecca Peacock
PF22-000314	Site Inspection	6823 county road 32	Complete	04/06/2023	Rebecca Peacock
CSP22-000008	Site Inspection	8188 WELL RD	Not Approved	04/26/2023	Rebecca Peacock
PF22-000314	Site Inspection	6823 county road 32	Complete	05/15/2023	Rebecca Peacock
ULD22-000002	Site Inspection	0 TWIN BEECH RD	Complete	05/22/2023	Rebecca Peacock
CSP22-000008	Site Inspection	8188 WELL RD	Not Approved: Reinspection Required	05/31/2023	Rebecca Peacock
PF22-000314	Site Inspection	6823 county road 32	Complete	06/03/2023	Rebecca Peacock
ULD22-000002	Site Inspection	0 TWIN BEECH RD	Complete	06/12/2023	Rebecca Peacock
CSP22-000008	Site Inspection	8188 WELL RD	Not Approved	06/14/2023	Ashley Campbell
ULD22-000002	Site Inspection	0 TWIN BEECH RD	Complete	06/22/2023	Rebecca Peacock
CSP22-000008	Site Inspection	8188 WELL RD	Complete	06/28/2023	Rebecca Peacock
CSP22-000008	Site Inspection	8188 WELL RD	Complete	07/07/2023	Rebecca Peacock
ZSP23-000858	Site Inspection	9365 MOSLEY RD	Complete	07/11/2023	Vince Ramer
CSP22-000008	Site Inspection	8188 WELL RD	Approved with Comments	07/14/2023	Rebecca Peacock
ULD22-000002	Site Inspection	0 TWIN BEECH RD	Approved	07/21/2023	Rebecca Peacock
PF22-000314	Site Inspection	6823 county road 32	Approved	07/21/2023	Rebecca Peacock
ZLD23-000038	Site Inspection	6806 BORDEAUX LN	Approved	08/09/2023	Rebecca Peacock
ULD22-000002	Site Inspection	0 TWIN BEECH RD	Approved	08/09/2023	Rebecca Peacock
CSP22-000008	Site Inspection	8188 WELL RD	Approved	08/09/2023	Rebecca Peacock

Table 7-1 Baldwin County Phase II MS4 MCM3 Construction Site Stormwater Runoff Control Strategies and Goals

CSP22-000008	Site Inspection	8188 WELL RD	Complete	09/13/2023	Rebecca Peacock
ULD22-000002	Site Inspection	0 TWIN BEECH RD	Approved	09/13/2023	Rebecca Peacock
ZLD23-000038	Site Inspection	6806 BORDEAUX LN	Complete	09/25/2023	Rebecca Peacock
CSP22-000008	Site Inspection	8188 WELL RD	Complete	10/04/2023	Rebecca Peacock
CSP22-000039	Site Inspection	14472 COUNTY RD 64	Complete	10/16/2023	Rebecca Peacock
ULD22-000002	Site Inspection	0 TWIN BEECH RD	Approved	10/16/2023	Rebecca Peacock
CSP23-000011	Site Inspection	9522,9543,9547,9549,9553 Firefly CT	Complete	10/18/2023	Rebecca Peacock
CSP23-000001	Site Inspection	9985 GAYFER RD	Complete	11/07/2023	Rebecca Peacock
ZLD23-000038	Site Inspection	6806 BORDEAUX LN	Complete	11/08/2023	Rebecca Peacock
CSP22-000008	Site Inspection	8188 WELL RD	Complete	11/13/2023	Rebecca Peacock
ULD22-000002	Site Inspection	0 TWIN BEECH RD	Complete	11/14/2023	Rebecca Peacock
CSP22-000039	Site Inspection	14472 COUNTY RD 64	Complete	11/29/2023	Rebecca Peacock
CSP23-000011	Site Inspection	9522,9543,9547,9549,9553 Firefly CT	Complete	12/21/2023	Rebecca Peacock
ULD22-000002	Site Inspection	0 TWIN BEECH RD	Complete	12/21/2023	Rebecca Peacock
ZLD23-000038	Site Inspection	6806 BORDEAUX LN	Complete	12/21/2023	Rebecca Peacock
CSP22-000008	Site Inspection	8188 WELL RD	Complete	12/21/2023	Rebecca Peacock
CSP23-000001	Site Inspection	9985 GAYFER RD	Complete	01/16/2024	Rebecca Peacock
ZLD23-000076	Site Inspection	GENERAL CANBY DR	Complete	01/18/2024	Rebecca Peacock
ZLD23-000038	Site Inspection	6806 BORDEAUX LN	Complete	01/18/2024	Rebecca Peacock
CSP23-000011	Site Inspection	9522,9543,9547,9549,9553 Firefly CT	Not Approved: Reinspection Required	01/19/2024	Rebecca Peacock
ULD22-000002	Site Inspection	0 TWIN BEECH RD	Approved	01/19/2024	Rebecca Peacock
CSP22-000008	Site Inspection	8188 WELL RD	Complete	01/25/2024	Rebecca Peacock
ZLD23-000038	Site Inspection	6806 BORDEAUX LN	Complete	02/26/2024	Rebecca Peacock
ZSP24-000038	Site Inspection	21414 BRICK STACK LN	Complete	02/28/2024	Ashley Campbell
CSP23-000001	Site Inspection	9985 GAYFER RD	Complete	03/04/2024	Rebecca Peacock
CSP23-000011	Site Inspection	9522,9543,9547,9549,9553 Firefly CT	Complete	03/04/2024	Rebecca Peacock
ZLD23-000038	Site Inspection	6806 BORDEAUX LN	Complete	03/11/2024	Rebecca Peacock
ZLD24-000040	Site Inspection		Not Approved	03/18/2024	Ashley Campbell
ULD22-000002	Site Inspection	0 TWIN BEECH RD	Complete	03/22/2024	Rebecca Peacock
CSP23-000011	Site Inspection	9522,9543,9547,9549,9553 Firefly CT	Complete	03/22/2024	Rebecca Peacock
ZSP23-000527	Wetland Review Site Inspection	8189 RIVER RD	Complete	04/13/2023	Robert Brown
ZSP23-000629	Wetland Review Site Inspection	6735 WILLOWBRIDGE DR	Complete	04/25/2023	Robert Brown

Table 7-1 Baldwin County Phase II MS4 MCM3 Construction Site Stormwater Runoff Control Strategies and Goals

ZSP23-000771	Wetland Review Site Inspection	16545 EDGEWATER CIR	Complete	06/06/2023	Robert Brown
ZLD23-000065	Wetland Review Site Inspection	8370 GAYFER RD	Complete	06/06/2023	Robert Brown
ZSP23-000745	Wetland Review Site Inspection	8450 SAMUEL JONES LN	Complete	06/06/2023	Robert Brown
ZLD23-000076	Wetland Review Site Inspection	GENERAL CANBY DR	Not Approved	06/14/2023	Ashley Campbell
CSP23-000027	Wetland Review Site Inspection	9135 MILTON JONES RD	Complete	06/23/2023	Robert Brown
ZSP23-000876	Wetland Review Site Inspection	24805 POLLARD RD	Complete	07/08/2023	Robert Brown
ZSP23-000988	Wetland Review Site Inspection	6659 COUNTY RD 32	Complete	08/02/2023	Robert Brown
ZSP23-001005	Wetland Review Site Inspection	19252 YOUNG ST	Complete	09/01/2023	Robert Brown
ZSP23-001188	Wetland Review Site Inspection	19273 SCENIC HWY 98	Complete	09/27/2023	Robert Brown
ZSP23-001206	Wetland Review Site Inspection	9391 GAYFER RD	Complete	09/27/2023	Robert Brown
ZSP23-001223	Wetland Review Site Inspection	17260 POLO RIDGE BLVD	Complete	10/09/2023	Robert Brown
ZSP23-001232	Wetland Review Site Inspection	7864 LAKE BLVD	Complete	10/17/2023	Robert Brown
ZSP23-001281	Wetland Review Site Inspection	7844 LAKE BLVD	Complete	10/20/2023	Robert Brown
ZSP23-001302	Wetland Review Site Inspection	22440 SEA CLIFF DR	Complete	10/31/2023	Robert Brown
ZSP23-001365	Wetland Review Site Inspection	16366 COVERED BRIDGE LN	Complete	11/17/2023	Robert Brown
ZSP23-001345	Wetland Review Site Inspection	52 SPECKLE TROUT RTE	Complete	11/17/2023	Robert Brown
CSP23-000045	Wetland Review Site Inspection	8222 TWIN BEECH RD	Complete	12/14/2023	Ashley Campbell

Table 7-1 Baldwin County Phase II MS4 MCM3 Construction Site Stormwater Runoff Control Strategies and Goals

ZSP23-001518	Wetland Review Site Inspection	55 SPECKLE TROUT RTE	Complete	12/19/2023	Ben Guerrera
ZSP24-000019	Wetland Review Site Inspection	6757 PEYTON CT	Complete	01/11/2024	
ZSP24-000037	Wetland Review Site Inspection	21422 BRICK STACK LN	Complete	01/18/2024	Ben Guerrera
ZSP24-000038	Wetland Review Site Inspection	21414 BRICK STACK LN	Complete	01/18/2024	Ben Guerrera
ZSP24-000159	Wetland Review Site Inspection	8450 WHISPERING PINES RD	Complete	02/21/2024	Ben Guerrera
ZSP24-000191	Wetland Review Site Inspection	19153 BOOTHE RD	Complete	03/06/2024	Ben Guerrera
ZSP24-000303	Wetland Review Site Inspection	2721 Manuel DR	Complete	03/28/2024	Robert Brown
	TOTAL	79			
	2023/2024	**MS4 Complaints**			
23-000528	Wetland Complaint	6806 BORDEAUX LN	Address	01/22/2023	
23-006083	Land Disturbance Complaint	13120 CR 28	Address	07/11/2023	02/15/2024
23-006464	Land disturbance without permit	12518 COUNTY RD 1	Address	07/21/2023	08/31/2023
23-006590	Erosion and Sediment Control Complaint	26648 S HOLLEY ST	Address	07/25/2023	07/27/2023
23-006705	Land Disturbance Complaint	19800 -A BOOTHE RD	Address	07/27/2023	
23-006857	Land Disturbance	13273 COUNTY RD 1	Address	08/02/2023	10/05/2023
23-006859	Land disturbance Complaint	13021 COUNTY RD 1	Address	08/02/2023	10/09/2023
23-007023	Land Disturbance Complaint	11418 BELIZE RIVER ST	Address	08/08/2023	08/23/2023
23-007678	Land disturbance complaint	0 COUNTY ROAD 1	Address	08/25/2023	

Table 7-1 Baldwin County Phase II MS4 MCM3 Construction Site Stormwater Runoff Control Strategies and Goals

23-005282	Stormwater Complaint	73 GENERAL CANBY DR	Address	06/13/2023	11/20/2023
23-005460	Flooding	19223 HANKINS LN	Address	06/20/2023	06/28/2023
23-005602	Erosion Control Complaint	9692 MALBIS LN	Address	06/22/2023	09/26/2023
23-009516	Land Disturbance Complaint	10765 MARY ANN BEACH RD	Address	10/26/2023	
23-009521	Working without a permit	12550 COUNTY RD 1	Address	10/26/2023	12/18/2023
24-003449	Potential wetland fill	6671 N WINDING BROOK DR	Address		05/21/2024
21-005458	Wetland Complaint	6792 CEDAR	Address	06/29/2021	
24-000890	Erosion Control Complaint	9252 GREENLEAF DR	Address	02/05/2024	
24-001041	Working without a permit	0 Stirrup	Address	02/08/2024	
	Total Complaints	**18**			
	Total Enforcement	**10**			

CODE CASE
FILE #: 23-006464
12518 COUNTY RD 1 FAIRHOPE AL 36532
LAND DISTURBANCE WITHOUT PERMIT

FILE INFORMATION

Complaint Description
Land disturbance without permit

Type
Code Enforcement

Status
Closed

Open Date
07/21/2023

Close Date
08/31/2023

Disposition

Department
Planning and Zoning Department

Responsible User
Robert Brown

Priority
Normal

How Received

PROPERTY INFORMATION

Property Address
12518 COUNTY RD 1

FAIRHOPE AL 36532

Parcel #
05-56-09-29-0-000-019.000

Owner Name
MILLER, JAMES LAWRENCE ETAL MILLER, HELE AND N SHEARER REVOCABLE TRUST DATED D

Owner Address
107 KENSINGTON COURT

FAIRHOPE AL 36532

Owner Phone

Legal Description
100 X 400 LOT 598 EASTERN SHORE PKWY PB3 PG4 (WD) TRUST IN\r\n#1626998r\n

Approximate Location

Planning District

Zoning Classification
RSF-1 Single Family District

☑ In MS4 Area

*****INFO IN COMPLAINT DESCRIPTION BOX ABOVE IS DISPLAYED ONLINE AND VIEWABLE BY THE PUBLIC.*****

*****INFO BELOW THIS LINE IS DISPLAYED INTERNALLY ONLY.*****

PROPERTY INFO LOADED FROM PARCEL DATABASE

Revenue Dept. Map
Parcel Viewer

Tax District
COUNTY

PIN
381

Building Permit Jurisdiction
Baldwin County

Subdivision Name
EASTERN SHORE PARKWAY

Planning District

Lot #

Zoning Classification
RSF-1

Total Acres

Hwy Dept Area

Previous Owner

Potential Wetlands
Y

Upload Date

Flood Zone(s)
AE 10.0

LiMWA * Must Still Check Map *
Y

Floodway
N

GENERAL CODE CASE INFO

CODE CASE SUMMARY

Notes:
Clearing land in potential wetland without a permit

REPORTING PARTY & CONTACT INFO (if applicable)

Name / Phone # / Email Address:

BUILDING DEPARTMENT

Notes:

Permit # 1

Completion Date

Permit # 2

☐ **Add To Active Report**

HIGHWAY DEPARTMENT

Notes:

Completion Date

PLANNING & ZONING DEPARTMENT

Notes:

7-21-2023 - Clearing land taking down trees in a potential wetland without any permits.AC/RP
7-21-2023 - Property owner to go into Robertsdale office and work with Ashley on Monday, July 24th to submit permit - RB
7-24-2023 - Owner started application "ZLD23-000105" - RB
8-2-2023 - Ashley requested to have the property re-flagged to verify 30' buffer compliance - RB

Notes:

Notes:

Notes:

Agency Notification

Variance Permit #

Permit # 1
ZLD23-000105

Code Case #

Permit # 2

Nature of Violation
Performing site work on a zoned property without a required Land Disturbance permit.

Corrective Action
Submit a complete Land Disturbance Application for the property along with a detailed erosion control plan within 15 days of receipt of this notice of violation. Applications may be obtained from the Baldwin County

Inspection Date (Corrective Action)
07/21/2023

Completion Date

SOLID WASTE DEPARTMENT

Notes:

Completion Date

MISCELLANEOUS

Notes:

CATEGORIES

Table 7-1 Baldwin County Phase II MS4 MCM3

Construction Site Stormwater Runoff Control Strategies and Goals

NPDES Permit Section	SWMPP Section	7-Construction Site Stormwater Runoff Control Strategies	Goal	Pollution Targeted	Responsible Departments
Part III-3e	*7.11*	*Program Evaluation*	*Throughout the permit cycle, review the Construction Site Stormwater Runoff minimum control measure strategies and goals achieved and prepare an annual report and update the SWMPP*	*Sediment, Oils, Paints, & Trash*	*P&Z*
2023/2024			**Program Evaluation**		
			The Construction Minimum Control Measure strategies		
			and goals have been achieved and tracked in the		
			Annual Report's Spreadsheets. Proposed uppdates will		
			be detailed in the MCM Evaluation Summary.		

Table 8-1 Baldwin County Phase II MS 4
MCM 4 Post Construction Stormwater Management in New and Redevelopment Sites Strategies and Goals

NPDES Permit Section	SWMPP Section	8-Post Construction Stormwater Management in New and Redevelopment Sites Strategies	Goal	Pollution Targeted	Responsible Departments	2022 Proposed	2022 Achieved	2023 Proposed	2023 Achieved	2024 Proposed	2024 Achieved	2025 Proposed	2025 Achieved	2026 Proposed	2026 Achieved
Part III-4aiv	8.2.1	County Subdivision & Zoning Ordinance Review	Review and update county subdivision and zoning ordinances and guidance documents to reflect the applicable MS4 permit post construction requirements.	Storm water Quantity, Trash, Sediment & Paint, etc.	P&Z	✓	✓	*	*						
Part III-4ai2	8.2.1	County Subdivision & Zoning Ordinances	Within the County's MS4 boundary, review subdivision and zoning applications for compliance with the county's stormwater management requirements and track in annual SWMPP report	Storm water Quantity, Trash, Sediment & Paint, etc.	Hwy & P&Z	✓	🗀	✓	🗀						
Part III-4aiii	8.2.2	Promote Low Impact Development/Green Infrastructure (LID/GI)	In year one (1), review county subdivision and zoning ordinance for opportunities to incentivize the use of LID/GI	Storm Water Quantity	Planning & Zoning	✓	✓	*	*						
Part III-4aiii	8.2.2	Promote Low Impact Development/Green Infrastructure (LID/GI)	Throughout the permit cycle, track LID/GI BMPS implemented in the County's MS4 boundary	Storm Water Quantity	P&Z	✓	✓	✓	✓						
Part III-4avi	8.2.5	Perform Field Evaluations and Long-term Maintenance and Monitoring of Best Management Practices	In year one (1), review the county's subdivision & zoning ordinance to determine if the county has the authority to inventory and require inspections and maintenance of private stormwater facilities (SWF) (detention basins,etc.) within its MS4 Boundary's zoned districts.	Storm water Quantity, Trash, Sediment & Paint, etc.	Hwy & P&Z	✓	🗀	*	*						
Part III-4avi	8.2.5	Perform Field Evaluations and Long-term Maintenance and Monitoring of Best Management Practices	If it is determined that the County has the authority to perform the inventory and maintenance of SWF , in years two (2) and three (3) within the county will create a inventory and inspection program that requires annual inspections of all public and private stormwater management facilities to evaluate performance and design	Storm water Quantity, Trash, Sediment & Paint, etc.	Hwy & P&Z	*	*	*	*						
Part III-4avi	8.2.5	Perform Field Evaluations and Long-term Maintenance and Monitoring of Best Management Practices	If it is determined that the County has the authority to perform the inventory and maintenance of SWF , for the remainder of the permit cycle years four (4)& five (5), within the County's MS4 boundary zoned districts, the County will implement the program and track all data in the annual report	Storm water Quantity, Trash, Sediment & Paint, etc.	Hwy & P&Z	*	*	*	*						
Part III-4aiii	8.2.7	Low Impact Development/Green Infrastructure (LID/GI)	During the permit cycle, provide at least one LID/GI training to the County's Planning Commission & staff	Storm Water Quantity	P&Z	1	🗀	*	*						
Part III-4aiii	8.2.7	Low Impact Development/Green Infrastructure (LID/GI)	During the permit cycle, sponsor or provide at least one LID/GI training (workshop) to developers, consultants and engineers	Storm Water Quantity	P&Z	1	🗀	*	*						
Part III-4b	8.4	Program Evaluation	Throughout the permit cycle, review the Post Construction minimum control measure strategies and goals achieved and prepare an annual report and update the SWMPP	Storm water Quantity, Trash, Sediment & Paint, etc.	P&Z	✓	✓	✓	✓						
	Hwy	**Highway**	**Total Goals**			**8**	**8**	3	3						
	P&Z	**Planning & Zoning**													
	*	**Not Proposed for Permit Year**													
	**	**Completed Prior to Proposed Year**													
	X	**Not Completed-Goal Not Met**													
	🗁	**Attachment Included in Report**													

Table 8-1 Baldwin County Phase II MS4

MCM 4 Post Construction Stormwater Management in New and Redevelopment Sites Strategies and Goals

NPDES Permit Section	SWMPP Section	8-Post Construction Stormwater Management Strategies	Goal	Pollution Targeted	Responsible Departments
Part III-4aiv	*8.2.1*	*County Subdivision & Zoning Ordinance Review*	*Review and update county subdivision and zoning ordinances and guidance documents to reflect the applicable MS4 permit post construction requirements.*	*Storm water Quality, trash, Sediment & Paint, etc.*	*P&Z*
2023/2024		**Ordinance**		**Date**	
		Zoning Ordinance		11/21/2023	
		Subdivision Ordinance		9/19/2023	
			Copies can be found at BaldwinCountyal.gov		

Table 8-1 Baldwin County Phase II MS4

MCM 4 Post Construction Stormwater Management in New and Redevelopment Sites Strategies and Goals

NPDES Permit Section	SWMPP Section	8-Post Construction Stormwater Management Strategies	Goal	Pollution Targeted	Responsible Departments
Part III-4aiii	*8.2.2*	*Promote Low Impact Development/Green Infrastructure*	*In year 1, review county subdivision and zoning ordinance for opportunities to incentivize the use of LID/GI*	*Storm Water Quality*	*P&Z*
		2023/2024	**No Updates**		

Table 8-1 Baldwin County Phase II MS4

MCM 4 Post Construction Stormwater Management in New and Redevelopment Sites Strategies and Goals

NPDES Permit Section	SWMPP Section	8-Post Construction Stormwater Management Strategies	Goal	Pollution Targeted	Responsible Departments
Part III-4aii	*8.2.2*	*Promote Low Impact Development/Green Infrastructure*	*Throughout the permit cycle, track LID/GI BMP's implemented in the County's MS4 boundary*	*Storm water Quality, trash, Sediment & Paint, etc.*	*P&Z*
		2023/2024	**No LID/GI BMPS Implemented**		

Table 8-1 Baldwin County Phase II MS4

MCM 4 Post Construction Stormwater Management in New and Redevelopment Sites Strategies and Goals

NPDES Permit Section	SWMPP Section	8-Post Construction Stormwater Management Strategies	Goal	Pollution Targeted	Responsible Departments
Part III-4ai2	*8.2.1*	*County Subdivision & Zoning Ordinance*	*Within the County's MS4 boundary, review subdivision and zoning application for compliance with the county's stormwater management requirements and track in annual SWMPP report.*	*Storm water Quality, trash, Sediment & Paint, etc.*	*Hwy & P&Z*
2023/2024	**Permit#**	**Address**	**City**	**Applicant**	
	CSP23-000045	8222 Twin Beech Rd	Fairhope	T. Baker Davis	

PERMIT PROJECT

FILE #: 23-010033
8222 TWIN BEECH RD FAIRHOPE AL 36532
AMERICAN SELF STORAGE BLDG V 8222 TWIN BEECH ROAD
*****CSP23-45 PAM 12/06***POTENTIAL JAN 4TH MEETING******

ZONING: B1

Address
All Addresses

PERMIT #: CSP23-000045

Permit Type
Zoning - Commercial Site Plan Approval

Subtype
Commission Site Plan

Work Description:
AMERICAN SELF STORAGE V - BUILDING 5 SITE ADDITION

Applicant
Divergent Engineering, LLC. - T. Baker Davis

Status
Sent to Technical Review

Valuation
0.00

FEES & PAYMENTS

Plan Check Fees
0.00

Permit Fees
992.62

Total Amount
992.62

Amount Paid
992.62

Balance Due
0.00

☐ Non-Billable

PERMIT DATES

Application Date
11/14/2023

Approval Date

Issue Date:

Expiration Date:
06/14/2024

Close Date

Last Inspection
Wetland Review Site Inspection on 12/14/2023 (Complete)

PRE APPLICATION MEETING INFORMATION

Have you had a pre application meeting with Planning and Zoning staff?
Yes

Enter the date of your pre-application meeting
March 18, 2022

CONTACTS

Property Owner Information

Is the property owned by a LLC or Incorporation
Yes

Provide copy of Articles of Incorporation
ASV_Articles of Incorporation_Xerox Scan_10112022133707.pdf

Current Property Owner Name(s) PZ
AMERICAN SELF STORAGE V L L C

Property Owner Mailing Address PZ
2221 VICTORY LN

Property Owner Phone Number PZ
205-989-8660

Property Owner Email Address PZ
simmonspankey@hotmail.com, info@pankeyproperties.com

Applicant Contact Information

Is the applicant also the current property owner?
No

Agent Authorization Form
Agent Authorization (TBD).pdf

Applicant's Mailing Address
24440 MAGNOLIA AVE, STE 300

Applicant's Phone Number
251-747-7859

Applicant's Email Address
bakerd@dvgeng.com

Developer's Contact Information

Developer's Name

Developer's Phone Number

Developer's Email Address

Engineer/Surveyor's Contact Information

Engineer/Surveyor's Name

Engineer/Surveyor's Phone Number

Engineer/Surveyor's Email Address

Contractor/Builder's Contact Information

Contractor/Builder's Name
T. BAKER DAVIS

Contractor/Builder's Phone Number

Contractor/Builder's Email Address

SITE INFORMATION

Physical Address assigned by Baldwin County E-911 (include the city or town).
8222 TWIN BEECH RD

Is the site parcel number the same as the information listed in the grey boxes above?
No

To obtain a Parcel Number, locate it on the property tax bill, contact the local Revenue Commissioner office, or search online (click this link). - PZ

Please provide Parcel ID Number(s) in this format: 05-XX-XX-XX-X-XXX-XXX.XXX:- PZ
05-46-08-28-0-000-001.008
05-46-08-28-0-000-001.010
05-46-08-28-0-000-001.011

Is the property located in Gulf Shores or Fort Morgan in District 25?
No

Is the property in an existing subdivision? - PZ
No

Actual Lot Size (in acres)
6.3

Approximate Lot Dimensions
494 X 568

Are there existing structures on the property- PZ
Yes

Please describe the existing structures:
There is no existing building structures on Parcel #05-46-08-28-0-000-001.010.
There is 4 existing Storage Buildings total of 82,000 sq.ft. on Parcel # 05-46-08-28-0-000-001.008 which were developed in the initial phases of development on this property.

PROJECT INFORMATION

Provide a Detailed Scope of Work- P&Z field added 04.10.24

Provide total square footage of proposed structure(s) OR if not proposing any new structure(s), the existing structure(s) where the change of use will take place. PZ

38,850

If fill material will be brought onsite, will the existing grade anywhere on the property be raised by more than two (2) feet? - ZSP 2

Yes

If your parcel is located in coastal area and the existing grade of the property will be raised more than two (2) feet, a Flood Permit from the Building Department may be required.- ZSP 2

Will you be disturbing more than an acre? - ZSP

Yes

Please upload a copy of your Construction Best Management Practices Plan prepared by a QCP or Civil Engineer -3

ADEM CBMPP (AS-V) - Phase 5-7 (0).pdf

Are there potential wetlands on your property? - ZSP

Yes

In most situations, if you have potential wetlands on your property, you will be required to submit a wetland delineation prepared by a professional wetland delineator. If you have not yet obtained a wetland delineation, we encourage you to do so before proceeding further with this application.

IF your site has already been delineated please attach your wetland delineation for your property for review.

S Pankey Wetland Report.pdf

Will you be disturbing soil or building a structure within 30 feet of a potential wetland area?

No

Will you be performing any land disturbing activity including clearing, grading, filling, removing stumps or excavation? (OLD FIELD DO NOT USE AS of 5.18.22) - ZSP

WATER & SEWER INFORMATION

How will water service be provided to the property? - CSP

N/A - Water will not be connected to this structure.

How will sewer service be provided to the property? - CSP

N/A - Sewer will not be connected to this structure.

OTHER SUBMITTAL DOCUMENTS THAT MAY BE REQUIRED

NOTE: Documents marked with a red line must be uploaded before application can be submitted. Other documents may be deemed necessary and requested during the review of the application.

Master Site Plan including the following
21011.23 - ASV BLDG V ADD-C4.0-SP.pdf

a.) the actual shape, dimensions and size of property
b.) the size, shape, and location of building(s) to be created
c.) the minimum required and proposed front, rear and side yards
d.) the lot coverage
e.) the number, location, size and angle of parking spaces
f.) the site access drives and dimensions
g.) the paving material for the parking lot and access drives

Basic Floor Plan and Front, Rear, and Side Elevation Drawings. - CSP
10-23-23 American Self Storage V; Fairhope, AL.pdf

Floor plans must contain sufficient detail to determine the size and use of all areas within the proposed structure. Elevation drawings must include dimensions that demonstrate the height of the proposed structure. -CSP

Commercial turnout permit
BCHD__TO-19009 - CR 44 American Storage V.PDF

Landscaping plan - CSP
dwg231016 AS-CitySub.pdf

A landscaping plan with specifications that show what existing trees, shrubbery, and other vegetation will be retained on the side, and what trees, shrubbery , and other vegetation will be added to complete the required landscaping/buffering of the property

Construction Best Management Practices Plan-
21011.23 - ASV BLDG V ADD-C6.0-ESC.pdf
21011.23 - ASV BLDG V ADD-C7.0-ESC DETL (1).pdf

A CBMPP must be prepared by a QCP or Civil Engineer

Utility Plan - CSP

21011.23 - ASV BLDG V ADD-C3.0-EX COND-DEMO.pdf

Upload copies of plans and specifications for the proposed water supply, sewage disposal, refuse facilities, fire protection, electricity, street lighting, telephone and gas.

Stormwater Management Plan - CSP

21011.23 - ASV BLDG V ADD-C5.0-OGP.pdf

21011.23 - ASV BLDG V ADD-C8.0-DETL.pdf

Upload copy of drainage plan and approval from Baldwin County permit manager.

Parking Plan

21011.23 - ASV BLDG V ADD-C4.0-SP.pdf

Exterior/Parking Lighting Plan - CSP

21011.23 - ASV BLDG V ADD-C4.0-SP.pdf

dwg231016 AS-CitySub.pdf

Provide a statement signed by the property owner indicating no covenants or deed restrictions exist that would prohibit this project on this property.- CSP

cid34BA3DF6-959E-48A4-8035-C6C7D974B0A5.pdf

(Optional) Please attach E-911 Address Verification letter- (this will be required for your building permit application)

Verification Letter requests may be submitted online by clicking this link.

(Optional) Proof of Property Ownership (ex. Deed or Tax Bill)

INSTRUMENT 1669229__Q3506645.PDF

Are there Variance, Subdivision Exemption Verification, or ARB approvals associated with this property- CSP

No

Miscellaneous Documents

PDF_BINDER-21011.23-ASV BLDG 5 ADDN (C1.0-C8.0).pdf

Paste Dropbox link below (for individual files that are more than 25MB)

TERMS OF SERVICE

I hereby certify that the information stated and submitted with this application is true and correct. I also understand that the submittal of incorrect information will result in the revocation of this permit and any work performed will be at the risk of the applicant. I understand further that any changes which vary from the approved plans will result in the requirement of a new Site Plan Approval Application. Site Plan Approvals are valid for a six (6) month period after date of issuance.

☑ By checking this required box, I acknowledge agreement to the Terms of Service

********** FOR OFFICE USE ONLY BELOW THIS LINE **********

Please review the contact sections above that the applicant filled out to add in the contacts below. Search the database for an existing match for the contact before adding a new contact. Adding the contacts here will automatically add them to the Contacts Tab which will help when calling/emailing applicable contacts.

Property Owner/Developer

Engineer/Surveyor

Contractor/Builder

Commission/Commercial

Commercial

Commercial - Gross SF of Floor Area ($25 per 1000 SF)

38,850

Residential - Number of Dwelling Units and/or Structures ($25 each)

Zoning Classification

B-1 Professional Business District

Planning District
08: South Fairhope

Flood Zone 1
X

Flood Zone 2

Flood Zone 3

Does the site contain Potential Wetlands and/or streams?
Yes

ARB
Not Applicable

MS4
Yes

Applicant has stated 2ft of fill material will be brought to site, please set LIMWA activity to Building Dept. .- ZSP 2

Comments (to be printed on applicant's generated document)

TYPE OF USE (check ALL boxes that apply)

- [ ] Addition
- [ ] Alteration
- [ ] Repair
- [ ] Demolition
- [ ] Accessory Structure
- [ ] Accessory Structure (ex. storage building, pole barn, carport, etc.)
- [ ] Swimming Pool
- [ ]

Pier/Boathouse (Ono Island - multi-slips)

☐ Dune Walkover

☐ New Construction

☐ Single Family

☐ Site Built

☐ Manufactured Home

☐ Two-Family

☐ Multi-Family

☐ Commercial

☐ RV Park

☐ Manufactured Home Park

☐ Professional Business

☐ Neighborhood Business

☐ General Business

☐ Major Business

☐ Limited Business

☐ Industrial

☐ Light Industrial

☐ General Industrial

☐ Agriculture

☐ Institutional

☐ Church

☐ Schools

☐ Daycare Center

☐ Boarding/Group Home

☐ Transportation/Utility

☐

Cell Tower

☐ Tourist/Resort

☐ Outdoor Recreation

☐ Marine Recreation

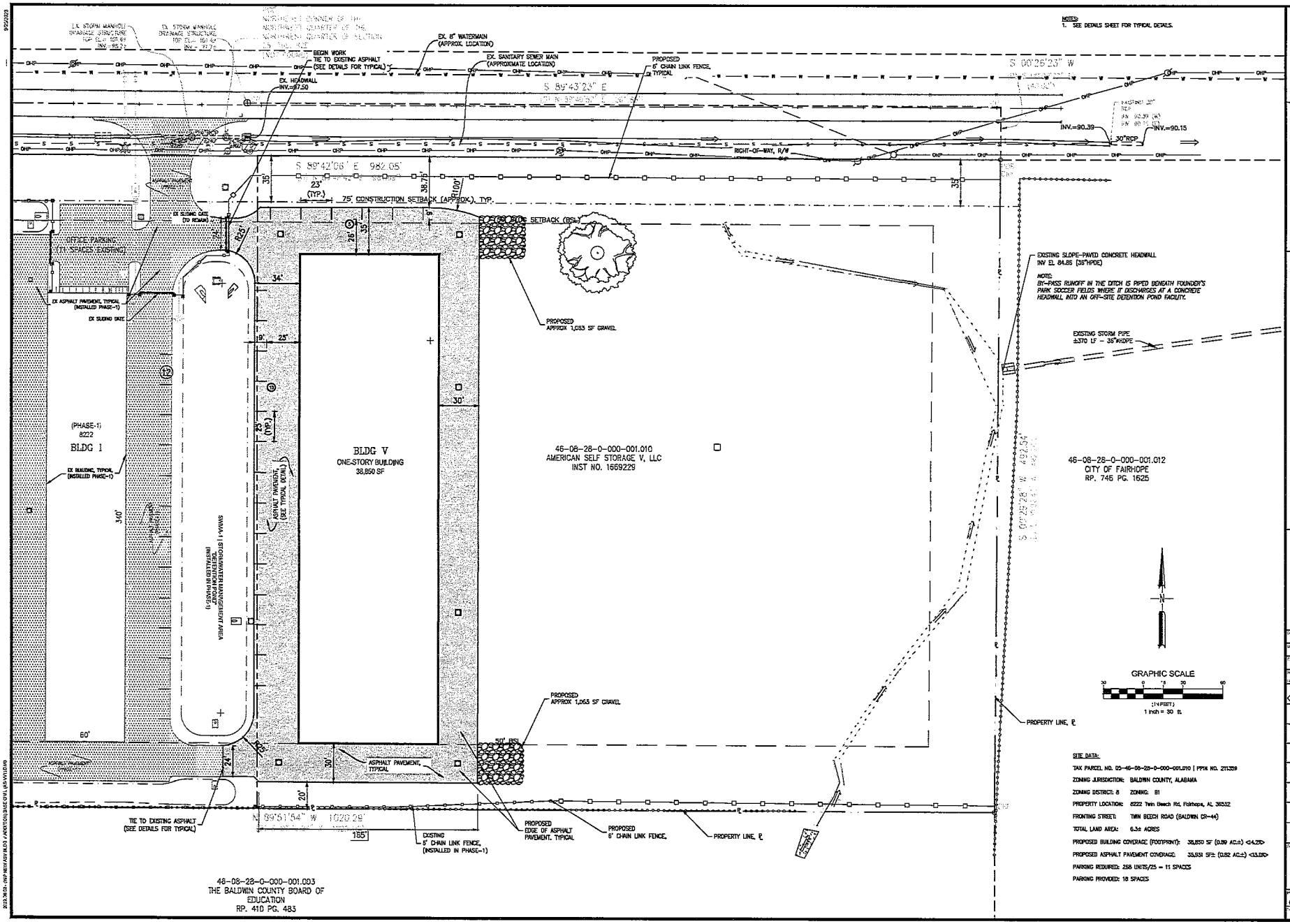
☐ CONVENIENCE FEE: *Check to apply Convenience Fee ONLY if customer is paying in the office or over the phone with a credit/debit card and is not paying online in the portal.*

FEES

FEE	DESC	QUANTITY	AMOUNT	TOTAL
Commission Site Plan-Gross SF of Floor Area				971.25
Convenience Fee		1.0	21.3700	21.37
			Plan Check Fees	**0.00**
			Permit Fees	**992.62**
			Total Fees	**992.62**

PAYMENTS

DATE	TYPE	REFERENCE	NOTE	RECEIPT #	RECEIVED FROM	AMOUNT
11/21/2023	Credi	M-8014508:	CSP2	9024	Divergent	992.62
					Amount Paid	**992.62**
					Balance Due	**0.00**



DIVERGENT ENGINEERING
CONSULTING CIVIL ENGINEERS
Divergent Engineering, LLC
PO Box 868
Magnolia Springs, AL 36555
ph 251.747.2359

PERMIT REVIEW SET

AMERICAN SELF STORAGE
BLDG V
8222 TWIN BEECH ROAD
FAIRHOPE, ALABAMA
BALDWIN COUNTY

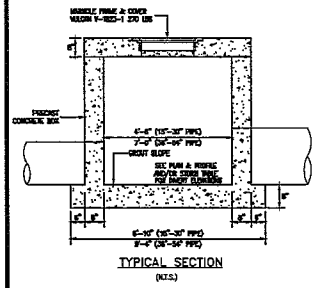
ALABAMA LICENSED PROFESSIONAL ENGINEER T. BAKER THIVIER NO. 27697
9/8/2023

21011.23

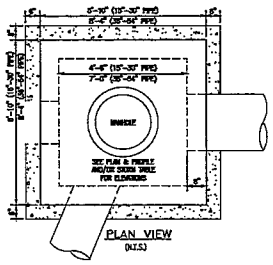
SITE PLAN & GEOMETRIC LAYOUT

09-08-2023

C-4.0

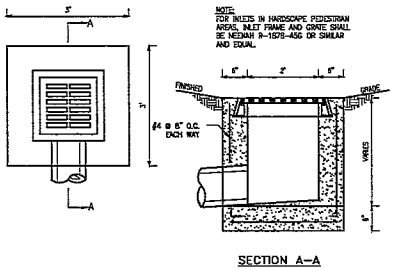


TYPICAL SECTION
(N.T.S.)



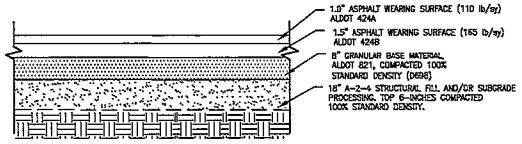
PLAN VIEW
(N.T.S.)

JUNCTION BOX DETAIL
N.T.S.



SECTION A–A

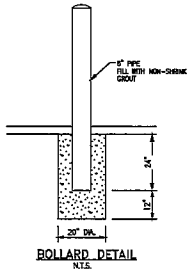
GRATE INLET IN PAVED AREAS
N.T.S.



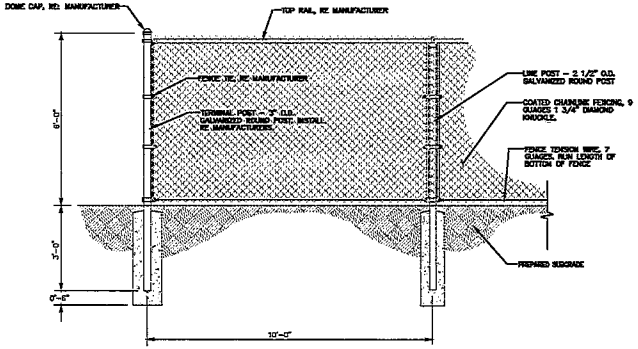
MEDIUM DUTY
TYPICAL ASPHALT PAVEMENT SECTION
NEW ASPHALT PAVEMENT
(N.T.S.)

① CRUSHED AGGREGATE BASE COURSE: 6" COMPACTED THICKNESS, ALDOT SECTION 825 TYPE "B" (100% MODIFIED COMPACTION, AASHTO T-180) (ALDOT 301)
② REQUIRED GEOTEXTILE SUBGRADE STABILIZATION FABRIC; MIRAFI 500X OR EQUIVALENT, (*UNLESS DIRECTED OTHERWISE BY THE PROJECTS ONSITE GEOTECHNICAL ENGINEER)
③ SUBGRADE: TOP 6 INCHES – 100% COMPACTION (ASTM D-698)

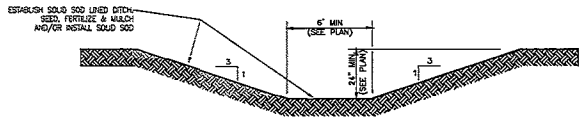
GRAVEL PAVING SECTION
N.T.S.



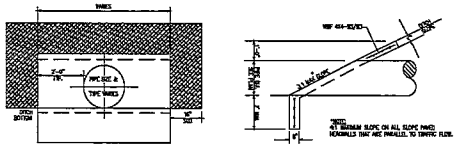
ROLLARD DETAIL
N.T.S.



6' CHAINLINK FENCE
N.T.S.



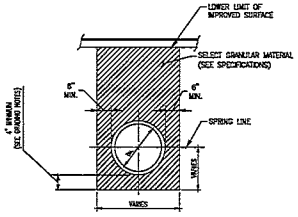
TYPICAL GRASSED DRAINAGE DITCH
N.T.S.



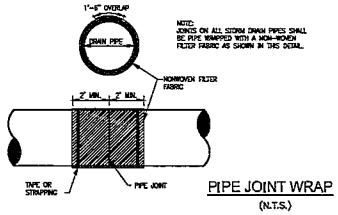
SINGLE PIPE
FRONT VIEW

SECTION VIEW

TYPICAL HEADWALL DETAIL
3:1 SLOPE-PAVED CONCRETE HEADWALL
NOT TO SCALE



TYPICAL PIPE BEDDING AND BACKFILL
UNDER IMPROVED SURFACES
NOT TO SCALE



PIPE JOINT WRAP
(N.T.S.)

DIVERGENT ENGINEERING
CONSULTING CIVIL ENGINEERS
Divergent Engineering, LLC
PO Box 606
Magnolia Springs, AL 36555
(P) 251.747.7569
(E) dan@divergentengineering.com

PERMIT REVIEW SET

AMERICAN SELF STORAGE
BLDG V
8222 TWIN BEECH ROAD
FAIRHOPE, ALABAMA
BALDWIN COUNTY

ALABAMA LICENSED No. 31607 PROFESSIONAL ENGINEER D. BAKER DAVIS

3-4-2023

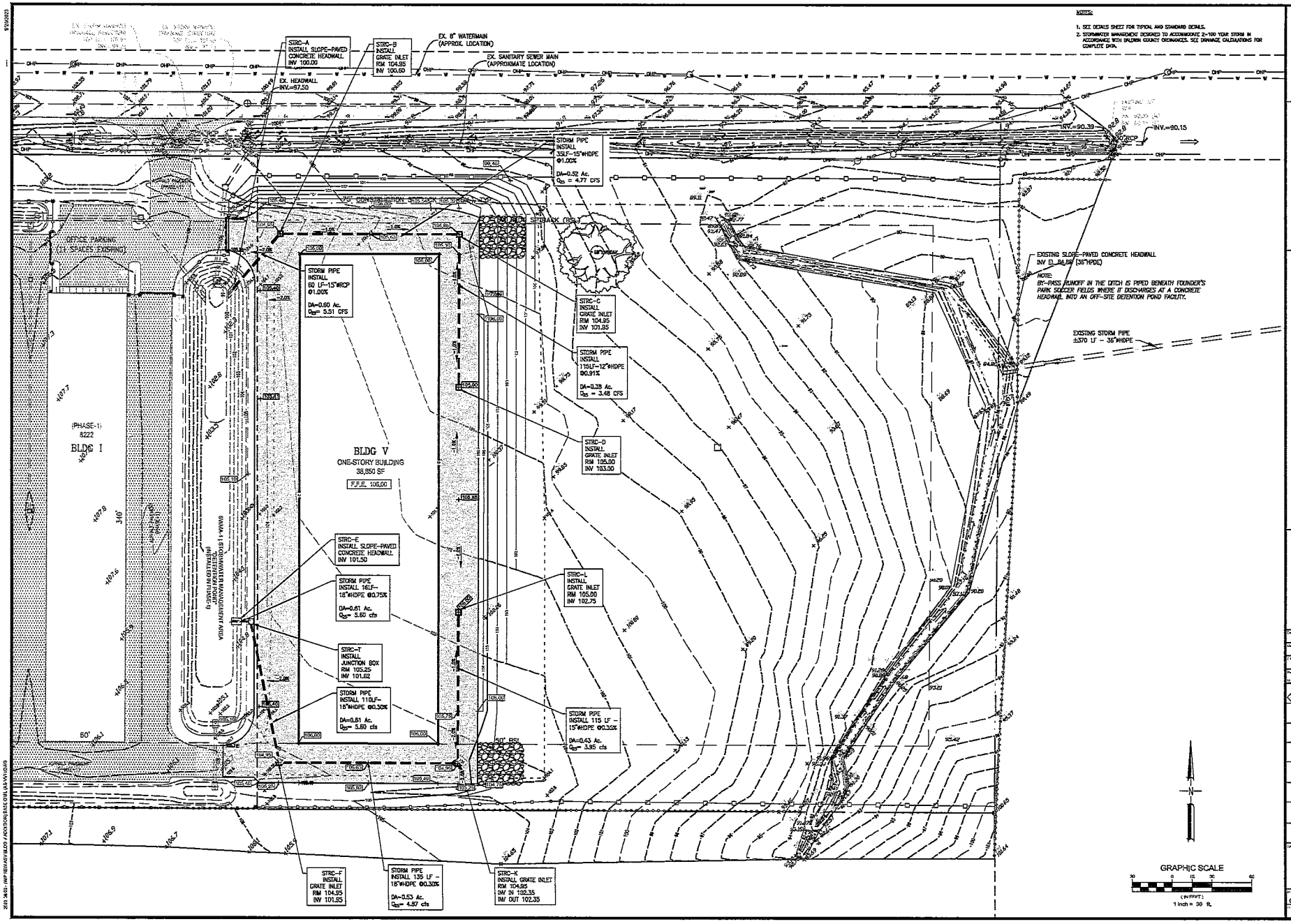
DESIGN:	ISJ
DRAWN:	MSM
CHECKED:	TBD
PROJECT #:	21011.23

TYPICAL & STANDARD SITE DETAILS

ISSUE DATE: 09-06-2023

SHEET #: C-8.0

9/22/2023
2021.36.02 - FAIRHOPE\BLDG V\ADDITION\BASE CIVIL\V5\PTB.DWG



DIVERGENT ENGINEERING
CIVIL ENGINEERING
Divergent Engineering, LLC
PO Box 908
Magnolia Springs, AL 36555
(P) 251.747.7689
(F) Add-this@gmail.com

PERMIT REVIEW SET

AMERICAN SELF STORAGE BLDG V

8222 TWIN BEECH ROAD
FAIRHOPE, ALABAMA
BALDWIN COUNTY

ALABAMA REGISTERED PROFESSIONAL ENGINEER NO. 29081 BRENT S. DILAL
T. BAKER DILAL
9/8/2023

Designed	HMJ
Drawn	MSM
Checked	TBD
Project No.	21011.23

GRADING & DRAINAGE PLAN

Date: 09-08-2023

C-5.0

Table 8-1 Baldwin County Phase II MS4

MCM 4 Post Construction Stormwater Management in New and Redevelopment Sites Strategies and Goals

NPDES Permit Section	SWMPP Section	8-Post Construction Stormwater Management Strategies	Goal	Pollution Targeted	Responsible Departments
Part III-4av&vi	*8.2.5*	*Perform Field Evaluations and Long-term Maintenance and Monitoring of Best Management Practices*	*In year 1, review the county's subdivision & zoning ordinance to determine if the county has the authority to inventory and require inspections and maintenance of private stormwater facilities (SWF)(detention basins, etc.)within its MS4 boundary's zoned districts.*	*Storm water Quality, trash, Sediment & Paint, etc.*	*Hwy & P&Z*

Date	Document/Meeting
2023/2024	New Management - No updates
5/9/2023	Conference Call Regarding MS4 Authority
	It has been initially determined that the County has authority in its Zoned Areas
	to enforce the MS4 Permit. The County will continue to investigate its authority
	while staff works on MS4 Ordinances.
3/13/2023	Email to Matthew for the County's Attorney

Table 8-1 Baldwin County Phase II MS4

MCM 4 Post Construction Stormwater Management in New and Redevelopment Sites Strategies and Goals

NPDES Permit Section	SWMPP Section	8-Post Construction Stormwater Management Strategies	Goal	Pollution Targeted	Responsible Departments
Part III-4av&vi	*8.2.5*	*Perform Field Evaluations and Long-term Maintenance and Monitoring of Best Management Practices*	*If it is determined that the County has the authority to perform the inventory and maintenance of SWF, in years two (2) and three (3) within the county will create a inventory and inspection program that requires annual inspections of all public and private stormwater management facilities to evaluate performance and design*	*Storm water Quality, trash, Sediment & Paint, etc.*	*Hwy & P&Z*
2023/2024			No Activity		

Table 8-1 Baldwin County Phase II MS4

MCM 4 Post Construction Stormwater Management in New and Redevelopment Sites Strategies and Goals

NPDES Permit Section	SWMPP Section	8-Post Construction Stormwater Management Strategies	Goal	Pollution Targeted	Responsible Departments
Part III-4b	*8.4*	*Program Evaluation*	*Throughout the permit cycle, review the Post Construction minimum control measure strategies and goals achieved and prepare an annual report and update the SWMPP.*	*Storm water Quantity, Trash, Sediment*	*P&Z*
2023/2024			**Program Evaluation**		
			The Post Construction Minimum Control Measure strategies		
			and goals have been achieved and tracked in the		
			Annual Report's Spreadsheets. Proposed uppdates will		
			be detailed in the MCM Evaluation Summary.		

Table 9-2 Baldwin County Phase II MS 4
MCM 5 Pollution Prevention/ Good Housekeeping Strategies and Goals

NPDES Permit Section	SWMPP Section	9-Pollution Prevention/ Good House Keeping	Goal	Pollution Targeted	Responsible Departments	2022 Proposed	2022 Achieved	2023 Proposed	2023 Achieved	2024 Proposed	2024 Achieved	2025 Proposed	2025 Achieved	2026 Proposed	2026 Achieved
Part III-5ai	9.2.1.1	County Owned Facilities	Throughout the permit cycle, within the County's MS4 boundary, update county facility inventory as needed.	All	Hwy & P&Z	✓	✓	✓	✓						
Part III-5ai	9.2.1.2	County Owned Facilities	Throughout the permit cycle, within the County's MS4 boundary, create and updated assessments and Standard Operating Guidance (SOG) for facilities as needed.	All	Hwy & P&Z	✓	🗀	*	*						
Part III-5aiii	9.2.1.2	ADEM permits	Throughout the permit cycle, within the County's MS4 boundary report county ADEM permits (UST, etc.)and compliance records in annual report.	Oil & Gas	P&Z	✓	🗀	✓	✓🗀						
Part III-5aiii3	9.2.2	Structural Controls Roads & Bridges	Throughout the permit cycle, the county's stormwater management system (structural controls) inventory will be updated and controls will maintained. Track data in the annual report.	Trash & Sediment	Hwy	✓	✓	✓	✓🗀						
Part III-5biv	9.2.2.4	Capital Stormwater Projects	Throughout the permit cycle, within the County's MS4 boundary zoned districts, inspect County projects for environmental compliance; track and report in annual report.	All	Hwy & P&Z	✓	✓	✓	✓🗀						
Part III-5biv	9.2.3.5	Structural Controls Roads & Bridges	Throughout the permit cycle, within the County's MS4 boundary, inspect bridges twice during permit cycle.	Trash & Sediment	Hwy	✓	🗀	*	*						
Part III-5baii	9.2.3.7	Recycling Program	Through out the permit cycle, within the County's MS4 boundary, track volume of recycled materials and report data in the annual report.	Trash	Solid Waste	✓	✓	✓	✓🗀						
Part III-5aii	9.2.3.7	Litter Patrol	Throughout the permit cycle, within the County's MS4 boundary, track volume of litter picked up from county right of-ways.	Litter & Floatables	Solid Waste	✓	🗀	✓	✓🗀						
Part III-5av	9.2.5	Training	Throughout the permit cycle, employees with MS4 duties will be provided stormwater training in regards to the County's Stormwater Management Program.	All	P&Z	✓	🗀	*	*						
Part III-5av	9.2.5	Training	Provide additional stormwater training (including information regarding facility SOGs) twice during permit cycle to employees with program responsibilities such as, street, and mowing crews.	All	P&Z	*	*	*	*						
Part III-5aii	9.2.6.	Flood Management	Throughout the permit cycle, within the County's MS4 boundary, evaluate flood management projects and track data in annual report.	Storm Water	Building Inspections	✓	✓	✓	✓						
Part III-5aii	9.2.6.1	Community Rating System (CRS)	During the permit cycle, track CRS public outreach and education activities and provide a summary in the annual report.	Storm Water	P&Z	✓	🗀	✓	✓🗀						
Part III-5d	9.4	Program Evaluation	Throughout the permit cycle, review the PP/Good Housekeeping minimum control measure strategies and goals achieved and prepare an annual report and update the SWMPP.	All	P&Z	✓	✓	✓	✓						
					Totals	12	12	9	9						
	*	**Not Proposed for Permit Year**													
	**	**Completed Prior to Proposed Year**													
	X	**Not Completed-Goal Not Met**													
	🗀	**Attachment Included in Report**													
	P&Z	**Planning & Zoning**													
	Hwy	**Highway**													

Table 9-6 Baldwin County Phase II MS4

MCM 5 Pollution Prevention/Good Housekeeping Strategies and Goals

NPDES Permit Section	SWMPP Section	9-Pollution Prevention/Good Housekeeping Strategies	Goal	Pollution Targeted	Responsible Departments
Part III-5ai	*9.2.1.1*	*County Owned Facilities*	*Throughout the permit cycle, within the County's MS4 boundary, update county facility inventory as needed*	*All*	*Hwy & P&Z*
	MS4 Area	**Facility**	**Use**		
		Buildings	**Use**		
	City of Fairhope	Fairhope Satellite Court House	Court House		
	Baldwin County	Ellisville Community Center	Community Center		
	City of Fairhope	Brats Bus Station	Bus Office		
		Fueling Facility	**Use**		
	City of Fairhope	AST Fueling Tanks-Court House	Fueling Pumps		
		Landfill	**Use**		
	Baldwin County	McBride Landfill	ADEM Permitted Landfill		
		Parks and Boat Ramps	**Use**		
	Baldwin County	Mullet Point Park	Water Access		
	Baldwin County	View Point Boat Ramp	Water Access		

Table 8-1 Baldwin County Phase II MS4

MCM 4 Post Construction Stormwater Management in New and Redevelopment Sites Strategies and Goals

NPDES Permit Section	SWMPP Section	9-Pollution Prevention/Good Housekeeping Strategies	Goal	Pollution Targeted	Responsible Departments
Part III-5ai	*9.2.1.2*	*County Owned Facilities*	*Throughout the permit cycle, within the County's MS4 boundary, create and updated assessments and Standard Operating Guidance (SOG) for facilities as needed*	*All*	*Hwy & P&Z*

Document	Year
MS4 Facility Assessment Form	2022/2023
Standard Operating Guidance	2024/2025

Table 9-6 Baldwin County Phase II MS4

MCM 5 Pollution/Good Housekeeping Strategies and Goals

NPDES Permit Section	SWMPP Section	9-Pollution Prevention/Good Housekeeping Strategies	Goal	Pollution Targeted	Responsible Departments
Part III-5aiii	*9.2.1.2*	*ADEM permit*	*Throughout the permit cycle, within the County's MS4 boundary, report county ADEM permits (UST, etc.)and compliance records in annual report*	*Oil & Gas*	*P&Z*

Permit #/ Facility ID	Description
501-G133-X001v1.0	State 1 Air Permit for Fueling Operation
20581-003-018158	Above Ground Storage Tank

========== ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT ==========

C E R T I F I C A T E of R E G I S T R A T I O N

========== ABOVEGROUND STORAGE TANKS ==========

ADEM

2022

ADEM Facility ID 20581-003-018158

FAIRHOPE SATELLITE COURTHOUSE
1100 FAIRHOPE AVENUE
FAIRHOPE, AL 36532

AST Certificates will no longer be mailed. Please visit the CUSTARD pages to download your certificate annually as needed.

Owner: BALDWIN COUNTY COMMISSION
312 COURTHOUSE SQUARE SUITE 18
BAY MINETTE, AL 36507

This Certificate is valid through April 15, 2023

Please display this certificate in a prominent location near the business license.

Fuel spills and delivery overfills must be immediately cleaned and all spills/overfills over 25 gallons are required to be reported to the Department within 24 hours. Spills/overfills under 25 gallons that are immediately cleaned and are not released into the environment, are not required to be reported. For ADEM's Emergency Response, call 1 (800) 434-8802.

For questions relating to regulations, testing, tank trust fund eligibility, or compliance, please call (334) 270-5655 and leave a detailed voice mail message.

Document and compliance testing submittals may be emailed to ustcompliance@adem.alabama.gov or mailed to ADEM, Groundwater Branch, Land Division, PO box 301463, Montgomery, AL 36130-1463.

For form downloads and other information go to http://www.adem.alabama.gov/custard

- This Certificate does not indicate that a facility is operating in compliance.
- This Certificate does not imply eligibility for the State Trust Fund.

Number of active aboveground tanks:	1
Number of underground tanks currently in use:	0
Number of underground tanks temporarily closed:	0

==========

PERMIT

501-G133-X001 v1.0

PERMIT CATEGORY	Stage 1 Air Permit
ISSUED ON	04/09/2001
EFFECTIVE ON	04/09/2001
EXPIRES ON	

Permittee

BALDWIN CO. COMM.

Agency Contact

Rebecca Arthur
Rebecca.arthur@adem.alabama.gov
(334) 271-7700

Table 9-6 Baldwin County Phase II MS4

MCM 5 Pollution/Good Housekeeping Strategies and Goals

NPDES Permit Section	SWMPP Section	9-Pollution Prevention/Good Housekeeping Strategies	Goal	Pollution Targeted	Responsible Departments
Part III-5aiv	*9.2.2*	*Structural Controls Roads & Bridges*	*Throughout the permit cycle, the county's stormwater management system (Structural Controls) inventory will be updated and controls will maintained. Track data in the annual report.*	*Trash & Sediment*	*Hwy*

Date	Inventory and Maintenance
2023/2024	No inventory update/Maintenance completed as needed

Table 9-6 Baldwin County Phase II MS4
MCM 5 Pollution/Good Housekeeping Strategies and Goals

NPDES Permit Section	SWMPP Section	9-Pollution Prevention/Good Housekeeping Strategies	Goal	Pollution Targeted	Responsible Departments
Part III-5aiv	*9.2.2.4*	*Capital Stormwater Projects*	*Throughout the permit cycle, within the County's MS4 boundary, zoned districts, inspect County projects for environmental compliance, track and report in annual report*	*All*	*Hwy & P&Z*
2023/2024		County Projects	Inspections		
		None	None		

Table 9-6 Baldwin County Phase II MS4

MCM 5 Pollution/Good Housekeeping Strategies and Goals

NPDES Permit Section	SWMPP Section	9-Pollution Prevention/Good Housekeeping Strategies	Goal	Pollution Targeted	Responsible Departments
Part III-5aiv	*9.2.3.5*	*Structural Controls Roads & Bridges*	*Through out the permit cycle, within the County's MS4 boundary, inspect bridges twice during permit cycle*	*Trash & Sediment*	*Hwy*

Feature Intersected	Bridge Location	Structure Number	Agency Bridge ID	Inspection Date
Red Gully Creek	1.6 Miles South of CO.RD 64	0C00098 020000014300	15224	12/29/2022
Corn Branch	4.2 Miles East of CO. RD 27	0C00064 020000004700	15457	3/22/2023
Bailey Creek	0.1 Miles South of CO.RD 32	0C00003 020000011100	18296	10/19/2021
Point Clear Circle	0.5 Miles West of CO. RD 3	0C00000 020000016100	19841	10/10/2022
Coney Branch	0.11 Miles West of Bosbyshell	0C00000 020000023500	21446	7/18/2022
Rock Creek	3.2 Miles South of CO. RD 64	0C00098 020000005500	16187	3/23/2022
Point Clear CR(2)	500' West of Poloridge Drive	0C00000 020000024500	21721	11/8/2022
Point Clear Creek	1.3 Miles West of CO. RD 32	0C00098 020000005400	17078	4/25/2023
Coney Branch (2)	0.4 Miles West of CO.RD 54W	0C00000 020000015100	19036	1/25/2023
Drainage	1 Mile North of CO.RD 3	0C00003 020000023400	21209	12/9/2021
Fly Creek	3.7 Miles South of CO.RD 64	0C00098 020000005600	16188	3/23/2022

Table 9-6 Baldwin County Phase II MS4
MCM 5 Pollution/Good Housekeeping Strategies and Goals

NPDES Permit Section	SWMPP Section	9-Pollution Prevention/Good Housekeeping Strategies	Goal	Pollution Targeted	Responsible Departments
Part III-5	*9.2.3.7*	*Recycling Program*	*Through out the permit cycle, within the County's MS4 boundary track volume of recycled materials and report data in the annual report*	*Trash*	*Solid Waste*
2023/2024		**Recycle Bins Locations**	**Total Recycle Tons**		
		Fairhope Courthouse	268		
		MacBride Landfill	86		
		Spanish Fort Kids Park	231		

May 03,2024 12:28 PM

Totals

ADEM Tonnage - RECYCLE by Site by Day
(((Trans.DateOut BETWEEN '2023-04-01' AND '2024-03-31')
AND (Trans.Void = 0)
AND (Trans.BillAcct BETWEEN '0' AND '9999999')
AND (Trans.SiteCode LIKE 'MG%')
AND (vwMT.Label IN ('SS SINGLE STREAM'))))

Truck	MTLabel	NetSTN	DateOut	DetailTotalFee	BillCompany	SiteCode	TranNum	BillAcct	STEntryLabel	Vol
BCSW135	SS SINGLE STREAM	0.47	04/03/2023	$0.00	FAIRHOPE CH RECY	MG	1726143	705952		
BCSW135	SS SINGLE STREAM	0.09	04/04/2023	$0.00	FAIRHOPE CH RECY	MG	1726157	705952		
BCSW135	SS SINGLE STREAM	0.15	04/05/2023	$0.00	FAIRHOPE CH RECY	MG	1726195	705952		
BCSW135	SS SINGLE STREAM	0.26	04/06/2023	$0.00	FAIRHOPE CH RECY	MG	1726208	705952		
BCSW135	SS SINGLE STREAM	0.19	04/07/2023	$0.00	FAIRHOPE CH RECY	MG	1726215	705952		
BCSW135	SS SINGLE STREAM	0.53	04/10/2023	$0.00	FAIRHOPE CH RECY	MG	1726232	705952		
BCSW135	SS SINGLE STREAM	0.25	04/11/2023	$0.00	FAIRHOPE CH RECY	MG	1726258	705952		
BCSW135	SS SINGLE STREAM	0.19	04/12/2023	$0.00	FAIRHOPE CH RECY	MG	1726501	705952		
BCSW135	SS SINGLE STREAM	0.24	04/13/2023	$0.00	FAIRHOPE CH RECY	MG	1726508	705952		
BCSW135	SS SINGLE STREAM	0.17	04/14/2023	$0.00	FAIRHOPE CH RECY	MG	1726518	705952		
BCSW135	SS SINGLE STREAM	0.84	04/17/2023	$0.00	FAIRHOPE CH RECY	MG	1726546	705952		
BCSW135	SS SINGLE STREAM	0.21	04/18/2023	$0.00	FAIRHOPE CH RECY	MG	1726567	705952		
BCSW135	SS SINGLE STREAM	0.25	04/19/2023	$0.00	FAIRHOPE CH RECY	MG	1726574	705952		
BCSW135	SS SINGLE STREAM	0.18	04/20/2023	$0.00	FAIRHOPE CH RECY	MG	1726582	705952		
BCSW135	SS SINGLE STREAM	0.26	04/21/2023	$0.00	FAIRHOPE CH RECY	MG	1726687	705952		
BCSW135	SS SINGLE STREAM	0.46	04/24/2023	$0.00	FAIRHOPE CH RECY	MG	1726732	705952		
BCSW135	SS SINGLE STREAM	0.30	04/25/2023	$0.00	FAIRHOPE CH RECY	MG	1726747	705952		
BCSW135	SS SINGLE STREAM	0.12	04/26/2023	$0.00	FAIRHOPE CH RECY	MG	1726754	705952		
BCSW135	SS SINGLE STREAM	0.16	04/27/2023	$0.00	FAIRHOPE CH RECY	MG	1726764	705952		
BCSW135	SS SINGLE STREAM	0.04	04/28/2023	$0.00	FAIRHOPE CH RECY	MG	1726778	705952		
BCSW135	SS SINGLE STREAM	0.60	05/01/2023	$0.00	FAIRHOPE CH RECY	MG	1727781	705952		
BCSW135	SS SINGLE STREAM	0.30	05/02/2023	$0.00	FAIRHOPE CH RECY	MG	1727796	705952		
BCSW135	SS SINGLE STREAM	0.30	05/03/2023	$0.00	FAIRHOPE CH RECY	MG	1727803	705952		
BCSW135	SS SINGLE STREAM	0.18	05/04/2023	$0.00	FAIRHOPE CH RECY	MG	1727811	705952		
BCSW135	SS SINGLE STREAM	0.30	05/05/2023	$0.00	FAIRHOPE CH RECY	MG	1728670	705952		
BCSW135	SS SINGLE STREAM	0.59	05/08/2023	$0.00	FAIRHOPE CH RECY	MG	1729036	705952		
BCSW135	SS SINGLE STREAM	0.30	05/09/2023	$0.00	FAIRHOPE CH RECY	MG	1729058	705952		
BCSW135	SS SINGLE STREAM	0.65	05/11/2023	$0.00	FAIRHOPE CH RECY	MG	1730844	705952		
BCSW135	SS SINGLE STREAM	0.49	05/15/2023	$0.00	FAIRHOPE CH RECY	MG	1730903	705952		
BCSW135	SS SINGLE STREAM	0.24	05/16/2023	$0.00	FAIRHOPE CH RECY	MG	1730921	705952		
BCSW135	SS SINGLE STREAM	0.20	05/17/2023	$0.00	FAIRHOPE CH RECY	MG	1733350	705952		
BCSW106	SS SINGLE STREAM	0.11	05/18/2023	$0.00	FAIRHOPE CH RECY	MG	1733360	705952		
BCSW135	SS SINGLE STREAM	0.30	05/19/2023	$0.00	FAIRHOPE CH RECY	MG	1733383	705952		
BCSW135	SS SINGLE STREAM	0.11	05/20/2023	$0.00	FAIRHOPE CH RECY	MG	1733388	705952		
BCSW135	SS SINGLE STREAM	0.58	05/22/2023	$0.00	FAIRHOPE CH RECY	MG	1733418	705952		
BCSW135	SS SINGLE STREAM	0.30	05/23/2023	$0.00	FAIRHOPE CH RECY	MG	1733430	705952		
BCSW135	SS SINGLE STREAM	0.26	05/24/2023	$0.00	FAIRHOPE CH RECY	MG	1733439	705952		
BCSW135	SS SINGLE STREAM	0.18	05/25/2023	$0.00	FAIRHOPE CH RECY	MG	1733449	705952		
BCSW150	SS SINGLE STREAM	0.44	05/26/2023	$0.00	FAIRHOPE CH RECY	MG	1733457	705952		
BCSW135	SS SINGLE STREAM	0.31	05/26/2023	$0.00	FAIRHOPE CH RECY	MG	1733460	705952		
BCSW135	SS SINGLE STREAM	0.18	05/27/2023	$0.00	FAIRHOPE CH RECY	MG	1733465	705952		
BCSW150	SS SINGLE STREAM	1.27	05/29/2023	$0.00	FAIRHOPE CH RECY	MG	1733483	705952		
BCSW135	SS SINGLE STREAM	0.18	05/30/2023	$0.00	FAIRHOPE CH RECY	MG	1733895	705952		
BCSW135	SS SINGLE STREAM	0.23	05/31/2023	$0.00	FAIRHOPE CH RECY	MG	1733901	705952		
BCSW135	SS SINGLE STREAM	0.21	06/01/2023	$0.00	FAIRHOPE CH RECY	MG	1735014	705952		
BCSW135	SS SINGLE STREAM	0.82	06/02/2023	$0.00	FAIRHOPE CH RECY	MG	1735019	705952		
BCSW135	SS SINGLE STREAM	0.70	06/05/2023	$0.00	FAIRHOPE CH RECY	MG	1735030	705952		
BCSW135	SS SINGLE STREAM	0.26	06/06/2023	$0.00	FAIRHOPE CH RECY	MG	1736344	705952		
BCSW106	SS SINGLE STREAM	0.32	06/07/2023	$0.00	FAIRHOPE CH RECY	MG	1736349	705952		
BCSW135	SS SINGLE STREAM	0.16	06/08/2023	$0.00	FAIRHOPE CH RECY	MG	1736358	705952		
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BCSW135	SS SINGLE STREAM	0.44	06/13/2023	$0.00	FAIRHOPE CH RECY	MG	1738403	705952		
BCSW135	SS SINGLE STREAM	0.25	06/14/2023	$0.00	FAIRHOPE CH RECY	MG	1738414	705952		
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BCSW135	SS SINGLE STREAM	0.11	06/16/2023	$0.00	FAIRHOPE CH RECY	MG	1738448	705952		
BCSW106	SS SINGLE STREAM	0.50	06/19/2023	$0.00	FAIRHOPE CH RECY	MG	1738464	705952		
BCSW106	SS SINGLE STREAM	0.20	06/20/2023	$0.00	FAIRHOPE CH RECY	MG	1738478	705952		
BCSW135	SS SINGLE STREAM	0.32	06/21/2023	$0.00	FAIRHOPE CH RECY	MG	1739501	705952		
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BCSW135	SS SINGLE STREAM	0.19	06/24/2023	$0.00	FAIRHOPE CH RECY	MG	1739515	705952		
BCSW135	SS SINGLE STREAM	0.57	06/26/2023	$0.00	FAIRHOPE CH RECY	MG	1740235	705952		

Truck	MTLabel	NetSTN	DateOut	DetailTotalFee	BillCompany	SiteCode	TranNum	BillAcct	STEntryLabel	Vol
BCSW135	SS SINGLE STREAM	0.25	06/27/2023	$0.00	FAIRHOPE CH RECY	MG	1740264	705952		
BCSW135	SS SINGLE STREAM	0.40	06/28/2023	$0.00	FAIRHOPE CH RECY	MG	1740272	705952		
BCSW135	SS SINGLE STREAM	0.22	06/29/2023	$0.00	FAIRHOPE CH RECY	MG	1740732	705952		
BCSW135	SS SINGLE STREAM	0.18	06/30/2023	$0.00	FAIRHOPE CH RECY	MG	1740727	705952		
BCSW135	SS SINGLE STREAM	0.22	07/01/2023	$0.00	FAIRHOPE CH RECY	MG	1742835	705952		
BCSW135	SS SINGLE STREAM	0.65	07/03/2023	$0.00	FAIRHOPE CH RECY	MG	1742848	705952		
BCSW135	SS SINGLE STREAM	0.27	07/04/2023	$0.00	FAIRHOPE CH RECY	MG	1742860	705952		
BCSW135	SS SINGLE STREAM	0.23	07/05/2023	$0.00	FAIRHOPE CH RECY	MG	1742869	705952		
BCSW135	SS SINGLE STREAM	0.20	07/06/2023	$0.00	FAIRHOPE CH RECY	MG	1743163	705952		
BCSW135	SS SINGLE STREAM	0.37	07/07/2023	$0.00	FAIRHOPE CH RECY	MG	1743177	705952		
BCSW135	SS SINGLE STREAM	0.05	07/08/2023	$0.00	FAIRHOPE CH RECY	MG	1743178	705952		
BCSW135	SS SINGLE STREAM	0.53	07/10/2023	$0.00	FAIRHOPE CH RECY	MG	1743192	705952		
BCSW135	SS SINGLE STREAM	0.31	07/11/2023	$0.00	FAIRHOPE CH RECY	MG	1743200	705952		
BCSW135	SS SINGLE STREAM	0.17	07/12/2023	$0.00	FAIRHOPE CH RECY	MG	1743204	705952		
BCSW135	SS SINGLE STREAM	0.17	07/13/2023	$0.00	FAIRHOPE CH RECY	MG	1745366	705952		
BCSW135	SS SINGLE STREAM	0.40	07/14/2023	$0.00	FAIRHOPE CH RECY	MG	1745377	705952		
BCSW135	SS SINGLE STREAM	0.20	07/15/2023	$0.00	FAIRHOPE CH RECY	MG	1745378	705952		
BCSW135	SS SINGLE STREAM	0.57	07/17/2023	$0.00	FAIRHOPE CH RECY	MG	1745392	705952		
BCSW152	SS SINGLE STREAM	1.70	07/17/2023	$0.00	FAIRHOPE CH RECY	MG	1745394	705952		
BCSW135	SS SINGLE STREAM	0.44	07/18/2023	$0.00	FAIRHOPE CH RECY	MG	1745687	705952		
BCSW135	SS SINGLE STREAM	0.36	07/19/2023	$0.00	FAIRHOPE CH RECY	MG	1745692	705952		
BCSW135	SS SINGLE STREAM	0.11	07/20/2023	$0.00	FAIRHOPE CH RECY	MG	1745697	705952		
BCSW106	SS SINGLE STREAM	0.40	07/21/2023	$0.00	FAIRHOPE CH RECY	MG	1745708	705952		
BCSW106	SS SINGLE STREAM	0.25	07/22/2023	$0.00	FAIRHOPE CH RECY	MG	1745709	705952		
BCSW106	SS SINGLE STREAM	0.41	07/24/2023	$0.00	FAIRHOPE CH RECY	MG	1745566	705952		
BCSW106	SS SINGLE STREAM	0.42	07/25/2023	$0.00	FAIRHOPE CH RECY	MG	1746010	705952		
BCSW106	SS SINGLE STREAM	0.13	07/26/2023	$0.00	FAIRHOPE CH RECY	MG	1746312	705952		
BCSW106	SS SINGLE STREAM	0.32	07/27/2023	$0.00	FAIRHOPE CH RECY	MG	1746647	705952		
BCSW106	SS SINGLE STREAM	0.42	07/28/2023	$0.00	FAIRHOPE CH RECY	MG	1746891	705952		
BCSW106	SS SINGLE STREAM	0.20	07/29/2023	$0.00	FAIRHOPE CH RECY	MG	1746992	705952		
BCSW160	SS SINGLE STREAM	0.40	07/31/2023	$0.00	FAIRHOPE CH RECY	MG	1747199	705952		
BCSW106	SS SINGLE STREAM	0.30	07/31/2023	$0.00	FAIRHOPE CH RECY	MG	1747260	705952		
BCSW135	SS SINGLE STREAM	0.19	08/01/2023	$0.00	FAIRHOPE CH RECY	MG	1747613	705952		
BCSW135	SS SINGLE STREAM	0.73	08/03/2023	$0.00	FAIRHOPE CH RECY	MG	1748198	705952		
BCSW135	SS SINGLE STREAM	0.25	08/04/2023	$0.00	FAIRHOPE CH RECY	MG	1748487	705952		
BCSW135	SS SINGLE STREAM	0.56	08/07/2023	$0.00	FAIRHOPE CH RECY	MG	1748927	705952		
BCSW135	SS SINGLE STREAM	0.24	08/08/2023	$0.00	FAIRHOPE CH RECY	MG	1749211	705952		
BCSW135	SS SINGLE STREAM	0.24	08/09/2023	$0.00	FAIRHOPE CH RECY	MG	1749508	705952		
BCSW135	SS SINGLE STREAM	0.32	08/11/2023	$0.00	FAIRHOPE CH RECY	MG	1749976	705952		
BCSW135	SS SINGLE STREAM	0.20	08/12/2023	$0.00	FAIRHOPE CH RECY	MG	1750105	705952		
BCSW106	SS SINGLE STREAM	0.38	08/14/2023	$0.00	FAIRHOPE CH RECY	MG	1750445	705952		
BCSW160	SS SINGLE STREAM	0.98	08/15/2023	$0.00	FAIRHOPE CH RECY	MG	1750686	705952		
BCSW135	SS SINGLE STREAM	0.17	08/15/2023	$0.00	FAIRHOPE CH RECY	MG	1750857	705952		
BCSW135	SS SINGLE STREAM	0.23	08/16/2023	$0.00	FAIRHOPE CH RECY	MG	1751133	705952		
BCSW135	SS SINGLE STREAM	0.09	08/17/2023	$0.00	FAIRHOPE CH RECY	MG	1751336	705952		
BCSW135	SS SINGLE STREAM	0.21	08/18/2023	$0.00	FAIRHOPE CH RECY	MG	1751632	705952		
BCSW135	SS SINGLE STREAM	0.54	08/21/2023	$0.00	FAIRHOPE CH RECY	MG	1752173	705952		
BCSW160	SS SINGLE STREAM	0.36	08/21/2023	$0.00	FAIRHOPE CH RECY	MG	1751911	705952		
BCSW160	SS SINGLE STREAM	0.73	08/22/2023	$0.00	FAIRHOPE CH RECY	MG	1752403	705952		
BCSW135	SS SINGLE STREAM	0.10	08/22/2023	$0.00	FAIRHOPE CH RECY	MG	1752556	705952		
BCSW135	SS SINGLE STREAM	0.27	08/23/2023	$0.00	FAIRHOPE CH RECY	MG	1752827	705952		
BCSW135	SS SINGLE STREAM	0.34	08/25/2023	$0.00	FAIRHOPE CH RECY	MG	1753285	705952		
BCSW135	SS SINGLE STREAM	0.09	08/26/2023	$0.00	FAIRHOPE CH RECY	MG	1753356	705952		
BCSW135	SS SINGLE STREAM	0.48	08/28/2023	$0.00	FAIRHOPE CH RECY	MG	1753729	705952		
BCSW135	SS SINGLE STREAM	0.18	08/29/2023	$0.00	FAIRHOPE CH RECY	MG	1754069	705952		
BCSW135	SS SINGLE STREAM	0.17	08/30/2023	$0.00	FAIRHOPE CH RECY	MG	1754301	705952		
BCSW135	SS SINGLE STREAM	0.36	09/01/2023	$0.00	FAIRHOPE CH RECY	MG	1754824	705952		
BCSW135	SS SINGLE STREAM	0.51	09/04/2023	$0.00	FAIRHOPE CH RECY	MG	1755111	705952		
BCSW135	SS SINGLE STREAM	0.18	09/05/2023	$0.00	FAIRHOPE CH RECY	MG	1755391	705952		
BCSW135	SS SINGLE STREAM	0.22	09/06/2023	$0.00	FAIRHOPE CH RECY	MG	1755735	705952		
BCSW135	SS SINGLE STREAM	0.29	09/07/2023	$0.00	FAIRHOPE CH RECY	MG	1755993	705952		
BCSW135	SS SINGLE STREAM	0.12	09/08/2023	$0.00	FAIRHOPE CH RECY	MG	1756195	705952		
BCSW135	SS SINGLE STREAM	0.44	09/11/2023	$0.00	FAIRHOPE CH RECY	MG	1756639	705952		
BCSW135	SS SINGLE STREAM	0.28	09/13/2023	$0.00	FAIRHOPE CH RECY	MG	1757221	705952		
BCSW135	SS SINGLE STREAM	0.18	09/14/2023	$0.00	FAIRHOPE CH RECY	MG	1757421	705952		
BCSW131	SS SINGLE STREAM	0.18	09/15/2023	$0.00	FAIRHOPE CH RECY	MG	1757627	705952		
BCSW135	SS SINGLE STREAM	0.65	09/18/2023	$0.00	FAIRHOPE CH RECY	MG	1758137	705952		

Truck	MTLabel	NetSTN	DateOut	DetailTotalFee	BillCompany	SiteCode	TranNum	BillAcct	STEntryLabel	Vol
BCSW135	SS SINGLE STREAM	0.33	09/19/2023	$0.00	FAIRHOPE CH RECY	MG	1758432	705952		
BCSW135	SS SINGLE STREAM	0.41	09/20/2023	$0.00	FAIRHOPE CH RECY	MG	1758785	705952		
BCSW135	SS SINGLE STREAM	0.24	09/21/2023	$0.00	FAIRHOPE CH RECY	MG	1758937	705952		
BCSW135	SS SINGLE STREAM	0.31	09/22/2023	$0.00	FAIRHOPE CH RECY	MG	1759269	705952		
BCSW135	SS SINGLE STREAM	0.61	09/26/2023	$0.00	FAIRHOPE CH RECY	MG	1761328	705952		
BCSW135	SS SINGLE STREAM	0.29	09/26/2023	$0.00	FAIRHOPE CH RECY	MG	1760159	705952		
BCSW135	SS SINGLE STREAM	0.22	09/27/2023	$0.00	FAIRHOPE CH RECY	MG	1760494	705952		
BCSW135	SS SINGLE STREAM	0.06	09/28/2023	$0.00	FAIRHOPE CH RECY	MG	1760639	705952		
BCSW135	SS SINGLE STREAM	0.29	09/29/2023	$0.00	FAIRHOPE CH RECY	MG	1760984	705952		
BCSW135	SS SINGLE STREAM	0.71	10/02/2023	$0.00	FAIRHOPE CH RECY	MG	1761459	705952		
BCSW135	SS SINGLE STREAM	0.23	10/03/2023	$0.00	FAIRHOPE CH RECY	MG	1761729	705952		
BCSW135	SS SINGLE STREAM	0.30	10/04/2023	$0.00	FAIRHOPE CH RECY	MG	1763350	705952		
BCSW135	SS SINGLE STREAM	0.27	10/05/2023	$0.00	FAIRHOPE CH RECY	MG	1762258	705952		
BCSW135	SS SINGLE STREAM	0.18	10/06/2023	$0.00	FAIRHOPE CH RECY	MG	1762364	705952		
BCSW135	SS SINGLE STREAM	0.54	10/09/2023	$0.00	FAIRHOPE CH RECY	MG	1762990	705952		
BCSW128	SS SINGLE STREAM	0.22	10/10/2023	$0.00	FAIRHOPE CH RECY	MG	1763199	705952		
BCSW135	SS SINGLE STREAM	0.26	10/10/2023	$0.00	FAIRHOPE CH RECY	MG	1763286	705952		
BCSW135	SS SINGLE STREAM	0.35	10/11/2023	$0.00	FAIRHOPE CH RECY	MG	1763570	705952		
BCSW135	SS SINGLE STREAM	0.27	10/12/2023	$0.00	FAIRHOPE CH RECY	MG	1763782	705952		
BCSW135	SS SINGLE STREAM	0.07	10/13/2023	$0.00	FAIRHOPE CH RECY	MG	1763837	705952		
BCSW135	SS SINGLE STREAM	0.71	10/16/2023	$0.00	FAIRHOPE CH RECY	MG	1764443	705952		
BCSW135	SS SINGLE STREAM	0.43	10/17/2023	$0.00	FAIRHOPE CH RECY	MG	1764749	705952		
BCSW135	SS SINGLE STREAM	0.34	10/18/2023	$0.00	FAIRHOPE CH RECY	MG	1765042	705952		
BCSW135	SS SINGLE STREAM	0.32	10/19/2023	$0.00	FAIRHOPE CH RECY	MG	1765308	705952		
BCSW135	SS SINGLE STREAM	0.18	10/20/2023	$0.00	FAIRHOPE CH RECY	MG	1765443	705952		
BCSW135	SS SINGLE STREAM	0.62	10/23/2023	$0.00	FAIRHOPE CH RECY	MG	1766030	705952		
BCSW135	SS SINGLE STREAM	0.33	10/24/2023	$0.00	FAIRHOPE CH RECY	MG	1766337	705952		
BCSW135	SS SINGLE STREAM	0.16	10/26/2023	$0.00	FAIRHOPE CH RECY	MG	1766912	705952		
BCSW135	SS SINGLE STREAM	0.38	10/26/2023	$0.00	FAIRHOPE CH RECY	MG	1766727	705952		
BCSW135	SS SINGLE STREAM	0.33	10/27/2023	$0.00	FAIRHOPE CH RECY	MG	1767130	705952		
BCSW135	SS SINGLE STREAM	0.36	10/30/2023	$0.00	FAIRHOPE CH RECY	MG	1767449	705952		
BCSW135	SS SINGLE STREAM	0.13	10/31/2023	$0.00	FAIRHOPE CH RECY	MG	1767793	705952		
BCSW135	SS SINGLE STREAM	0.67	11/02/2023	$0.00	FAIRHOPE CH RECY	MG	1768249	705952		
BCSW135	SS SINGLE STREAM	0.31	11/03/2023	$0.00	FAIRHOPE CH RECY	MG	1768537	705952		
BCSW135	SS SINGLE STREAM	0.56	11/06/2023	$0.00	FAIRHOPE CH RECY	MG	1769003	705952		
BCSW135	SS SINGLE STREAM	0.27	11/07/2023	$0.00	FAIRHOPE CH RECY	MG	1769274	705952		
BCSW135	SS SINGLE STREAM	0.13	11/09/2023	$0.00	FAIRHOPE CH RECY	MG	1769835	705952		
BCSW135	SS SINGLE STREAM	0.39	11/09/2023	$0.00	FAIRHOPE CH RECY	MG	1769838	705952		
BCSW135	SS SINGLE STREAM	0.19	11/10/2023	$0.00	FAIRHOPE CH RECY	MG	1769948	705952		
BCSW135	SS SINGLE STREAM	0.60	11/13/2023	$0.00	FAIRHOPE CH RECY	MG	1770491	705952		
BCSW135	SS SINGLE STREAM	0.20	11/14/2023	$0.00	FAIRHOPE CH RECY	MG	1770740	705952		
BCSW135	SS SINGLE STREAM	0.24	11/15/2023	$0.00	FAIRHOPE CH RECY	MG	1770918	705952		
BCSW135	SS SINGLE STREAM	0.25	11/16/2023	$0.00	FAIRHOPE CH RECY	MG	1771097	705952		
BCSW135	SS SINGLE STREAM	0.28	11/17/2023	$0.00	FAIRHOPE CH RECY	MG	1771351	705952		
BCSW135	SS SINGLE STREAM	0.84	11/20/2023	$0.00	FAIRHOPE CH RECY	MG	1771854	705952		
BCSW135	SS SINGLE STREAM	0.39	11/21/2023	$0.00	FAIRHOPE CH RECY	MG	1772072	705952		
BCSW135	SS SINGLE STREAM	0.42	11/22/2023	$0.00	FAIRHOPE CH RECY	MG	1772309	705952		
BCSW135	SS SINGLE STREAM	0.38	11/24/2023	$0.00	FAIRHOPE CH RECY	MG	1772495	705952		
BCSW135	SS SINGLE STREAM	0.46	11/27/2023	$0.00	FAIRHOPE CH RECY	MG	1772869	705952		
BCSW135	SS SINGLE STREAM	0.35	11/28/2023	$0.00	FAIRHOPE CH RECY	MG	1773193	705952		
BCSW135	SS SINGLE STREAM	0.39	11/29/2023	$0.00	FAIRHOPE CH RECY	MG	1773470	705952		
BCSW135	SS SINGLE STREAM	0.31	11/30/2023	$0.00	FAIRHOPE CH RECY	MG	1773736	705952		
BCSW135	SS SINGLE STREAM	0.20	12/01/2023	$0.00	FAIRHOPE CH RECY	MG	1773989	705952		
BCSW135	SS SINGLE STREAM	0.63	12/04/2023	$0.00	FAIRHOPE CH RECY	MG	1774273	705952		
BCSW135	SS SINGLE STREAM	0.40	12/05/2023	$0.00	FAIRHOPE CH RECY	MG	1774523	705952		
BCSW135	SS SINGLE STREAM	0.44	12/06/2023	$0.00	FAIRHOPE CH RECY	MG	1774790	705952		
BCSW135	SS SINGLE STREAM	0.44	12/07/2023	$0.00	FAIRHOPE CH RECY	MG	1775052	705952		
BCSW135	SS SINGLE STREAM	0.24	12/08/2023	$0.00	FAIRHOPE CH RECY	MG	1775174	705952		
BCSW135	SS SINGLE STREAM	0.62	12/11/2023	$0.00	FAIRHOPE CH RECY	MG	1775686	705952		
BCSW135	SS SINGLE STREAM	0.32	12/12/2023	$0.00	FAIRHOPE CH RECY	MG	1775975	705952		
BCSW135	SS SINGLE STREAM	0.25	12/13/2023	$0.00	FAIRHOPE CH RECY	MG	1776307	705952		
BCSW135	SS SINGLE STREAM	0.20	12/14/2023	$0.00	FAIRHOPE CH RECY	MG	1776495	705952		
BCSW135	SS SINGLE STREAM	0.42	12/18/2023	$0.00	FAIRHOPE CH RECY	MG	1777286	705952		
BCSW135	SS SINGLE STREAM	0.32	12/19/2023	$0.00	FAIRHOPE CH RECY	MG	1777533	705952		
BCSW135	SS SINGLE STREAM	0.39	12/20/2023	$0.00	FAIRHOPE CH RECY	MG	1777806	705952		
BCSW135	SS SINGLE STREAM	0.32	12/21/2023	$0.00	FAIRHOPE CH RECY	MG	1778063	705952		
BCSW106	SS SINGLE STREAM	0.50	12/26/2023	$0.00	FAIRHOPE CH RECY	MG	1778599	705952		

Truck	MTLabel	NetSTN	DateOut	DetailTotalFee	BillCompany	SiteCode	TranNum	BillAcct	STEntryLabel	Vol
BCSW135	SS SINGLE STREAM	0.73	12/27/2023	$0.00	FAIRHOPE CH RECY	MG	1778659	705952		
BCSW135	SS SINGLE STREAM	0.37	12/27/2023	$0.00	FAIRHOPE CH RECY	MG	1778878	705952		
BCSW106	SS SINGLE STREAM	0.49	12/28/2023	$0.00	FAIRHOPE CH RECY	MG	1778948	705952		
BCSW135	SS SINGLE STREAM	0.38	12/28/2023	$0.00	FAIRHOPE CH RECY	MG	1779191	705952		
BCSW135	SS SINGLE STREAM	0.23	12/29/2023	$0.00	FAIRHOPE CH RECY	MG	1779445	705952		
BCSW101	SS SINGLE STREAM	0.82	01/02/2024	$0.00	FAIRHOPE CH RECY	MG	1779679	705952		
BCSW106	SS SINGLE STREAM	0.21	01/02/2024	$0.00	FAIRHOPE CH RECY	MG	1779812	705952		
BCSW135	SS SINGLE STREAM	0.68	01/02/2024	$0.00	FAIRHOPE CH RECY	MG	1779949	705952		
BCSW135	SS SINGLE STREAM	0.22	01/03/2024	$0.00	FAIRHOPE CH RECY	MG	1780177	705952		
BCSW135	SS SINGLE STREAM	0.24	01/04/2024	$0.00	FAIRHOPE CH RECY	MG	1780461	705952		
BCSW135	SS SINGLE STREAM	0.17	01/05/2024	$0.00	FAIRHOPE CH RECY	MG	1780591	705952		
BCSW135	SS SINGLE STREAM	0.74	01/08/2024	$0.00	FAIRHOPE CH RECY	MG	1781076	705952		
BCSW106	SS SINGLE STREAM	0.43	01/09/2024	$0.00	FAIRHOPE CH RECY	MG	1781188	705952		
BCSW135	SS SINGLE STREAM	0.07	01/09/2024	$0.00	FAIRHOPE CH RECY	MG	1781206	705952		
BCSW135	SS SINGLE STREAM	0.33	01/10/2024	$0.00	FAIRHOPE CH RECY	MG	1781510	705952		
BCSW135	SS SINGLE STREAM	0.17	01/11/2024	$0.00	FAIRHOPE CH RECY	MG	1781763	705952		
BCSW135	SS SINGLE STREAM	0.12	01/12/2024	$0.00	FAIRHOPE CH RECY	MG	1781891	705952		
BCSW135	SS SINGLE STREAM	0.50	01/15/2024	$0.00	FAIRHOPE CH RECY	MG	1782281	705952		
BCSW135	SS SINGLE STREAM	0.41	01/16/2024	$0.00	FAIRHOPE CH RECY	MG	1782558	705952		
BCSW135	SS SINGLE STREAM	0.14	01/17/2024	$0.00	FAIRHOPE CH RECY	MG	1782806	705952		
BCSW135	SS SINGLE STREAM	0.15	01/18/2024	$0.00	FAIRHOPE CH RECY	MG	1783030	705952		
BCSW135	SS SINGLE STREAM	0.12	01/19/2024	$0.00	FAIRHOPE CH RECY	MG	1783209	705952		
BCSW135	SS SINGLE STREAM	0.53	01/22/2024	$0.00	FAIRHOPE CH RECY	MG	1783719	705952		
BCSW135	SS SINGLE STREAM	0.20	01/23/2024	$0.00	FAIRHOPE CH RECY	MG	1783961	705952		
BCSW135	SS SINGLE STREAM	0.48	01/25/2024	$0.00	FAIRHOPE CH RECY	MG	1784262	705952		
BCSW135	SS SINGLE STREAM	0.05	01/25/2024	$0.00	FAIRHOPE CH RECY	MG	1784338	705952		
BCSW135	SS SINGLE STREAM	0.12	01/26/2024	$0.00	FAIRHOPE CH RECY	MG	1784498	705952		
BCSW135	SS SINGLE STREAM	0.68	01/29/2024	$0.00	FAIRHOPE CH RECY	MG	1784979	705952		
BCSW135	SS SINGLE STREAM	0.28	01/30/2024	$0.00	FAIRHOPE CH RECY	MG	1785264	705952		
BCSW135	SS SINGLE STREAM	0.35	01/31/2024	$0.00	FAIRHOPE CH RECY	MG	1785542	705952		
BCSW135	SS SINGLE STREAM	0.05	02/01/2024	$0.00	FAIRHOPE CH RECY	MG	1785710	705952		
BCSW135	SS SINGLE STREAM	0.31	02/02/2024	$0.00	FAIRHOPE CH RECY	MG	1785959	705952		
BCSW135	SS SINGLE STREAM	0.67	02/05/2024	$0.00	FAIRHOPE CH RECY	MG	1786520	705952		
BCSW135	SS SINGLE STREAM	0.34	02/06/2024	$0.00	FAIRHOPE CH RECY	MG	1786826	705952		
BCSW135	SS SINGLE STREAM	0.40	02/07/2024	$0.00	FAIRHOPE CH RECY	MG	1787136	705952		
BCSW135	SS SINGLE STREAM	0.20	02/08/2024	$0.00	FAIRHOPE CH RECY	MG	1787363	705952		
BCSW135	SS SINGLE STREAM	0.09	02/09/2024	$0.00	FAIRHOPE CH RECY	MG	1787532	705952		
BCSW135	SS SINGLE STREAM	0.71	02/12/2024	$0.00	FAIRHOPE CH RECY	MG	1787952	705952		
BCSW135	SS SINGLE STREAM	0.38	02/13/2024	$0.00	FAIRHOPE CH RECY	MG	1788237	705952		
BCSW135	SS SINGLE STREAM	0.26	02/14/2024	$0.00	FAIRHOPE CH RECY	MG	1788558	705952		
BCSW135	SS SINGLE STREAM	0.06	02/15/2024	$0.00	FAIRHOPE CH RECY	MG	1788689	705952		
BCSW135	SS SINGLE STREAM	0.36	02/16/2024	$0.00	FAIRHOPE CH RECY	MG	1789044	705952		
BCSW135	SS SINGLE STREAM	0.61	02/19/2024	$0.00	FAIRHOPE CH RECY	MG	1789475	705952		
BCSW135	SS SINGLE STREAM	0.18	02/20/2024	$0.00	FAIRHOPE CH RECY	MG	1789757	705952		
BCSW135	SS SINGLE STREAM	0.54	02/21/2024	$0.00	FAIRHOPE CH RECY	MG	1790066	705952		
BCSW135	SS SINGLE STREAM	0.14	02/22/2024	$0.00	FAIRHOPE CH RECY	MG	1790296	705952		
BCSW135	SS SINGLE STREAM	0.27	02/23/2024	$0.00	FAIRHOPE CH RECY	MG	1790571	705952		
BCSW135	SS SINGLE STREAM	0.62	02/26/2024	$0.00	FAIRHOPE CH RECY	MG	1792316	705952		
BCSW135	SS SINGLE STREAM	0.25	02/27/2024	$0.00	FAIRHOPE CH RECY	MG	1791564	705952		
BCSW135	SS SINGLE STREAM	0.45	02/28/2024	$0.00	FAIRHOPE CH RECY	MG	1791866	705952		
BCSW135	SS SINGLE STREAM	0.12	02/29/2024	$0.00	FAIRHOPE CH RECY	MG	1792107	705952		
BCSW135	SS SINGLE STREAM	0.06	03/01/2024	$0.00	FAIRHOPE CH RECY	MG	1792354	705952		
BCSW135	SS SINGLE STREAM	0.78	03/05/2024	$0.00	FAIRHOPE CH RECY	MG	1798146	705952		
BCSW135	SS SINGLE STREAM	0.26	03/05/2024	$0.00	FAIRHOPE CH RECY	MG	1793024	705952		
BCSW135	SS SINGLE STREAM	0.23	03/06/2024	$0.00	FAIRHOPE CH RECY	MG	1793309	705952		
BCSW135	SS SINGLE STREAM	0.25	03/07/2024	$0.00	FAIRHOPE CH RECY	MG	1793637	705952		
BCSW135	SS SINGLE STREAM	0.11	03/08/2024	$0.00	FAIRHOPE CH RECY	MG	1793839	705952		
BCSW135	SS SINGLE STREAM	0.62	03/11/2024	$0.00	FAIRHOPE CH RECY	MG	1794360	705952		
BCSW135	SS SINGLE STREAM	0.36	03/12/2024	$0.00	FAIRHOPE CH RECY	MG	1794686	705952		
BCSW135	SS SINGLE STREAM	0.32	03/13/2024	$0.00	FAIRHOPE CH RECY	MG	1794977	705952		
BCSW135	SS SINGLE STREAM	0.35	03/14/2024	$0.00	FAIRHOPE CH RECY	MG	1795282	705952		
BCSW135	SS SINGLE STREAM	0.19	03/15/2024	$0.00	FAIRHOPE CH RECY	MG	1795445	705952		
BCSW135	SS SINGLE STREAM	0.67	03/18/2024	$0.00	FAIRHOPE CH RECY	MG	1795960	705952		
BCSW135	SS SINGLE STREAM	0.07	03/19/2024	$0.00	FAIRHOPE CH RECY	MG	1798144	705952		
BCSW135	SS SINGLE STREAM	0.27	03/20/2024	$0.00	FAIRHOPE CH RECY	MG	1796620	705952		
BCSW135	SS SINGLE STREAM	0.16	03/21/2024	$0.00	FAIRHOPE CH RECY	MG	1796786	705952		
BCSW135	SS SINGLE STREAM	0.15	03/22/2024	$0.00	FAIRHOPE CH RECY	MG	1797132	705952		

Truck	MTLabel	NetSTN	DateOut	DetailTotalFee	BillCompany	SiteCode	TranNum	BillAcct	STEntryLabel	Vol
BCSW135	SS SINGLE STREAM	0.89	03/25/2024	$0.00	FAIRHOPE CH RECY	MG	1797616	705952		
BCSW135	SS SINGLE STREAM	0.13	03/26/2024	$0.00	FAIRHOPE CH RECY	MG	1797844	705952		
BCSW135	SS SINGLE STREAM	0.31	03/27/2024	$0.00	FAIRHOPE CH RECY	MG	1798118	705952		
BCSW135	SS SINGLE STREAM	0.25	03/28/2024	$0.00	FAIRHOPE CH RECY	MG	1798338	705952		
BCSW135	SS SINGLE STREAM	0.33	03/29/2024	$0.00	FAIRHOPE CH RECY	MG	1798620	705952		

Grand Summaries

Sum = 91.21 Sum = $0.00 Count = 268

May 03,2024 11:57 AM

Totals

ADEM Tonnage - RECYCLE by Site by Day
(((Trans.DateOut BETWEEN '2023-04-01' AND '2024-03-31')
AND (Trans.Void = 0)
AND (Trans.BillAcct BETWEEN '0' AND '9999999')
AND (Trans.SiteCode LIKE 'MG%')
AND (vwMT.Label IN ('SS SINGLE STREAM'))))

Truck	MTLabel	NetSTN	DateOut	DetailTotalFee	BillCompany	SiteCode	TranNum	BillAcct	STEntryLabel	Vol
BCSW135	SS SINGLE STREAM	0.09	04/05/2023	$0.00	MACBRIDE RECY	MG	1726162	705957		
BCSW135	SS SINGLE STREAM	0.10	04/05/2023	$0.00	MACBRIDE RECY	MG	1726192	705957		
BCSW135	SS SINGLE STREAM	0.29	04/12/2023	$0.00	MACBRIDE RECY	MG	1726500	705957		
BCSW135	SS SINGLE STREAM	0.37	04/19/2023	$0.00	MACBRIDE RECY	MG	1726573	705957		
BCSW135	SS SINGLE STREAM	0.52	04/19/2023	$0.00	MACBRIDE RECY	MG	1726576	705957		
BCSW135	SS SINGLE STREAM	0.17	04/26/2023	$0.00	MACBRIDE RECY	MG	1726755	705957		
BCSW135	SS SINGLE STREAM	0.08	04/26/2023	$0.00	MACBRIDE RECY	MG	1726756	705957		
BCSW135	SS SINGLE STREAM	0.37	05/03/2023	$0.00	MACBRIDE RECY	MG	1727801	705957		
BCSW135	SS SINGLE STREAM	0.38	05/03/2023	$0.00	MACBRIDE RECY	MG	1727802	705957		
BCSW135	SS SINGLE STREAM	0.41	05/10/2023	$0.00	MACBRIDE RECY	MG	1730832	705957		
BCSW135	SS SINGLE STREAM	0.44	05/10/2023	$0.00	MACBRIDE RECY	MG	1730834	705957		
BCSW135	SS SINGLE STREAM	0.20	05/17/2023	$0.00	MACBRIDE RECY	MG	1733352	705957		
BCSW135	SS SINGLE STREAM	0.50	05/24/2023	$0.00	MACBRIDE RECY	MG	1733436	705957		
BCSW135	SS SINGLE STREAM	0.47	05/24/2023	$0.00	MACBRIDE RECY	MG	1733438	705957		
BCSW135	SS SINGLE STREAM	0.38	05/31/2023	$0.00	MACBRIDE RECY	MG	1733899	705957		
BCSW135	SS SINGLE STREAM	0.20	05/31/2023	$0.00	MACBRIDE RECY	MG	1733900	705957		
BCSW135	SS SINGLE STREAM	0.21	06/07/2023	$0.00	MACBRIDE RECY	MG	1736347	705957		
BCSW106	SS SINGLE STREAM	0.29	06/07/2023	$0.00	MACBRIDE RECY	MG	1736348	705957		
BCSW135	SS SINGLE STREAM	0.24	06/14/2023	$0.00	MACBRIDE RECY	MG	1738411	705957		
BCSW135	SS SINGLE STREAM	0.19	06/14/2023	$0.00	MACBRIDE RECY	MG	1738413	705957		
BCSW135	SS SINGLE STREAM	0.39	06/21/2023	$0.00	MACBRIDE RECY	MG	1739500	705957		
BCSW135	SS SINGLE STREAM	0.30	06/28/2023	$0.00	MACBRIDE RECY	MG	1740269	705957		
BCSW135	SS SINGLE STREAM	0.40	06/28/2023	$0.00	MACBRIDE RECY	MG	1740270	705957		
BCSW135	SS SINGLE STREAM	0.49	07/05/2023	$0.00	MACBRIDE RECY	MG	1742867	705957		
BCSW135	SS SINGLE STREAM	0.47	07/05/2023	$0.00	MACBRIDE RECY	MG	1742871	705957		
BCSW135	SS SINGLE STREAM	0.39	07/12/2023	$0.00	MACBRIDE RECY	MG	1743203	705957		
BCSW135	SS SINGLE STREAM	0.50	07/19/2023	$0.00	MACBRIDE RECY	MG	1745690	705957		
BCSW135	SS SINGLE STREAM	1.41	07/19/2023	$0.00	MACBRIDE RECY	MG	1745691	705957		
BCSW106	SS SINGLE STREAM	0.76	07/26/2023	$0.00	MACBRIDE RECY	MG	1746249	705957		
BCSW135	SS SINGLE STREAM	0.35	08/02/2023	$0.00	MACBRIDE RECY	MG	1747954	705957		
BCSW135	SS SINGLE STREAM	0.28	08/02/2023	$0.00	MACBRIDE RECY	MG	1747991	705957		
BCSW135	SS SINGLE STREAM	0.21	08/09/2023	$0.00	MACBRIDE RECY	MG	1749544	705957		
BCSW135	SS SINGLE STREAM	0.30	08/16/2023	$0.00	MACBRIDE RECY	MG	1751093	705957		
BCSW135	SS SINGLE STREAM	0.21	08/16/2023	$0.00	MACBRIDE RECY	MG	1751168	705957		
BCSW135	SS SINGLE STREAM	0.41	08/23/2023	$0.00	MACBRIDE RECY	MG	1752807	705957		
BCSW135	SS SINGLE STREAM	0.76	08/30/2023	$0.00	MACBRIDE RECY	MG	1754256	705957		
BCSW135	SS SINGLE STREAM	0.38	08/30/2023	$0.00	MACBRIDE RECY	MG	1754341	705957		
BCSW135	SS SINGLE STREAM	0.33	09/06/2023	$0.00	MACBRIDE RECY	MG	1755701	705957		
BCSW135	SS SINGLE STREAM	0.45	09/13/2023	$0.00	MACBRIDE RECY	MG	1757189	705957		
BCSW135	SS SINGLE STREAM	0.44	09/13/2023	$0.00	MACBRIDE RECY	MG	1760498	705957		
BCSW135	SS SINGLE STREAM	0.60	09/20/2023	$0.00	MACBRIDE RECY	MG	1758819	705957		
BCSW135	SS SINGLE STREAM	0.37	09/27/2023	$0.00	MACBRIDE RECY	MG	1760447	705957		
BCSW135	SS SINGLE STREAM	0.48	09/27/2023	$0.00	MACBRIDE RECY	MG	1761330	705957		
BCSW135	SS SINGLE STREAM	0.31	10/04/2023	$0.00	MACBRIDE RECY	MG	1762007	705957		
BCSW135	SS SINGLE STREAM	0.19	10/04/2023	$0.00	MACBRIDE RECY	MG	1762053	705957		
BCSW135	SS SINGLE STREAM	0.40	10/11/2023	$0.00	MACBRIDE RECY	MG	1763533	705957		
BCSW135	SS SINGLE STREAM	0.39	10/18/2023	$0.00	MACBRIDE RECY	MG	1765000	705957		
BCSW135	SS SINGLE STREAM	0.82	10/20/2023	$0.00	MACBRIDE RECY	MG	1765584	705957		
BCSW135	SS SINGLE STREAM	0.49	10/20/2023	$0.00	MACBRIDE RECY	MG	1765590	705957		
BCSW135	SS SINGLE STREAM	0.13	10/25/2023	$0.00	MACBRIDE RECY	MG	1766653	705957		
BCSW135	SS SINGLE STREAM	0.53	11/01/2023	$0.00	MACBRIDE RECY	MG	1768033	705957		
BCSW135	SS SINGLE STREAM	0.33	11/01/2023	$0.00	MACBRIDE RECY	MG	1768069	705957		
BCSW135	SS SINGLE STREAM	0.44	11/08/2023	$0.00	MACBRIDE RECY	MG	1769529	705957		
BCSW135	SS SINGLE STREAM	0.31	11/08/2023	$0.00	MACBRIDE RECY	MG	1769596	705957		
BCSW135	SS SINGLE STREAM	0.43	11/15/2023	$0.00	MACBRIDE RECY	MG	1770877	705957		
BCSW135	SS SINGLE STREAM	0.46	11/15/2023	$0.00	MACBRIDE RECY	MG	1770909	705957		
BCSW135	SS SINGLE STREAM	0.44	11/22/2023	$0.00	MACBRIDE RECY	MG	1772267	705957		
BCSW135	SS SINGLE STREAM	0.40	11/29/2023	$0.00	MACBRIDE RECY	MG	1773439	705957		
BCSW135	SS SINGLE STREAM	0.46	11/30/2023	$0.00	MACBRIDE RECY	MG	1773530	705957		
BCSW135	SS SINGLE STREAM	0.65	12/07/2023	$0.00	MACBRIDE RECY	MG	1775083	705957		
BCSW135	SS SINGLE STREAM	0.43	12/13/2023	$0.00	MACBRIDE RECY	MG	1776260	705957		

Truck	MTLabel	NetSTN	DateOut	DetailTotalFee	BillCompany	SiteCode	TranNum	BillAcct	STEntryLabel	Vol
BCSW135	SS SINGLE STREAM	0.48	12/14/2023	$0.00	MACBRIDE RECY	MG	1776457	705957		
BCSW135	SS SINGLE STREAM	0.28	12/20/2023	$0.00	MACBRIDE RECY	MG	1777845	705957		
BCSW135	SS SINGLE STREAM	0.63	12/28/2023	$0.00	MACBRIDE RECY	MG	1779145	705957		
BCSW135	SS SINGLE STREAM	0.37	01/08/2024	$0.00	MACBRIDE RECY	MG	1780819	705957		
BCSW135	SS SINGLE STREAM	0.32	01/10/2024	$0.00	MACBRIDE RECY	MG	1781462	705957		
BCSW135	SS SINGLE STREAM	0.51	01/11/2024	$0.00	MACBRIDE RECY	MG	1781561	705957		
BCSW135	SS SINGLE STREAM	0.45	01/17/2024	$0.00	MACBRIDE RECY	MG	1782744	705957		
BCSW135	SS SINGLE STREAM	0.43	01/18/2024	$0.00	MACBRIDE RECY	MG	1782925	705957		
BCSW135	SS SINGLE STREAM	0.14	01/24/2024	$0.00	MACBRIDE RECY	MG	1784228	705957		
BCSW135	SS SINGLE STREAM	0.35	01/31/2024	$0.00	MACBRIDE RECY	MG	1785490	705957		
BCSW135	SS SINGLE STREAM	0.41	02/01/2024	$0.00	MACBRIDE RECY	MG	1785597	705957		
BCSW135	SS SINGLE STREAM	0.30	02/07/2024	$0.00	MACBRIDE RECY	MG	1787085	705957		
BCSW135	SS SINGLE STREAM	0.25	02/14/2024	$0.00	MACBRIDE RECY	MG	1788507	705957		
BCSW135	SS SINGLE STREAM	0.25	02/15/2024	$0.00	MACBRIDE RECY	MG	1788695	705957		
BCSW135	SS SINGLE STREAM	0.38	02/21/2024	$0.00	MACBRIDE RECY	MG	1790024	705957		
BCSW135	SS SINGLE STREAM	0.32	02/22/2024	$0.00	MACBRIDE RECY	MG	1790167	705957		
BCSW135	SS SINGLE STREAM	0.23	02/28/2024	$0.00	MACBRIDE RECY	MG	1791816	705957		
BCSW135	SS SINGLE STREAM	1.20	02/29/2024	$0.00	MACBRIDE RECY	MG	1791926	705957		
BCSW135	SS SINGLE STREAM	0.37	03/06/2024	$0.00	MACBRIDE RECY	MG	1793257	705957		
BCSW135	SS SINGLE STREAM	0.20	03/13/2024	$0.00	MACBRIDE RECY	MG	1794926	705957		
BCSW135	SS SINGLE STREAM	0.35	03/14/2024	$0.00	MACBRIDE RECY	MG	1795044	705957		
BCSW135	SS SINGLE STREAM	0.26	03/20/2024	$0.00	MACBRIDE RECY	MG	1796583	705957		
BCSW135	SS SINGLE STREAM	0.29	03/21/2024	$0.00	MACBRIDE RECY	MG	1796666	705957		
BCSW135	SS SINGLE STREAM	0.49	03/27/2024	$0.00	MACBRIDE RECY	MG	1798073	705957		
BCSW135	SS SINGLE STREAM	0.52	03/28/2024	$0.00	MACBRIDE RECY	MG	1798181	705957		
Grand Summaries										
		Sum = 33.97		Sum = $0.00			Count = 86			

May 03,2024 12:35 PM

Totals

ADEM Tonnage - RECYCLE by Site by Day
(((Trans.DateOut BETWEEN '2023-04-01' AND '2024-03-31')
AND (Trans.Void = 0)
AND (Trans.BillAcct BETWEEN '0' AND '9999999')
AND (Trans.SiteCode LIKE 'MG%')
AND (vwMT.Label IN ('SS SINGLE STREAM'))))

Truck	MTLabel	NetSTN	DateOut	DetailTotalFee	BillCompany	SiteCode	TranNum	BillAcct	STEntryLabel	Vol
BCSW131	SS SINGLE STREAM	0.41	04/03/2023	$0.00	SPANISH FT KIDS RECY	MG	1726142	705965		
BCSW131	SS SINGLE STREAM	0.42	04/03/2023	$0.00	SPANISH FT KIDS RECY	MG	1726145	705965		
BCSW131	SS SINGLE STREAM	0.34	04/06/2023	$0.00	SPANISH FT KIDS RECY	MG	1726207	705965		
BCSW131	SS SINGLE STREAM	0.45	04/06/2023	$0.00	SPANISH FT KIDS RECY	MG	1726211	705965		
BCSW135	SS SINGLE STREAM	0.22	04/07/2023	$0.00	SPANISH FT KIDS RECY	MG	1726214	705965		
BCSW131	SS SINGLE STREAM	0.51	04/10/2023	$0.00	SPANISH FT KIDS RECY	MG	1726222	705965		
BCSW131	SS SINGLE STREAM	0.43	04/10/2023	$0.00	SPANISH FT KIDS RECY	MG	1726226	705965		
BCSW131	SS SINGLE STREAM	0.57	04/13/2023	$0.00	SPANISH FT KIDS RECY	MG	1726509	705965		
BCSW131	SS SINGLE STREAM	0.74	04/13/2023	$0.00	SPANISH FT KIDS RECY	MG	1726512	705965		
BCSW135	SS SINGLE STREAM	0.08	04/14/2023	$0.00	SPANISH FT KIDS RECY	MG	1726516	705965		
BCSW131	SS SINGLE STREAM	0.54	04/17/2023	$0.00	SPANISH FT KIDS RECY	MG	1726542	705965		
BCSW131	SS SINGLE STREAM	0.49	04/17/2023	$0.00	SPANISH FT KIDS RECY	MG	1726544	705965		
BCSW131	SS SINGLE STREAM	0.39	04/20/2023	$0.00	SPANISH FT KIDS RECY	MG	1726587	705965		
BCSW131	SS SINGLE STREAM	0.39	04/20/2023	$0.00	SPANISH FT KIDS RECY	MG	1726683	705965		
BCSW131	SS SINGLE STREAM	0.47	04/24/2023	$0.00	SPANISH FT KIDS RECY	MG	1726730	705965		
BCSW131	SS SINGLE STREAM	0.42	04/24/2023	$0.00	SPANISH FT KIDS RECY	MG	1726731	705965		
BCSW131	SS SINGLE STREAM	0.43	04/26/2023	$0.00	SPANISH FT KIDS RECY	MG	1726758	705965		
BCSW131	SS SINGLE STREAM	0.26	04/27/2023	$0.00	SPANISH FT KIDS RECY	MG	1726762	705965		
BCSW135	SS SINGLE STREAM	0.10	04/28/2023	$0.00	SPANISH FT KIDS RECY	MG	1726777	705965		
BCSW131	SS SINGLE STREAM	0.51	05/01/2023	$0.00	SPANISH FT KIDS RECY	MG	1733885	705965		
BCSW131	SS SINGLE STREAM	0.53	05/01/2023	$0.00	SPANISH FT KIDS RECY	MG	1733889	705965		
BCSW131	SS SINGLE STREAM	0.42	05/04/2023	$0.00	SPANISH FT KIDS RECY	MG	1727812	705965		
BCSW131	SS SINGLE STREAM	0.46	05/04/2023	$0.00	SPANISH FT KIDS RECY	MG	1727819	705965		
BCSW135	SS SINGLE STREAM	0.23	05/05/2023	$0.00	SPANISH FT KIDS RECY	MG	1728668	705965		
BCSW131	SS SINGLE STREAM	0.91	05/08/2023	$0.00	SPANISH FT KIDS RECY	MG	1729038	705965		
BCSW131	SS SINGLE STREAM	0.56	05/08/2023	$0.00	SPANISH FT KIDS RECY	MG	1729042	705965		
BCSW131	SS SINGLE STREAM	0.44	05/11/2023	$0.00	SPANISH FT KIDS RECY	MG	1730845	705965		
BCSW131	SS SINGLE STREAM	0.87	05/11/2023	$0.00	SPANISH FT KIDS RECY	MG	1730853	705965		
BCSW106	SS SINGLE STREAM	0.20	05/12/2023	$0.00	SPANISH FT KIDS RECY	MG	1730854	705965		
BCSW131	SS SINGLE STREAM	0.37	05/15/2023	$0.00	SPANISH FT KIDS RECY	MG	1730892	705965		
BCSW131	SS SINGLE STREAM	0.42	05/15/2023	$0.00	SPANISH FT KIDS RECY	MG	1730896	705965		
BCSW131	SS SINGLE STREAM	0.35	05/18/2023	$0.00	SPANISH FT KIDS RECY	MG	1733356	705965		
BCSW131	SS SINGLE STREAM	0.41	05/18/2023	$0.00	SPANISH FT KIDS RECY	MG	1733363	705965		
BCSW135	SS SINGLE STREAM	0.26	05/19/2023	$0.00	SPANISH FT KIDS RECY	MG	1733376	705965		
BCSW131	SS SINGLE STREAM	0.71	05/22/2023	$0.00	SPANISH FT KIDS RECY	MG	1733408	705965		
BCSW131	SS SINGLE STREAM	0.54	05/22/2023	$0.00	SPANISH FT KIDS RECY	MG	1733411	705965		
BCSW131	SS SINGLE STREAM	0.41	05/25/2023	$0.00	SPANISH FT KIDS RECY	MG	1733444	705965		
BCSW131	SS SINGLE STREAM	0.47	05/25/2023	$0.00	SPANISH FT KIDS RECY	MG	1733450	705965		
BCSW135	SS SINGLE STREAM	0.34	05/26/2023	$0.00	SPANISH FT KIDS RECY	MG	1733459	705965		
BCSW131	SS SINGLE STREAM	0.37	05/29/2023	$0.00	SPANISH FT KIDS RECY	MG	1733474	705965		
BCSW131	SS SINGLE STREAM	1.07	05/29/2023	$0.00	SPANISH FT KIDS RECY	MG	1733480	705965		
BCSW135	SS SINGLE STREAM	0.44	05/29/2023	$0.00	SPANISH FT KIDS RECY	MG	1733485	705965		
BCSW131	SS SINGLE STREAM	0.41	06/01/2023	$0.00	SPANISH FT KIDS RECY	MG	1735008	705965		
BCSW131	SS SINGLE STREAM	0.47	06/01/2023	$0.00	SPANISH FT KIDS RECY	MG	1735012	705965		
BCSW135	SS SINGLE STREAM	0.30	06/02/2023	$0.00	SPANISH FT KIDS RECY	MG	1735017	705965		
BCSW131	SS SINGLE STREAM	0.54	06/05/2023	$0.00	SPANISH FT KIDS RECY	MG	1735024	705965		
BCSW131	SS SINGLE STREAM	0.48	06/05/2023	$0.00	SPANISH FT KIDS RECY	MG	1735027	705965		
BCSW131	SS SINGLE STREAM	0.46	06/08/2023	$0.00	SPANISH FT KIDS RECY	MG	1736352	705965		
BCSW131	SS SINGLE STREAM	0.60	06/08/2023	$0.00	SPANISH FT KIDS RECY	MG	1736357	705965		
BCSW135	SS SINGLE STREAM	0.12	06/09/2023	$0.00	SPANISH FT KIDS RECY	MG	1736361	705965		
BCSW131	SS SINGLE STREAM	0.49	06/12/2023	$0.00	SPANISH FT KIDS RECY	MG	1738386	705965		
BCSW131	SS SINGLE STREAM	0.39	06/12/2023	$0.00	SPANISH FT KIDS RECY	MG	1738389	705965		
BCSW131	SS SINGLE STREAM	0.71	06/15/2023	$0.00	SPANISH FT KIDS RECY	MG	1738434	705965		
BCSW135	SS SINGLE STREAM	0.43	06/16/2023	$0.00	SPANISH FT KIDS RECY	MG	1738447	705965		
BCSW131	SS SINGLE STREAM	0.47	06/19/2023	$0.00	SPANISH FT KIDS RECY	MG	1738456	705965		
BCSW131	SS SINGLE STREAM	0.61	06/19/2023	$0.00	SPANISH FT KIDS RECY	MG	1738459	705965		
BCSW131	SS SINGLE STREAM	0.47	06/22/2023	$0.00	SPANISH FT KIDS RECY	MG	1739506	705965		
BCSW135	SS SINGLE STREAM	0.23	06/23/2023	$0.00	SPANISH FT KIDS RECY	MG	1739511	705965		
BCSW131	SS SINGLE STREAM	0.62	06/26/2023	$0.00	SPANISH FT KIDS RECY	MG	1740227	705965		
BCSW131	SS SINGLE STREAM	0.64	06/26/2023	$0.00	SPANISH FT KIDS RECY	MG	1740229	705965		
BCSW131	SS SINGLE STREAM	0.31	06/29/2023	$0.00	SPANISH FT KIDS RECY	MG	1740275	705965		
BCSW131	SS SINGLE STREAM	0.43	06/29/2023	$0.00	SPANISH FT KIDS RECY	MG	1740379	705965		

Truck	MTLabel	NetSTN	DateOut	DetailTotalFee	BillCompany	SiteCode	TranNum	BillAcct	STEntryLabel	Vol
BCSW135	SS SINGLE STREAM	0.25	06/30/2023	$0.00	SPANISH FT KIDS RECY	MG	1740725	705965		
BCSW131	SS SINGLE STREAM	0.42	07/03/2023	$0.00	SPANISH FT KIDS RECY	MG	1742838	705965		
BCSW131	SS SINGLE STREAM	0.71	07/03/2023	$0.00	SPANISH FT KIDS RECY	MG	1742842	705965		
BCSW131	SS SINGLE STREAM	0.48	07/06/2023	$0.00	SPANISH FT KIDS RECY	MG	1743152	705965		
BCSW131	SS SINGLE STREAM	0.49	07/06/2023	$0.00	SPANISH FT KIDS RECY	MG	1743156	705965		
BCSW135	SS SINGLE STREAM	0.20	07/07/2023	$0.00	SPANISH FT KIDS RECY	MG	1743171	705965		
BCSW131	SS SINGLE STREAM	0.52	07/10/2023	$0.00	SPANISH FT KIDS RECY	MG	1743181	705965		
BCSW131	SS SINGLE STREAM	0.53	07/10/2023	$0.00	SPANISH FT KIDS RECY	MG	1743185	705965		
BCSW131	SS SINGLE STREAM	0.42	07/13/2023	$0.00	SPANISH FT KIDS RECY	MG	1745346	705965		
BCSW131	SS SINGLE STREAM	0.65	07/13/2023	$0.00	SPANISH FT KIDS RECY	MG	1745349	705965		
BCSW135	SS SINGLE STREAM	0.02	07/14/2023	$0.00	SPANISH FT KIDS RECY	MG	1745371	705965		
BCSW131	SS SINGLE STREAM	0.64	07/17/2023	$0.00	SPANISH FT KIDS RECY	MG	1745384	705965		
BCSW131	SS SINGLE STREAM	0.61	07/17/2023	$0.00	SPANISH FT KIDS RECY	MG	1745389	705965		
BCSW131	SS SINGLE STREAM	0.37	07/20/2023	$0.00	SPANISH FT KIDS RECY	MG	1745696	705965		
BCSW131	SS SINGLE STREAM	0.26	07/20/2023	$0.00	SPANISH FT KIDS RECY	MG	1745699	705965		
BCSW106	SS SINGLE STREAM	0.14	07/21/2023	$0.00	SPANISH FT KIDS RECY	MG	1745705	705965		
BCSW131	SS SINGLE STREAM	0.58	07/24/2023	$0.00	SPANISH FT KIDS RECY	MG	1745532	705965		
BCSW131	SS SINGLE STREAM	0.44	07/24/2023	$0.00	SPANISH FT KIDS RECY	MG	1745534	705965		
BCSW131	SS SINGLE STREAM	0.42	07/27/2023	$0.00	SPANISH FT KIDS RECY	MG	1746445	705965		
BCSW131	SS SINGLE STREAM	0.40	07/27/2023	$0.00	SPANISH FT KIDS RECY	MG	1746531	705965		
BCSW106	SS SINGLE STREAM	0.26	07/28/2023	$0.00	SPANISH FT KIDS RECY	MG	1746813	705965		
BCSW131	SS SINGLE STREAM	0.44	07/31/2023	$0.00	SPANISH FT KIDS RECY	MG	1747231	705965		
BCSW131	SS SINGLE STREAM	0.35	07/31/2023	$0.00	SPANISH FT KIDS RECY	MG	1747289	705965		
BCSW131	SS SINGLE STREAM	0.56	08/03/2023	$0.00	SPANISH FT KIDS RECY	MG	1748104	705965		
BCSW131	SS SINGLE STREAM	0.50	08/03/2023	$0.00	SPANISH FT KIDS RECY	MG	1748169	705965		
BCSW135	SS SINGLE STREAM	0.18	08/04/2023	$0.00	SPANISH FT KIDS RECY	MG	1748394	705965		
BCSW131	SS SINGLE STREAM	0.51	08/07/2023	$0.00	SPANISH FT KIDS RECY	MG	1748811	705965		
BCSW131	SS SINGLE STREAM	0.55	08/07/2023	$0.00	SPANISH FT KIDS RECY	MG	1748883	705965		
BCSW131	SS SINGLE STREAM	0.42	08/10/2023	$0.00	SPANISH FT KIDS RECY	MG	1749613	705965		
BCSW131	SS SINGLE STREAM	0.33	08/10/2023	$0.00	SPANISH FT KIDS RECY	MG	1749663	705965		
BCSW135	SS SINGLE STREAM	0.09	08/11/2023	$0.00	SPANISH FT KIDS RECY	MG	1749941	705965		
BCSW131	SS SINGLE STREAM	0.36	08/14/2023	$0.00	SPANISH FT KIDS RECY	MG	1750341	705965		
BCSW131	SS SINGLE STREAM	0.41	08/14/2023	$0.00	SPANISH FT KIDS RECY	MG	1750417	705965		
BCSW131	SS SINGLE STREAM	0.29	08/17/2023	$0.00	SPANISH FT KIDS RECY	MG	1751294	705965		
BCSW131	SS SINGLE STREAM	0.41	08/17/2023	$0.00	SPANISH FT KIDS RECY	MG	1751362	705965		
BCSW131	SS SINGLE STREAM	0.36	08/21/2023	$0.00	SPANISH FT KIDS RECY	MG	1751979	705965		
BCSW131	SS SINGLE STREAM	0.37	08/21/2023	$0.00	SPANISH FT KIDS RECY	MG	1752074	705965		
BCSW131	SS SINGLE STREAM	0.25	08/24/2023	$0.00	SPANISH FT KIDS RECY	MG	1752948	705965		
BCSW131	SS SINGLE STREAM	0.43	08/24/2023	$0.00	SPANISH FT KIDS RECY	MG	1752998	705965		
BCSW131	SS SINGLE STREAM	0.60	08/28/2023	$0.00	SPANISH FT KIDS RECY	MG	1753565	705965		
BCSW131	SS SINGLE STREAM	0.42	08/28/2023	$0.00	SPANISH FT KIDS RECY	MG	1753635	705965		
BCSW131	SS SINGLE STREAM	0.39	08/31/2023	$0.00	SPANISH FT KIDS RECY	MG	1754508	705965		
BCSW131	SS SINGLE STREAM	0.41	08/31/2023	$0.00	SPANISH FT KIDS RECY	MG	1754581	705965		
BCSW131	SS SINGLE STREAM	0.27	09/04/2023	$0.00	SPANISH FT KIDS RECY	MG	1755010	705965		
BCSW131	SS SINGLE STREAM	0.44	09/04/2023	$0.00	SPANISH FT KIDS RECY	MG	1755046	705965		
BCSW131	SS SINGLE STREAM	0.39	09/07/2023	$0.00	SPANISH FT KIDS RECY	MG	1755901	705965		
BCSW131	SS SINGLE STREAM	0.29	09/07/2023	$0.00	SPANISH FT KIDS RECY	MG	1755967	705965		
BCSW135	SS SINGLE STREAM	0.17	09/08/2023	$0.00	SPANISH FT KIDS RECY	MG	1756092	705965		
BCSW131	SS SINGLE STREAM	0.33	09/11/2023	$0.00	SPANISH FT KIDS RECY	MG	1756491	705965		
BCSW131	SS SINGLE STREAM	0.36	09/11/2023	$0.00	SPANISH FT KIDS RECY	MG	1756621	705965		
BCSW131	SS SINGLE STREAM	0.40	09/14/2023	$0.00	SPANISH FT KIDS RECY	MG	1757373	705965		
BCSW131	SS SINGLE STREAM	0.38	09/14/2023	$0.00	SPANISH FT KIDS RECY	MG	1757432	705965		
BCSW135	SS SINGLE STREAM	0.19	09/16/2023	$0.00	SPANISH FT KIDS RECY	MG	1757595	705965		
BCSW131	SS SINGLE STREAM	0.47	09/18/2023	$0.00	SPANISH FT KIDS RECY	MG	1757967	705965		
BCSW131	SS SINGLE STREAM	0.62	09/18/2023	$0.00	SPANISH FT KIDS RECY	MG	1758032	705965		
BCSW131	SS SINGLE STREAM	0.56	09/21/2023	$0.00	SPANISH FT KIDS RECY	MG	1758975	705965		
BCSW131	SS SINGLE STREAM	0.54	09/21/2023	$0.00	SPANISH FT KIDS RECY	MG	1759074	705965		
BCSW135	SS SINGLE STREAM	0.17	09/22/2023	$0.00	SPANISH FT KIDS RECY	MG	1759217	705965		
BCSW131	SS SINGLE STREAM	0.53	09/25/2023	$0.00	SPANISH FT KIDS RECY	MG	1759631	705965		
BCSW131	SS SINGLE STREAM	0.55	09/25/2023	$0.00	SPANISH FT KIDS RECY	MG	1759724	705965		
BCSW131	SS SINGLE STREAM	0.33	09/28/2023	$0.00	SPANISH FT KIDS RECY	MG	1760668	705965		
BCSW131	SS SINGLE STREAM	0.50	09/28/2023	$0.00	SPANISH FT KIDS RECY	MG	1760744	705965		
BCSW131	SS SINGLE STREAM	0.58	10/02/2023	$0.00	SPANISH FT KIDS RECY	MG	1761258	705965		
BCSW131	SS SINGLE STREAM	0.61	10/02/2023	$0.00	SPANISH FT KIDS RECY	MG	1761343	705965		
BCSW131	SS SINGLE STREAM	0.50	10/05/2023	$0.00	SPANISH FT KIDS RECY	MG	1762205	705965		
BCSW131	SS SINGLE STREAM	0.44	10/05/2023	$0.00	SPANISH FT KIDS RECY	MG	1762249	705965		
BCSW131	SS SINGLE STREAM	0.29	10/09/2023	$0.00	SPANISH FT KIDS RECY	MG	1762727	705965		

Truck	MTLabel	NetSTN	DateOut	DetailTotalFee	BillCompany	SiteCode	TranNum	BillAcct	STEntryLabel	Vol
BCSW131	SS SINGLE STREAM	0.45	10/09/2023	$0.00	SPANISH FT KIDS RECY	MG	1762816	705965		
BCSW131	SS SINGLE STREAM	0.38	10/12/2023	$0.00	SPANISH FT KIDS RECY	MG	1763759	705965		
BCSW131	SS SINGLE STREAM	0.39	10/12/2023	$0.00	SPANISH FT KIDS RECY	MG	1763669	705965		
BCSW131	SS SINGLE STREAM	0.58	10/16/2023	$0.00	SPANISH FT KIDS RECY	MG	1764258	705965		
BCSW131	SS SINGLE STREAM	0.62	10/16/2023	$0.00	SPANISH FT KIDS RECY	MG	1764331	705965		
BCSW131	SS SINGLE STREAM	0.46	10/19/2023	$0.00	SPANISH FT KIDS RECY	MG	1765200	705965		
BCSW131	SS SINGLE STREAM	0.54	10/19/2023	$0.00	SPANISH FT KIDS RECY	MG	1765271	705965		
BCSW131	SS SINGLE STREAM	0.51	10/23/2023	$0.00	SPANISH FT KIDS RECY	MG	1765849	705965		
BCSW131	SS SINGLE STREAM	0.59	10/23/2023	$0.00	SPANISH FT KIDS RECY	MG	1765937	705965		
BCSW131	SS SINGLE STREAM	0.10	10/26/2023	$0.00	SPANISH FT KIDS RECY	MG	1766733	705965		
BCSW131	SS SINGLE STREAM	0.45	10/26/2023	$0.00	SPANISH FT KIDS RECY	MG	1766816	705965		
BCSW131	SS SINGLE STREAM	0.41	10/30/2023	$0.00	SPANISH FT KIDS RECY	MG	1767372	705965		
BCSW131	SS SINGLE STREAM	0.47	10/30/2023	$0.00	SPANISH FT KIDS RECY	MG	1767466	705965		
BCSW131	SS SINGLE STREAM	0.34	11/02/2023	$0.00	SPANISH FT KIDS RECY	MG	1768254	705965		
BCSW131	SS SINGLE STREAM	0.42	11/02/2023	$0.00	SPANISH FT KIDS RECY	MG	1768318	705965		
BCSW131	SS SINGLE STREAM	0.62	11/06/2023	$0.00	SPANISH FT KIDS RECY	MG	1768799	705965		
BCSW131	SS SINGLE STREAM	0.73	11/06/2023	$0.00	SPANISH FT KIDS RECY	MG	1768870	705965		
BCSW131	SS SINGLE STREAM	0.23	11/09/2023	$0.00	SPANISH FT KIDS RECY	MG	1769738	705965		
BCSW131	SS SINGLE STREAM	0.37	11/09/2023	$0.00	SPANISH FT KIDS RECY	MG	1769803	705965		
BCSW131	SS SINGLE STREAM	0.91	11/13/2023	$0.00	SPANISH FT KIDS RECY	MG	1770299	705965		
BCSW131	SS SINGLE STREAM	0.71	11/13/2023	$0.00	SPANISH FT KIDS RECY	MG	1770374	705965		
BCSW131	SS SINGLE STREAM	0.57	11/16/2023	$0.00	SPANISH FT KIDS RECY	MG	1770950	705965		
BCSW135	SS SINGLE STREAM	0.37	11/17/2023	$0.00	SPANISH FT KIDS RECY	MG	1771244	705965		
BCSW131	SS SINGLE STREAM	0.73	11/20/2023	$0.00	SPANISH FT KIDS RECY	MG	1771624	705965		
BCSW131	SS SINGLE STREAM	0.63	11/20/2023	$0.00	SPANISH FT KIDS RECY	MG	1771738	705965		
BCSW131	SS SINGLE STREAM	0.40	11/24/2023	$0.00	SPANISH FT KIDS RECY	MG	1772492	705965		
BCSW131	SS SINGLE STREAM	0.54	11/24/2023	$0.00	SPANISH FT KIDS RECY	MG	1772538	705965		
BCSW131	SS SINGLE STREAM	0.19	11/27/2023	$0.00	SPANISH FT KIDS RECY	MG	1772720	705965		
BCSW131	SS SINGLE STREAM	0.40	11/27/2023	$0.00	SPANISH FT KIDS RECY	MG	1772786	705965		
BCSW131	SS SINGLE STREAM	0.32	11/30/2023	$0.00	SPANISH FT KIDS RECY	MG	1773640	705965		
BCSW131	SS SINGLE STREAM	0.48	11/30/2023	$0.00	SPANISH FT KIDS RECY	MG	1773700	705965		
BCSW135	SS SINGLE STREAM	0.12	12/01/2023	$0.00	SPANISH FT KIDS RECY	MG	1773955	705965		
BCSW131	SS SINGLE STREAM	0.17	12/04/2023	$0.00	SPANISH FT KIDS RECY	MG	1774095	705965		
BCSW131	SS SINGLE STREAM	0.43	12/04/2023	$0.00	SPANISH FT KIDS RECY	MG	1774171	705965		
BCSW131	SS SINGLE STREAM	0.53	12/07/2023	$0.00	SPANISH FT KIDS RECY	MG	1775012	705965		
BCSW131	SS SINGLE STREAM	0.44	12/07/2023	$0.00	SPANISH FT KIDS RECY	MG	1774954	705965		
BCSW135	SS SINGLE STREAM	0.08	12/08/2023	$0.00	SPANISH FT KIDS RECY	MG	1775163	705965		
BCSW131	SS SINGLE STREAM	0.40	12/11/2023	$0.00	SPANISH FT KIDS RECY	MG	1775557	705965		
BCSW131	SS SINGLE STREAM	0.50	12/11/2023	$0.00	SPANISH FT KIDS RECY	MG	1775475	705965		
BCSW131	SS SINGLE STREAM	0.33	12/14/2023	$0.00	SPANISH FT KIDS RECY	MG	1776502	705965		
BCSW131	SS SINGLE STREAM	0.56	12/14/2023	$0.00	SPANISH FT KIDS RECY	MG	1776574	705965		
BCSW135	SS SINGLE STREAM	0.09	12/15/2023	$0.00	SPANISH FT KIDS RECY	MG	1776730	705965		
BCSW131	SS SINGLE STREAM	0.31	12/18/2023	$0.00	SPANISH FT KIDS RECY	MG	1777061	705965		
BCSW131	SS SINGLE STREAM	0.39	12/18/2023	$0.00	SPANISH FT KIDS RECY	MG	1777148	705965		
BCSW131	SS SINGLE STREAM	0.41	12/21/2023	$0.00	SPANISH FT KIDS RECY	MG	1777951	705965		
BCSW131	SS SINGLE STREAM	0.51	12/21/2023	$0.00	SPANISH FT KIDS RECY	MG	1778023	705965		
BCSW135	SS SINGLE STREAM	0.23	12/22/2023	$0.00	SPANISH FT KIDS RECY	MG	1778216	705965		
BCSW131	SS SINGLE STREAM	0.61	12/26/2023	$0.00	SPANISH FT KIDS RECY	MG	1778522	705965		
BCSW131	SS SINGLE STREAM	0.63	12/26/2023	$0.00	SPANISH FT KIDS RECY	MG	1778567	705965		
BCSW131	SS SINGLE STREAM	0.29	12/29/2023	$0.00	SPANISH FT KIDS RECY	MG	1779356	705965		
BCSW131	SS SINGLE STREAM	0.40	12/29/2023	$0.00	SPANISH FT KIDS RECY	MG	1779433	705965		
BCSW131	SS SINGLE STREAM	0.60	01/02/2024	$0.00	SPANISH FT KIDS RECY	MG	1779813	705965		
BCSW131	SS SINGLE STREAM	0.42	01/02/2024	$0.00	SPANISH FT KIDS RECY	MG	1779720	705965		
BCSW131	SS SINGLE STREAM	0.26	01/05/2024	$0.00	SPANISH FT KIDS RECY	MG	1780566	705965		
BCSW131	SS SINGLE STREAM	0.36	01/05/2024	$0.00	SPANISH FT KIDS RECY	MG	1780633	705965		
BCSW131	SS SINGLE STREAM	0.40	01/08/2024	$0.00	SPANISH FT KIDS RECY	MG	1780973	705965		
BCSW131	SS SINGLE STREAM	0.60	01/08/2024	$0.00	SPANISH FT KIDS RECY	MG	1781034	705965		
BCSW131	SS SINGLE STREAM	0.23	01/11/2024	$0.00	SPANISH FT KIDS RECY	MG	1781580	705965		
BCSW131	SS SINGLE STREAM	0.32	01/11/2024	$0.00	SPANISH FT KIDS RECY	MG	1781627	705965		
BCSW135	SS SINGLE STREAM	0.09	01/12/2024	$0.00	SPANISH FT KIDS RECY	MG	1781864	705965		
BCSW131	SS SINGLE STREAM	0.53	01/15/2024	$0.00	SPANISH FT KIDS RECY	MG	1782171	705965		
BCSW131	SS SINGLE STREAM	0.58	01/15/2024	$0.00	SPANISH FT KIDS RECY	MG	1782233	705965		
BCSW131	SS SINGLE STREAM	0.27	01/18/2024	$0.00	SPANISH FT KIDS RECY	MG	1782981	705965		
BCSW131	SS SINGLE STREAM	0.43	01/22/2024	$0.00	SPANISH FT KIDS RECY	MG	1783490	705965		
BCSW131	SS SINGLE STREAM	0.34	01/22/2024	$0.00	SPANISH FT KIDS RECY	MG	1783562	705965		
BCSW131	SS SINGLE STREAM	0.38	01/25/2024	$0.00	SPANISH FT KIDS RECY	MG	1784394	705965		
BCSW131	SS SINGLE STREAM	0.33	01/25/2024	$0.00	SPANISH FT KIDS RECY	MG	1784346	705965		

Truck	MTLabel	NetSTN	DateOut	DetailTotalFee	BillCompany	SiteCode	TranNum	BillAcct	STEntryLabel	Vol
BCSW131	SS SINGLE STREAM	0.45	01/29/2024	$0.00	SPANISH FT KIDS RECY	MG	1784746	705965		
BCSW131	SS SINGLE STREAM	0.34	01/29/2024	$0.00	SPANISH FT KIDS RECY	MG	1784832	705965		
BCSW131	SS SINGLE STREAM	0.20	02/01/2024	$0.00	SPANISH FT KIDS RECY	MG	1785635	705965		
BCSW131	SS SINGLE STREAM	0.36	02/01/2024	$0.00	SPANISH FT KIDS RECY	MG	1785728	705965		
BCSW131	SS SINGLE STREAM	0.64	02/05/2024	$0.00	SPANISH FT KIDS RECY	MG	1786353	705965		
BCSW131	SS SINGLE STREAM	0.63	02/05/2024	$0.00	SPANISH FT KIDS RECY	MG	1786396	705965		
BCSW131	SS SINGLE STREAM	0.26	02/08/2024	$0.00	SPANISH FT KIDS RECY	MG	1787320	705965		
BCSW131	SS SINGLE STREAM	0.49	02/08/2024	$0.00	SPANISH FT KIDS RECY	MG	1787385	705965		
BCSW131	SS SINGLE STREAM	0.54	02/12/2024	$0.00	SPANISH FT KIDS RECY	MG	1787809	705965		
BCSW131	SS SINGLE STREAM	0.58	02/12/2024	$0.00	SPANISH FT KIDS RECY	MG	1787870	705965		
BCSW131	SS SINGLE STREAM	0.14	02/15/2024	$0.00	SPANISH FT KIDS RECY	MG	1788755	705965		
BCSW131	SS SINGLE STREAM	0.32	02/15/2024	$0.00	SPANISH FT KIDS RECY	MG	1788813	705965		
BCSW131	SS SINGLE STREAM	0.69	02/19/2024	$0.00	SPANISH FT KIDS RECY	MG	1789346	705965		
BCSW131	SS SINGLE STREAM	0.62	02/19/2024	$0.00	SPANISH FT KIDS RECY	MG	1789271	705965		
BCSW131	SS SINGLE STREAM	0.19	02/22/2024	$0.00	SPANISH FT KIDS RECY	MG	1790108	705965		
BCSW131	SS SINGLE STREAM	0.34	02/22/2024	$0.00	SPANISH FT KIDS RECY	MG	1790160	705965		
BCSW131	SS SINGLE STREAM	0.53	02/26/2024	$0.00	SPANISH FT KIDS RECY	MG	1790975	705965		
BCSW131	SS SINGLE STREAM	0.38	02/26/2024	$0.00	SPANISH FT KIDS RECY	MG	1791059	705965		
BCSW131	SS SINGLE STREAM	0.39	02/29/2024	$0.00	SPANISH FT KIDS RECY	MG	1792060	705965		
BCSW131	SS SINGLE STREAM	0.60	03/04/2024	$0.00	SPANISH FT KIDS RECY	MG	1792653	705965		
BCSW131	SS SINGLE STREAM	0.56	03/04/2024	$0.00	SPANISH FT KIDS RECY	MG	1792733	705965		
BCSW131	SS SINGLE STREAM	0.49	03/07/2024	$0.00	SPANISH FT KIDS RECY	MG	1793595	705965		
BCSW131	SS SINGLE STREAM	0.46	03/11/2024	$0.00	SPANISH FT KIDS RECY	MG	1794121	705965		
BCSW131	SS SINGLE STREAM	0.41	03/11/2024	$0.00	SPANISH FT KIDS RECY	MG	1794196	705965		
BCSW131	SS SINGLE STREAM	0.53	03/14/2024	$0.00	SPANISH FT KIDS RECY	MG	1795171	705965		
BCSW135	SS SINGLE STREAM	0.40	03/15/2024	$0.00	SPANISH FT KIDS RECY	MG	1796408	705965		
BCSW131	SS SINGLE STREAM	0.65	03/18/2024	$0.00	SPANISH FT KIDS RECY	MG	1795877	705965		
BCSW131	SS SINGLE STREAM	0.67	03/18/2024	$0.00	SPANISH FT KIDS RECY	MG	1795966	705965		
BCSW131	SS SINGLE STREAM	0.44	03/21/2024	$0.00	SPANISH FT KIDS RECY	MG	1796784	705965		
BCSW135	SS SINGLE STREAM	0.35	03/22/2024	$0.00	SPANISH FT KIDS RECY	MG	1797048	705965		
BCSW131	SS SINGLE STREAM	0.57	03/25/2024	$0.00	SPANISH FT KIDS RECY	MG	1797389	705965		
BCSW131	SS SINGLE STREAM	0.63	03/25/2024	$0.00	SPANISH FT KIDS RECY	MG	1797462	705965		
BCSW131	SS SINGLE STREAM	0.43	03/28/2024	$0.00	SPANISH FT KIDS RECY	MG	1798297	705965		
BCSW131	SS SINGLE STREAM	0.46	03/28/2024	$0.00	SPANISH FT KIDS RECY	MG	1798362	705965		
BCSW135	SS SINGLE STREAM	0.23	03/29/2024	$0.00	SPANISH FT KIDS RECY	MG	1798558	705965		
Grand Summaries										
		Sum = 99.83		Sum = $0.00			Count = 231			

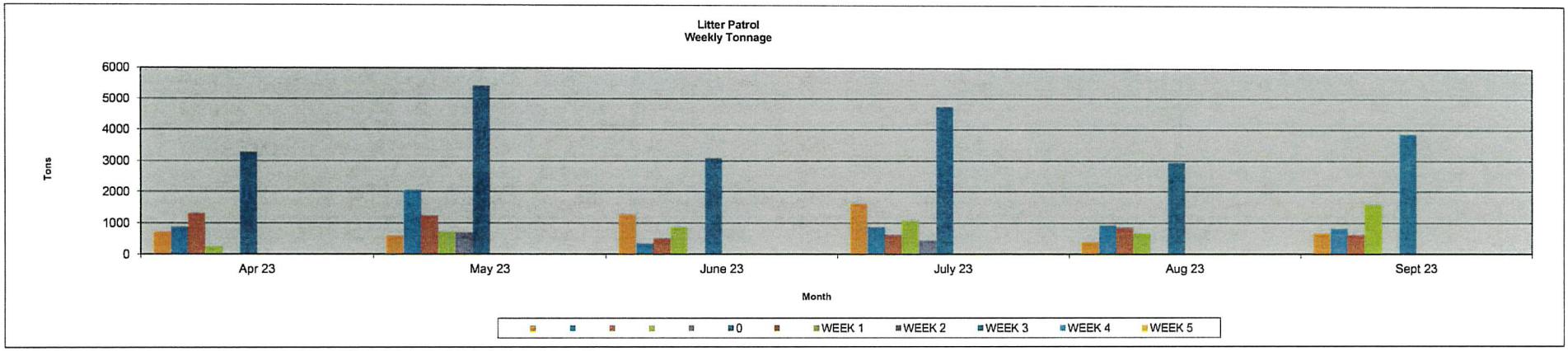
Table 9-6 Baldwin County Phase II MS4
MCM 5 Pollution/Good Housekeeping Strategies and Goals

NPDES Permit Section	SWMPP Section	9-Pollution Prevention/Good Housekeeping Strategies	Goal	Pollution Targeted	Responsible Departments
Part III-5ai	*9.2.3.7*	*Litter Patrol*	*Throughout the permit cycle, within the County's MS4 boundary, track volume of litter picked up from county right of ways*	*Litter & Floatable*	*Solid Waste*
2023/2024		Dates	Tons of Trash Picked Up By Creek Clean		
		04/01/2023 through 09/30/2023	11.7		
		10/01/2023 through 03/31/2024	23.09		
		Total	34.79		

B.C.S.W. LITTER PATROL - CREEK CLEAN
WEEKLY TONNAGE

MONTH/YEAR	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	TOTAL
						0
Apr 23	760	900	1340	300		3300
May 23	640	2060	1260	760	720	5440
June 23	1300	360	520	920		3100
July 23	1640	880	640	1120	460	4740
Aug 23	420	940	880	720		2960
Sept 23	720	840	660	1640		3860
						23400
TOTALS	TOTALS	TOTALS	TOTALS	TOTALS	TOTALS	TOTALS

						TONS
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	TOTAL
Apr 23	0.38	0.45	0.67	0.15	0	1.65
May 23	0.32	1.03	0.63	0.38	0.36	2.72
June 23	0.65	0.18	0.26	0.46	0	1.55
July 23	0.82	0.44	0.32	0.56	0.23	2.37
Aug 23	0.21	0.47	0.44	0.36	0	1.48
Sept 23	0.36	0.42	0.33	0.82	0	1.93
						11.7



B.C.S.W. LITTER PATROL - CREEK CLEAN
WEEKLY TONNAGE

MONTH/YEAR	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	TOTAL
						0
Oct 23	1320	1020	280	700	2100	5420
Nov 23	900	1940	1640	2340		6820
Dec 23	2480	1400	2060	1420		7360
Jan 24	1220	1320	1780	1860	2640	8820
Feb 24	1720	2540	2500	1360		8120
Mar 24	3120	1480	2680	2360		9640
						46180
TOTALS	TOTALS	TOTALS	TOTALS	TOTALS	TOTALS	TOTALS

						TONS
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	TOTAL
Oct 23	0.66	0.51	0.14	0.35	1.05	2.71
Nov 23	0.45	0.97	0.82	1.17	0	3.41
Dec 23	1.24	0.7	1.03	0.71	0	3.68
Jan 24	0.61	0.66	0.89	0.93	1.32	4.41
Feb 24	0.86	1.27	1.25	0.68	0	4.06
Mar 24	1.56	0.74	1.34	1.18	0	4.82
						23.09

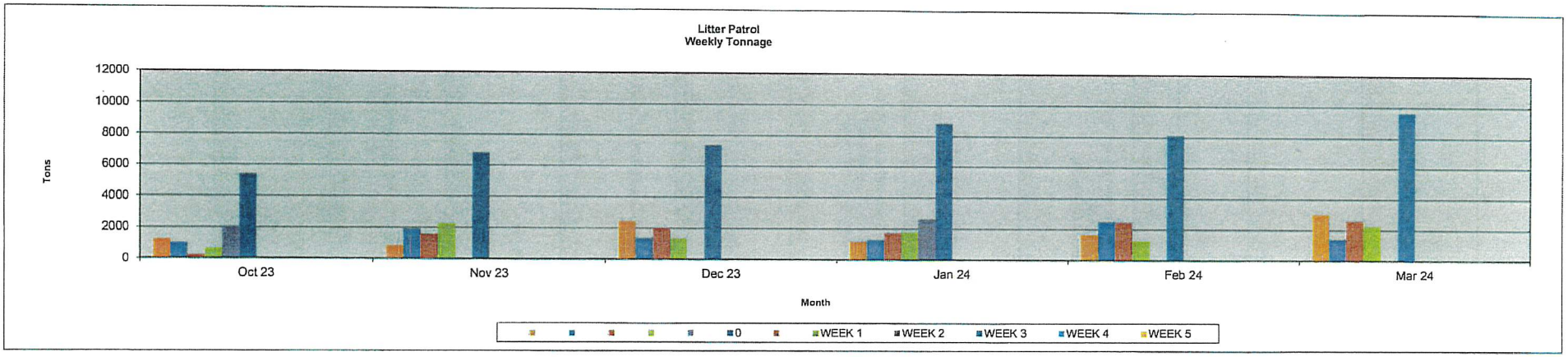


Table 9-6 Baldwin County Phase II MS4
MCM 5 Pollution/Good Housekeeping Strategies and Goals

NPDES Per+E8+ A1:F36+ A1:A1:F44	SWMPP Section	9-Pollution Prevention/Good Housekeeping Strategies	Goal	Pollution Targeted	Responsible Departments
Part III-5av	*9.2.5*	*Training*	*Throughout the permit cycle, employees with MS4 duties will be provided stormwater training in regards to the County's Stormwater Management Program.*	*All*	*P&Z*
2023/2024	**Type**	**EMA Staff Member:**	**Description**	Date	
	HAZMAT	Michelle Pennington	Hazardous Materials Training	12/21/2023	
	HAZMAT	Michelle Pennington	Hazardous Materials Training	1/10/2024	
	HAZMAT	Michelle Pennington	Hazardous Materials Training/2	12/21/2023	
	FEMA	Natascha C. Dilley	Hazardous Materials Training	1/29/2024	
	FEMA	Robert G. Quates	Hazardous Materials Training	3/15/2024	
	Type	**Solid Waste Staff Member:**	**Description**	**Date**	
	ADEM	David Deyton	Municipal Solid Waste Landfill Operator	4/4/2023	
	ADEM	Rachel Philyaw	Alabama Landfill Operator Certification	4/4/2023	
	ADEM	Jimmy Brannum	Alabama Landfill Operator Certification	4/3/2023	
	ADEM	Karen Smith	Alabama Landfill Operator Certification	4/4/2023	
	ADEM	Charles Stanford	Alabama Landfill Operator CDU/CPE/T Course	12/5/2023	
	ADEM	Charles Stanford	Alabama Landfill Operator Certification	4/4/2023	
	LABELLA	Amanda Whittington	Alabama Landfill Operator CPE/CPE T Course	12/5/2023	
	LABELLA	Karen Smith	Alabama Landfill Operator CPE/CPE T Course	12/5/2023	
	LABELLA	Karen Smith	Solid Waste CEU	12/2/2023	
	LABELLA	Roy Kelley	Alabama Landfill Operator CPE/CPE T Course	12/5/2023	
	ADEM	Roy Kelley	Municipal Solid Waste Landfill Operator	3/27/2024	
	ADEM	Roy Kelley	Alabama Landfill Operator Certification	4/4/2023	
	LABELLA	Matt Harper	Landfill Operator CEU/CPE T Course	12/5/2023	
	LABELLA	Amy Gallemore	Landfill Operator CEU	2/8/2023	
	LABELLA	Suzanne Doughty	Landfill Operator CEU	2/8/2023	
	LABELLA	Ed Fox	Landfill Operator CEU	2/8/2023	
	LABELLA	Robert Davis	Landfill Operator CEU	2/8/2023	
	LABELLA	Brianna Davis	Landfill Operator CEU	2/8/2023	
	ADEM	Robbie R Aaron	C/D and Industrial Landfill Operator	10/15/2023	

Table 9-6 Baldwin County Phase II MS4

MCM 5 Pollution/Good Housekeeping Strategies and Goals

	ADEM	Randall Aaron	Alabama Landfill Operator Certification	4/4/2023	
	LABELLA	Jimmy Brannum	Landfill Operator CEU	2/8/2023	
	LABELLA	Jonathan Bryars	Landfill Operator CEU	2/8/2023	
	SWANA	Terri Graham	SWANA Spring Seminar	4/3-5/2023	
	SWANA	Terri Graham	SWANA Fall Forum	11/1-3/2023	
	SWANA	Ed Fox	SWANA Spring Seminar	4/3-5/2023	
	SWANA	Ed Fox	SWANA Fall Forum	11/1-3/2023	
	Type	**Building Staff Member:**	**Description**	**Date**	
	ASFPM	Frederick G. Holman	ASFPM Certified Floodplan Manager	1/31/2023	
	ASFPM	Janie M Jonier	ASFPM Certified Floodplan Manager	7/31/2024	
	ASFPM	Eddie Harper	ASFPM Spring Workshop	4/11/2023	
	ASFPM	Lee Angle	ASFPM Spring Workshop	4/11/2023	
	ASFPM	Janie M Jonier	ASFPM Spring Workshop	4/11/2023	
	ASFPM	William L. Angle	ASFPM Certified Floodplan Manager	1/31/2026	
	FEMA	Mindy Smith	National Flood Insurance	9/11-14/2023	
	FEMA	Janie M Jonier	National Flood Insurance	9/11-14/2023	
	FEMA	Eddie Harper	National Flood Insurance	9/11-14/2023	
	ASFPM	Frederick G. Holman	Impact Flood Risk Management	10/25/2023	
	ASFPM	Frederick G. Holman	Planning for Flood Resilience	2/21/2024	
	ASFPM	Frederick G. Holman	Fema's Future of Flood Risk Data Initiative	11/29/2023	

Office for Bombing Prevention

In Partnership With

Center for Domestic Preparedness

Certify that

Syble Michelle Pennington

successfully completed the

Homemade Explosives Awareness and Precursor Awareness

Virtual Classroom

(.1 Continuing Education Units/1.00 Contact Hours)

Issued this 10th day of January, 2024

Sean W. Haglund
Associate Director, Office for Bombing Prevention
Cybersecurity and Infrastructure Security Agency
U.S. Department of Homeland Security

2035-00077041-0001623731-0202-3

Office for Bombing Prevention

In Partnership With

Center for Domestic Preparedness

Certify that

Syble Michelle Pennington

successfully completed the

Improvised Explosive Device Construction and Classification

Virtual Classroom

(.1 Continuing Education Units/1.00 Contact Hours)

Issued this 21st day of December, 2023

ACCREDITED IACET PROVIDER

2056-00076763-0001623726-0202-3

Sean W. Haglund
Associate Director, Office for Bombing Prevention
Cybersecurity and Infrastructure Security Agency
U.S. Department of Homeland Security

Office for Bombing Prevention

In Partnership With

Center for Domestic Preparedness

Certify that

Syble Michelle Pennington

successfully completed the

Improvised Explosive Device Explosive Effects Mitigation

Virtual Classroom

(.1 Continuing Education Units/1.00 Contact Hours)

Issued this 21st day of December, 2023

ACCREDITED IACET PROVIDER

2056-00076764-0001623729-0202-3

Sean W. Haglund
Associate Director, Office for Bombing Prevention
Cybersecurity and Infrastructure Security Agency
U.S. Department of Homeland Security

Emergency Management Institute

FEMA

This Certificate of Achievement is to acknowledge that

NATASCHA C. DILLEY

has reaffirmed a dedication to serve in times of crisis through continued professional development and completion of the Independent Study course:

IS-5.A:
AN INTRODUCTION TO HAZARDOUS MATERIALS

Issued this 29th Day of January, 2024

1.00 IACET CEU

ACCREDITED IACET PROVIDER

Jeffrey D. Stern, Ph.D.
Superintendent
Emergency Management Institute
Federal Emergency Management Agency

Emergency Management Institute

FEMA

This Certificate of Achievement is to acknowledge that

ROBERT G. QUATES

has reaffirmed a dedication to serve in times of crisis through continued professional development and completion of the Independent Study course:

IS-5.A:
AN INTRODUCTION TO HAZARDOUS MATERIALS

Issued this 15th Day of March, 2024

1.00 IACET CEU

ACCREDITED IACET PROVIDER

Jeffrey D. Stern, Ph.D.
Superintendent
Emergency Management Institute
Federal Emergency Management Agency

SWANA 2023 Spring Seminar

April 3-5, 2023

Presented by

Alabama Chapter of the Solid Waste Association of North America

Awarded to

Terri Graham

CE Credits Awarded 10

Jason Wilson, ADEM

Jason Wilson, ADEM

Larry Vinson, CAE

Larry Vinson, CAE

SWANA 2023 Spring Seminar

April 3-5, 2023

Presented by

Alabama Chapter of the Solid Waste Association of North America

Awarded to

Ed Fox

CE Credits Awarded 10

Jason Wilson, ADEM

Jason Wilson, ADEM

Larry Vinson, CAE

Larry Vinson, CAE

Alabama Department of Environmental Management

CERTIFICATE OF COMPLETION

for

ALABAMA LANDFILL OPERATOR CERTIFICATION TRAINING COURSE

Spring Forum

April 4, 2023

Jimmy Brannum

ATTENDEE

ADEM

Alabama Department of Environmental Management

ADEM SOLID WASTE BRANCH CHIEF

Alabama Department of Environmental Management

CERTIFICATE OF COMPLETION

for

ALABAMA LANDFILL OPERATOR CERTIFICATION TRAINING COURSE

Spring Forum

April 4, 2023

Rachel Philyaw

ATTENDEE

ADEM
Alabama Department of Environmental Management

ADEM SOLID WASTE BRANCH CHIEF

ALABAMA GREAT SEAL

Alabama Department of Environmental Management

CERTIFICATE OF COMPLETION

for

ALABAMA LANDFILL OPERATOR CERTIFICATION TRAINING COURSE

Spring Forum

April 4, 2023

Charlie Stanford

ATTENDEE

ADEM

Alabama Department of Environmental Management

ADEM SOLID WASTE BRANCH CHIEF

Alabama Department of Environmental Management

CERTIFICATE OF COMPLETION

for

ALABAMA LANDFILL OPERATOR CERTIFICATION TRAINING COURSE

Spring Forum

April 4, 2023

Karen Smith

ATTENDEE

ADEM

Alabama Department of Environmental Management

ADEM SOLID WASTE BRANCH CHIEF

ALABAMA GREAT SEAL

Alabama Department of Environmental Management

CERTIFICATE OF COMPLETION

for

ALABAMA LANDFILL OPERATOR CERTIFICATION TRAINING COURSE

Spring Forum

April 4, 2023

Randall Aaron

ATTENDEE

ADEM

Alabama Department of Environmental Management

ADEM SOLID WASTE BRANCH CHIEF

Alabama Department of Environmental Management

CERTIFICATE OF COMPLETION

for

ALABAMA LANDFILL OPERATOR CERTIFICATION TRAINING COURSE

Spring Forum

April 4, 2023

Roy Kelley

ATTENDEE

ADEM
Alabama Department of Environmental Management

ADEM SOLID WASTE BRANCH CHIEF

Alabama Department of Environmental Management

CERTIFICATE OF COMPLETION

for

ALABAMA LANDFILL OPERATOR CERTIFICATION TRAINING COURSE

Spring Forum

April 4, 2023

David Deyton

ATTENDEE

ADEM
Alabama Department of Environmental Management

ADEM SOLID WASTE BRANCH CHIEF

ALABAMA GREAT SEAL

State of Alabama

Alabama Department of Environmental Management

This is to certify that

Robbie R Aaron

having given satisfactory evidence of the necessary qualifications required by the laws of the State of Alabama is hereby granted this

C/D and Industrial Landfill Operator

certificate of competency to be effective this 15th day of October, 2023

Operator Number: LFOP01002

Pursuant to Section 22-27-12 of the Code of Alabama, this certificate is the property of the Alabama Department of Environmental Management

Permits and Services Division

SWANA Fall Forum 2023

November 1-3, 2023

Presented by

Alabama Chapter of the Solid Waste Association of North America

Awarded to

Terri Graham

CE Credits Awarded 20

Larry A. Vinson, CAE

Larry A. Vinson, CAE

Jason Wilson, ADEM

Jason Wilson, ADEM

SWANA Fall Forum 2023

November 1-3, 2023

Presented by

Alabama Chapter of the Solid Waste Association of North America

Awarded to

Ed Fox

CE Credits Awarded 10

Larry A. Vinson, CAE

Larry A. Vinson, CAE

Jason Wilson, ADEM

Jason Wilson, ADEM

CERTIFICATE OF COMPLETION

This Certifies That

KAREN SMITH

Has successfully completed the
Training Course:

SOLID WASTE CONTINUING PROFESSIONAL EDUCATION

Awarded 0.9 CEUs (9 hours)

Jeffrey Fantell
Training Program Manager

12/2/2023
Course Completion Date

ACCREDITED IACET PROVIDER

As an IACET Accredited Provider, LaBella Training offers CEUs for its programs that qualify under the ANSI/IACET Standard.

LaBella
Powered by partnership.

1604 Ownby Lane, Richmond, VA 23220
Training.LaBellaPC.com
804-355-4520

CERTIFICATE OF COMPLETION

This Certifies That

Charles Stanford

Has successfully completed the Solid Waste Management Facility Operator Training Course:

Alabama Landfill Operator Continuing Professional Education / Training (CPE/T) Course

and Earned 9.0 Hours (PDHs)

or 0.9 Continuing Education Units (CEUs)

Jeffrey M. Fantell
Training Program Manager

December 05, 2023
Course Completion Date

LaBella
Powered by partnership

1604 Ownby Lane, Richmond, VA 23220
Www.LaBellaPC.com/Training
Training.LaBellaPC.com/My
800.229.1182

ACCREDITED IACET PROVIDER

As an IACET Accredited Provider, LaBella Training offers CEUs for its programs that qualify under the ANSI/IACET Standard.

Certificate of Completion

This Certifies That

Matt Harper

Has successfully completed the Solid Waste Management Facility Operator Training Course:

Alabama Landfill Operator Continuing Professional Education / Training (CPE/T) Course

and Earned 9.0 Hours (PDHs)

or 0.9 Continuing Education Units (CEUs)

Jeffrey M. Fantell
Training Program Manager

December 05, 2023
Course Completion Date

LaBella
Powered by partnership

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Www.LaBellaPC.com/Training
Training.LaBellaPC.com/My
800.229.1182

ACCREDITED IACET PROVIDER

As an IACET Accredited Provider, LaBella Training offers CEUs for its programs that qualify under the ANSI/IACET Standard.

Certificate of Completion

This Certifies That

Karen Smith

Has successfully completed the Solid Waste Management Facility Operator Training Course:

Alabama Landfill Operator Continuing Professional Education / Training (CPE/T) Course

and Earned 9.0 Hours (PDHs)

or 0.9 Continuing Education Units (CEUs)

Jeffrey M. Fantell
Training Program Manager

December 05, 2023
Course Completion Date

LaBella
Powered by partnership.

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Www.LaBellaPC.com/Training
Training.LaBellaPC.com/My
800.229.1182

ACCREDITED IACET PROVIDER

As an IACET Accredited Provider, LaBella Training offers CEUs for its programs that qualify under the ANSI/IACET Standard.

CERTIFICATE OF COMPLETION

This Certifies That

Amanda Whittington

Has successfully completed the Solid Waste Management Facility Operator Training Course:

Alabama Landfill Operator Continuing Professional Education / Training (CPE/T) Course

and Earned 9.0 Hours (PDHs)

or 0.9 Continuing Education Units (CEUs)

Jeffrey M. Fantell
Training Program Manager

December 05, 2023
Course Completion Date

LaBella
Powered by partnership

1604 Ownby Lane, Richmond, VA 23220
Www.LaBellaPC.com/Training
Training:LaBellaPC.com/My
800.229.1182

ACCREDITED IACET PROVIDER

As an IACET Accredited Provider, LaBella Training offers CEUs for its programs that qualify under the ANSI/IACET Standard.

Certificate of Completion

This Certifies That

Roy Kelley

Has successfully completed the Solid Waste Management Facility Operator Training Course:

Alabama Landfill Operator Continuing Professional Education / Training (CPE/T) Course

and Earned 9.0 Hours (PDHs)

or 0.9 Continuing Education Units (CEUs)

Jeffrey M. Fantell
Training Program Manager

December 05, 2023
Course Completion Date

LaBella
Powered by partnership.

1604 Ownby Lane, Richmond, VA 23220
Www.LaBellaPC.com/Training
Training.LaBellaPC.com/My
800.229.1182

ACCREDITED IACET PROVIDER

As an IACET Accredited Provider, LaBella Training offers CEUs for its programs that qualify under the ANSI/IACET Standard.

State of Alabama

Alabama Department of Environmental Management

This is to certify that

Roy Kelley

having given satisfactory evidence of the necessary qualifications required by the laws of the State of Alabama is hereby granted this

Municipal Solid Waste Landfill Operator

certificate of competency to be effective this 27th day of March, 2024

Operator Number: LFOP00855

Pursuant to Section 22-27-12 of the Code of Alabama, this certificate is the property of the Alabama Department of Environmental Management

Permits and Services Division

Certificate of Attendance

This is to certify the attendance of:

Frederick Holman

At the training course:

CTP Information Exchange // Planning for Flood Resilience: Integrating Hazard Mitigation and Floodplain Management Planning

2/21/2024

1 CEC for CFMs

Chad Berginnis

Chad Berginnis, Executive Director

Kevin Currie

Kevin Currie, Training Coordinator

Certificate of Attendance

This is to certify the attendance of:

Frederick Holman

At the training course:

CTP Information Exchange: FEMA's Future of Flood Risk Data Initiative

11/29/2023

1.5 CEC for CFMs

Chad Berginnis

Chad Berginnis, Executive Director

Kevin Currie

Kevin Currie, Training Coordinator

Certificate of Attendance

This is to certify the attendance of:

Frederick Holman

At the training course:

A Legal Examination of No Adverse Impact Flood Risk Management and Floodplain Stewardship

October 25, 2023

1.5 CECs for CFMs

Chad Berginnis

Chad Berginnis, Executive Director

Kevin Currie

Kevin Currie, Training Coordinator

Emergency Management Institute

FEMA

This is to certify that

Eddie Harper

successfully completed

National Flood Insurance
Program/Community Rating System (Invitation Only)
Biloxi, Mississippi

September 11 - 14, 2023

ACCREDITED IACET PROVIDER

Superintendent
Emergency Management Institute

Emergency Management Institute

FEMA

This is to certify that

Janie Joiner

successfully completed

National Flood Insurance
Program/Community Rating System (Invitation Only)
Biloxi, Mississippi

September 11 - 14, 2023

ACCREDITED IACET PROVIDER

Superintendent
Emergency Management Institute

Emergency Management Institute

FEMA

This is to certify that

Mindy Smith

successfully completed

National Flood Insurance
Program/Community Rating System (Invitation Only)
Biloxi, Mississippi

September 11 - 14, 2023

ACCREDITED IACET PROVIDER

Superintendent
Emergency Management Institute

ASSOCIATION OF STATE FLOODPLAIN MANAGERS, INC.

CERTIFICATION BOARD OF REGENTS

HEREBY CERTIFIES THAT PURSUANT TO THE PROVISIONS OF THE CHARTER FOR THE CERTIFIED FLOODPLAIN MANAGER PROGRAM

William L. Angle, CFM

IS DULY REGISTERED AS AN

ASFPM CERTIFIED FLOODPLAIN MANAGER

IN TESTIMONY WHEREOF THIS CERTIFICATE HAS BEEN ISSUED BY THE AUTHORITY OF THE CERTIFICATION BOARD OF REGENTS, CERTIFICATE NO. US-23-12878, ISSUED 9/13/2023 THIS CERTIFICATE SHALL EXPIRE 1/31/2026, UNLESS RENEWED ACCORDING TO THE RULES OF THIS BOARD.

Roger D. Lindsey

CERTIFICATION BOARD OF REGENTS
PRESIDENT, ROGER LINDSEY, P.E., CFM

ASSOCIATION OF STATE FLOODPLAIN MANAGER
EXECUTIVE DIRECTOR, CHAD M. BERGINNIS, CF

ASFPM CFM® CERTIFIED

CERTIFICATE OF ATTENDANCE

FOR PARTICIPATION IN THE

ALABAMA ASSOCIATION OF FLOODPLAIN MANAGERS

2023 Spring Workshop – Foley Alabama

This Certificate awards 6 professional development hours to:

Janie Joiner

For attendance and participation at the AAFM Spring Workshop held on April 11th, 2023

Chuck Lay, CFM

April 11, 2023

Chuck Lay

President, ALABAMA ASSOCIATION OF FLOODPLAIN MANAGERS

CERTIFICATE OF ATTENDANCE

FOR PARTICIPATION IN THE

ALABAMA ASSOCIATION OF FLOODPLAIN MANAGERS

2023 Spring Workshop – Foley Alabama

This Certificate awards 6 professional development hours to:

Lee Angle

For attendance and participation at the AAFM
Spring Workshop held on April 11th, 2023

Chuck Lay, CFM

April 11, 2023

Chuck Lay
President, ALABAMA ASSOCIATION OF FLOODPLAIN MANAGERS

CERTIFICATE OF ATTENDANCE

FOR PARTICIPATION IN THE

ALABAMA ASSOCIATION OF FLOODPLAIN MANAGERS

2023 Spring Workshop – Foley Alabama

This Certificate awards 6 professional development hours to:

Eddie Harper

For attendance and participation at the AAFM Spring Workshop held on April 11th, 2023

Chuck Lay, CFM

April 11, 2023

Chuck Lay

President, ALABAMA ASSOCIATION OF FLOODPLAIN MANAGERS

ASSOCIATION OF STATE

FLOODPLAIN MANAGERS, INC.

CERTIFICATION BOARD OF REGENTS

HEREBY CERTIFIES THAT PURSUANT TO THE PROVISIONS OF THE CHARTER FOR THE CERTIFIED FLOODPLAIN MANAGER PROGRAM

Janie M Joiner, CFM

IS DULY REGISTERED AS AN

ASFPM CERTIFIED FLOODPLAIN MANAGER

IN TESTIMONY WHEREOF THIS CERTIFICATE HAS BEEN ISSUED BY THE AUTHORITY OF THE CERTIFICATION BOARD OF REGENTS, CERTIFICATE NO. US-22-12226, ISSUED 3/4/2022. THIS CERTIFICATE SHALL EXPIRE 7/31/2024, UNLESS RENEWED ACCORDING TO THE RULES OF THIS BOARD.

Roger D. Lindsey

CERTIFICATION BOARD OF REGENTS
PRESIDENT, ROGER LINDSEY, P.E., CFM

ASSOCIATION OF STATE FLOODPLAIN MANAGERS
EXECUTIVE DIRECTOR, CHAD M. BERGINNIS, CFM

ASFPM CFM® CERTIFIED

ASSOCIATION OF STATE

FLOODPLAIN MANAGERS, INC.

CERTIFICATION BOARD OF REGENTS

HEREBY CERTIFIES THAT PURSUANT TO THE PROVISIONS OF THE CHARTER FOR THE CERTIFIED FLOODPLAIN MANAGER PROGRAM

Frederick G. Holman, CFM

IS DULY REGISTERED AS AN

ASFPM CERTIFIED FLOODPLAIN MANAGER

IN TESTIMONY WHEREOF THIS CERTIFICATE HAS BEEN ISSUED BY THE AUTHORITY OF THE CERTIFICATION BOARD OF REGENTS, CERTIFICATE NO. US-16-09367, ISSUED 9/30/2016. THIS CERTIFICATE SHALL EXPIRE 1/31/2023, UNLESS RENEWED ACCORDING TO THE RULES OF THIS BOARD.

CERTIFICATION BOARD OF REGENTS
PRESIDENT, LOUIS T. GREENWELL, GISP, CFM

ASSOCIATION OF STATE FLOODPLAIN MANAGERS
EXECUTIVE DIRECTOR, CHAD M. BERGINNIS, CFM

ASFPM CFM® CERTIFIED

Table 9-6 Baldwin County Phase II MS4
MCM 5 Pollution/Good Housekeeping Strategies and Goals

NPDES Permit Section	SWMPP Section	9-Pollution Prevention/Good Housekeeping Strategies	Goal	Pollution Targeted	Responsible Departments
Part III-5av	*9.2.5*	*Training*	*Throughout the permit cycle, employees with MS4 duties will be provided stormwater training in regards to the County's Stormwater Management Program.*	*All*	*P&Z*
			Erosion & Sediment Control Training		
P&Z Department					
	Name		*Training Description*	*Certification*	*Date*
	Robert Brown		QCI	T7237	5/31/2025
	Ashley Campbell		CPESC	4184	12/31/2023
	Ben Guerrera		QCI	T7632	5/31/2025
	Buford King		QCI	T7682	5/31/2025
	Rebecca Peacock		QCI	T7631	5/31/2025
	Vince Ramer		QCI	T0771	5/31/2025
Highway Department					
	Name		*Department*	*QCI Certification*	*Date*
	Dylan Carlisle		QCI	T3262	5/31/2025
	James Bradley		QCI	T7431	5/31/2025
	Jeremy Howell		QCI	T1348	5/31/2025
	Joey Kelmer		QCI	T2780	5/31/2025
	Randy Black		QCI	T7430	5/31/2025
	Robert Gentry		QCI	T3264	5/31/2025
	Robert White		QCI	T4158	5/31/2025
	Forrest Davis		QCI	T7433	5/31/2025
	Calvin Glass		QCI	T7435	5/31/2025
	James Allen		QCI	T7433	5/31/2025
	Pete Peterson		QCI	T0797	5/31/2025
	Adam Harville		QCI	T7436	5/31/2025
	Charley Weekley		QCI	T3269	5/31/2025
	Jeremy Ringler		QCI	T7437	5/31/2025

Table 9-6 Baldwin County Phase II MS4
MCM 5 Pollution/Good Housekeeping Strategies and Goals

	Matt Ulrich	QCI	T5358	5/31/2025
	Todd Reed	QCI	T6010	5/31/2025
	Orie King	QCI	T6888	5/31/2025
	Josh Chiasson	QCI	T6939	5/31/2025
	Michael Campbell	QCI	T3560	5/31/2025
	Tyler Mitchell	QCP	PE36734	12/31/2023
	Seth Peterson	QCP	PE35635	12/31/2023
	Tucker Stuart	QCP	PE34877	12/31/2023

ALDOT Annual QCI Refresher Training

2024

4.00 Course Hours

Presented to:

Buford King

Baldwin Co

Has successfully completed the certification requirements as a

QCI # T7682

EXP.05/31/2025

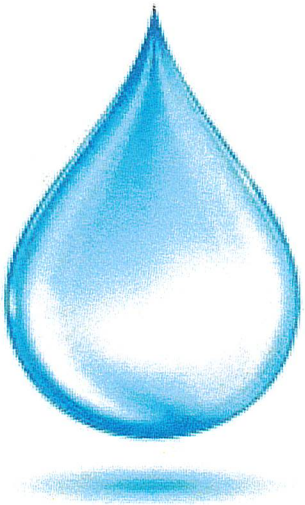
ALDOT QCI Trainer

Richard Klinger, PE

ALABAMA DEPARTMENT OF TRANSPORTATION

ALDOT Annual QCI Refresher Training

2024



4.00 Course Hours

Presented to:

Christian Mooth

Baldwin Co.

Has successfully completed the certification requirements as a

QCI # T8112

EXP.05/31/2025

ALDOT QCI Trainer

Richard Klinger, PE

ALABAMA DEPARTMENT OF TRANSPORTATION

ALDOT Annual QCI Refresher Training

2024

4.00 Course Hours

Presented to:

Jeremy Ringler

Baldwin Co.

Has successfully completed the certification requirements as a

QCI # T7438

EXP.05/31/2025

ALDOT QCI Trainer

Richard Klinger, PE

ALABAMA ★ DEPARTMENT OF TRANSPORTATION ★

ALDOT Annual QCI Refresher Training

2024

4.00 Course Hours

Presented to:

Pete Peterson

Baldwin Co.

Has successfully completed the certification requirements as a

QCI # T0797

EXP.05/31/2025

ALDOT QCI Trainer

Richard Klinger, PE

ALABAMA ★ DEPARTMENT OF TRANSPORTATION ★

ALDOT Annual QCI Refresher Training

2024

4.00 Course Hours

Presented to:

Todd Reed

Baldwin Co.

Has successfully completed the certification requirements as a

QCI # T6010

EXP.05/31/2025

ALDOT QCI Trainer

Richard Klinger, PE

ALABAMA DEPARTMENT OF TRANSPORTATION

ALDOT Annual QCI Refresher Training

2024

4.00 Course Hours

Presented to:

Vincent Ramer

Baldwin Co.

Has successfully completed the certification requirements as a

QCI # T0771

EXP.05/31/2025

ALDOT QCI Trainer

Richard Klinger, PE

ALABAMA DEPARTMENT OF TRANSPORTATION

ALDOT Annual QCI Refresher Training

2024

4.00 Course Hours

Presented to:

Rebecca Peacock

Baldwin Co

Has successfully completed the certification requirements as a

QCI # T7631

EXP.05/31/2025

ALDOT QCI Trainer

Richard Klinger, PE

ALABAMA DEPARTMENT OF TRANSPORTATION

ALDOT Annual QCI Refresher Training

2024

4.00 Course Hours

Presented to:

Michael Campbell

Baldwin Co.

Has successfully completed the certification requirements as a

QCI # T3560

EXP.05/31/2025

ALDOT QCI Trainer

Richard Klinger, PE

ALABAMA ★ DEPARTMENT OF TRANSPORTATION ★

ALDOT Annual QCI Refresher Training

2024

4.00 Course Hours

Presented to:

Forrest Davis

Baldwin Co

Has successfully completed the certification requirements as a

QCI # T7434

EXP.05/31/2025

ALDOT QCI Trainer

Richard Klinger, PE

ALABAMA ★ DEPARTMENT OF TRANSPORTATION ★

ALDOT Annual QCI Refresher Training

2024

4.00 Course Hours

Presented to:

Calvin Glass

Baldwin Co.

Has successfully completed the certification requirements as a

QCI # T7436

EXP.05/31/2025

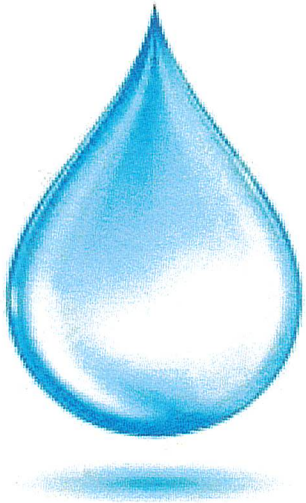
ALDOT QCI Trainer

Richard Klinger, PE

ALABAMA DEPARTMENT OF TRANSPORTATION

ALDOT Annual QCI Refresher Training

2024



4.00 Course Hours

Presented to:

Adam Harville

Baldwin Co.

Has successfully completed the certification requirements as a

QCI # T7437

EXP.05/31/2025

ALDOT QCI Trainer

Richard Klinger, PE

ALABAMA ★ DEPARTMENT OF TRANSPORTATION ★

ALDOT Annual QCI Refresher Training

2024

4.00 Course Hours

Presented to:

Ben Guerrera

Baldwin Co.

Has successfully completed the certification requirements as a

QCI # T7632

EXP.05/31/2025

ALDOT QCI Trainer

Richard Klinger, PE

ALABAMA ★ DEPARTMENT OF TRANSPORTATION ★

ALDOT Annual QCI Refresher Training

2024

4.00 Course Hours

Presented to:

Charley Weekley

Baldwin Co.

Has successfully completed the certification requirements as a

QCI # T3269

EXP.05/31/2025

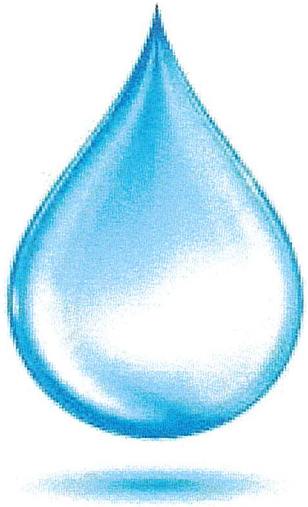
ALDOT QCI Trainer

Richard Klinger, PE

ALABAMA DEPARTMENT OF TRANSPORTATION

ALDOT Annual QCI Refresher Training

2024



4.00 Course Hours

Presented to:

James Allen

Baldwin Co.

Has successfully completed the certification requirements as a

QCI # T7433

EXP.05/31/2025

ALDOT QCI Trainer

Richard Klinger, PE

ALABAMA DEPARTMENT OF TRANSPORTATION

ALDOT Annual QCI Refresher Training

2024

4.00 Course Hours

Presented to:

Orie King

Baldwin Co.

Has successfully completed the certification requirements as a

QCI # T6888

EXP.05/31/2025

ALDOT QCI Trainer

Richard Klinger, PE

ALABAMA DEPARTMENT OF TRANSPORTATION

ALDOT Annual QCI Refresher Training

2024

4.00 Course Hours

Presented to:

Robert Brown

Baldwin Co.

Has successfully completed the certification requirements as a

QCI # T7237

EXP.05/31/2025

ALDOT QCI Trainer

Richard Klinger, PE

ALABAMA DEPARTMENT OF TRANSPORTATION

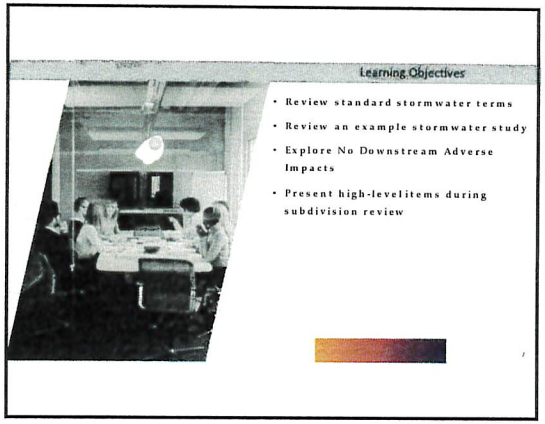
Table 9-6 Baldwin County Phase II MS4

MCM 5 Pollution/Good Housekeeping Strategies and Goals

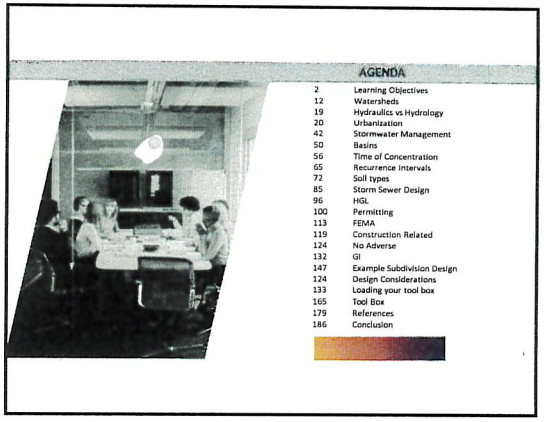
NPDES Permit Section	SWMPP Section	9-Pollution Prevention/Good Housekeeping Strategies	Goal	Pollution Targeted	Responsible Departments
Part III-5av	*9.2.5*	*Training*	*Provide additional stormwater training (including information regarding facility SOGs) twice during permit cycle to employees with program responsibilities such as, street, and mowing crews.*	*All*	*P&Z*
		Additional Training	**Staff**	**Dates**	
		Stormwater Training	Celena Boykin	5/5/2023	
		Stormwater Training	Shawn Mitchell	5/5/2023	
		Stormwater Training	Mary Booth	5/5/2023	
		Stormwater Training	Buford King	5/5/2023	
		Stormwater Training	Crystal Bates	5/5/2023	
		Stormwater Training	Robert Brown	5/5/2023	
		Stormwater Training	Brenda Brock	5/5/2023	
		Stormwater Training	Ashley Campbell	5/5/2023	
		Stormwater Training	Cory Rhodes	5/5/2023	
		Stormwater Training	Fabia Waters	5/5/2023	
		Stormwater Training	Ben Guerrera	5/5/2023	

DRAINAGE DESIGN
FOR REGULATORS
MAY 5, 2023
FIFTY-TWENTY ENGINEERING
50 20 ENGINEERING
Web

1


Learning Objectives
• Review standard stormwater terms
• Review an example stormwater study
• Explore No Downstream Adverse Impacts
• Present high-level items during subdivision review

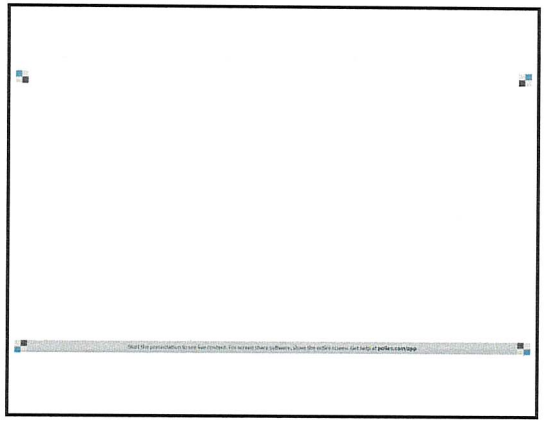
2


AGENDA
2 Learning Objectives
12 Watersheds
19 Hydraulics vs Hydrology
20 Urbanization
42 Stormwater Management
50 Basins
56 Time of Concentration
65 Recurrence Intervals
72 Soil types
85 Storm Sewer Design
96 HGL
100 Permitting
113 FEMA
119 Construction Related
124 No Adverse
132 GI
147 Example Subdivision Design
124 Design Considerations
133 Loading your tool box
165 Tool Box
179 References
186 Conclusion

3

INTRODUCTION
WadeBurcham
FIFTY-TWENTY ENGINEERING
50 20 ENGINEERING
Civil and Environmental Engineer based in Alabama with more than 20
years of experience focused on naturalized restoration me
engineering, stormwater management, civil/site engineering, municipal consulting,
and contract administration for both public and private clients.
Web
See Compiled Open-Source Information - Email me for a link
or connect with me:
Wade@5020Eng.net
linkedin.com/in/wade-burcham

4



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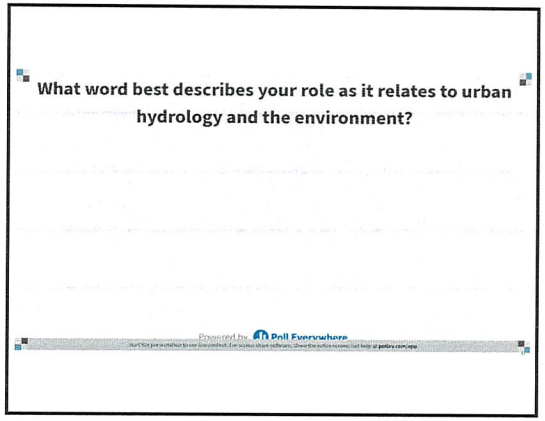
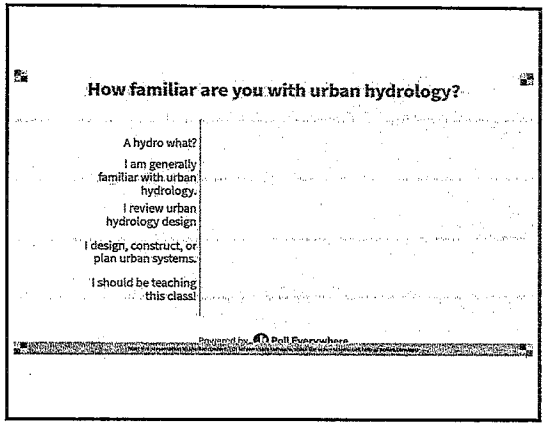
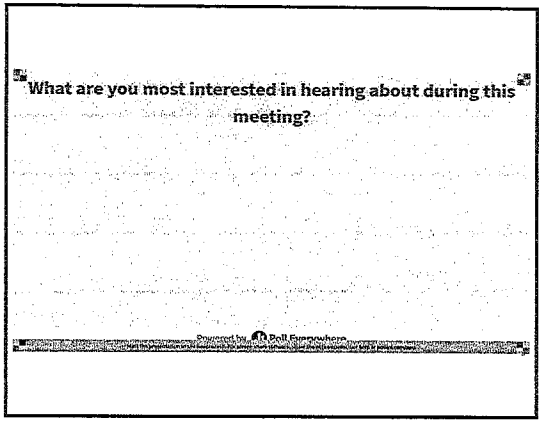

What word best describes your role as it relates to urban hydrology and the environment?
Powered by Poll Everywhere

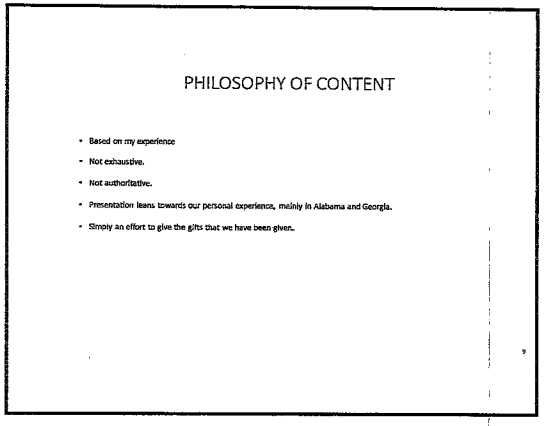
6


How familiar are you with urban hydrology?
A hydro what?
I am generally familiar with urban hydrology.
I review urban hydrology design
I design, construct, or plan urban systems.
I should be teaching this class!
Powered by Poll Everywhere

7

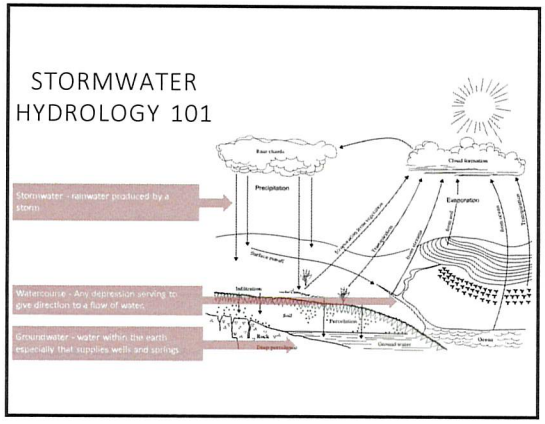

What are you most interested in hearing about during this meeting?
Powered by Poll Everywhere

8


PHILOSOPHY OF CONTENT
Based on my experience
Not exhaustive.
Not authoritative.
Presentation leans towards our personal experience, mainly in Alabama and Georgia.
Simply an effort to give the gifts that we have been given.

9

STORMWATER HYDROLOGY 101



10

Hydrology is the science that encompasses the occurrence, distribution, movement and properties of the waters of the earth and their relationship with the environment within each phase of the hydrologic cycle

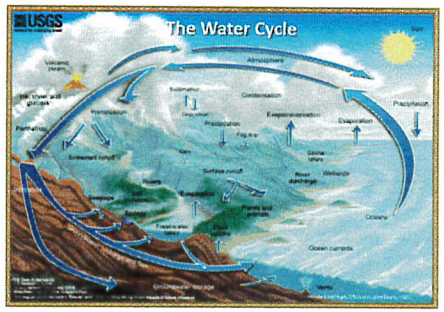
USGSWATERSCIENCESCHOOL

11

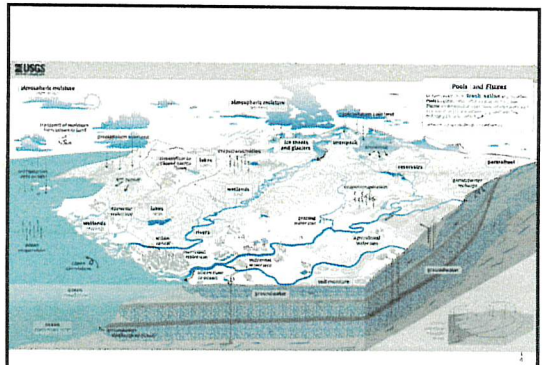
The water cycle, or hydrologic cycle, is a continuous process by which water is purified by **evaporation** and transported from the earth's surface (including the **oceans**) to the **atmosphere** and back to the land and oceans

USGSWATERSCIENCESCHOOL

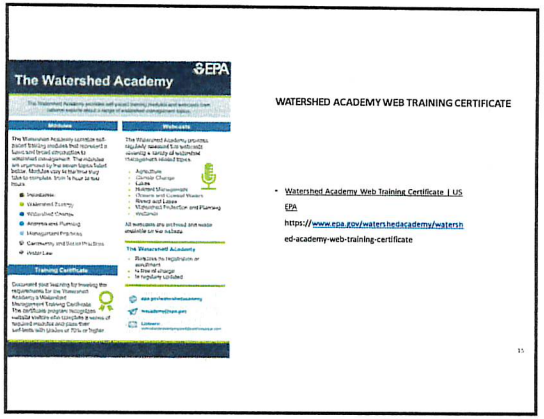
12


USGS
The Water Cycle
Atmosphere
Condensation
Precipitation
Evaporation
Transpiration
Infiltration
Runoff
Surface runoff
Snowmelt runoff
Lakes
Ocean
Ocean storage
Ocean currents
Glaciers
Groundwater storage
Springs
Groundwater discharge
Streams
Freshwater storage
Soil water
Plants and animals
Rivers
Vapor transport
Sublimation
Deposition
Evapotranspiration
Glacier melt
Percolation
Groundwater flow
Water table
Aquifer
Seepage
River discharge
Volcano
Sun
Clouds
Vents

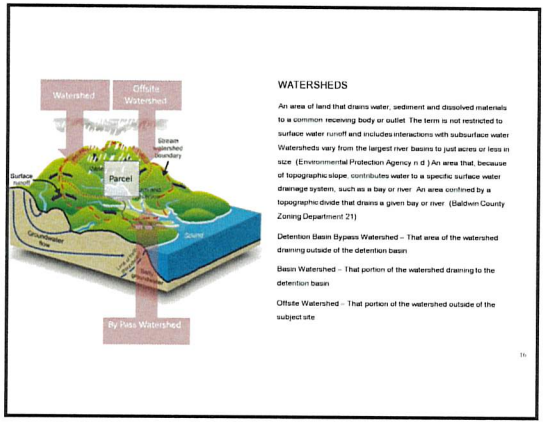
13


USGS
Pools and Fluxes
atmospheric moisture
atmospheric moisture
ice sheets and glaciers
groundwater
reservoirs
wetlands
lakes
rivers
wetlands
lakes
rivers
agricultural water use
groundwater
soil moisture

14


The Watershed Academy
EPA
Modules
Webcasts
Training Certificate
WATERSHED ACADEMY WEB TRAINING CERTIFICATE
Watershed Academy Web Training Certificate | US EPA
https://www.epa.gov/watershedacademy/watershed-academy-web-training-certificate

15



WATERSHEDS

An area of land that drains water, sediment and dissolved materials to a common receiving body or outlet. The term is not restricted to surface water runoff and includes interactions with subsurface water. Watersheds vary from the largest river basins to just acres or less in size. (Environmental Protection Agency n d.) An area that, because of topographic slope, contributes water to a specific surface water drainage system, such as a bay or river. An area confined by a topographic divide that drains a given bay or river. (Baldwin County Zoning Department 21)

Detention Basin Bypass Watershed – That area of the watershed draining outside of the detention basin

Basin Watershed – That portion of the watershed draining to the detention basin

Offsite Watershed – That portion of the watershed outside of the subject site

16

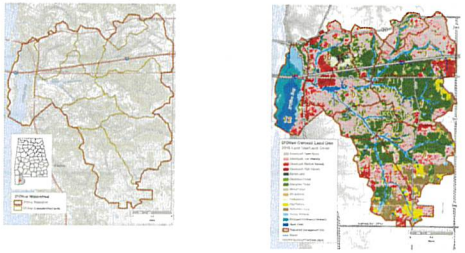
16

AN EXAMPLE WATERSHED

Source: USGS Stream Stats

17

AN EXAMPLE WATERSHED



18

HYDRAULICS VS. HYDROLOGY

Hydrology

- The art and science of estimating the quantity of runoff.
- Example: A ten-year storm produces an estimated 35 cubic feet per second (CFS) of runoff
- Seeks to provide answers on how much runs off

Hydraulics

- The study of what the quantity of water does as it runs off.
- Example: 35 cfs produces a depth of about 8 inches of depth in the ditch
- Seeks to provide answers of how deep and fast the runoff is conveyed

SOMETIMES REFERRED TO COLLECTIVELY AS H&H STUDIES

19

19

Urbanization – Hydrology

Alteration of natural hydrologic regimes is a consistent and pervasive effect of urbanization on stream ecosystems.

EPACAUSALANALYSIS/DIAGNOSIS DECISIONINFORMATIONSYSTEM (CADDIS)VOLUMEII

(Environmental Protection Agency, 2022)

20

KEY ASPECTS OF URBANIZATION AFFECTING HYDROLOGY MAY INCLUDE:

- **Decreased infiltration and increased surface runoff** of precipitation associated with impervious (and effectively impervious) surfaces
- **Increased speed and efficiency of runoff** delivery to streams, via stormwater drainage infrastructure
- **Decreased evapotranspiration** due to vegetation removal
- **Increased direct water discharges**, via wastewater and industrial effluents
- **Increased infiltration** due to irrigation and leakage from water supply and wastewater infrastructure
- **Increased water withdrawals and interbasin transfers**

(Environmental Protection Agency, 2022)

21

KEY ASPECTS OF URBANIZATION AFFECTING HYDROLOGY MAY INCLUDE:

- **Erosion**
- **Sedimentation**
- **Loss of habitat**
- **Increased Flooding**
- **Decrease in Land Value**
- **Increased Burden on Local Governments and Taxpayers**

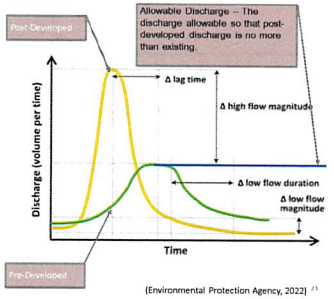
(Environmental Protection Agency, 2022)

22

HYDROLOGIC CHANGES

Hydrographs are charts that display the change of a hydrologic variable over time. (King 2023)

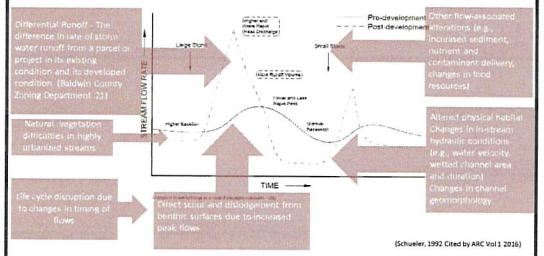
Hypothetical hydrographs for an urban stream (yellow) and a rural stream (green) after a storm, illustrating some common changes in stormflow and baseflow that occur with urban development. Other changes are listed at left.



(Environmental Protection Agency, 2022)

23

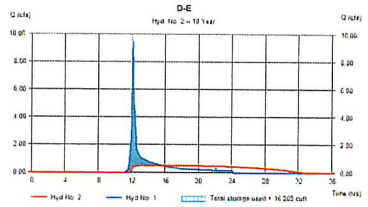
IMPACTS OF URBANIZATION ON STREAM FLOWS



(Schueler, 1992 Cited by ARC Vol 1 2016)

24

EXAMPLE HYDROGRAPH - DAE



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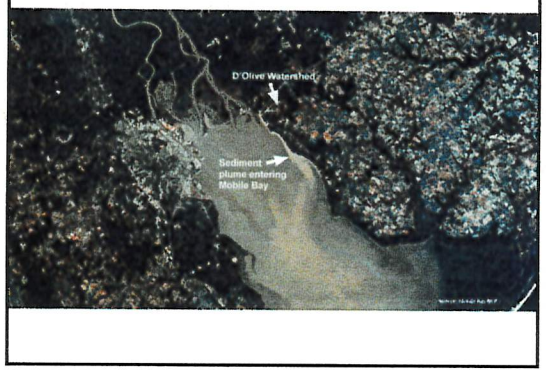
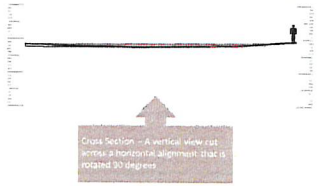


26

"PRE" CROSS SECTION



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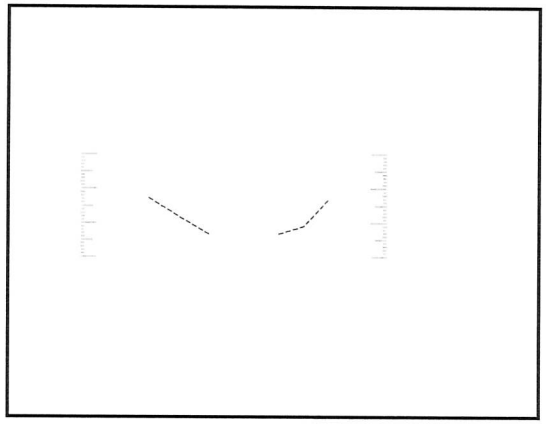

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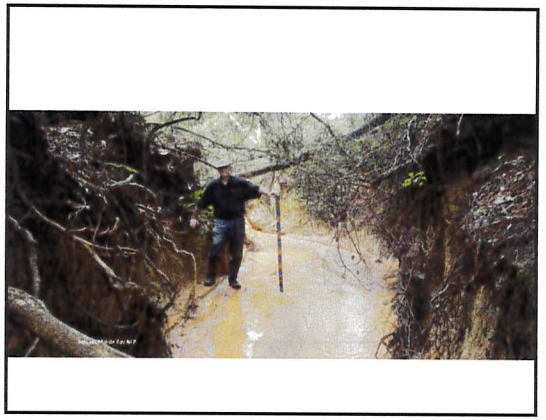
29



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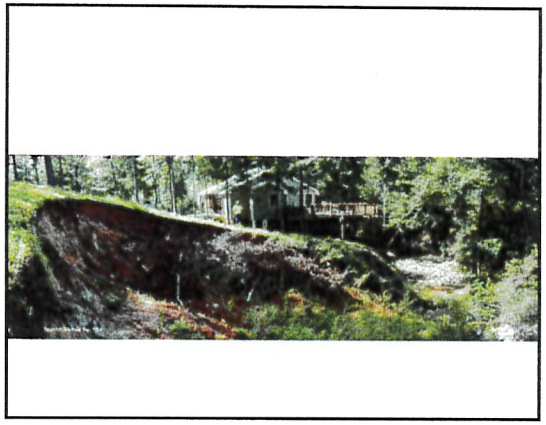


31

32

SEDIMENTATION IN LAKES (LOCAL DRY DETENTION BASIN)

33

SEDIMENTATION IN LAKES (LAKE FOREST EXAMPLE)

(Carlton & Gail, Jr., 1979)

(Google Earth 2018)

34

35

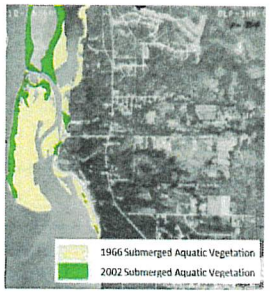
36

SEDIMENTATION IN LAKES (MATILIJA DAM)

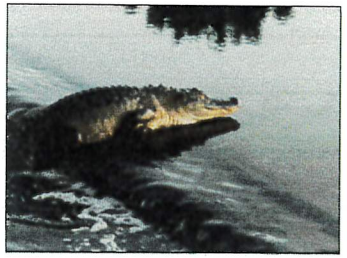
Matilija Dam, on the Ventura River Basin, California, was constructed in 1947 and is nearly completely filled with sediment. When constructed, the dam was 190 ft high and impounded a volume of 7,000 ac-ft; by 2015 it was reduced to 400 ac-ft. Photo credit: P. Jenkin.

(Miranda 2017)

37

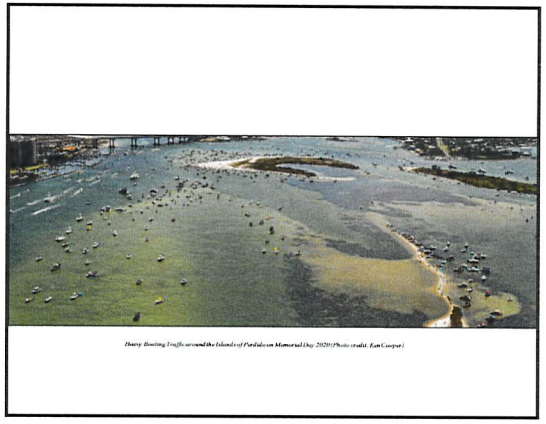


38



Restoration of Monument due to Shelby Lake/Little Lagoon War
(Photo credit: Milton Williamson)

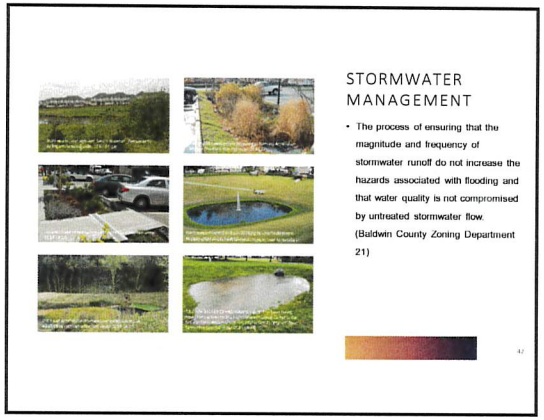
39



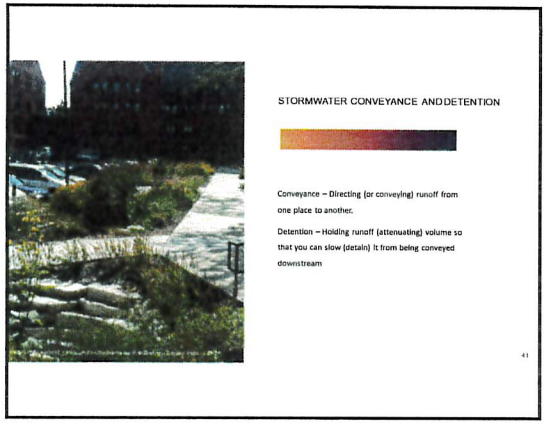
Heavy Boating Traffic around the Islands of Perdido on Memorial Day 2020 (Photo credit: Ken Cooper)

40

41



42



STORMWATER CONVEYANCE AND DETENTION

Conveyance – Directing (or conveying) runoff from one place to another.

Detention – Holding runoff (attenuating) volume so that you can slow (detain) it from being conveyed downstream

41

43

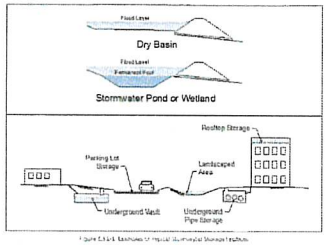
DETENTION / RETENTION

Detention – A surface storage basin or facility designed to provide … water quantity control through detention [temporary storage] of stormwater runoff. (Atlanta Regional Commission 2016)

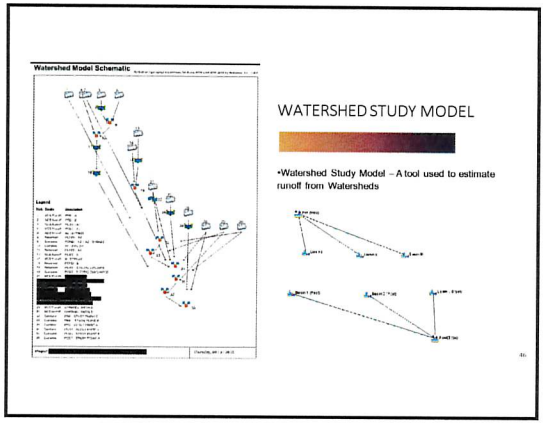
Retention – A surface storage basin or facility designed to provide … water quantity control through retention [permanent wet storage] of stormwater runoff.

44

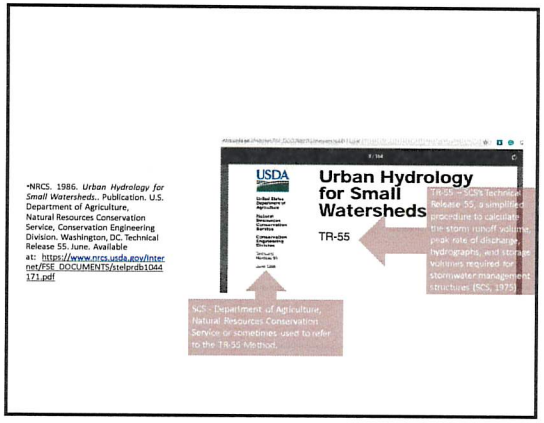
44



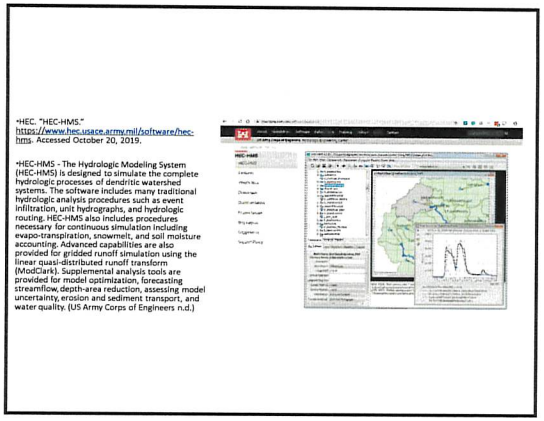
45


Watershed Model Schematic
WATERSHED STUDY MODEL
•Watershed Study Model – A tool used to estimate runoff from Watersheds

46


•NRCS. 1986. Urban Hydrology for Small Watersheds.. Publication. U.S. Department of Agriculture, Natural Resources Conservation Service, Conservation Engineering Division. Washington, DC. Technical Release 55. June. Available at: https://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb1044171.pdf
USDA
Urban Hydrology for Small Watersheds
TR-55
TR-55 – SCS's Technical Release 55, a simplified procedure to calculate the storm runoff volume, peak rate of discharge, hydrographs, and storage volumes required for stormwater management structures (SCS, 1975)
SCS - Department of Agriculture, Natural Resources Conservation Service or sometimes used to refer to the TR-55 Method.

47


•HEC. "HEC-HMS." https://www.hec.usace.army.mil/software/hec-hms. Accessed October 20, 2019.
•HEC-HMS - The Hydrologic Modeling System (HEC-HMS) is designed to simulate the complete hydrologic processes of dendritic watershed systems. The software includes many traditional hydrologic analysis procedures such as event infiltration, unit hydrographs, and hydrologic routing. HEC-HMS also includes procedures necessary for continuous simulation including evapo-transpiration, snowmelt, and soil moisture accounting. Advanced capabilities are also provided for gridded runoff simulation using the linear quasi-distributed runoff transform (ModClark). Supplemental analysis tools are provided for model optimization, forecasting streamflow, depth-area reduction, assessing model uncertainty, erosion and sediment transport, and water quality. (US Army Corps of Engineers n.d.)

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ENGINEERS

- Licensed Engineer / PE - An individual who, by reason of his or her special knowledge of the mathematical, physical, and engineering sciences and the principles and methods of engineering analysis and design, acquired by engineering education and engineering experience, is qualified to practice engineering as hereinafter defined and has been licensed by the board as a professional engineer. (Board of Licensure for Professional Engineers and Professional Land Surveyors 18)
- Professional Engineers Board - The State Board of Licensure for Professional Engineers and Land
- Surveyors, provided for by Section 34-11-30. (Board of Licensure for Professional Engineers and Professional Land Surveyors 18)
- Standard of Care - the skill and care that a reasonably careful professional engineer would have used in similar circumstances. (Pino 2014)

Signed
Sealed
Dated

ALABAMA LICENSED Wade Burcham No. 26027 PROFESSIONAL 3/13/23 ENGINEER WADE BURCHAM

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PRE-DEVELOPED BASIN

Pre-Developed Watershed – The subject sites watershed, prior to development.

50

POST DEVELOPED AREA

Post-Developed Watershed – The subject site's watershed following development.

Detention Basin Watershed – That portion of the watershed draining to the detention basin

Offsite Watershed – That portion of the watershed outside of the subject site.

51

DID WE FORGET ANYTHING?

52

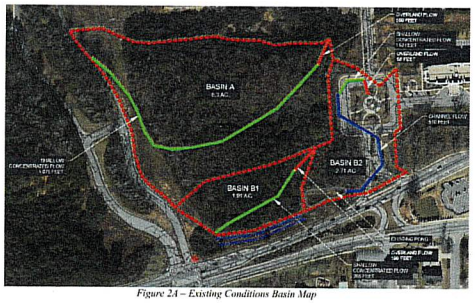


Figure 2A – Existing Conditions Basin Map

53

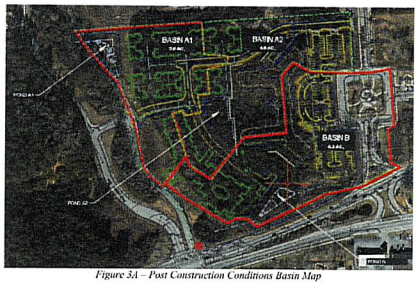
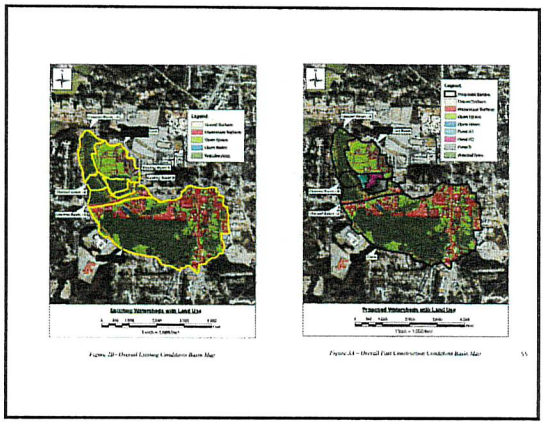
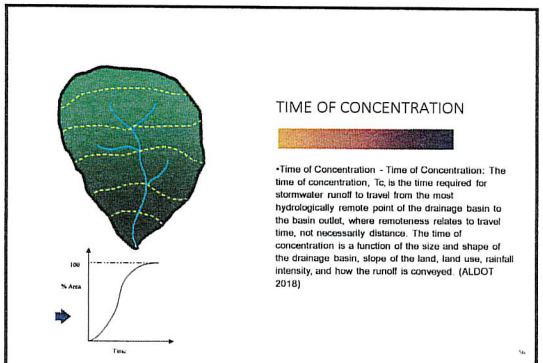


Figure 3A – Post Construction Conditions Basin Map

54



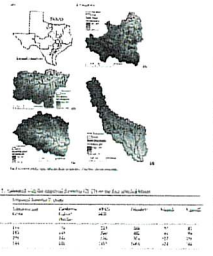
55



TIME OF CONCENTRATION

- Time of Concentration - Time of Concentration: The time of concentration, Tc, is the time required for stormwater runoff to travel from the most hydrologically remote point of the drainage basin to the basin outlet, where remoteness relates to travel time, not necessarily distance. The time of concentration is a function of the size and shape of the drainage basin, slope of the land, land use, rainfall intensity, and how the runoff is conveyed. (ALDOT 2018)

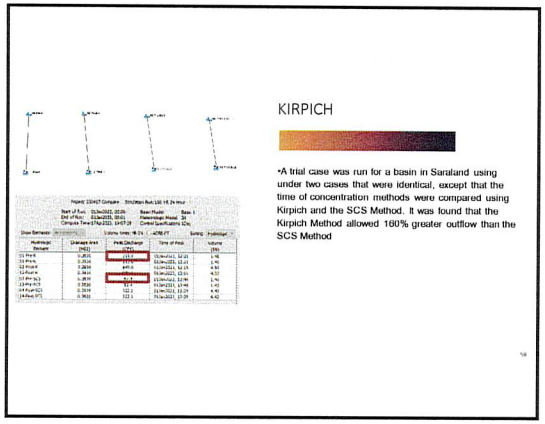
56



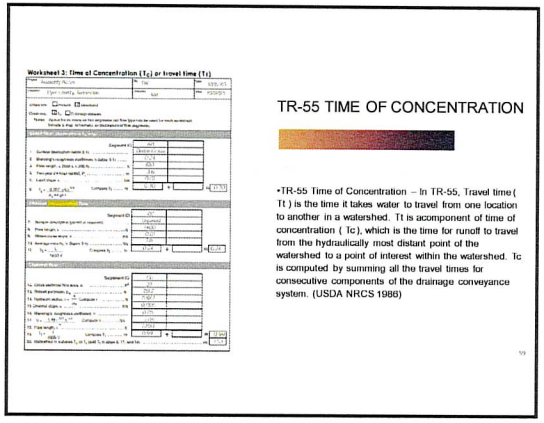
KIRPICH

- The Kirpich Equation is based on data reported by Ramser (1927) for six small agricultural watersheds near Jackson, Tennessee. The slope of these watersheds was steep, the soils well-drained, the timber cover ranged from zero percent to 58 percent, and watershed areas ranged from 1.2 acres to 112 acres. (FDOT 2023)
- Grimaldi, et al. found that the time of concentration results varied by over 500% in example watersheds. (Grimaldi 2012)

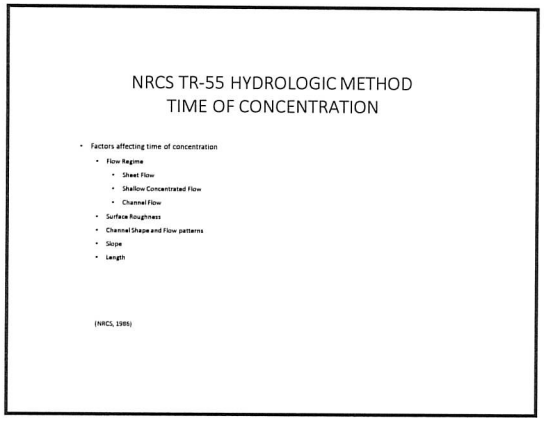
57


KIRPICH
•A trial case was run for a basin in Saraland using under two cases that were identical, except that the time of concentration methods were compared using Kirpich and the SCS Method. It was found that the Kirpich Method allowed 160% greater outflow than the SCS Method

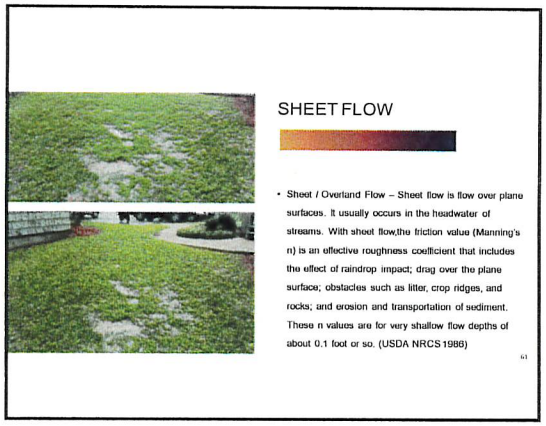
58


TR-55 TIME OF CONCENTRATION
•TR-55 Time of Concentration – In TR-55, Travel time (Tt) is the time it takes water to travel from one location to another in a watershed. Tt is acomponent of time of concentration (Tc), which is the time for runoff to travel from the hydraulically most distant point of the watershed to a point of interest within the watershed. Tc is computed by summing all the travel times for consecutive components of the drainage conveyance system. (USDA NRCS 1986)

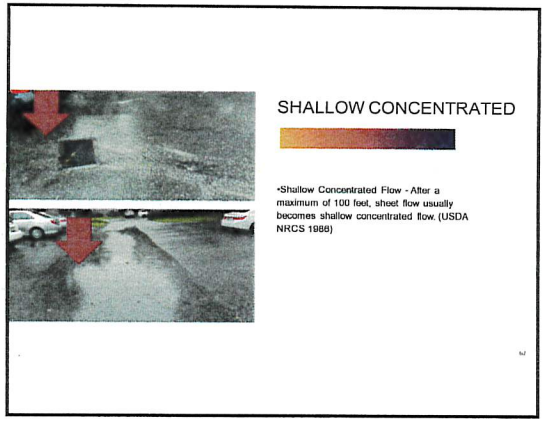
59


NRCS TR-55 HYDROLOGIC METHOD
TIME OF CONCENTRATION
Factors affecting time of concentration
Flow Regime
Sheet Flow
Shallow Concentrated Flow
Channel Flow
Surface Roughness
Channel Shape and Flow patterns
Slope
Length
(NRCS, 1986)

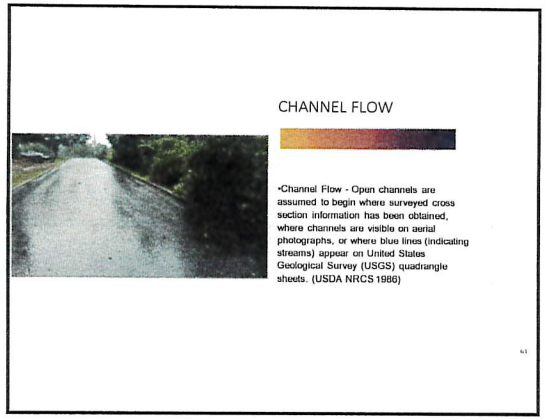
60


SHEET FLOW
• Sheet / Overland Flow – Sheet flow is flow over plane surfaces. It usually occurs in the headwater of streams. With sheet flow,the friction value (Manning's n) is an effective roughness coefficient that includes the effect of raindrop impact; drag over the plane surface; obstacles such as litter, crop ridges, and rocks; and erosion and transportation of sediment. These n values are for very shallow flow depths of about 0.1 foot or so. (USDA NRCS 1986)

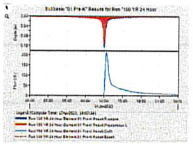
61


SHALLOW CONCENTRATED
•Shallow Concentrated Flow - After a maximum of 100 feet, sheet flow usually becomes shallow concentrated flow. (USDA NRCS 1986)

62

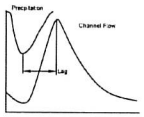

CHANNEL FLOW
•Channel Flow - Open channels are assumed to begin where surveyed cross section information has been obtained, where channels are visible on aerial photographs, or where blue lines (indicating streams) appear on United States Geological Survey (USGS) quadrangle sheets. (USDA NRCS 1986)

63



LAG TIME

•Lag Time - There is a delay in time, after a brief heavy rain over a watershed, before the runoff reaches its maximum peak. (Kent 1975)



64

RECURRENCE INTERVALS

Design Storm – A recurrence interval used to size stormwater management systems

- The period expressed in number of years in which the annual maximum observation is expected to return.
- Also known as the Return Period
- A storm with a 100-year return period has a 1% chance of occurring in a given year
  - RP=1/p , p is the probability of occurrence
  - p=1/RP
- What is the probability of a 25-year storm occurring in a given year?
  - 4% chance

65

WHAT DO YOU THINK?

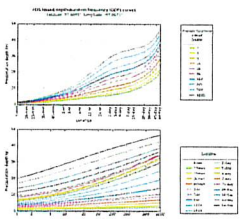
What percent chance of being flooded does an average home in a 100-year floodplain have during the span of a 30-year mortgage?

26-percent chance of being flooded at least once during those 30 years!

(USGS 2010)

$P = 1-[1-(1/RP)]^n$
n=number of periods
P=probability of occurrence during a specified number of periods

66

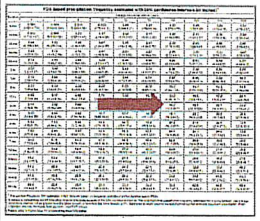


INTENSITY DURATION FREQUENCY CURVES

- Intensity Duration Frequency Curves - An intensity-duration-frequency curve (IDF curve) is a mathematical function that relates the rainfall intensity with its duration and frequency of occurrence. (Koutsoyiannis 1998)

PF Map: Contiguous US (noaa.gov)

67

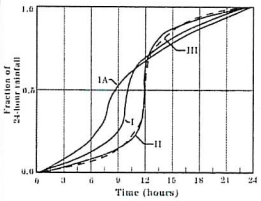


RAINFALL INTENSITY

- Rainfall Intensity - Rainfall intensity is defined as the ratio of the total amount of rain (rainfall depth) falling during a given period to the duration of the period It is expressed in depth units per unit time. (Critchley 1991)

PF Map: Contiguous US (noaa.gov)

68



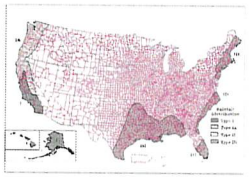
RAINFALL DISTRIBUTION

- Rainfall Distribution - The quantity of rain falling in successive time increments of the total storm duration. In this chapter, the cumulative fraction of rain falling at successive times up to the storm duration is used to develop the rainfall distribution. The rainfall distribution begins at a value of zero at the beginning of the storm and ends at a value of 1.0. (USDA 2019)

USDA NRCS. 1986. *Urban Hydrology for Small Watersheds TR-55*. Washington, DC: U.S. Department of Agriculture.

69

SCS TYPE III DISTRIBUTION



•SCS Type III Distribution – The rainfall distribution of the Gulf Coast of Alabama when using TR-55.

USDA NRCS. 1986. *Urban Hydrology for Small Watersheds TR-55*. Washington, DC: U.S. Department of Agriculture.

70

NRCS TR-55 HYDROLOGIC METHOD

- The principal physical watershed characteristics affecting the relationship between rainfall and runoff are:
  - Land use
  - Land treatment (primarily agricultural practices such as terracing and contouring the land)
  - Soil types
  - Land slope.
- A combination of soil conditions and land use determines the CN for the site
- Appendix A of NRCS TR-55 Urban Hydrology for Small Watersheds defines the four groups and provides a list of most of the soils in the United States and their group classification.

(ARC Vol 2, 2016)

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NRCS TR-55 HYDROLOGIC METHOD

- Soil properties influence runoff by affecting the rate of infiltration.
- TR-55 divides soils into four hydrologic soil groups based on infiltration rates: Groups A, B, C, D.

(ARC Vol 2, 2016)

HSG Based Upon Soil Texture for Disturbed Soils (Source: TR-55)

HSG	*Soil textures*
A	Sand, loamy sand, or sandy loam
B	Silt loam or loam
C	Sandy clay loam
D	Clay loam, silty clay loam, sandy clay, silty clay, or clay

72

NRCS TR-55 HYDROLOGIC METHOD
HYDROLOGIC SOIL GROUPS

- Group A Soils
  - Soils with a low runoff potential due to high infiltration rates.
  - Examples are soils consisting primarily of deep, well-drained sands and gravels. (ARC Vol 2, 2016)

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NRCS TR-55 HYDROLOGIC METHOD
HYDROLOGIC SOIL GROUPS

- Group B Soils
  - Soils with a moderately low runoff potential due to moderate infiltration rates.
  - These are soils with moderately deep to deep, moderately well to well drained soils with moderately fine to moderately coarse textures.

(ARC Vol2, 2016)

74

NRCS TR-55 HYDROLOGIC METHOD
HYDROLOGIC SOIL GROUPS

- Group C Soils
  - Soils with a moderately high runoff potential due to slow infiltration rates.
  - These soils are mainly soils with moderately fine to fine texture that impede the downward movement of water.

(ARC Vol 2, 2016)

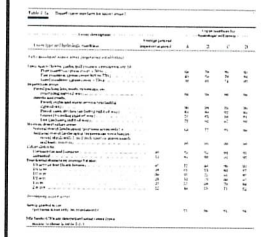
75

NRCS TR-55 HYDROLOGIC METHOD
HYDROLOGIC SOIL GROUPS

- Group D Soils
  - Soils with a high runoff potential due to very slow infiltration rates.
  - These soils are mainly clays with high swelling potential, soils with permanently high water tables, soils with a claypan or clay layer at or near the surface, and shallow soils over nearly impervious parent material.

(ARC Vol 2, 2016)

76

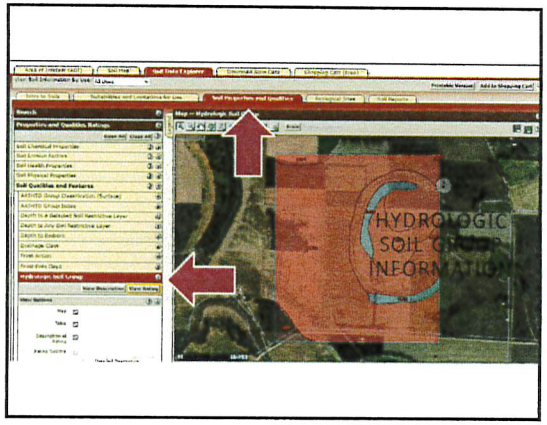


RUNOFF COEFFICIENTS – CN FACTORS

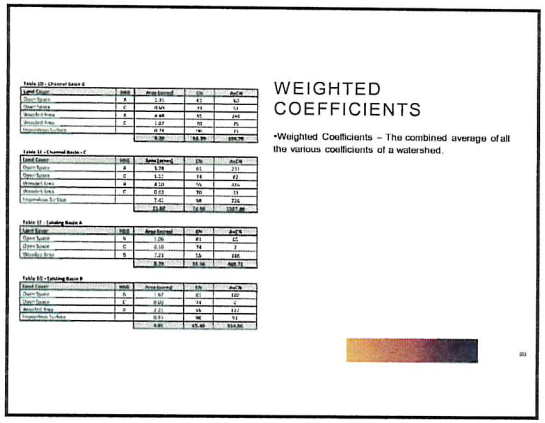
•Runoff Coefficients – Curve Numbers (CN) - The NRCS CN value also reflects land use, soil type, and slope. In addition, the CN value also includes the hydrologic soil group and hydrologic condition. Like the Rational C value, a CN value is directly related to percent imperviousness. (ALDOT 2018)

77

78


HYDROLOGIC
SOIL

79


WEIGHTED
COEFFICIENTS
•Weighted Coefficients – The combined average of all the various coefficients of a watershed.

80

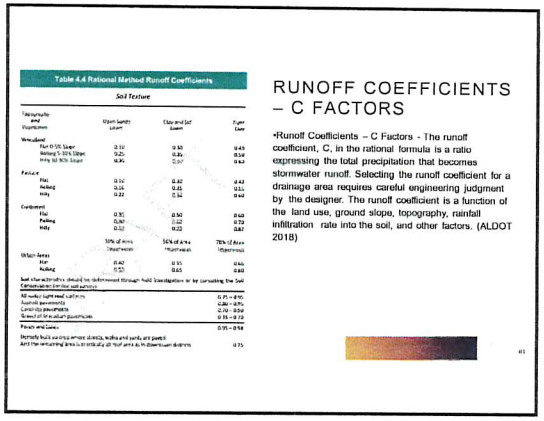
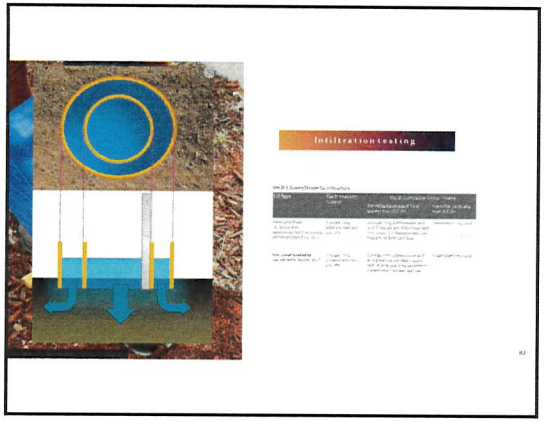


Table 4.4 Rational Method Runoff Coefficients
Soil Texture
RUNOFF COEFFICIENTS
– C FACTORS
•Runoff Coefficients – C Factors - The runoff coefficient, C, in the rational formula is a ratio expressing the total precipitation that becomes stormwater runoff. Selecting the runoff coefficient for a drainage area requires careful engineering judgment by the designer. The runoff coefficient is a function of the land use, ground slope, topography, rainfall infiltration rate into the soil, and other factors. (ALDOT 2018)

81



82

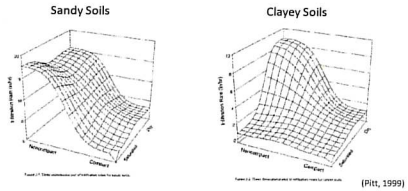
United States Environmental Protection Agency | Office of Research and Development Washington, DC 20460 | EPA/600/R-00/016 December 1999

Infiltration Through Disturbed Urban Soils and Compost-Amended Soil Effects on Runoff Quality and Quantity

Research Report

83

VARIATION IN RUNOFF COEFFICIENTS



(Pitt, 1999)

84

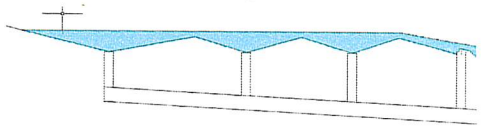
STORM SEWER SYSTEM

- Locating and spacing inlets
- System layout
- Pipe materials and diameters
- Locating structures
- Design discharge
- Gutter design
- Longitudinal slopes
- Utilities conflicts
- Construction concerns/considerations

85

LOCATING AND SPACING IN LETS

- Consider using HEC-22, Chapter 4
- "Box" sites use grates based on grading
  - Inlets at 300' spacing maximum
  - Design for positive drainage (even if clogged)

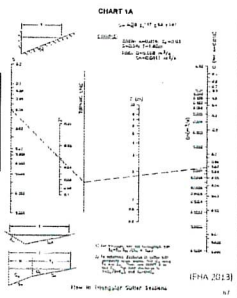


86

LOCATING AND SPACING IN LETS

Table 4-1. Suggested Minimum Design Frequency and Spread

Road Classification		Design Frequency	Design Spread
High Volume or Divided or One-Directional	< 70 km/hr (45 mph)	10-year	Shoulder + 1 m (3 ft)
	> 70 km/hr (45 mph)	10-year	Shoulder
	Sag Point	50-year	Shoulder + 1 m (3 ft)
Collector	< 70 km/hr (45 mph)	10-year	1/2 Driving Lane
	> 70 km/hr (45 mph)	10-year	Shoulder
	Sag Point	10-year	1/2 Driving Lane
Local Streets	Low ADT	5-year	1/2 Driving Lane
	High ADT	10-year	1/2 Driving Lane
	Sag Point	10-year	1/2 Driving Lane



87

LONGITUDINAL SLOPES

- A minimum longitudinal gradient is more important for a curbed pavement than for an uncurbed pavement since the water is constrained by the curb.
- Desirable gutter grades should not be less than 0.5% for curbed pavements with an absolute minimum of 0.3%
- To provide adequate drainage in sag vertical curves, a minimum slope of 0.3% should be maintained within 50 ft of the low point of the curve. This is accomplished where the length of the curve is divided by the algebraic difference in grades in percent (K) is equal to or less than 167. This is represented as:

K= L / (G2 – G1) (4-1)

where:

K= Vertical curve constant m/percent(ft/percent)

L= Horizontal length of curve, m (ft)

Gi= Grade of roadway, percent

(FHA 2013) 88

88

PIPE MATERIALS

1. Reinforced Concrete Pipe – Subdivision Requirements
2. HDPP – High Density Polypropylene Smooth Interior
3. PVC – Polyvinyl Chloride
4. HDPE – High-Density Polyethylene Smooth Interior

89

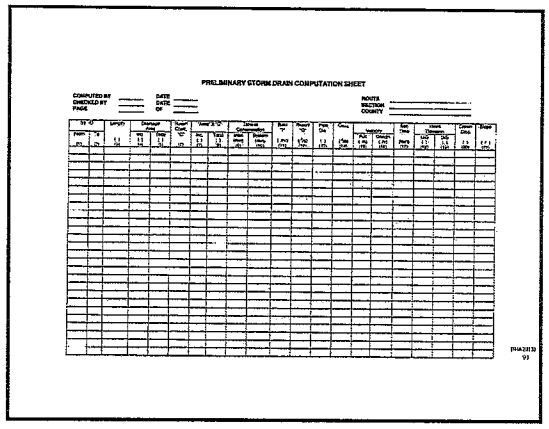
89

PIPE DIAMETERS

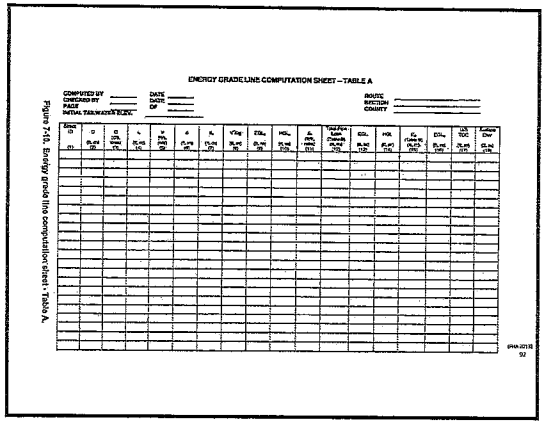
1. Consider HY8 for roadway crossings
2. Consider using Manning's equation and backwater (energy grade line) spreadsheets
3. Consider HEC-22, Chapter 7 procedures and worksheets
4. Note minimum diameter in regulations

90

90



91



92

HTTPS://BIT.LY/COMPILEDDETENTIONRESOURCES

93

Location		Acres		Coeff	I	Q = CIA	Pipe n =	0.013	0.013	Ratio	Capacity	Elev	t(c)	Velocity	Flow	Invert	Invert
From	To	Sub	Total	Cd	(in/hr) (System)	(cfs) (System)	Length (ft)	Dia (in)	Slope	Full	(cfs)	Diff (ft)	(min) (System)	Full	Tc (min)	Up End	Lo End
A-5	A-6	1	1.0	0.25	16.08	4.0	96	54	1.00%	0.02	196.65	0.66	5.0	12.36	0.09	102.00	99.34
A-4	A-5	1	2.0	0.28	16.08	9.0	92	54	1.00%	0.05	196.65	0.92	5.1	12.36	0.11	99.34	98.54
A-3	A-4	1	3.0	0.35	16.08	18.7	92	54	1.00%	0.09	196.65	0.92	5.2	12.36	0.12	98.54	97.62
A-2	A-3	1	4.0	0.44	16.08	28.3	244	54	1.00%	0.14	196.65	2.44	5.3	12.36	0.33	97.62	95.18
A-1	A-2	1	5.0	0.47	16.21	38.1	100	54	1.00%	0.19	196.65	1.00	5.6	12.36	0.13	95.18	94.18

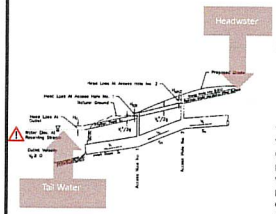
94

n= 0.024 corrugated metal
n= 0.012 concrete
Hm1= 1.00 last structure
(Unless otherwise noted) Hm2= 0.50 exit or entrance through headwall
Hm3= 0.10 straight run
Hm4= 0.25 bends
Hm5= 1.20 Treatment Device

STRUCTURE	DIA	ft^2	cfs	fps	AREA	FLOW	VEL	R/A/P)	LEN	LOSSES IN FT. OF HEAD FR. LOSS	ST LOSS	TOT LOSS	FULL LOSS HYD GRAD	CRITICAL ELEV
												Note 1	98.68	
(EXIT LOSS)	54	15.904	38.1	2.27	1.125				100	0.00	0.04 Hm2	0.04	98.72	
A-6	A-5	54	15.90	36.13	2.27	1.125			100	0.03	0.92 Hm4	0.95	98.73	120.00
A-5	A-4	54	15.90	28.30	1.78	1.125			244	0.04	0.91 Hm4	0.95	98.78	120.00
A-4	A-3	54	15.90	18.65	1.17	1.125			92	0.01	0.91 Hm4	0.91	98.80	120.00
A-3	A-2	54	15.90	9.00	0.57	1.125			89	0.00	0.00 Hm4	0.00	98.89	120.00
A-2	A-1	54	3.14	4.02	1.28	0.25			66	0.02	0.91 Hm2	0.93	98.93	120.00

Notes:
1. Inside top of pipe

95



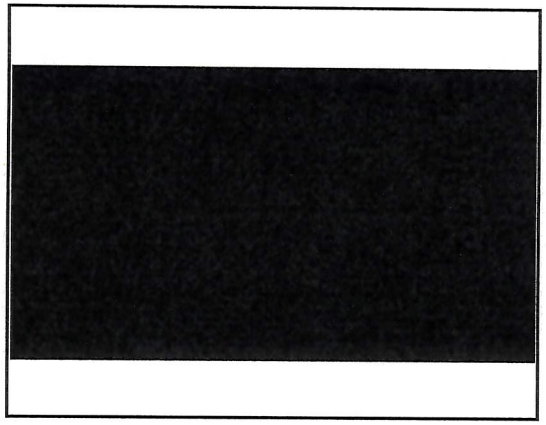
HYDRAULIC GRADE LINE

•Hydraulic Grade Line - A line coinciding with the level of flowing water in an open channel. In a closed conduit flowing under pressure, the HGL is the level to which water would rise in a vertical tube at any point along the pipe. It is equal to the energy gradeline elevation minus the velocity head, V2 /2g. (USDOT FHA 2009)

•Head and Tailwater – Hydraulic Grade Lines at the beginning and ending of a pipe or culvert

96

97



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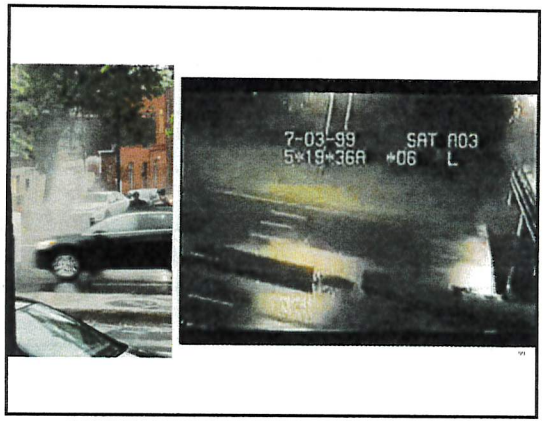

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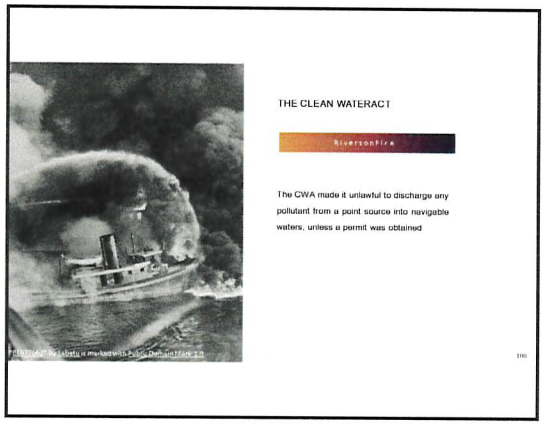
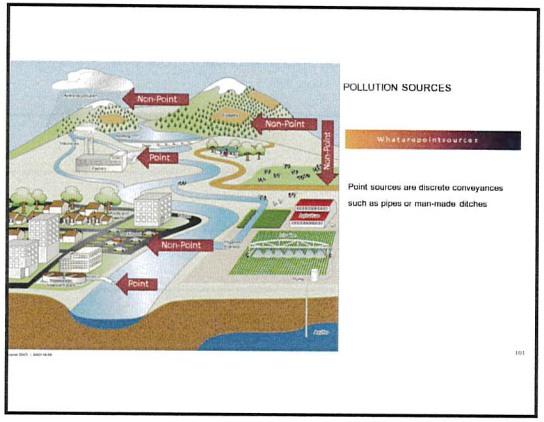

THE CLEAN WATERACT
RiversonFire
The CWA made it unlawful to discharge any pollutant from a point source into navigable waters, unless a permit was obtained

100


Non-Point
Non-Point
Point
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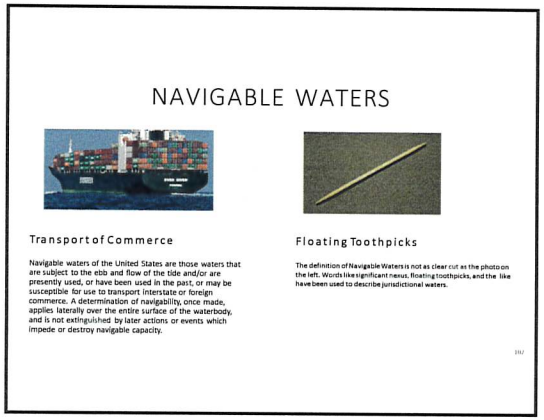
Point
POLLUTION SOURCES
Whatarepointsources
Point sources are discrete conveyances such as pipes or man-made ditches

101


NAVIGABLE WATERS
Transport of Commerce
Navigable waters of the United States are those waters that are subject to the ebb and flow of the tide and/or are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce. A determination of navigability, once made, applies laterally over the entire surface of the waterbody, and is not extinguished by later actions or events which impede or destroy navigable capacity.
Floating Toothpicks
The definition of Navigable Waters is not as clear cut as the photo on the left. Words like significant nexus, floating toothpicks, and the like have been used to describe jurisdictional waters.

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PROFESSIONAL WETLAND DELINEATOR

- A professional who has adequate training in identifying wetlands and their boundaries and has at least three years' experience working with wetlands including wetland delineations; wetland assessments; and preparation of US Army Corps of Engineer approved Jurisdictional Determinations, wetland fill permits, and wetland mitigation permits. (Baldwin County Zoning Department 21)

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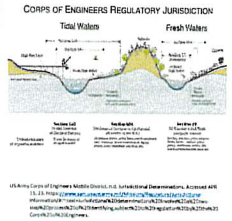
GENERAL WETLAND MAP

- Refers to the National Wetland Inventory (NWI) Maps, the Baldwin County Digital Wetland layer, and/or any other digital data depicting the general locations of jurisdictional wetlands or hydric soils and their degree of functionality within the jurisdiction of Baldwin County.

104

JURISDICTIONAL WATERS



- Jurisdictional Wetland - A wetland area that is determined as such by the U.S. Army Corps of Engineers and/or the Alabama Department of Environmental Management. (Baldwin County Zoning Department 21)

105

Nationwide Permits

1. Aids to Navigation
2. Structures in Artificial Canals
3. Maintenance
4. Fish and Wildlife Harvesting, Enhancement, and Attraction Devices and Activities
5. Scientific Measurement Devices
6. Survey Activities
7. Outfall Structures and Associated Intake Structures
8. Oil and Gas Structures on the Outer Continental Shelf
9. Structures in Fleeting and Anchorage Areas
10. Mooring Buoys
11. Temporary Recreational Structures
12. Oil or Natural Gas Pipeline Activities
13. Bank Stabilization
14. Linear Transportation Projects
15. U.S. Coast Guard Approved Bridges
16. Return Water From Upland Contained Disposal Areas
17. Hydropower Projects
18. Minor Discharges
19. Minor Dredging
20. Response Operations for Oil or Hazardous Substances
21. Surface Coal Mining Activities
22. Removal of Vessels
23. Approved Categorical Exclusions
24. Indian Tribe or State Administered Section 404 Programs
25. Structural Discharges
27. Aquatic Habitat Restoration, Establishment, and Enhancement Activities
28. Modifications of Existing Marinas
29. Residential Developments
30. Moist Soil Management for Wildlife
31. Maintenance of Existing Flood Control Facilities

106

NATIONWIDE PERMIT (USACE)

•Nationwide Permit (USACE) - A nationwide permit is a general permit that authorizes activities across the country meeting certain conditions.

106

STREAMS

- Ephemeral Stream - flow only after precipitation. Runoff from rainfall is the primary source of water for these streams. (EPA 23)
- Perennial Stream - A stream that has surface water flowing continuously year-round. (Baldwin County Zoning Department 21)

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EPA'S NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT PROGRAM CONTROLS DISCHARGES

NPDES Permits

- Issued by EPA or authorized states
- Sometimes are issued as General Permits (permits that all have the same conditions).
- Sometimes issued as Individual Permits (specific to that site)

Does your Watershed have NPDES Permits?

- Search and go to EPA's How's My Waterway
- https://mywaterway.epa.gov/

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NPDES PERMITS

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General NPDES Permits

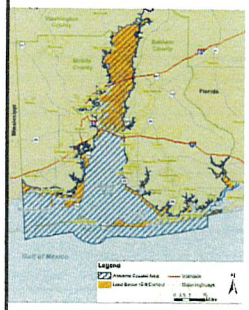
GENERAL NPDES PERMITS (ADEM)

A NPDES Permit through ADEM that authorizes discharges that are in accordance with the conditions of the permit.

ADEM

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM GENERAL PERMIT

110

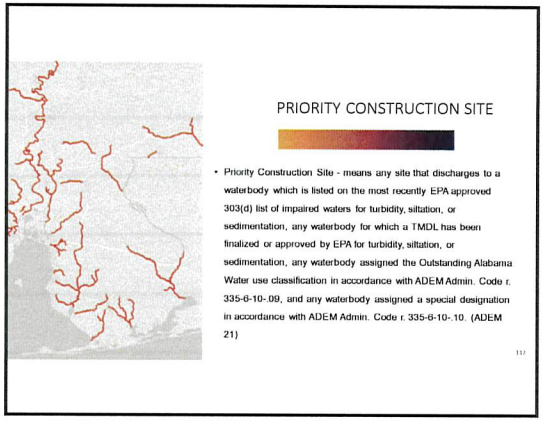


COASTAL CONSTRUCTION LINE

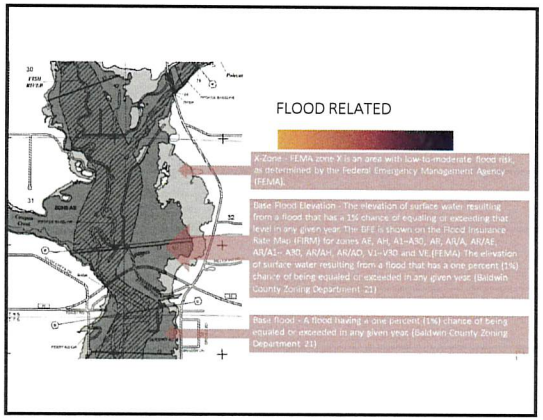
A line in coastal Alabama determined by the Alabama Coastal Area Management Plan (ACAMP) seaward of which no construction is permitted. (Baldwin County Zoning Department 21)

(Alabama Department of Conservation & Natural Resources State Lands Division, Coastal Section 17)

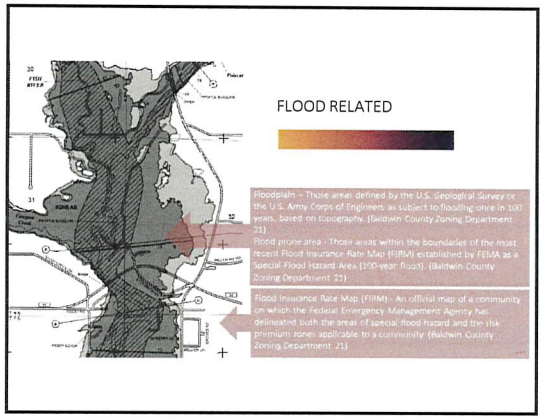
111


PRIORITY CONSTRUCTION SITE
• Priority Construction Site - means any site that discharges to a waterbody which is listed on the most recently EPA approved 303(d) list of impaired waters for turbidity, siltation, or sedimentation, any waterbody for which a TMDL has been finalized or approved by EPA for turbidity, siltation, or sedimentation, any waterbody assigned the Outstanding Alabama Water use classification in accordance with ADEM Admin. Code r. 335-6-10-.09, and any waterbody assigned a special designation in accordance with ADEM Admin. Code r. 335-6-10-.10. (ADEM 21)

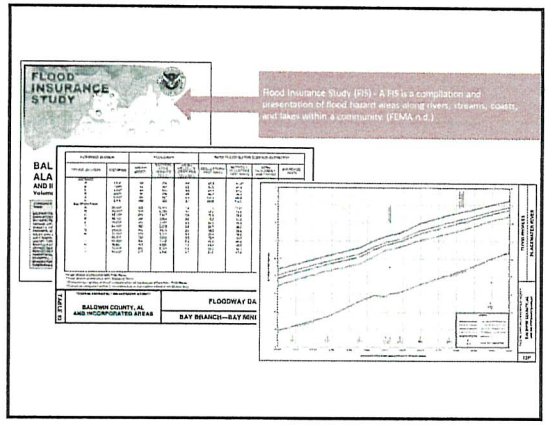
112


FLOOD RELATED
X-Zone - FEMA zone X is an area with low to moderate flood risk, as determined by the Federal Emergency Management Agency (FEMA).
Base Flood Elevation - The elevation of surface water resulting from a flood that has a 1% chance of equaling or exceeding that level in any given year. The BFE is shown on the Flood Insurance Rate Map (FIRM) for zones AE, AH, A1–A30, AR, AR/A, AR/AE, AR/A1– A30, AR/AH, AR/AO, V1–V30 and VE.(FEMA) The elevation of surface water resulting from a flood that has a one percent (1%) chance of being equaled or exceeded in any given year. (Baldwin County Zoning Department 21)
Base flood - A flood having a one percent (1%) chance of being equaled or exceeded in any given year (Baldwin County Zoning Department 21)

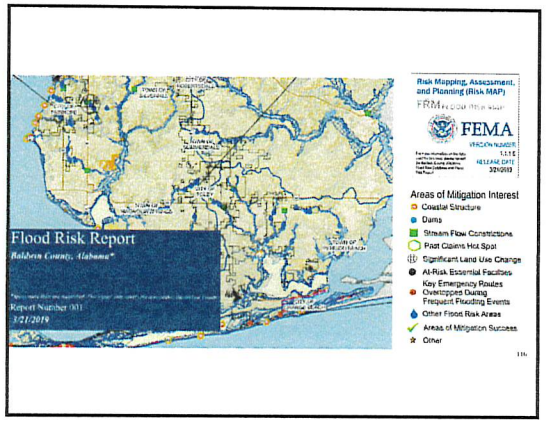
113


FLOOD RELATED
Floodplain – Those areas defined by the U.S. Geological Survey or the U.S. Army Corps of Engineers as subject to flooding once in 100 years, based on topography. (Baldwin County Zoning Department 21)
Flood prone area - Those areas within the boundaries of the most recent Flood Insurance Rate Map (FIRM) established by FEMA as a Special Flood Hazard Area (100-year flood). (Baldwin County Zoning Department 21)
Flood Insurance Rate Map (FIRM) - An official map of a community on which the Federal Emergency Management Agency has delineated both the areas of special flood hazard and the risk premium zones applicable to a community. (Baldwin County Zoning Department 21)

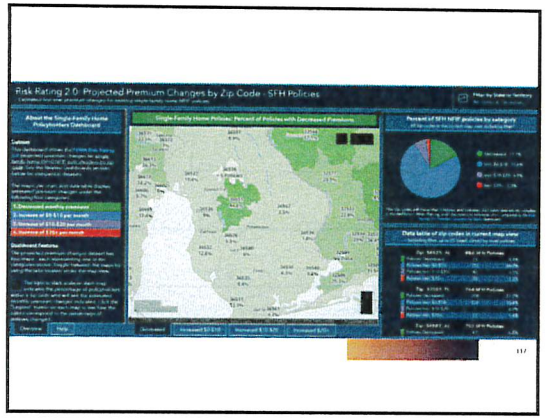
114


FLOOD INSURANCE STUDY
Flood Insurance Study (FIS) - A FIS is a compilation and presentation of flood hazard areas along rivers, streams, coasts, and lakes within a community. (FEMA n.d.)
BALDWIN COUNTY, AL AND INCORPORATED AREAS
FLOODWAY DA
BAY BRANCH—BAY MINI

115

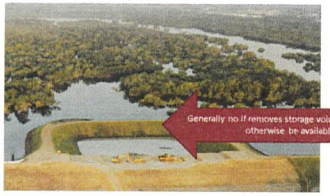

Flood Risk Report
Baldwin County, Alabama*
Report Number 001
3/21/2019
Risk Mapping, Assessment, and Planning (Risk MAP)
FEMA
Areas of Mitigation Interest
Coastal Structure
Dams
Stream Flow Constrictions
Past Claims Hot Spot
Significant Land Use Change
At-Risk Essential Facilities
Key Emergency Routes Overtopped During Frequent Flooding Events
Other Flood Risk Areas
Areas of Mitigation Success
Other

116


Risk Rating 2.0: Projected Premium Changes by Zip Code - SFH Policies

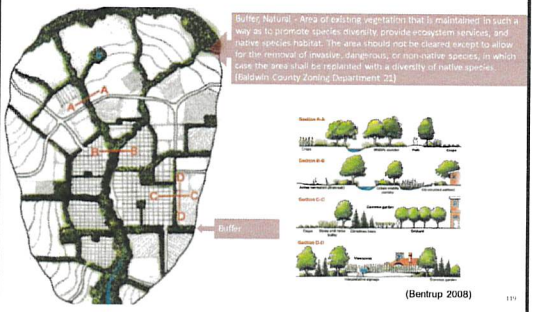
117

SHOULD DETENTION BASINS BE DESIGNED IN A FLOOD PLAIN?



(Satija 2017)

118



(Bentrup 2008)

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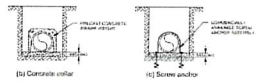
Table 2
Minimum Recommended Cover to Prevent Flotation of ADS Thermoplastic Pipe

Nominal Diameter in (mm)	Minimum Cover in (mm)
4 (100)	3 (77)
6 (150)	4 (102)
8 (200)	5 (127)
10 (250)	7 (178)
12 (300)	9 (229)
15 (375)	11 (280)
18 (450)	13 (330)
24 (600)	17 (432)
30 (750)	22 (559)
36 (900)	29 (736)
42 (1050)	29 (737)
48 (1200)	29 (838)
60 (1500)	40 (1016)

Calculation Notes:
1. The pipe is assumed to be empty. This not only simplifies the calculations but creates a condition that would temporarily threaten buoyancy the system is constructed in its entirety, this condition would not likely be found in the field for any length of time.
2. The outside diameter of the corrugated pipe was used to determine soil and water displacement.
3. Saturated soil density used was 130 pcf which is typical for clayey saturated soil mixtures. Soils of greater densities will reduce the chance of flotation.
4. The water table was presumed to be at the ground surface, as illustrated in Figure 1(c), simulating a fully saturated soil. This assumption creates a "worst case" condition with respect to conservative results.
5. The soil load graph shown in Figure 2(a) was used to determine soil weight.
6. For structural protocols, a minimum cover of 12" (0.3m) shall apply for 4"-48" (100-1200mm) pipe and 24" (0.6m) for 60" (1500mm) pipe.

Figure 3
Pipe Stabilizing Alternatives



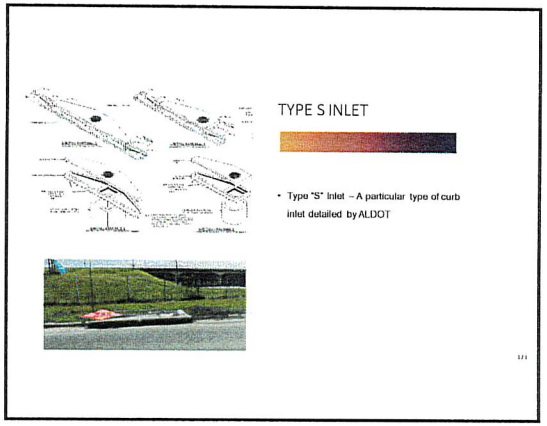
(b) Concrete collar (c) Screw anchor

ADS. 2022 "Data." TN-11 Pipe Flotation. Web. Accessed APR 20, 23.
https://www.adspipe.com/-/media/adspipe/documents/tn/tn11-pipe-flotation.pdf?la=en&hash=3D8E5E0C7554A7BC81CBCCB8E4E4D7C6

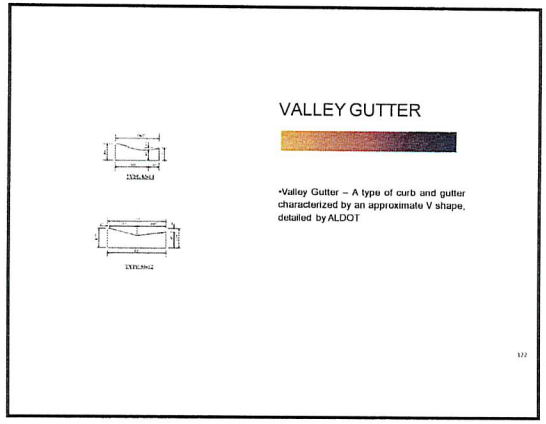
PLASTIC PIPE ANCHORS

- Plastic Pipe Anchors – Devices used to counteract buoyancy forces on HDPE pipe to prevent rise or heave

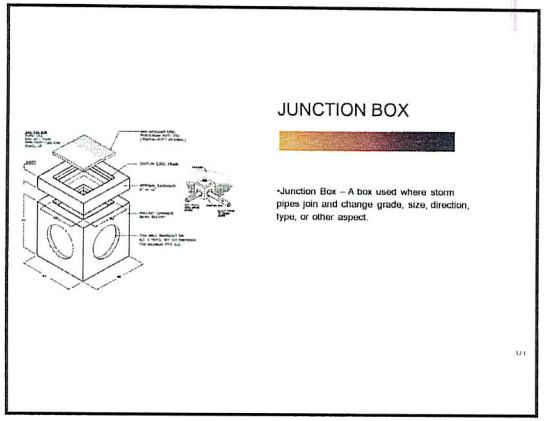
120


TYPE S INLET
• Type "S" Inlet – A particular type of curb inlet detailed by ALDOT

121


VALLEY GUTTER
•Valley Gutter – A type of curb and gutter characterized by an approximate V shape, detailed by ALDOT

122


JUNCTION BOX
•Junction Box – A box used where storm pipes join and change grade, size, direction, type, or other aspect.

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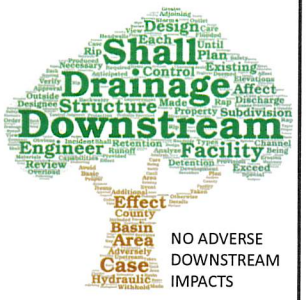
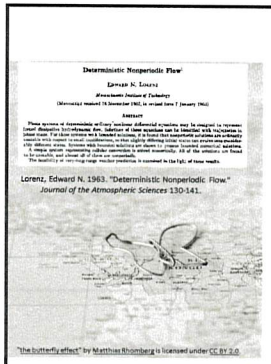
- The hydraulic elevations resulting from channel retention/detention shall not **adversely affect** adjoining properties.
- **Effect on Downstream Drainage Areas.** The Design Engineer shall review the effect of each subdivision on existing downstream drainage facilities outside the area of the subdivision. Where it is anticipated that the additional runoff incident to the development of the subdivision will overload an existing downstream drainage facility the County Engineer, or his/her designee, may withhold approval of the subdivision until provision has been made for the necessary downstream improvement.
- In all cases the design engineer must analyze the backwater that is produced and verify that no upstream property is being flooded or otherwise **adversely affected.**
- Special types of headwalls, rip-rap, and other materials may be required by the County Engineer or his/her designee when deemed necessary for erosion control, protection of existing **downstream drainage facilities**, and roadside safety.
- In an uses shall the discharge from a drainage basin exceed the hydraulic capabilities of the downstream drainage structures and facilities.
- Retention/detention facilities shall be provided with obvious and effective control structures. Plan view and sections of the structure with details shall be included in plans. In no case shall the discharge from a drainage basin exceed the hydraulic capabilities of the **downstream drainage** structures and facilities. Care should be taken in evaluating the following items (1-3) in the design of the outlet control structure.
- Proper engineering judgment shall be exercised in analysis of secondary routing of discharge of greater intensity than the basic design storm in order to **avoid economic losses or damage downstream.** Review with the maximum probable precipitation event is recommended.



NO ADVERSE DOWNSTREAM IMPACTS

124


Deterministic Nonperiodic Flow

Edward N. Lorenz

Massachusetts Institute of Technology

Abstract

Lorenz, Edward N. 1963. "Deterministic Nonperiodic Flow." *Journal of the Atmospheric Sciences* 130-141.

"The butterfly effect" by Matthias Rhomberg is licensed under CC BY 2.0

THE BUTTERFLY EFFECT

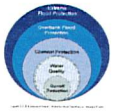
- Lorenz: Found that when testing various weather simulations rounding off one variable from .506127 to .506 dramatically changed the two months of weather predictions
- Dizikes: It is extremely hard to calculate such things with certainty. There are many butterflies out there. A tornado in Texas could be caused by a butterfly in Brazil, Bali, or Budapest. Realistically, we can't know. "It's impossible for humans to measure everything infinitely accurately," says Robert Devaney, a mathematics professor at Boston University. "And if you're off at all, the behavior of the solution could be completely off." When small imprecisions matter greatly, the world is radically unpredictable.

Dizikes, Peter. 2008. "The meaning of the butterfly." *The Boston Globe*. 8/N: 08. Accessed APR 4, 23. http://earthsystem.com/boston/globe/news/story/2008/04/08/the_meaning_of_the_butterfly/?s_wp=2

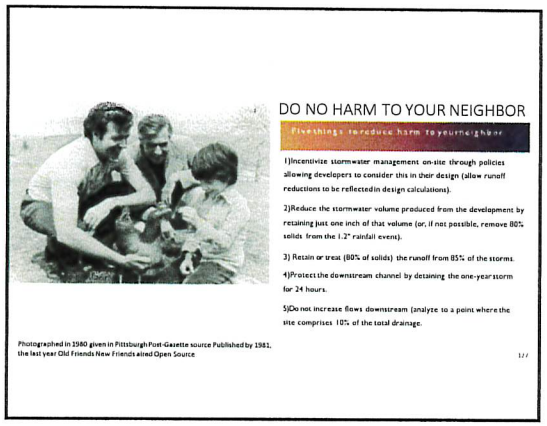
125

DESIGN CONSIDERATIONS

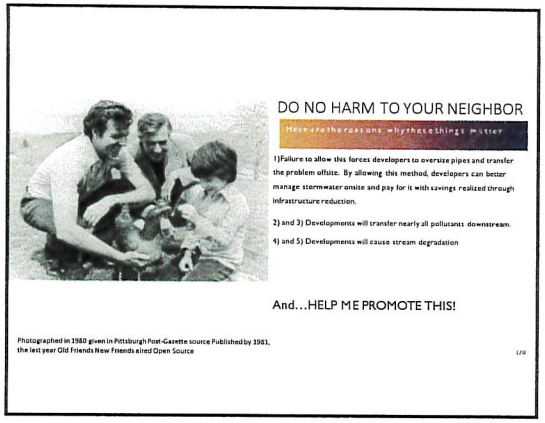
Federal	State	Local	Good Neighbor Policies
National Pollution Discharge Elimination (NPDES) Permit Stormwater Pollution Prevention Plan (SWPPP) Compliance with MS4 (through state) Fish and Wildlife US Army Corp of Engineers National Environmental Policy (Federal projects)	Sometimes delegated administration of NPDES Permits State Water Body Permits (Water Quality Certification, Waters of the State, Stream Buffers, State Lands, Sewer Systems)	MS4 Permitting Requirements Low Impact Design Specific Ordinances (design storm, method, specific submittal requirements, check list) FEMA Flood Plains (Local Flood Plain Administrator) Utilities	Do no harm to your neighbor.



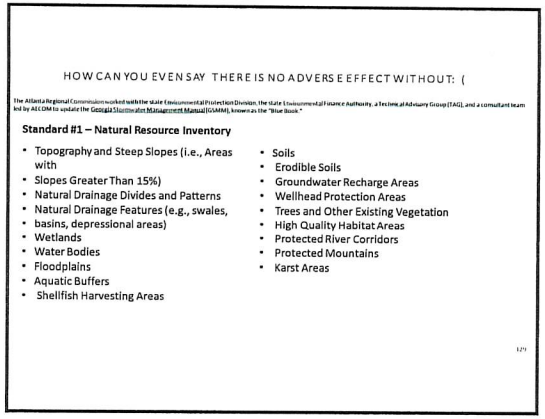
126


DO NO HARM TO YOUR NEIGHBOR
Five things to reduce harm to your neighbor
1)Incentivize stormwater management on-site through policies allowing developers to consider this in their design (allow runoff reductions to be reflected in design calculations).
2)Reduce the stormwater volume produced from the development by retaining just one inch of that volume (or, if not possible, remove 80% solids from the 1.2" rainfall event).
3) Retain or treat (80% of solids) the runoff from 85% of the storms.
4)Protect the downstream channel by detaining the one-year storm for 24 hours.
5)Do not increase flows downstream (analyze to a point where the site comprises 10% of the total drainage.
Photographed in 1980 given in Pittsburgh Post-Gazette source Published by 1981, the last year Old Friends New Friends aired Open Source

127


DO NO HARM TO YOUR NEIGHBOR
Here are the reasons why these things matter
1)Failure to allow this forces developers to oversize pipes and transfer the problem offsite. By allowing this method, developers can better manage stormwater onsite and pay for it with savings realized through infrastructure reduction.
2) and 3) Developments will transfer nearly all pollutants downstream.
4) and 5) Developments will cause stream degradation
And…HELP ME PROMOTE THIS!
Photographed in 1980 given in Pittsburgh Post-Gazette source Published by 1981, the last year Old Friends New Friends aired Open Source

128


HOW CAN YOU EVEN SAY THERE IS NO ADVERSE EFFECT WITHOUT: (
The Atlanta Regional Commission worked with the state Environmental Protection Division, the state Environmental Finance Authority, a Technical Advisory Group (TAG), and a consultant team led by AECOM to update the Georgia Stormwater Management Manual (GSMM), known as the "Blue Book."
Standard #1 – Natural Resource Inventory
Topography and Steep Slopes (i.e., Areas with
Slopes Greater Than 15%)
Natural Drainage Divides and Patterns
Natural Drainage Features (e.g., swales,
basins, depressional areas)
Wetlands
Water Bodies
Floodplains
Aquatic Buffers
Shellfish Harvesting Areas
Soils
Erodible Soils
Groundwater Recharge Areas
Wellhead Protection Areas
Trees and Other Existing Vegetation
High Quality Habitat Areas
Protected River Corridors
Protected Mountains
Karst Areas

129

SITE ANALYSIS

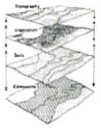


Figure 2-4.2-1 Composite Analysis

130

Standard #2 –Better Site Design Practices for Stormwater Management

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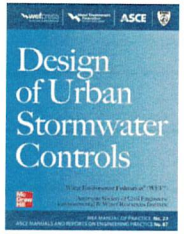
GREEN STORMWATER INFRASTRUCTURE (GSI) OR GOOD DESIGN?



132

"Total capital cost savings ranged from 15 to 80 percent when LID methods were used, with a few exceptions in which LID project costs were higher than conventional stormwater management costs." (EPA, 2007, iv)

Does not monetise enhanced property values, improved habitat, aesthetic amenities, and improved quality of life. (EPA, 2007, iii)

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COST

Table 1. Summary of Cost Comparisons Between Conventional and LID Approaches
from EPA's Reducing Stormwater Costs Through Low Impact Development (LID) Strategies and Practices 2007

Project[a]	Conventional Development Cost	LID Cost	Cost Difference[b]	Percent Difference[b]
2nd Avenue SEA Street	$868,803	$651,548	$217,255	25%
Auburn Hills	$2,360,385	$1,598,989	$761,396	32%
Bellingham City Hall	$27,600	$5,600	$22,000	80%
Bellingham Bloedel Donovan Park	$52,800	$12,800	$40,000	76%
Gap Creek	$4,620,600	$3,942,100	$678,500	15%
Garden Valley	$324,400	$260,700	$63,700	20%
Kensington Park	$765,700	$1,502,900	-$737,200	-96%
Laurel Springs	$1,654,021	$1,149,552	$504,469	30%
Mill Creek	$12,510	$9,099	$3,411	27%
Prairie Glen	$1,004,848	$599,536	$405,312	40%
Somerset	$2,456843	$1,671,461	$785,382	32%
Tellabs Corporate Campus	$3,162,162	$2,700,650	$461,510	15%

[a] Some of the case study results do not lend themselves to display in the format of this table (Central Park Commercial Redesign, Lhasa Street, Poplar Street Apartments, Prairie Crossing, Portland Downspout Disconnection, and Toronto Green Roofs)
[b] Negative values denote increased cost for the LID design over conventional development costs.
[c] Mill Creek costs are reported on a per-lot basis.

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COST

Table 1: Cost savings from installing LID stormwater controls in residential developments.

Location	Description	LID Cost Savings[a]
Woodson on the Potomac Stormwater Subdivision Prince County, MD	Source: Development included 1000 LID, rather than [illegible] conventional design. The LID design [illegible] to include [illegible] [illegible] [illegible]

COST

Table 2: Cost savings from installing LID stormwater controls in commercial developments.

Location	Description	LID Cost Savings*
Parking Lot Retrofit	Conversion of 4 miles of curb-and-gutter streets to swales (Low Impact Development Center, Inc. n.d.; EPA, 2007b)	$15,000 per mile
Old Farm Shopping Center	9.3-acre site redesigned to reduce impervious surfaces by 32% (Prince George's County, Md., 1999)	$30,276
291 Corporate Office Park	14.8-acre site redesigned to eliminate curb and gutter, minimize disturbance, reduce impervious surfaces, and use bioretention, swales, and grid pavers (Colorado, 2007)	$2,700 per acre
DMV Parking Lot	9-acre parking lot redesigned to conform to the drainage patterns of the site, with bioretention (Clayton and Eubanks, 2006)	$19,000 per acre
Light Industrial Parking Lot	2-acre site redesigned to minimize the disturbance of forest, reduce paving and curb, and use bioswales (Clayton and Eubanks, 2006)	$9,425 per acre
Pearl West Shopping Center	Reduced curb and gutter, created storm sewer and inlets, reduced grading, and removed 5,000 feet of road, used grass swales, bioretention, permeable pavers, and cistern (Portland, 2004)	
Office Headquarter	Use of permeable surfaces, reduced storm sewer and curb losses, reduced road cost, added bioretention and native landscape (Dietz, 2007)	
Retail Shopping Center	8-acre strip-mall redevelopment reduced runoff by 30%, added porous pavers, increased infiltration, added bioretention basins, disconnected roof leaders, and used native landscaping (Center for Watershed Protection, 2007)	
Commercial Office Park	13-acre development with bioretention systems, reduced curb and gutter, and added maintenance and median (Center for Watershed Protection, 2007)	
Toyota Corporate Campus	19-acre site developed with LID, a reduced curb, gutter, and storm sewer system, and added bioretention, porous pavement, and native landscaping (Kramer, 2003)	
Kalamazoo Island Technology Park Redevelopment	Construction of berms, swales, and over-sized inlets, built on existing stormwater pond, used native plant types, planted trees, and used porous pavement, green roof, and rainwater harvesting (Low Impact Development Center, Inc. n.d.; Metro, 2006)	

Source: Notes: (a) Dashes (—) indicate data were unavailable. * Reductions represented decreased capital costs, not annual operational savings. ** Other reductions or avoided costs were also made. *** Project cost savings calculated by U.S. EPA staff.

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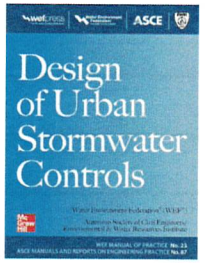
IS IT GSI, LID, OR GOOD DESIGN?



137

SOUTHEAST CITY A

- Population: 65,000
- Has a stormwater utility
- Allowed / required LID for several years
- Several City Owned LID projects
- Maintenance has not been an issue
- "We don't do anything different for our LID measures"
- Mulch replaced with other landscaped features
- Weeding done with other landscaped features
- Biggest issue was training for recreation department staff

138

SOUTHEAST CITY B

- Population: 80,000
- Has a stormwater utility
- Allowed / required LID for several years
- Several City Owned LID projects
- Mulch is replaced often
- Seeing water quality benefits (one stream currently being removed from impaired waters list)
- Maintenance is not a big issue
- Annual stormwater improvement budget about $1 million a year. None of that budget anticipated for LID repair or maintenance.
- Notices individual home owners embracing small parcel size LID measures
- Loves tree planters

139

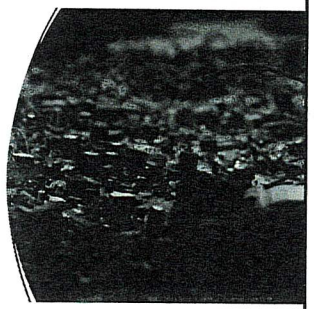
SOUTHEAST CITY C

- Population: 25,000
- Allowed / required LID for several years
- Dedicated Stormwater Manager with maintenance staff
- Algae blooms being noticed it wet ponds (education campaign being done)
- No known maintenance to LID measures
- LID measures required by ordinance, but staff would prefer they were not required

140

SOUTHEAST CITY D

- Population: 25,000
- Most systems have just been through one three-year maintenance inspection.
- LID in practice around five years
- Regulations have been award winning
- Regulations have been tweaked
- Few Conflicts
- Previous thoughts:
  - "It's a great idea"
  - Not a silver bullet
- Has not killed development
- Compliance has not been an issue
- Has become second nature
- Maintenance has not been an issue



141

Standard #3 – Runoff Reduction

Runoff reduction practices shall be sized and designed to retain the first 1.0 inch of rainfall

Standard #4 – Water Quality

Stormwater management systems shall be designed to retain or treat the runoff from 85% of the storms that occur in an average year, and reduce average annual post-development total suspended solids loadings by 80%

Standard #5 – Stream Channel Protection

1. 24-hour extended detention storage of the 1-year, 24-hour return frequency storm event
2. Erosion prevention measures, such as energy dissipation and velocity control
3. Preservation of the applicable stream buffer

Standard #6 – Overbank Flood Protection

Overbank flood protection shall be provided by controlling the post-development peak discharge rate to the pre-development rate (natural or existing condition, as applicable) for the 25-year, 24-hour return frequency storm event

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Standard #7 – Extreme Flood Protection

Extreme flood protection shall be provided by controlling and/or safely conveying the 100-year, 24-hour storm event

Standard #8 – Downstream Analysis

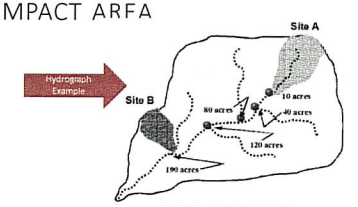
Due to peak flow timing and runoff volume effects, some structural practices fail to reduce discharge peaks to pre-development levels downstream from the development site. A downstream peak flow analysis shall be provided to the point in the watershed downstream of the site or the stormwater management system where the area of the site comprises 10% of the total drainage area.

Standard #9 – Construction Erosion and Sedimentation Control

Erosion and sedimentation control practices shall be utilized during the construction phase of development or during any land disturbing activities.

143

IMPACT AREA



144

Standard #9 – Construction Erosion and Sedimentation Control

Erosion and sedimentation control practices shall be utilized during the construction phase of development or during any land disturbing activities.

145

145

Standard #10 – Stormwater Management System Operation and Maintenance

The stormwater management system, including all best management practices and conveyances, shall have an operation and maintenance plan to ensure that it continues to function as designed.

Standard #11 – Pollution Prevention

To the maximum extent practicable, the development or redevelopment project shall implement pollutant prevention practices and have a stormwater pollution prevention plan

Standard #12 – Stormwater Management Site Plan

To the maximum extent practicable, the development or redevelopment project shall implement pollutant prevention practices and have a stormwater pollution prevention plan.

146

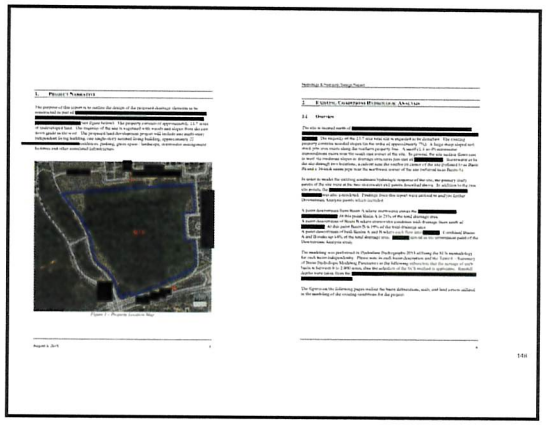
146

Hydrology & Hydraulic Design Report

Example How To

147

147



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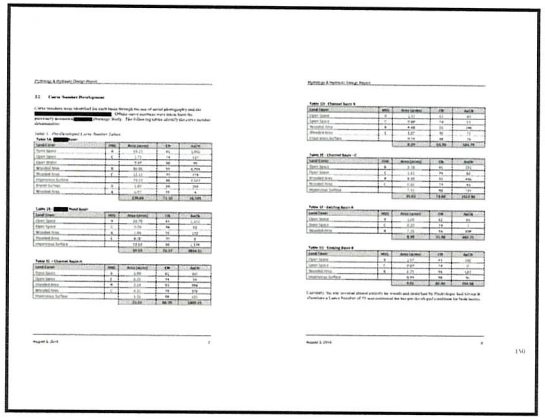

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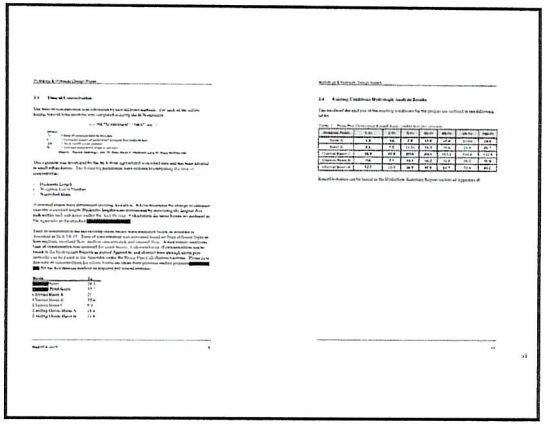

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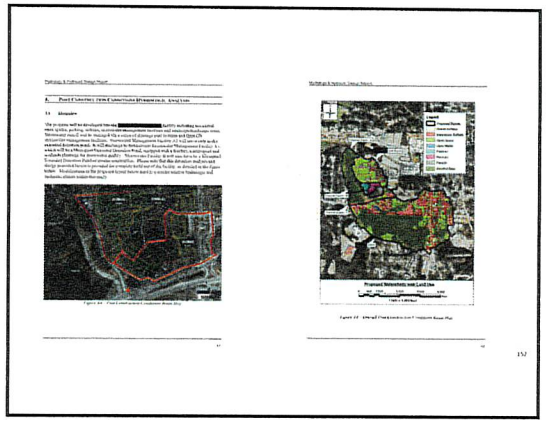

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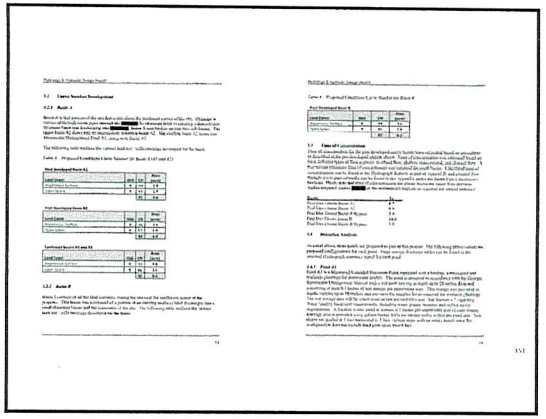

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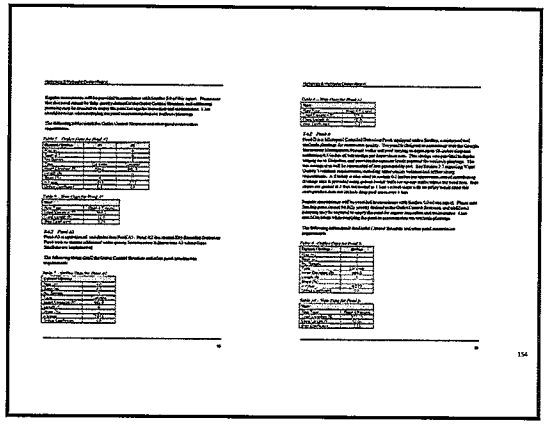

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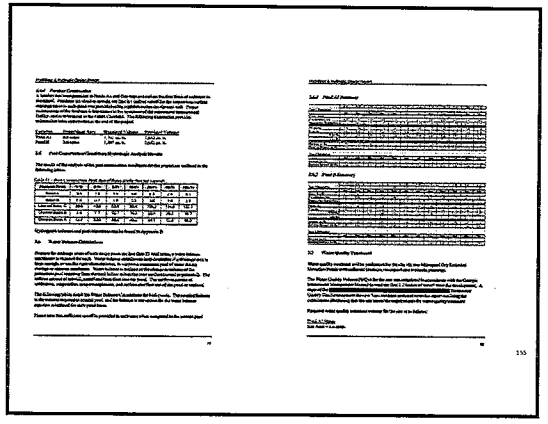

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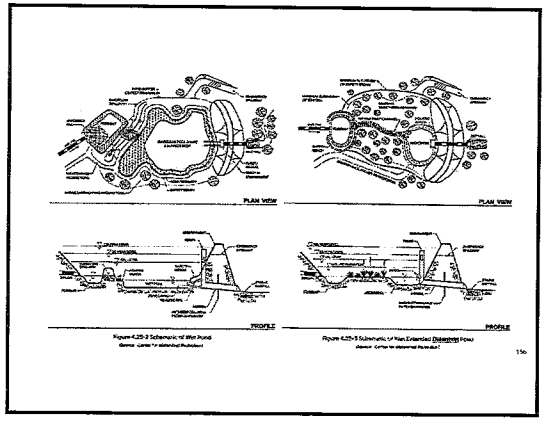

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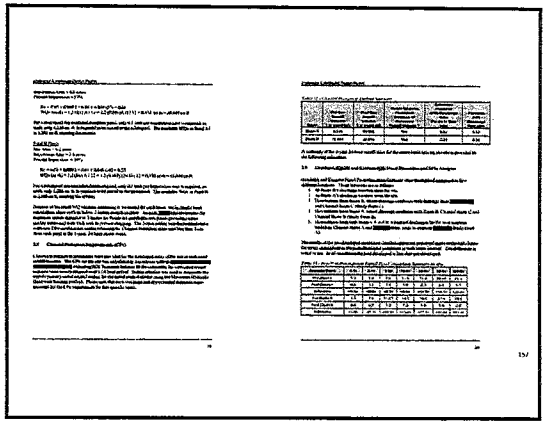

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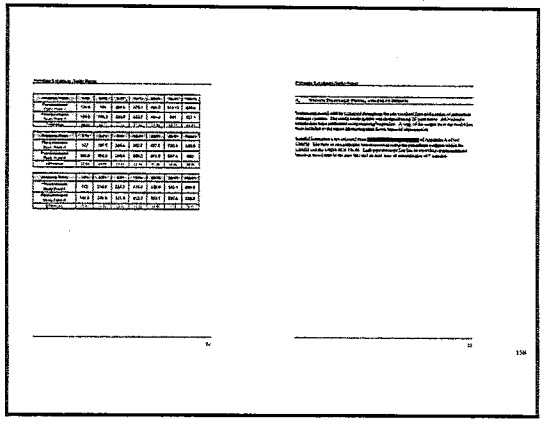

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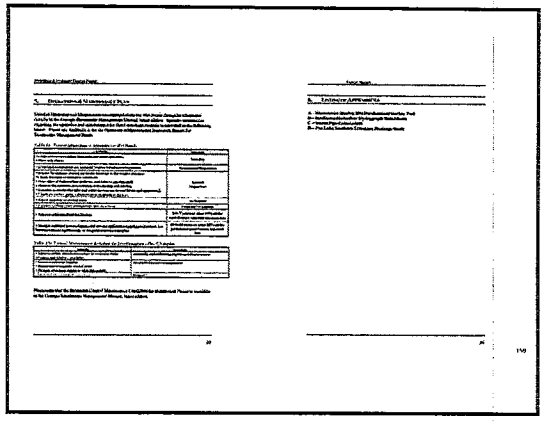

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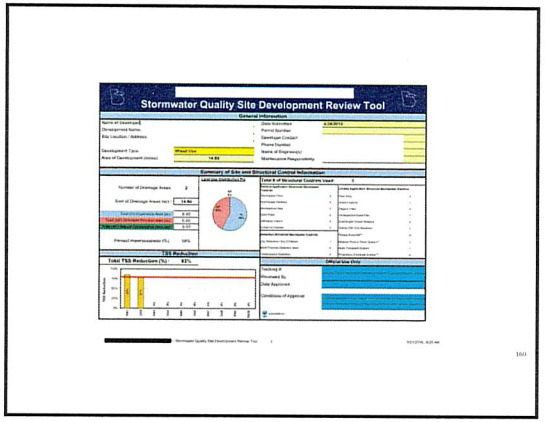
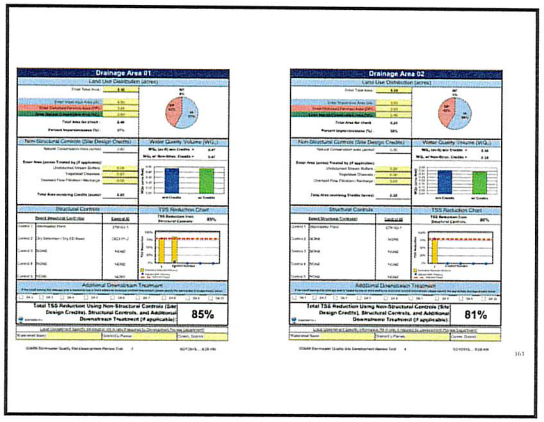
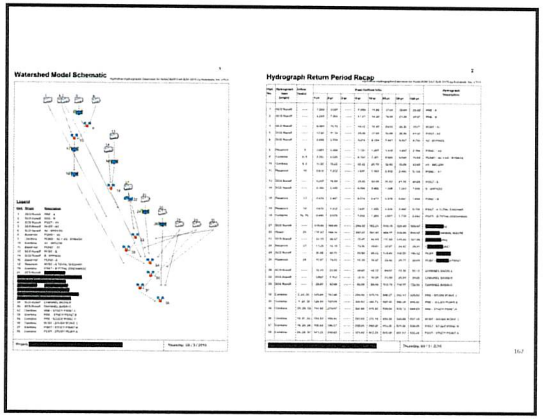

Stormwater Quality Site Development Review Tool
General Information
Summary of Site and Structural Control Information
TSS Reduction
Total TSS Reductions (%)
83%
Offline Use (%)

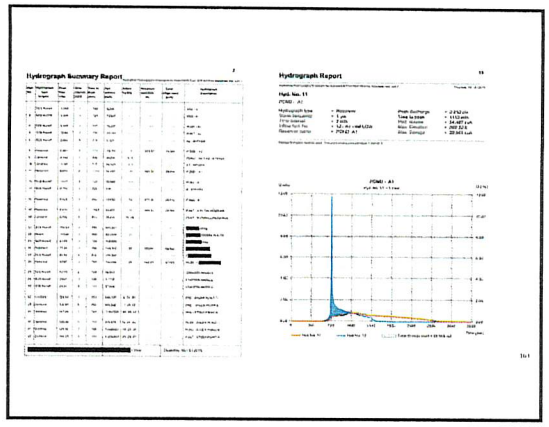
160


Drainage Area 01
Land Use Distribution (acres)
Water Quality Volume (WQv)
Non-Structural Controls (Site Design Credits)
Structural Controls
TSS Reductions Chart
Additional Downstream Treatment
Total TSS Reduction Using Non-Structural Controls (Site Design Credits), Structural Controls, and Additional Downstream Treatment (if applicable):
85%
Drainage Area 02
Land Use Distribution (acres)
Water Quality Volume (WQv)
Non-Structural Controls (Site Design Credits)
Structural Controls
TSS Reduction Chart
Additional Downstream Treatment
Total TSS Reduction Using Non-Structural Controls (Site Design Credits), Structural Controls, and Additional Downstream Treatment (if applicable):
81%

161


Watershed Modal Schematic
Hydrograph Return Period Recap

162


Hydrograph Summary Report
Hydrograph Report
Hyd. No. 11
POND - A1

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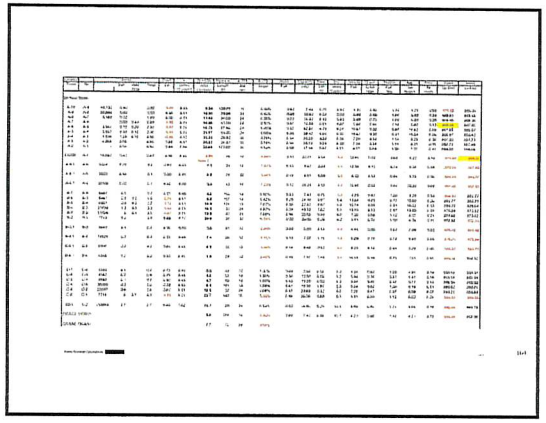

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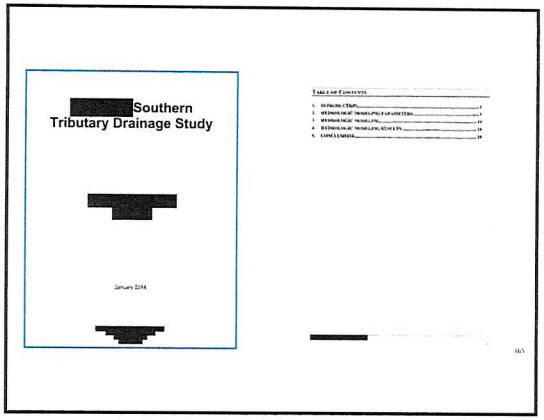

[redacted] Southern
Tributary Drainage Study
January 2014

165

FREQUENTLY OBSERVED STORMWATER DESIGN FAILURES

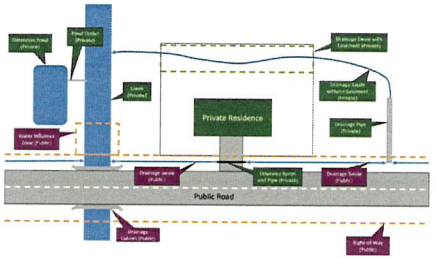
1. Failure to include bypass area in detention basins.
2. Failure to include offsite watershed area.
3. Failure to delineate basin properly.
4. Failure to develop and route the hydrograph.
5. Failure to consider downstream concerns (tailwater elevations, outlet velocities, downstream issues).
6. Failure to consider overall detention context (for example a detention basin in a flood plain or wetland area).
7. Failure to apply an appropriate standard of care.
8. Failure to negotiate sufficient fees for adequate design.
9. Failure to communicate the need to the client.
10. Failure to appropriately design vegetation.

166

LOADING YOUR TOOLBOX

167

Extent of Service:



168

Level of Service:

As funds are available

The City shall conduct inspections and prioritize and make necessary repairs to the public stormwater management system as required. The City shall provide regulatory enforcement to owner(s) responsible for maintaining and inspecting private stormwater management systems. The City of Kincent's Stormwater Manager or assigned responsible party, shall respond to stormwater concerns and provide an evaluation of whether the system is private or public

Note that current funding levels do not permit the City's desired level of service.

169

QGIS

A Free and Open Source Geographic Information System

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Bookmark

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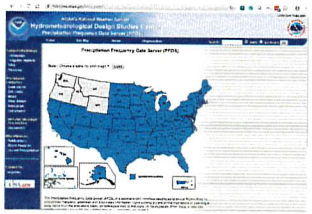

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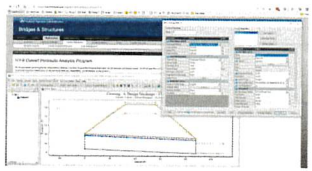

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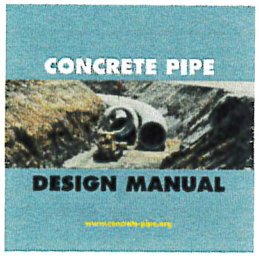

175

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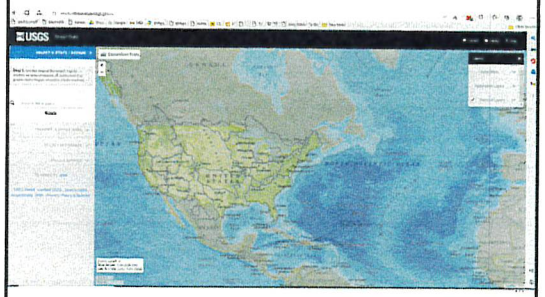
176



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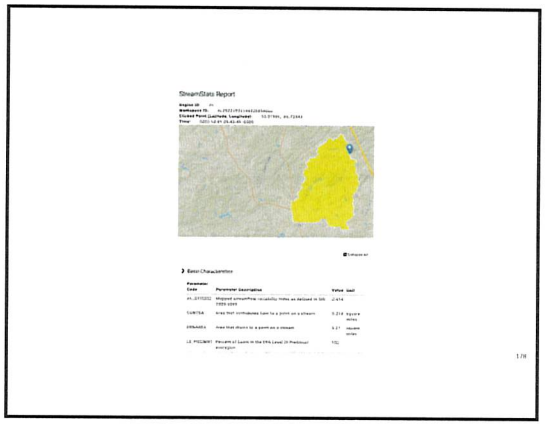
StreamStats Report

Basin Characteristics

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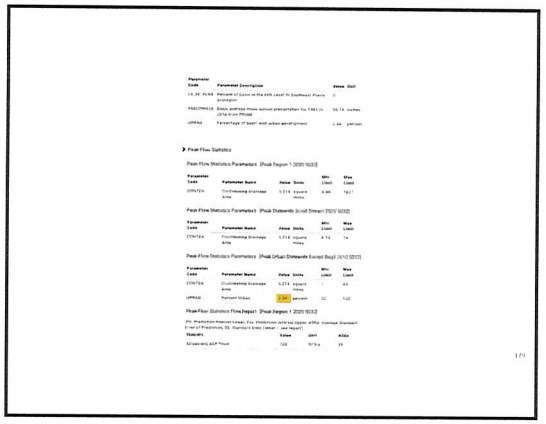
Peak Flow Statistics

Peak Flow Statistics Parameters [Peak Region 1 2020 5033]

Peak Flow Statistics Parameters [Peak Statewide Small Stream 2020 5032]

Peak Flow Statistics Parameters [Peak Urban Statewide Except Reg3 2010 5012]

Peak Flow Statistics Flow Report [Peak Region 1 2020 5033]

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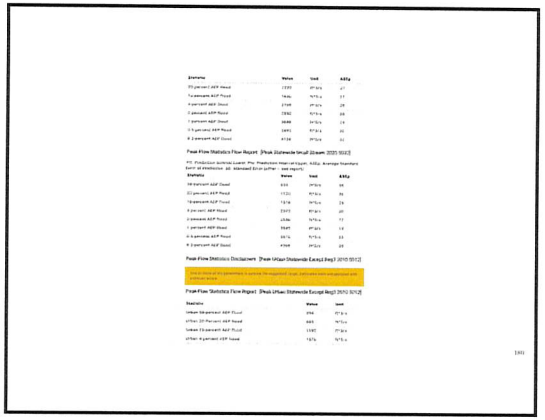
Peak Flow Statistics Flow Report [Peak Statewide Small Stream 2020 5032]

Peak Flow Statistics Disclaimers [Peak Urban Statewide Except Reg3 2010 5012]

Peak Flow Statistics Flow Report [Peak Urban Statewide Except Reg3 2010 5012]

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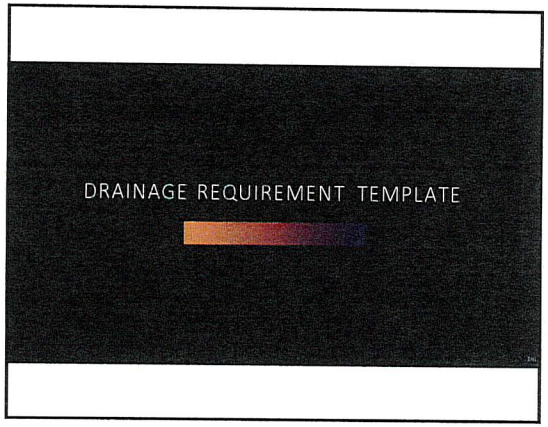

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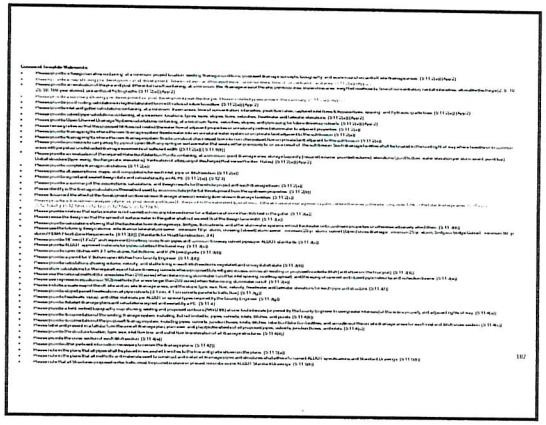

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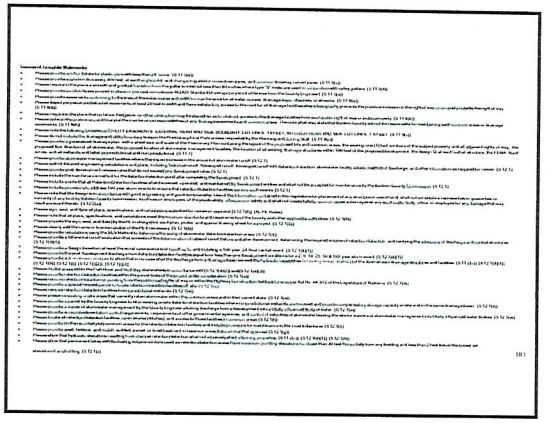

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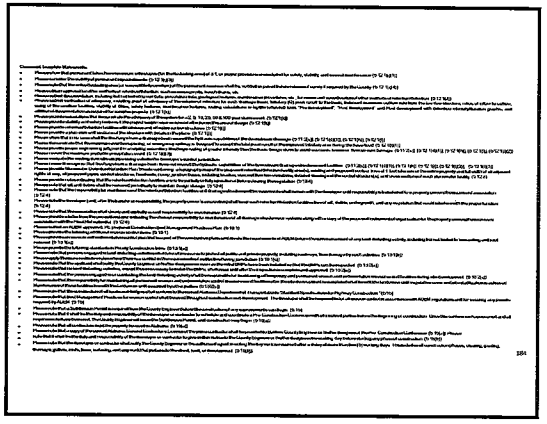

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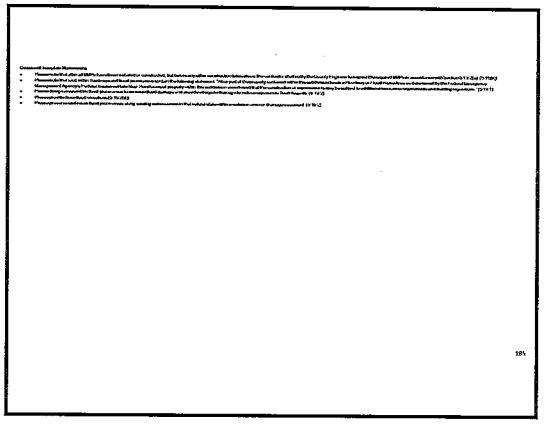

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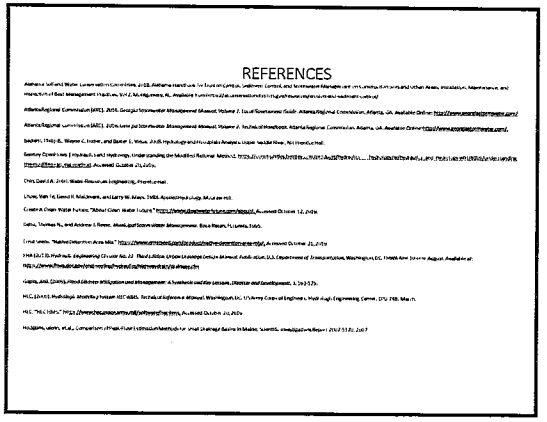

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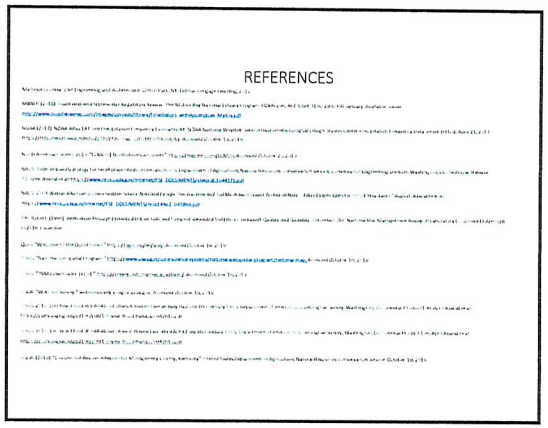

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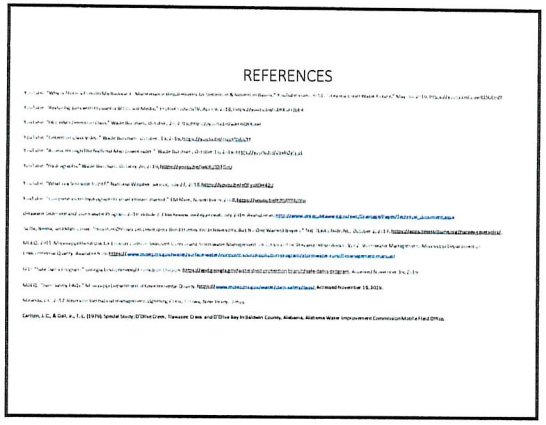

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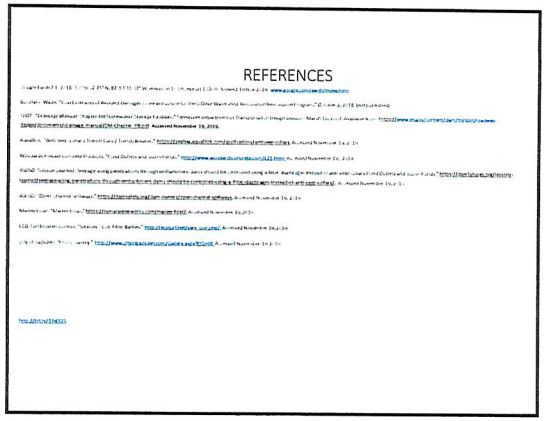

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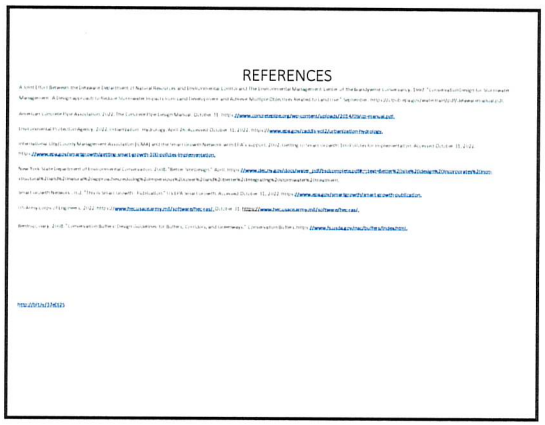

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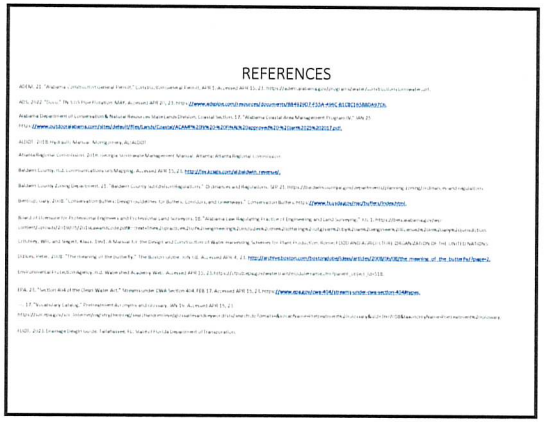

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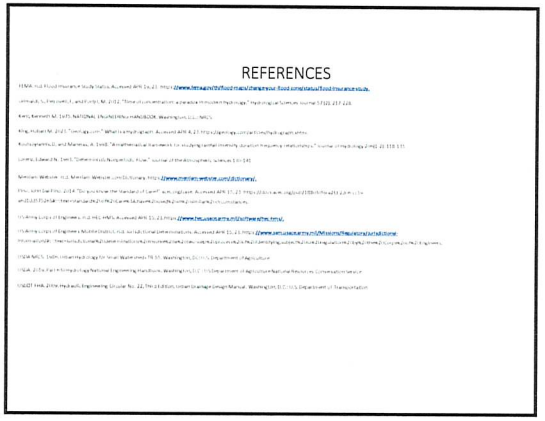

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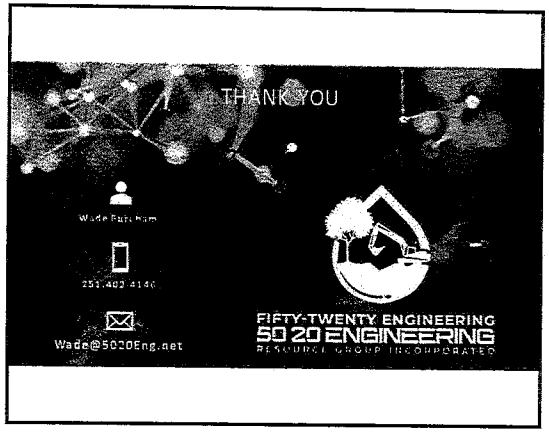
THANK YOU
Wade Parnham
251.463.4140
Wade@5020Eng.net
FIFTY-TWENTY ENGINEERING
50 20 ENGINEERING
RESOURCE GROUP INCORPORATED

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DRAINAGE DESIGN FOR REGULATORS

MAY 5, 2023

FIFTY-TWENTY ENGINEERING
50 20 ENGINEERING
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Web

1 Go to PollEv.com

2 Enter WADEBURCHAM748

Or text WADEBURCHAM748 to 22333 to join the session then text a response

Learning Objectives

- Review standard stormwater terms
- Review an example stormwater study
- Explore No Downstream Adverse Impacts
- Present high-level items during subdivision review

AGENDA

2	Learning Objectives
12	Watersheds
19	Hydraulics vs Hydrology
20	Urbanization
42	Stormwater Management
50	Basins
56	Time of Concentration
65	Recurrence Intervals
72	Soil types
85	Storm Sewer Design
96	HGL
100	Permitting
113	FEMA
119	Construction Related
124	No Adverse
132	GI
147	Example Subdivision Design
124	Design Considerations
133	Loading your tool box
165	Tool Box
179	References
186	Conclusion

Web

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INTRODUCTION

Wade Burcham

FIFTY-TWENTY ENGINEERING
50 20 ENGINEERING
RESOURCE GROUP INCORPORATED

Civil and Environmental Engineer based in Alabama with more than 20 years of experience focused on naturalized restoration measures, water resources engineering, stormwater management, civil/site engineering, municipal consulting, and contract administration for both public and private clients.

See Compiled Open-Source Information - Email me for a link

or connect with me: **Wade@5020Eng.net**

linkedin.com/in/wade-burcham

Start the presentation to see live content. For screen share software, share the entire screen. Get help at pollev.com/app

What word best describes your role as it relates to urban hydrology and the environment?

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How familiar are you with urban hydrology?

A hydro what?

I am generally familiar with urban hydrology.

I review urban hydrology design

I design, construct, or plan urban systems.

I should be teaching this class!

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What are you most interested in hearing about during this meeting?

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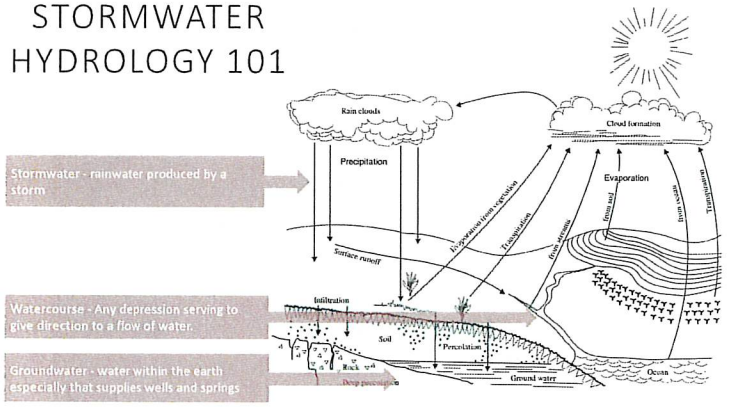
PHILOSOPHY OF CONTENT

- Based on my experience
- Not exhaustive.
- Not authoritative.
- Presentation leans towards our personal experience, mainly in Alabama and Georgia.
- Simply an effort to give the gifts that we have been given.

STORMWATER HYDROLOGY 101

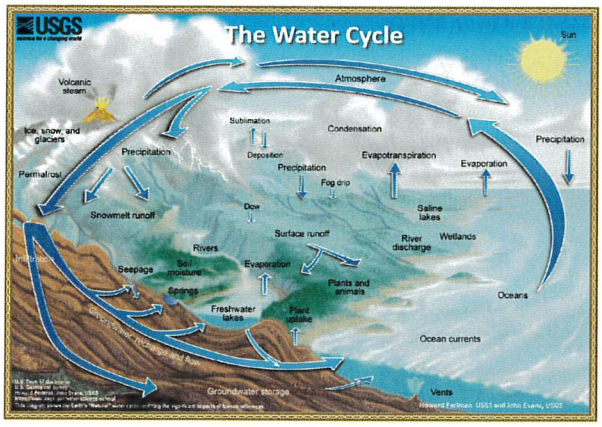


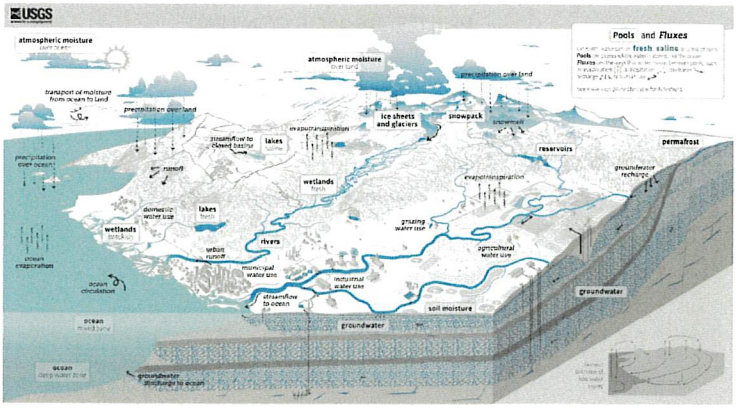
Hydrology is the science that encompasses the occurrence, distribution, movement and properties of the waters of the earth and their relationship with the environment within each phase of the hydrologic cycle

USGS WATER SCIENCE SCHOOL

The water cycle, or hydrologic cycle, is a continuous process by which water is purified by **evaporation** and transported from the earth's surface (including the **oceans**) to the **atmosphere** and back to the land and oceans

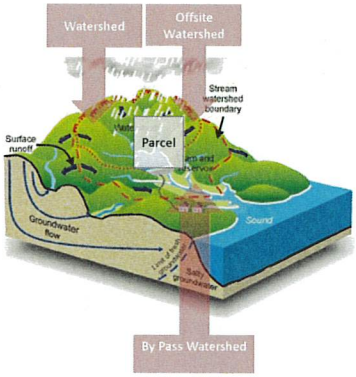
USGS WATER SCIENCE SCHOOL





WATERSHED ACADEMY WEB TRAINING CERTIFICATE

- Watershed Academy Web Training Certificate | US EPA
  https://www.epa.gov/watershedacademy/watershed-academy-web-training-certificate



WATERSHEDS

An area of land that drains water, sediment and dissolved materials to a common receiving body or outlet. The term is not restricted to surface water runoff and includes interactions with subsurface water. Watersheds vary from the largest river basins to just acres or less in size. (Environmental Protection Agency n.d.) An area that, because of topographic slope, contributes water to a specific surface water drainage system, such as a bay or river. An area confined by a topographic divide that drains a given bay or river. (Baldwin County Zoning Department 21)

Detention Basin Bypass Watershed – That area of the watershed draining outside of the detention basin.

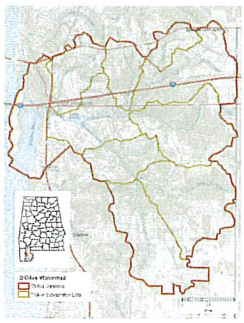
Basin Watershed – That portion of the watershed draining to the detention basin

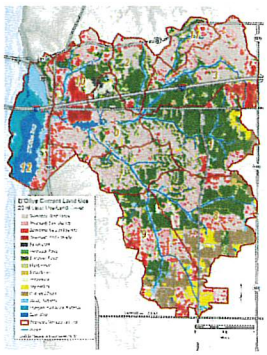
Offsite Watershed – That portion of the watershed outside of the subject site.

AN EXAMPLE WATERSHED

Source: USGS Stream Stats

AN EXAMPLE WATERSHED





HYDRAULICS VS. HYDROLOGY

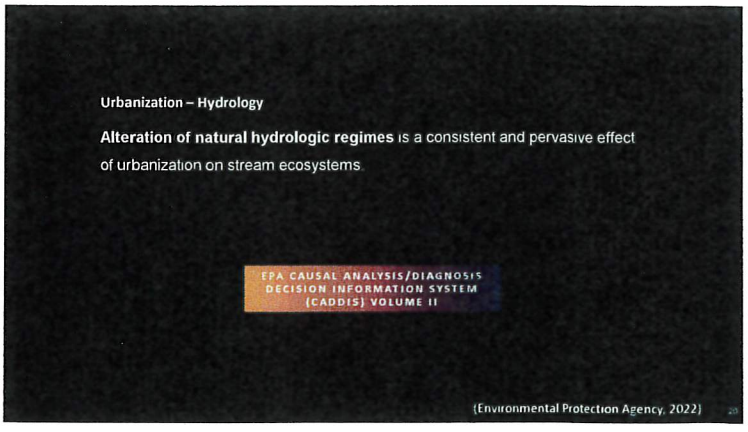
Hydrology

- The art and science of estimating the quantity of runoff.
- Example: A ten-year storm produces an estimated 35 cubic feet per second (CFS) of runoff
- Seeks to provide answers on how much runs off

Hydraulics

- The study of what the quantity of water does as it runs off.
- Example: 35 cfs produces a depth of about 8 inches of depth in the ditch
- Seeks to provide answers of how deep and fast the runoff is conveyed

SOMETIMES REFERRED TO COLLECTIVELY AS H&H STUDIES



KEY ASPECTS OF URBANIZATION AFFECTING HYDROLOGY MAY INCLUDE:

- **Decreased infiltration and increased surface runoff** of precipitation associated with impervious (and effectively impervious) surfaces
- **Increased speed and efficiency of runoff** delivery to streams, via stormwater drainage infrastructure
- **Decreased evapotranspiration** due to vegetation removal
- **Increased direct water discharges**, via wastewater and industrial effluents
- **Increased infiltration** due to irrigation and leakage from water supply and wastewater infrastructure
- **Increased water withdrawals and interbasin transfers**

(Environmental Protection Agency, 2022)

KEY ASPECTS OF URBANIZATION AFFECTING HYDROLOGY MAY INCLUDE:

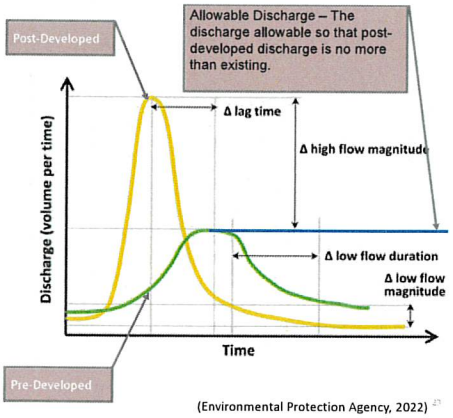
- **Erosion**
- **Sedimentation**
- **Loss of habitat**
- **Increased Flooding**
- **Decrease in Land Value**
- **Increased Burden on Local Governments and Taxpayers**

(Environmental Protection Agency, 2022)

HYDROLOGIC CHANGES

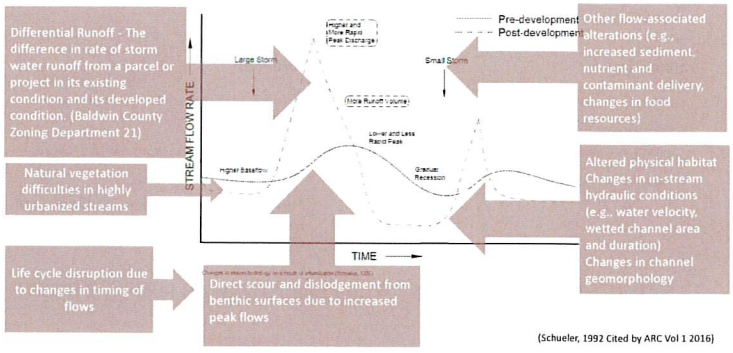
Hydrographs are charts that display the change of a hydrologic variable over time. (King 2023)

Hypothetical hydrographs for an urban stream (yellow) and a rural stream (green) after a storm, illustrating some common changes in stormflow and baseflow that occur with urban development. Other changes are listed at left.



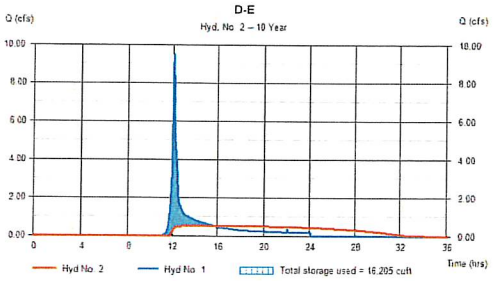
(Environmental Protection Agency, 2022)

IMPACTS OF URBANIZATION ON STREAM FLOWS

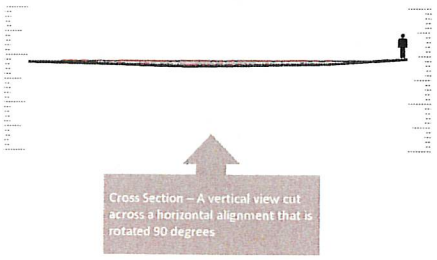


(Schueler, 1992 Cited by ARC Vol 1 2016)

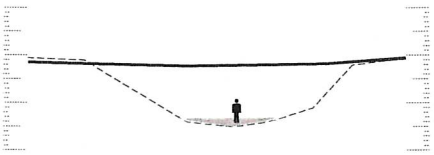
EXAMPLE HYDROGRAPH - DAE



"PRE" CROSS SECTION



AFTER DEVELOPMENT CROSS SECTION



Sediment induced dead zone

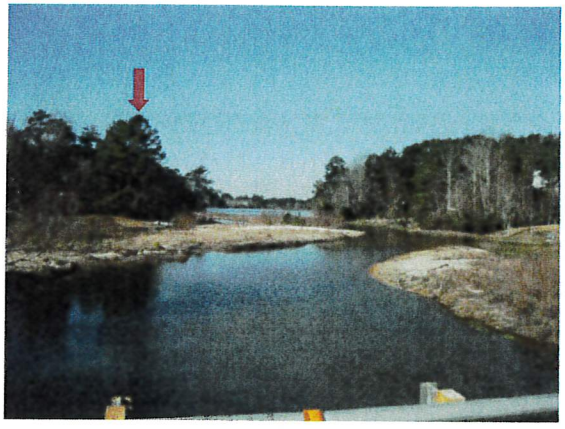
SEDIMENTATION IN LAKES (LOCAL DRY DETENTION BASIN)

Detention Basin in development that completely filled within one year.

SEDIMENTATION IN LAKES (LAKE FOREST EXAMPLE)

(Carlton & Gail, Jr., 1979)

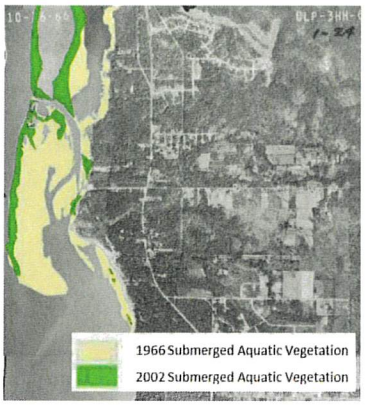
(Google Earth 2018)



SEDIMENTATION IN LAKES (MATILIJA DAM)

Matilija Dam, on the Ventura River Basin, California, was constructed in 1947 and is nearly completely filled with sediment. When constructed, the dam was 190 ft high and impounded a volume of 7,000 ac-ft; by 2015 it was reduced to 400 ac-ft. Photo credit: P. Jenkin.

(Miranda 2017)



Restriction of Movement due to Shelby Lake/Little Lagoon Weir (Photo credit: Milton Rittlemeyer)

Heavy Boating Traffic around the Islands of Perdido on Memorial Day 2020 (Photo credit: Ken Cooper)

STORMWATER MANAGEMENT

- The process of ensuring that the magnitude and frequency of stormwater runoff do not increase the hazards associated with flooding and that water quality is not compromised by untreated stormwater flow. (Baldwin County Zoning Department 21)

STORMWATER CONVEYANCE AND DETENTION

Conveyance – Directing (or conveying) runoff from one place to another.

Detention – Holding runoff (attenuating) volume so that you can slow (detain) it from being conveyed downstream

DETENTION / RETENTION

Detention – A surface storage basin or facility designed to provide … water quantity control through detention [temporary storage] of stormwater runoff. (Atlanta Regional Commission 2016)

Retention – A surface storage basin or facility designed to provide … water quantity control through retention [permanent wet storage] of stormwater runoff.

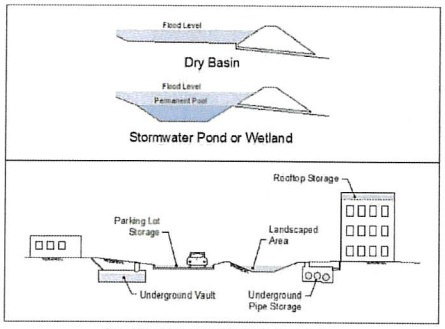
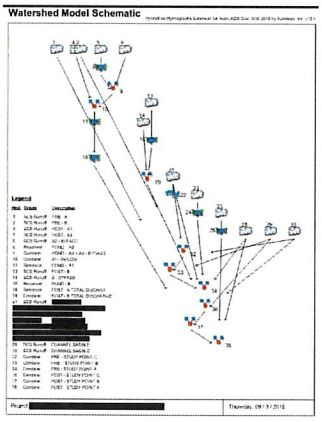


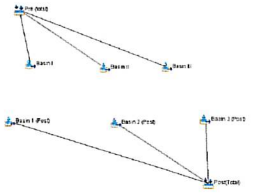
Figure 3.3.1-1 Examples of Typical Stormwater Storage Facilities

GA Blue Book

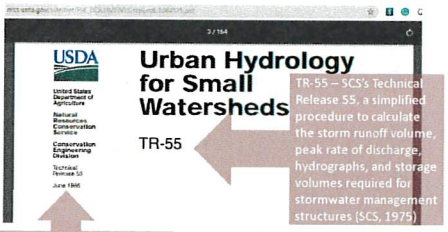


WATERSHED STUDY MODEL

- Watershed Study Model – A tool used to estimate runoff from Watersheds

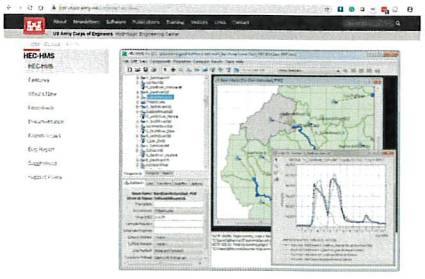


- NRCS. 1986. *Urban Hydrology for Small Watersheds.*. Publication. U.S. Department of Agriculture, Natural Resources Conservation Service, Conservation Engineering Division. Washington, DC. Technical Release 55. June. Available at: https://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb1044171.pdf

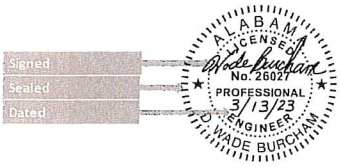


- HEC. "HEC-HMS." https://www.hec.usace.army.mil/software/hec-hms. Accessed October 20, 2019.

- HEC-HMS - The Hydrologic Modeling System (HEC-HMS) is designed to simulate the complete hydrologic processes of dendritic watershed systems. The software includes many traditional hydrologic analysis procedures such as event infiltration, unit hydrographs, and hydrologic routing. HEC-HMS also includes procedures necessary for continuous simulation including evapo-transpiration, snowmelt, and soil moisture accounting. Advanced capabilities are also provided for gridded runoff simulation using the linear quasi-distributed runoff transform (ModClark). Supplemental analysis tools are provided for model optimization, forecasting streamflow, depth-area reduction, assessing model uncertainty, erosion and sediment transport, and water quality. (US Army Corps of Engineers n.d.)



ENGINEERS



- Licensed Engineer / PE - An individual who, by reason of his or her special knowledge of the mathematical, physical, and engineering sciences and the principles and methods of engineering analysis and design, acquired by engineering education and engineering experience, is qualified to practice engineering as hereinafter defined and has been licensed by the board as a professional engineer. (Board of Licensure for Professional Engineers and Professional Land Surveyors 18)
- Professional Engineers Board - The State Board of Licensure for Professional Engineers and Land
- Surveyors, provided for by Section 34-11-30. (Board of Licensure for Professional Engineers and Professional Land Surveyors 18)
- Standard of Care - the skill and care that a reasonably careful professional engineer would have used in similar circumstances. (Pino 2014)

PRE-DEVELOPED BASIN

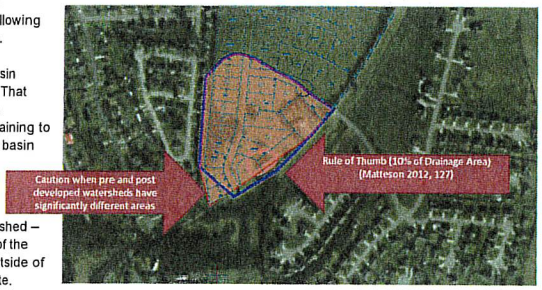
Pre-Developed Watershed – The subject sites watershed, prior to development.

POST DEVELOPED AREA

Post-Developed Watershed – The subject site's watershed following development.

Detention Basin Watershed – That portion of the watershed draining to the detention basin

Offsite Watershed – That portion of the watershed outside of the subject site.



DID WE FORGET ANYTHING?

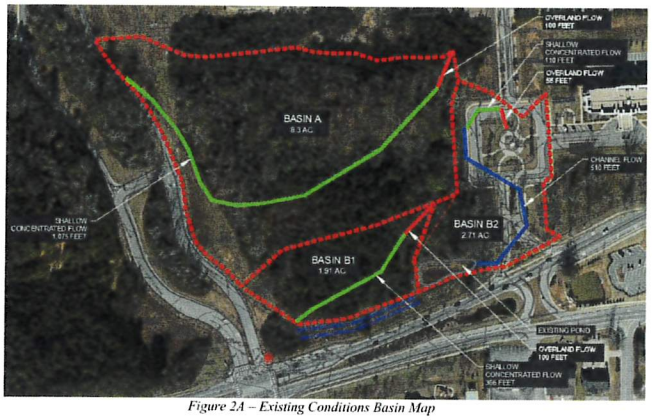


Figure 2A – Existing Conditions Basin Map

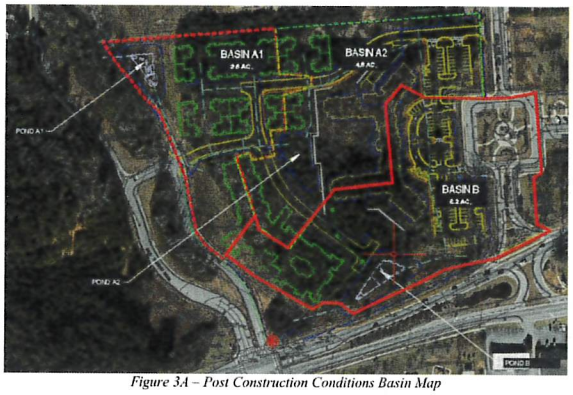


Figure 3A – Post Construction Conditions Basin Map

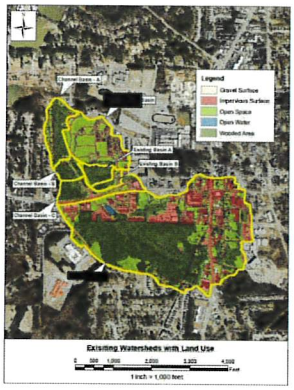


Figure 2B- Overall Existing Conditions Basin Map

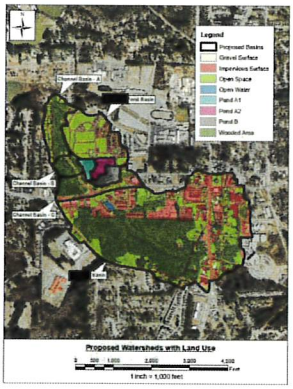
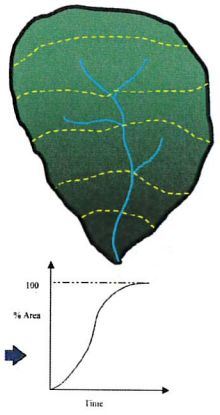
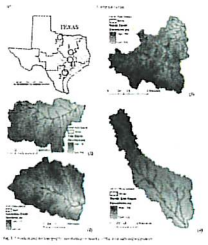


Figure 3A – Overall Post Construction Conditions Basin Map



TIME OF CONCENTRATION

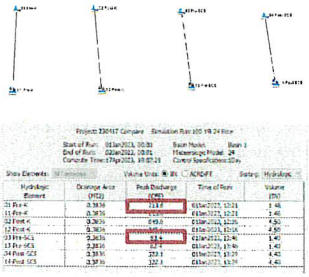
- Time of Concentration - Time of Concentration: The time of concentration, Tc, is the time required for stormwater runoff to travel from the most hydrologically remote point of the drainage basin to the basin outlet, where remoteness relates to travel time, not necessarily distance. The time of concentration is a function of the size and shape of the drainage basin, slope of the land, land use, rainfall intensity, and how the runoff is conveyed. (ALDOT 2018)



KIRPICH

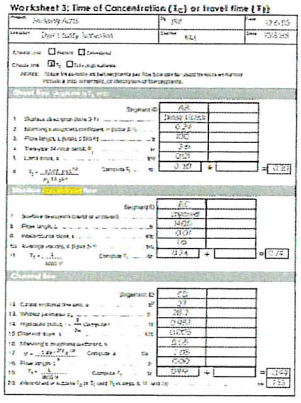
- The Kirpich Equation is based on data reported by Ramser (1927) for six small agricultural watersheds near Jackson, Tennessee. The slope of these watersheds was steep, the soils well-drained, the timber cover ranged from zero percent to 56 percent, and watershed areas ranged from 1.2 acres to 112 acres. (FDOT 2023)

- Grimaldi, et al. found that the time of concentration results varied by over 500% in example watersheds. (Grimaldi 2012)



KIRPICH

- A trial case was run for a basin in Saraland using under two cases that were identical, except that the time of concentration methods were compared using Kirpich and the SCS Method. It was found that the Kirpich Method allowed 160% greater outflow than the SCS Method



TR-55 TIME OF CONCENTRATION

- TR-55 Time of Concentration – In TR-55, Travel time (Tt) is the time it takes water to travel from one location to another in a watershed. Tt is acomponent of time of concentration (Tc), which is the time for runoff to travel from the hydraulically most distant point of the watershed to a point of interest within the watershed. Tc is computed by summing all the travel times for consecutive components of the drainage conveyance system. (USDA NRCS 1986)

NRCS TR-55 HYDROLOGIC METHOD TIME OF CONCENTRATION

- Factors affecting time of concentration
  - Flow Regime
    - Sheet Flow
    - Shallow Concentrated Flow
    - Channel Flow
  - Surface Roughness
  - Channel Shape and Flow patterns
  - Slope
  - Length

(NRCS, 1986)

SHEET FLOW

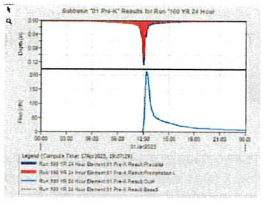
- Sheet / Overland Flow – Sheet flow is flow over plane surfaces. It usually occurs in the headwater of streams. With sheet flow,the friction value (Manning's n) is an effective roughness coefficient that includes the effect of raindrop impact; drag over the plane surface; obstacles such as litter, crop ridges, and rocks; and erosion and transportation of sediment. These n values are for very shallow flow depths of about 0.1 foot or so. (USDA NRCS 1986)

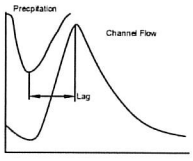
SHALLOW CONCENTRATED

- Shallow Concentrated Flow - After a maximum of 100 feet, sheet flow usually becomes shallow concentrated flow. (USDA NRCS 1986)

CHANNEL FLOW

- Channel Flow - Open channels are assumed to begin where surveyed cross section information has been obtained, where channels are visible on aerial photographs, or where blue lines (indicating streams) appear on United States Geological Survey (USGS) quadrangle sheets. (USDA NRCS 1986)





LAG TIME

- Lag Time - There is a delay in time, after a brief heavy rain over a watershed, before the runoff reaches its maximum peak. (Kent 1975)

RECURRENCE INTERVALS

Design Storm – A recurrence interval used to size stormwater management systems

- The period expressed in number of years in which the annual maximum observation is expected to return.
- Also known as the Return Period
- A storm with a 100-year return period has a 1% chance of occurring in a given year
  - RP=1/p , p is the probability of occurrence
  - p=1/RP
- What is the probability of a 25-year storm occurring in a given year?
  - 4% chance

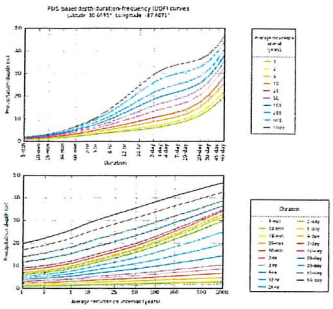
WHAT DO YOU THINK?

What percent chance of being flooded does an average home in a 100-year floodplain have during the span of a 30-year mortgage?

26-percent chance of being flooded at least once during those 30 years!

(USGS 2010)

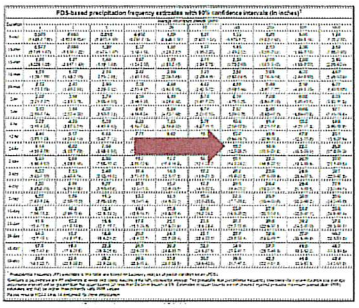
$P = 1-[1-(1/RP)]^n$
n=number of periods
P=probability of occurrence during a specified number of periods



PF Map: Contiguous US (noaa.gov)

INTENSITY DURATION FREQUENCY CURVES

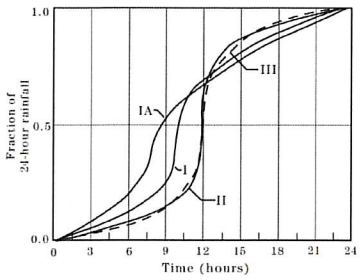
- Intensity Duration Frequency Curves - An intensity-duration-frequency curve (IDF curve) is a mathematical function that relates the rainfall intensity with its duration and frequency of occurrence. (Koutsoyiannis 1998)



PF Map: Contiguous US (noaa.gov)

RAINFALL INTENSITY

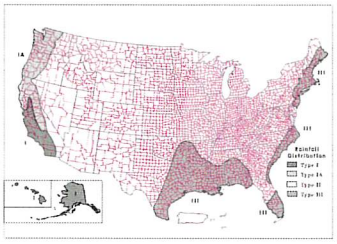
- Rainfall Intensity - Rainfall intensity is defined as the ratio of the total amount of rain (rainfall depth) falling during a given period to the duration of the period It is expressed in depth units per unit time. (Critchley 1991)



USDA NRCS. 1986. *Urban Hydrology for Small Watersheds TR-55*. Washington, DC: U.S. Department of Agriculture.

RAINFALL DISTRIBUTION

- Rainfall Distribution - The quantity of rain falling in successive time increments of the total storm duration. In this chapter, the cumulative fraction of rain falling at successive times up to the storm duration is used to develop the rainfall distribution. The rainfall distribution begins at a value of zero at the beginning of the storm and ends at a value of 1.0. (USDA 2019)



USDA NRCS. 1986. *Urban Hydrology for Small Watersheds TR-55*. Washington, DC: U.S. Department of Agriculture.

SCS TYPE III DISTRIBUTION

- SCS Type III Distribution – The rainfall distribution of the Gulf Coast of Alabama when using TR-55.

NRCS TR-55 HYDROLOGIC METHOD

- The principal physical watershed characteristics affecting the relationship between rainfall and runoff are:
  - Land use
  - Land treatment (primarily agricultural practices such as terracing and contouring the land)
  - Soil types
  - Land slope.
- A combination of soil conditions and land use determines the CN for the site
- Appendix A of NRCS TR-55 Urban Hydrology for Small Watersheds defines the four groups and provides a list of most of the soils in the United States and their group classification.

(ARC Vol 2, 2016)

NRCS TR-55 HYDROLOGIC METHOD

- Soil properties influence runoff by affecting the rate of infiltration.
- TR-55 divides soils into four hydrologic soil groups based on infiltration rates: Groups A, B, C, D.

(ARC Vol 2, 2016)

HSG Based Upon Soil Texture for Disturbed Soils (Source: TR-55)

HSG	*Soil textures*
A	Sand, loamy sand, or sandy loam
B	Silt loam or loam
C	Sandy clay loam
D	Clay loam, silty clay loam, sandy clay, silty clay, or clay

NRCS TR-55 HYDROLOGIC METHOD HYDROLOGIC SOIL GROUPS

- Group A Soils
  - Soils with a low runoff potential due to high infiltration rates.
  - Examples are soils consisting primarily of deep, well-drained sands and gravels. (ARC Vol 2, 2016)

NRCS TR-55 HYDROLOGIC METHOD HYDROLOGIC SOIL GROUPS

- Group B Soils
  - Soils with a moderately low runoff potential due to moderate infiltration rates.
  - These are soils with moderately deep to deep, moderately well to well drained soils with moderately fine to moderately coarse textures.

(ARC Vol 2, 2016)

NRCS TR-55 HYDROLOGIC METHOD HYDROLOGIC SOIL GROUPS

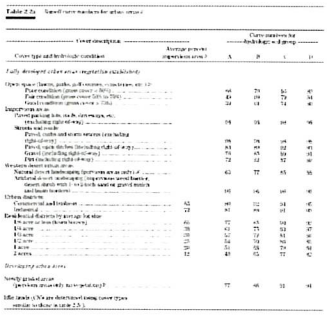
- Group C Soils
  - Soils with a moderately high runoff potential due to slow infiltration rates.
  - These soils are mainly soils with moderately fine to fine texture that impede the downward movement of water.

(ARC Vol 2, 2016)

NRCS TR-55 HYDROLOGIC METHOD HYDROLOGIC SOIL GROUPS

- Group D Soils
  - Soils with a high runoff potential due to very slow infiltration rates.
  - These soils are mainly clays with high swelling potential, soils with permanently high water tables, soils with a claypan or clay layer at or near the surface, and shallow soils over nearly impervious parent material.

(ARC Vol 2, 2016)



RUNOFF COEFFICIENTS – CN FACTORS

- Runoff Coefficients – Curve Numbers (CN) - The NRCS CN value also reflects land use, soil type, and slope. In addition, the CN value also includes the hydrologic soil group and hydrologic condition. Like the Rational C value, a CN value is directly related to percent imperviousness. (ALDOT 2018)

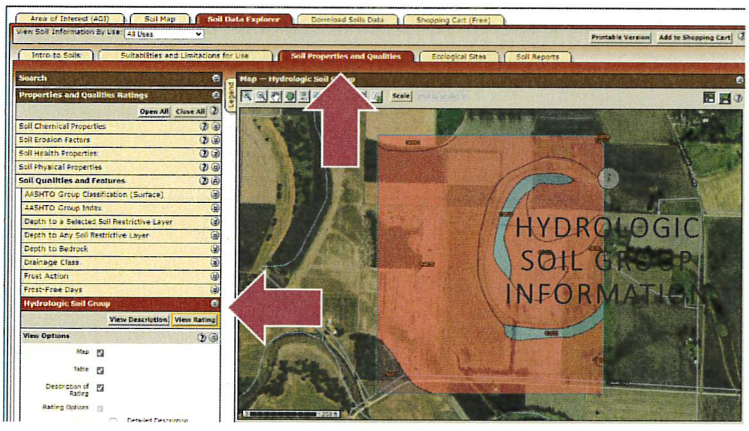


Table 1D - Channel Basin B

Land Cover	HSG	Area (acres)	CN	AxCN
Open Space	B	1.21	61	80
Open Space	C	0.69	74	51
Wooded Area	B	4.48	55	246
Wooded Area	C	1.07	70	75
Impervious Surface		0.74	98	73
		8.29	63.30	524.79

Table 1F - Channel Basin C

Land Cover	HSG	Area (acres)	CN	AxCN
Open Space	B	3.78	61	231
Open Space	C	1.11	74	82
Wooded Area	B	8.10	55	446
Wooded Area	C	0.82	70	43
Impervious Surface		7.41	98	726
		21.02	72.68	1527.80

Table 1F - Existing Basin A

Land Cover	HSG	Area (acres)	CN	AxCN
Open Space	B	1.06	61	65
Open Space	C	0.10	74	7
Wooded Area	B	7.23	55	398
		8.39	55.98	469.71

Table 1G - Existing Basin B

Land Cover	HSG	Area (acres)	CN	AxCN
Open Space	B	1.67	61	102
Open Space	C	0.00	74	0
Wooded Area	B	2.21	55	122
Impervious Surface		0.93	98	91
		4.81	65.40	314.56

WEIGHTED COEFFICIENTS

- Weighted Coefficients – The combined average of all the various coefficients of a watershed.

Table 4.4 Rational Method Runoff Coefficients

Topography and Vegetation	Soil Texture: Open Sandy Loam	Clay and Silt Loam	Tight Clay
Woodland			
Flat 0-5% Slope	0.10	0.30	0.40
Rolling 5-10% Slope	0.25	0.35	0.50
Hilly 10-30% Slope	0.30	0.50	0.60
Pasture			
Flat	0.10	0.30	0.40
Rolling	0.16	0.36	0.55
Hilly	0.22	0.42	0.60
Cultivated			
Flat	0.30	0.50	0.60
Rolling	0.40	0.60	0.70
Hilly	0.52	0.72	0.82
	30% of Area Impervious	50% of Area Impervious	70% of Area Impervious
Urban Areas			
Flat	0.40	0.55	0.65
Rolling	0.50	0.65	0.80

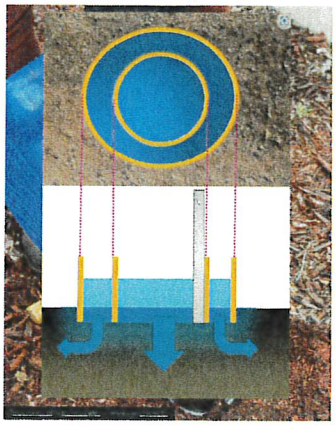
Soil characteristics should be determined through field investigation or by consulting the Soil Conservation Service soil surveys.

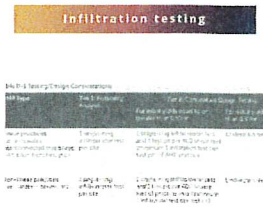
All water tight roof surfaces	0.75 – 0.95
Asphalt pavements	0.80 – 0.95
Concrete pavements	0.70 – 0.90
Gravel of Macadam pavements	0.35 – 0.70
Ponds and Lakes	0.95 – 0.98

Densely built up area where streets, walks and yards are paved
And the remaining area is practically all roof area as in downtown districts 0.75

RUNOFF COEFFICIENTS – C FACTORS

- Runoff Coefficients – C Factors - The runoff coefficient, C, in the rational formula is a ratio expressing the total precipitation that becomes stormwater runoff. Selecting the runoff coefficient for a drainage area requires careful engineering judgment by the designer. The runoff coefficient is a function of the land use, ground slope, topography, rainfall infiltration rate into the soil, and other factors. (ALDOT 2018)





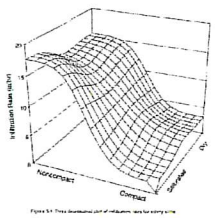
United States Environmental Protection Agency | Office of Research and Development Washington, DC 20460 | EPA/600/R-00/016 December 1999

Infiltration Through Disturbed Urban Soils and Compost-Amended Soil Effects on Runoff Quality and Quantity

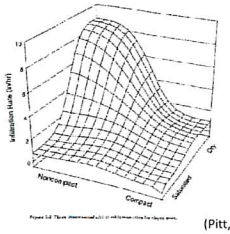
Research Report

VARIATION IN RUNOFF COEFFICIENTS

Sandy Soils



Clayey Soils



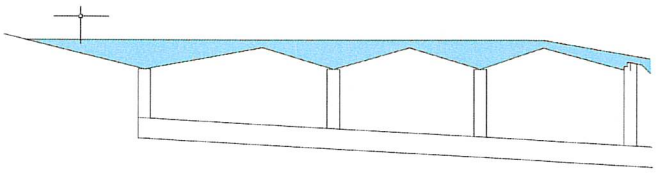
(Pitt, 1999)

STORM SEWER SYSTEM

- Locating and spacing inlets
- System layout
- Pipe materials and diameters
- Locating structures
- Design discharge
- Gutter design
- Longitudinal slopes
- Utilities conflicts
- Construction concerns/considerations

LOCATING AND SPACING INLETS

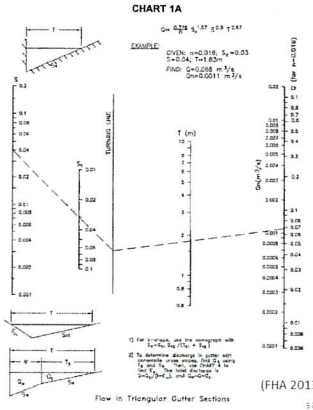
- Consider using HEC-22, Chapter 4
- "Box" sites use grates based on grading
  - Inlets at 300' spacing maximum
  - Design for positive drainage (even if clogged)



LOCATING AND SPACING INLETS

Table 4-1. Suggested Minimum Design Frequency and Spread.

Road Classification		Design Frequency	Design Spread
High Volume or Divided or Bi-Directional	< 70 km/hr (45 mph)	10-year	Shoulder + 1 m (3 ft)
	> 70 km/hr (45 mph)	10-year	Shoulder
	Sag Point	50-year	Shoulder + 1 m (3 ft)
Collector	< 70 km/hr (45 mph)	10-year	1/2 Driving Lane
	> 70 km/hr (45 mph)	10-year	Shoulder
	Sag Point	10-year	1/2 Driving Lane
Local Streets	Low ADT	5-year	1/2 Driving Lane
	High ADT	10-year	1/2 Driving Lane
	Sag Point	10-year	1/2 Driving Lane



Flow in Triangular Gutter Sections

(FHA 2013)

LONGITUDINAL SLOPES

- A minimum longitudinal gradient is more important for a curbed pavement than for an uncurbed pavement since the water is constrained by the curb.
- Desirable gutter grades should not be less than 0.5% for curbed pavements with an absolute minimum of 0.3%
- To provide adequate drainage in sag vertical curves, a minimum slope of 0.3% should be maintained within 50 ft of the low point of the curve. This is accomplished where the length of the curve is divided by the algebraic difference in grades in percent (K) is equal to or less than 167. This is represented as:

  K = L / (G2 – G1) (4-1)

  where:

  K = Vertical curve constant m/percent (ft/percent)

  L = Horizontal length of curve, m (ft)

  Gi = Grade of roadway, percent

(FHA 2013)

PIPE MATERIALS

1. Reinforced Concrete Pipe – Subdivision Requirements
2. HDPP – High Density Polypropylene Smooth Interior
3. PVC – Polyvinyl Chloride
4. HDPE – High-Density Polyethylene Smooth Interior

PIPE DIAMETERS

1. Consider HY8 for roadway crossings
2. Consider using Manning's equation and backwater (energy grade line) spreadsheets
3. Consider HEC-22, Chapter 7 procedures and worksheets
4. Note minimum diameter in regulations

PRELIMINARY STORM DRAIN COMPUTATION SHEET

COMPUTED BY _____ DATE _____
CHECKED BY _____ DATE _____
PAGE _____ OF _____

ROUTE _____
SECTION _____
COUNTY _____

St. ID		Length	Drainage Area		Runoff Coeff. "C"	"Area x C"		Time of Concentration		Rain "I"	Runoff "CI"	Pipe Dia	Class	Velocity		Inv Time	Invert Elevation		Crown Drop	Slope
From	To		Inc.	Total		Inc.	Total	Inlet	Channel					Full	Design		Up	Dn		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)

(FHA 2013)
21

Figure 7-16. Energy grade line computation sheet - Table A.

ENERGY GRADE LINE COMPUTATION SHEET – TABLE A

COMPUTED BY _____ DATE _____
CHECKED BY _____ DATE _____
PAGE _____ OF _____
INITIAL TAILWATER ELEV. _____

ROUTE _____
SECTION _____
COUNTY _____

Struct ID	D	CI (cfs, cms)	L	V (ft/s, m/s)	d	d_c	$V^2/2g$	EGL_1	HGL_1	S_f (ft/ft, m/m)	Total Pipe Loss (Table B)	EGL_2	HGL	S_f (Table B)	EGL_c	Lnth TOC	Surface Elev
(1)	(ft, m) (2)		(ft, m) (3)		(ft, m) (6)	(ft, m) (7)	(ft, m) (8)	(ft, m) (9)	(ft, m) (10)		(ft, m) (12)	(ft, m) (13)	(ft, m) (14)	(ft, m) (15)	(ft, m) (16)	(ft, m) (17)	(ft, m) (18)

(FHA 2013)
22

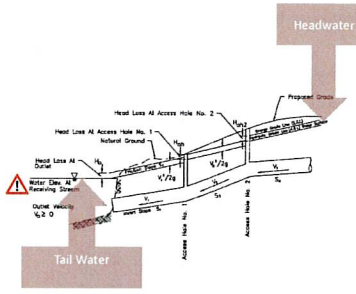
HTTPS://BIT.LY/COMPILEDDETENTIONRESOURCES

Location		Acres		Coeff	I	Q = CIA	Pipe n =	0.013	0.013	Ratio	Capacity	Elev.	t(c)	Velocity	Flow	Invert	Invert
From	To	Sub	Total	Cd	(in/hr) (System)	(cfs) (System)	Length (ft)	Dia (in)	Slope	Full	(cfs)	Diff (ft)	(min) (System)	Full	Tc (min)	Up End	Lo End
A-5	A-6	1	1.0	0.25	16.08	**4.0**	66	54	1.00%	0.02	196.65	0.66	5.0	12.36	0.09	100.00	99.34
A-4	A-5	1	2.0	0.28	16.08	**9.0**	80	54	1.00%	0.05	196.65	0.80	5.1	12.36	0.11	99.34	98.54
A-3	A-4	1	3.0	0.39	16.08	**18.7**	92	54	1.00%	0.09	196.65	0.92	5.2	12.36	0.12	98.54	97.62
A-2	A-3	1	4.0	0.44	16.08	**28.3**	244	54	1.00%	0.14	196.65	2.44	5.3	12.36	0.33	97.62	95.18
A-1	A-2	1	5.0	0.47	15.31	**36.1**	100	54	1.00%	0.18	196.65	1.00	5.6	12.36	0.13	95.18	94.18

n= 0.024 corrugated metal
n= 0.012 concrete
Hm1= 1.00 last structure
(Unless otherwise noted) Hm2= 0.50 exit or entrance through headwall
Hm3= 0.10 straight run
Hm4= 0.25 bends
Hm5= 1.20 Treatment Device

STRUCTURE		DIA	AREA ft^2	FLOW cfs	VEL fps	R(A/P)	LEN	LOSSES IN FT. OF HEAD FR. LOSS	ST LOSS		TOT. LOSS	FULL LOSS HYD GRAD	CRITICAL ELEV
											Note 1	98.68	
(EXIT LOSS)		54	15.904	36.1	2.27	1.125		0.00	0.04	Hm2	0.04	98.72	
A-6	A-5	54	15.90	36.13	2.27	1.125	100	0.03	0.02	Hm4	0.05	98.73	120.00
A-5	A-4	54	15.90	28.30	1.78	1.125	244	0.04	0.01	Hm4	0.06	98.78	120.00
A-4	A-3	54	15.90	18.65	1.17	1.125	92	0.01	0.01	Hm4	0.01	98.80	120.00
A-3	A-2	54	15.90	9.00	0.57	1.125	80	0.00	0.00	Hm4	0.00	98.80	120.00
A-2	A-1	24	3.14	4.02	1.28	0.5	66	0.02	0.01	Hm2	0.03	98.83	120.00

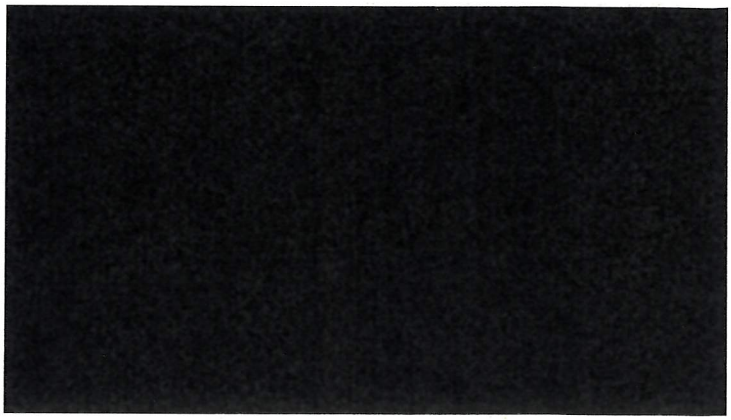
Notes
1 Inside top of pipe

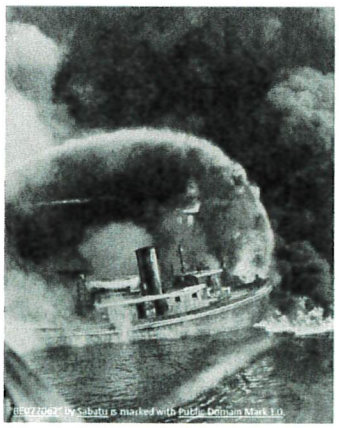


HYDRAULIC GRADE LINE

- Hydraulic Grade Line - A line coinciding with the level of flowing water in an open channel. In a closed conduit flowing under pressure, the HGL is the level to which water would rise in a vertical tube at any point along the pipe. It is equal to the energy gradeline elevation minus the velocity head, V2 /2g. (USDOT FHA 2009)

- Head and Tailwater – Hydraulic Grade Lines at the beginning and ending of a pipe or culvert

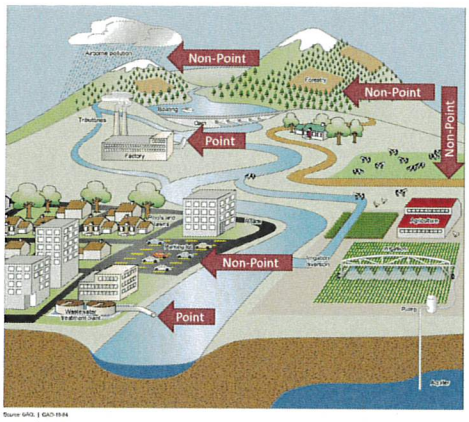




THE CLEAN WATER ACT

Rivers on Fire

The CWA made it unlawful to discharge any pollutant from a point source into navigable waters, unless a permit was obtained



Source: GAO. | GAO-19-94

POLLUTION SOURCES

What are point sources

Point sources are discrete conveyances such as pipes or man-made ditches

NAVIGABLE WATERS

Transport of Commerce

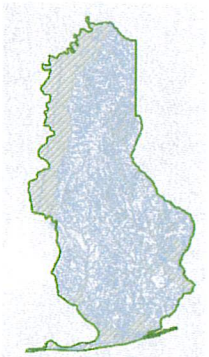
Navigable waters of the United States are those waters that are subject to the ebb and flow of the tide and/or are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce. A determination of navigability, once made, applies laterally over the entire surface of the waterbody, and is not extinguished by later actions or events which impede or destroy navigable capacity.

Floating Toothpicks

The definition of Navigable Waters is not as clear cut as the photo on the left. Words like significant nexus, floating toothpicks, and the like have been used to describe jurisdictional waters.

PROFESSIONAL WETLAND DELINEATOR

- A professional who has adequate training in identifying wetlands and their boundaries and has at least three years' experience working with wetlands including wetland delineations; wetland assessments; and preparation of US Army Corps of Engineer approved Jurisdictional Determinations, wetland fill permits, and wetland mitigation permits. (Baldwin County Zoning Department 21)

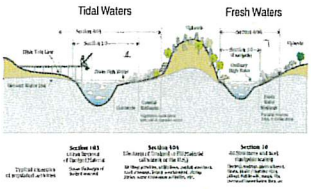


Baldwin County. n.d. Communications GIS Mapping. Accessed APR 15, 23. http://sv.kcgis.com/al.baldwin_revenue/.

GENERAL WETLAND MAP

- Refers to the National Wetland Inventory (NWI) Maps, the Baldwin County Digital Wetland layer, and/or any other digital data depicting the general locations of jurisdictional wetlands or hydric soils and their degree of functionality within the jurisdiction of Baldwin County.

CORPS OF ENGINEERS REGULATORY JURISDICTION



US Army Corps of Engineers Mobile District. n.d. Jurisdictional Determinations. Accessed APR 15, 23. https://www.sam.usace.army.mil/Missions/Regulatory/Jurisdictional-Information/#:~:text=Jurisdictional%20determinations%20involve%20a%20two-step%20process%20of%20identifying,subject%20to%20regulation%20by%20the%20Corps%20of%20Engineers.

JURISDICTIONAL WATERS

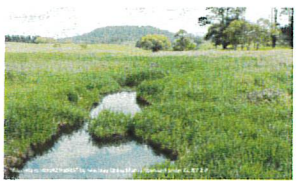
- Jurisdictional Wetland - A wetland area that is determined as such by the U.S. Army Corps of Engineers and/or the Alabama Department of Environmental Management. (Baldwin County Zoning Department 21)

Nationwide Permits

1. Aids to Navigation
2. Structures in Artificial Canals
3. Maintenance
4. Fish and Wildlife Harvesting, Enhancement, and Attraction Devices and Activities
5. Scientific Measurement Devices
6. Survey Activities
7. Outfall Structures and Associated Intake Structures
8. Oil and Gas Structures on the Outer Continental Shelf
9. Structures in Fleeting and Anchorage Areas
10. Mooring Buoys
11. Temporary Recreational Structures
12. Oil or Natural Gas Pipeline Activities
13. Bank Stabilization
14. Linear Transportation Projects
15. U.S. Coast Guard Approved Bridges
16. Return Water From Upland Contained Disposal Areas
17. Hydropower Projects
18. Minor Discharges
19. Minor Dredging
20. Response Operations for Oil or Hazardous Substances
21. Surface Coal Mining Activities
22. Removal of Vessels
23. Approved Categorical Exclusions
24. Indian Tribe or State Administered Section 404 Programs
25. Structural Discharges
27. Aquatic Habitat Restoration, Establishment, and Enhancement Activities
28. Modifications of Existing Marinas
29. Residential Developments
30. Moist Soil Management for Wildlife
31. Maintenance of Existing Flood Control Facilities

NATIONWIDE PERMIT (USACE)

- Nationwide Permit (USACE) - A nationwide permit is a general permit that authorizes activities across the country meeting certain conditions.



STREAMS

- Ephemeral Stream - flow only after precipitation. Runoff from rainfall is the primary source of water for these streams. (EPA 23)
- Perennial Stream - A stream that has surface water flowing continuously year-round. (Baldwin County Zoning Department 21)

EPA'S
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
PERMIT PROGRAM CONTROLS DISCHARGES

NPDES Permits

- Issued by EPA or authorized states
- Sometimes are issued as General Permits (permits that all have the same conditions).
- Sometimes issued as Individual Permits (specific to that site)

Does your Watershed have NPDES Permits?

- Search and go to EPA's How's My Waterway
- https://mywaterway.epa.gov/

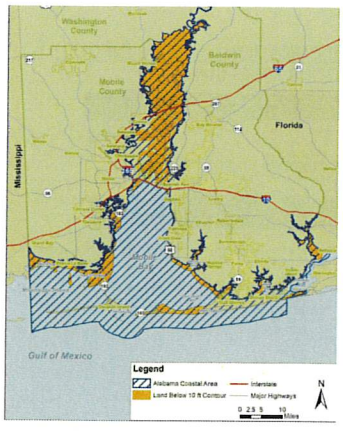
NPDES PERMITS

General NPDES Permits

ALR100000 CONSTRUCTION GENERAL PERMIT
ALG020000 ASPHALT PERMIT
ALG030000 BOAT/SHIP PERMIT
ALG060000 LUMBER & WOOD PERMIT
ALG110000 CONCRETE PERMIT
ALG120000 METALS PERMIT
ALG140000 TRANSPORTATION PERMIT
ALG150000 FOOD PERMIT
ALG160000 LANDFILL PERMIT
ALG170000 PAINT PERMIT
ALG180000 SALVAGE/RECYCLING PERMIT
ALG200000 PLASTIC & RUBBER PERMIT
ALG230000 STONE/GLASS/CLAY PERMIT
ALG240000 TEXTILE PERMIT
ALG250000 NCCW PERMIT
ALG280000 OFF SHORE PERMIT
ALG340000 PETROLEUM PERMIT
ALG360000 HYDROELECTRIC PERMIT
ALG640000 WATER TREATMENT PERMIT
ALG670000 HYDROSTATIC TEST PERMIT
ALG850000 NON-COAL/NON METALLIC AGGREGATE MINING
ALG870000 PESTICIDES
ALG890000 <5 ACRE SMALL MINING
ALR040000 PHASE II MS4 PERMIT

GENERAL NPDES PERMITS (ADEM)

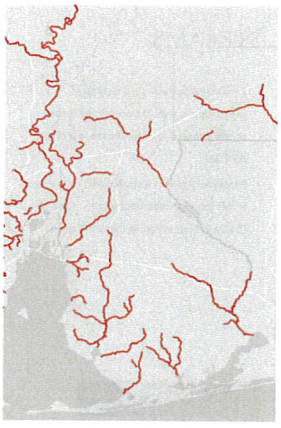
A NPDES Permit through ADEM that authorizes discharges that are in accordance with the conditions of the permit.



COASTAL CONSTRUCTION LINE

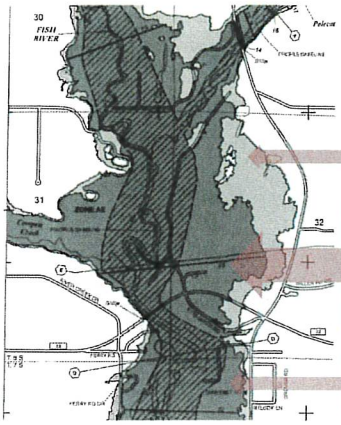
A line in coastal Alabama determined by the Alabama Coastal Area Management Plan (ACAMP) seaward of which no construction is permitted. (Baldwin County Zoning Department 21)

(Alabama Department of Conservation & Natural Resources State Lands Division, Coastal Section 17)



PRIORITY CONSTRUCTION SITE

- Priority Construction Site - means any site that discharges to a waterbody which is listed on the most recently EPA approved 303(d) list of impaired waters for turbidity, siltation, or sedimentation, any waterbody for which a TMDL has been finalized or approved by EPA for turbidity, siltation, or sedimentation, any waterbody assigned the Outstanding Alabama Water use classification in accordance with ADEM Admin. Code r. 335-6-10-.09, and any waterbody assigned a special designation in accordance with ADEM Admin. Code r. 335-6-10-.10. (ADEM 21)

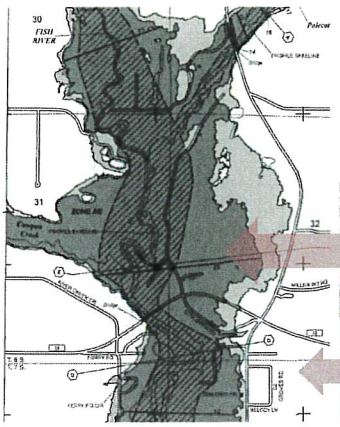


FLOOD RELATED

X-Zone - FEMA zone X is an area with low-to-moderate flood risk, as determined by the Federal Emergency Management Agency (FEMA).

Base Flood Elevation - The elevation of surface water resulting from a flood that has a 1% chance of equaling or exceeding that level in any given year. The BFE is shown on the Flood Insurance Rate Map (FIRM) for zones AE, AH, A1–A30, AR, AR/A, AR/AE, AR/A1– A30, AR/AH, AR/AO, V1–V30 and VE.(FEMA) The elevation of surface water resulting from a flood that has a one percent (1%) chance of being equaled or exceeded in any given year. (Baldwin County Zoning Department 21)

Base flood - A flood having a one percent (1%) chance of being equaled or exceeded in any given year. (Baldwin County Zoning Department 21)

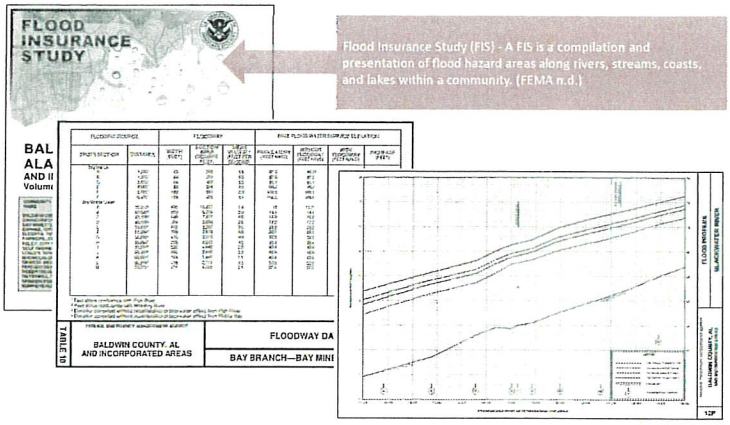


FLOOD RELATED

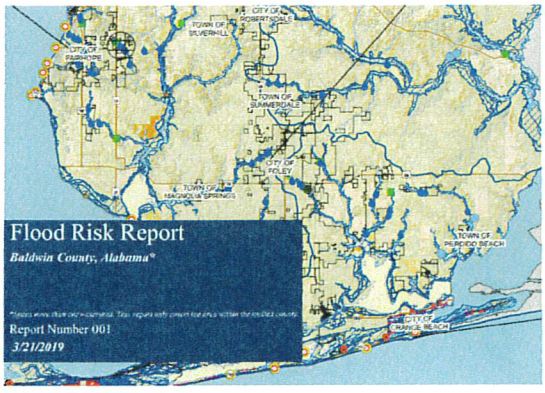
Floodplain – Those areas defined by the U.S. Geological Survey or the U.S. Army Corps of Engineers as subject to flooding once in 100 years, based on topography. (Baldwin County Zoning Department 21)

Flood prone area - Those areas within the boundaries of the most recent Flood Insurance Rate Map (FIRM) established by FEMA as a Special Flood Hazard Area (100-year flood). (Baldwin County Zoning Department 21)

Flood Insurance Rate Map (FIRM) - An official map of a community on which the Federal Emergency Management Agency has delineated both the areas of special flood hazard and the risk premium zones applicable to a community. (Baldwin County Zoning Department 21)

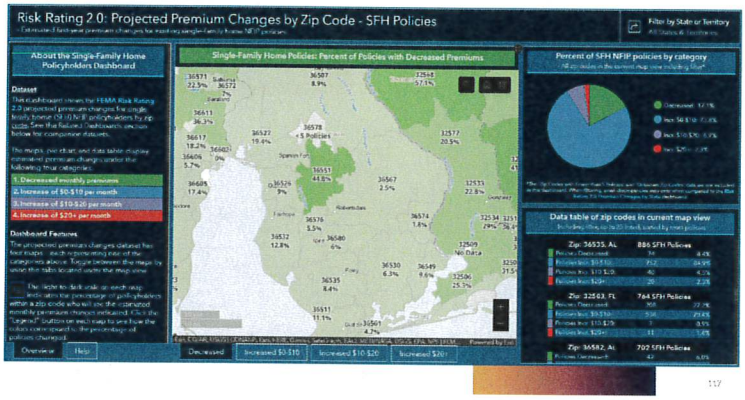


Flood Insurance Study (FIS) - A FIS is a compilation and presentation of flood hazard areas along rivers, streams, coasts, and lakes within a community. (FEMA n.d.)

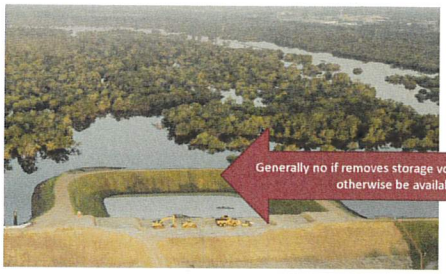


Areas of Mitigation Interest

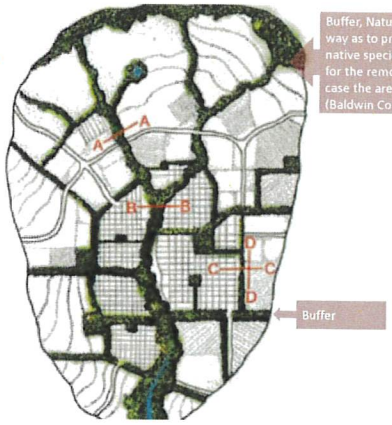
- Coastal Structure
- Dams
- Stream Flow Constrictions
- Past Claims Hot Spot
- Significant Land Use Change
- At-Risk Essential Facilities
- Key Emergency Routes Overtopped During Frequent Flooding Events
- Other Flood Risk Areas
- Areas of Mitigation Success
- Other



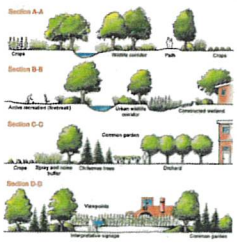
SHOULD DETENTION BASINS BE DESIGNED IN A FLOOD PLAIN?



(Satija 2017)



Buffer, Natural - Area of existing vegetation that is maintained in such a way as to promote species diversity, provide ecosystem services, and native species habitat. The area should not be cleared except to allow for the removal of invasive, dangerous, or non-native species, in which case the area shall be replanted with a diversity of native species. (Baldwin County Zoning Department 21)



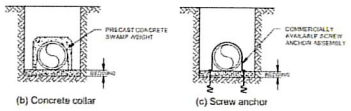
(Bentrup 2008)

Table 2
Minimum Recommended Cover to Prevent Flotation of ADS Thermoplastic Pipe

Nominal Diameter in. (mm)	Minimum Cover in. (mm)
4 (100)	3 (77)
6 (150)	4 (102)
8 (200)	5 (127)
10 (250)	7 (178)
12 (300)	9 (228)
15 (375)	11 (280)
18 (450)	13 (330)
24 (600)	17 (432)
30 (750)	22 (559)
36 (900)	25 (635)
42 (1050)	29 (737)
48 (1200)	33 (838)
60 (1500)	40 (1016)

Calculation Notes:
1. The pipe is assumed to be empty. This not only simplifies the calculations but creates a condition that would encourage flotation. Unless the system is constructed to be watertight, this condition would not likely be found in an actual installation.
2. The outside diameter of the corrugated pipe was used to determine soil and water displacement.
3. Saturated soil density used was 130 pcf which is typical for many saturated soil mixtures. Soils of greater densities will reduce the chance of flotation.
4. The water table was assumed to be at the ground surface, as illustrated in Figure 1(c), simulating a fully saturated soil. This assumption creates a "worst case" condition to yield more conservative results.
5. The soil load prism shown in Figure 2(a) was used to determine soil weight.
6. For structural purposes, a minimum cover of 12" (0.3m) shall apply for 4"-48" (100-1200mm) pipe, and 24" (0.8m) for 60" (1500mm) pipe.

Figure 3
Pipe Stabilizing Alternatives

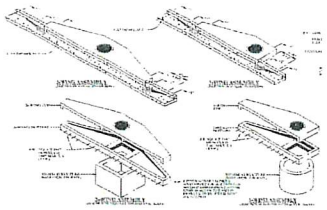


(b) Concrete collar (c) Screw anchor

ADS. 2022. "Data." Pp 1.05 Pipe Flotation. MAY. Accessed APR 20, 23. https://www.adspipe.com/resources/documents/88492907-155A-496C-817B-E3580A5F76...

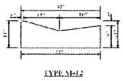
PLASTIC PIPE ANCHORS

- Plastic Pipe Anchors – Devices used to counteract buoyancy forces on HDPE pipe to prevent rise or heave



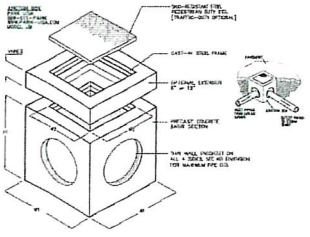
TYPE S INLET

- Type "S" Inlet – A particular type of curb inlet detailed by ALDOT



VALLEY GUTTER

- Valley Gutter – A type of curb and gutter characterized by an approximate V shape, detailed by ALDOT

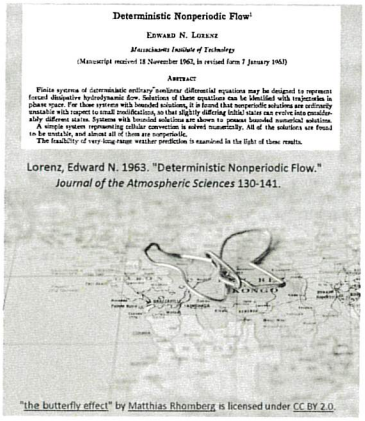


JUNCTION BOX

- Junction Box – A box used where storm pipes join and change grade, size, direction, type, or other aspect.

- The hydraulic elevations resulting from channel retention/detention shall not **adversely affect** adjoining properties.
- **Effect on Downstream Drainage Areas.** The Design Engineer shall review the effect of each subdivision on existing downstream drainage facilities outside the area of the subdivision. Where it is anticipated that the additional runoff incident to the development of the subdivision will overload an existing downstream drainage facility, the County Engineer, or his/her designee, may withhold approval of the subdivision until provision has been made for the necessary downstream improvement.
- In all cases the design engineer must analyze the backwater that is produced and verify that no upstream property is being flooded or otherwise **adversely affected**.
- Special types of headwalls, rip-rap, and other materials may be required by the County Engineer or his/her designee when deemed necessary for erosion control, **protection of existing downstream drainage facilities**, and roadside safety.
- In no case shall the discharge from a drainage basin exceed the **hydraulic capabilities** of the downstream drainage structures and facilities.
- Retention/detention facilities shall be provided with obvious and effective control structures. Plan view and sections of the structure with details shall be included in plans. In no case shall the discharge from a drainage **basin exceed the hydraulic capabilities of the downstream drainage** structures and facilities. Care should be taken in evaluating the following items (1-3) in the design of the outlet control structure.
- Proper engineering judgment shall be exercised in analysis of secondary routing of discharge of greater intensity than the basic design storm in order to **avoid economic losses or damage downstream**. Review with the maximum probable precipitation event is recommended.

NO ADVERSE DOWNSTREAM IMPACTS



Deterministic Nonperiodic Flow[1]

EDWARD N. LORENZ

Massachusetts Institute of Technology

(Manuscript received 18 November 1963, in revised form 7 January 1963)

ABSTRACT

Finite systems of deterministic ordinary nonlinear differential equations may be designed to represent forced dissipative hydrodynamic flow. Solutions of these equations can be identified with trajectories in phase space. For those systems with bounded solutions, it is found that nonperiodic solutions are ordinarily unstable with respect to small modifications, so that slightly differing initial states can evolve into considerably different states. Systems with bounded solutions are shown to possess bounded numerical solutions.

A simple system representing cellular convection is solved numerically. All of the solutions are found to be unstable, and almost all of them are nonperiodic.

The feasibility of very-long-range weather prediction is examined in the light of these results.

Lorenz, Edward N. 1963. "Deterministic Nonperiodic Flow." *Journal of the Atmospheric Sciences* 130-141.

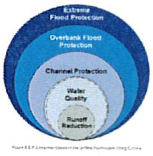
"the butterfly effect" by Matthias Rhomberg is licensed under CC BY 2.0.

THE BUTTERFLY EFFECT

- Lorenz: Found that when testing various weather simulations rounding off one variable from .506127 to .506 dramatically changed the two months of weather predictions
- Dizikes: It is extremely hard to calculate such things with certainty. There are many butterflies out there. A tornado in Texas could be caused by a butterfly in Brazil, Bali, or Budapest. Realistically, we can't know. "It's impossible for humans to measure everything infinitely accurately," says Robert Devaney, a mathematics professor at Boston University. "And if you're off at all, the behavior of the solution could be completely off." When small imprecisions matter greatly, the world is radically unpredictable.

Dizikes, Peter. 2008. "The meaning of the butterfly." *The Boston Globe*. JUN 08. Accessed APR 4, 23. http://archive.boston.com/bostonglobe/ideas/articles/2008/06/08/the_meaning_of_the_butterfly/?page=2.

DESIGN CONSIDERATIONS

Federal	State	Local	Good Neighbor Policies
National Pollution Discharge Elimination (NPDES) Permit	Sometimes delegated administration of NPDES Permits	MS4 Permitting Requirements	Do no harm to your neighbor.
Stormwater Pollution Prevention Plan (SWPPP)	State Water Body Permits (Water Quality Certification, Waters of the State, Stream Buffers, State Lands, Sewer Systems)	Low Impact Design	
Compliance with MS4 (through state)		Specific Ordinances (design storm, method, specific submittal requirements, check list)	
Fish and Wildlife		FEMA Flood Plains (Local Flood Plain Administrator)	
US Army Corp of Engineers		Utilities	
National Environmental Policy (Federal projects)			

DO NO HARM TO YOUR NEIGHBOR

Five things to reduce harm to your neighbor

1) Incentivize stormwater management on-site through policies allowing developers to consider this in their design (allow runoff reductions to be reflected in design calculations).

2) Reduce the stormwater volume produced from the development by retaining just one inch of that volume (or, if not possible, remove 80% solids from the 1.2" rainfall event).

3) Retain or treat (80% of solids) the runoff from 85% of the storms.

4) Protect the downstream channel by detaining the one-year storm for 24 hours.

5) Do not increase flows downstream (analyze to a point where the site comprises 10% of the total drainage.

Photographed in 1980 given in Pittsburgh Post-Gazette source Published by 1981, the last year Old Friends New Friends aired Open Source

DO NO HARM TO YOUR NEIGHBOR

Here are the reasons why these things matter

1) Failure to allow this forces developers to oversize pipes and transfer the problem offsite. By allowing this method, developers can better manage stormwater onsite and pay for it with savings realized through infrastructure reduction.

2) and 3) Developments will transfer nearly all pollutants downstream.

4) and 5) Developments will cause stream degradation

And...HELP ME PROMOTE THIS!

Photographed in 1980 given in Pittsburgh Post-Gazette source Published by 1981, the last year Old Friends New Friends aired Open Source

HOW CAN YOU EVEN SAY THERE IS NO ADVERSE EFFECT WITHOUT:

(

The Atlanta Regional Commission worked with the state Environmental Protection Division, the state Environmental Finance Authority, a Technical Advisory Group (TAG), and a consultant team led by AECOM to update the Georgia Stormwater Management Manual (GSMM), known as the "Blue Book."

Standard #1 – Natural Resource Inventory

- Topography and Steep Slopes (i.e., Areas with
- Slopes Greater Than 15%)
- Natural Drainage Divides and Patterns
- Natural Drainage Features (e.g., swales,
- basins, depressional areas)
- Wetlands
- Water Bodies
- Floodplains
- Aquatic Buffers
- Shellfish Harvesting Areas
- Soils
- Erodible Soils
- Groundwater Recharge Areas
- Wellhead Protection Areas
- Trees and Other Existing Vegetation
- High Quality Habitat Areas
- Protected River Corridors
- Protected Mountains
- Karst Areas

GA Blue Book

SITE ANALYSIS

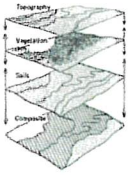
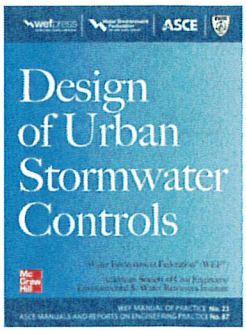


Figure 2.4.2-1 Composite Analysis

(Step 1) Pre-Construction Meeting and Joint Site Visit
(Step 2) Review of Local Requirements
(Step 3) Perform Site Analysis
(Step 4) Prepare Stormwater Concept Plan
(Step 5) Prepare Preliminary Stormwater Site Plan
(Step 6) Complete Final Stormwater Site Plan

Standard #2 –Better Site Design Practices for Stormwater Management

GREEN STORMWATER INFRASTRUCTURE (GSI) OR GOOD DESIGN?



"Total capital cost savings ranged from 15 to 80 percent when LID methods were used, with a few exceptions in which LID project costs were higher than conventional stormwater management costs. " (EPA, 2007, iv)

Does not monetise enhanced property values, improved habitat, aesthetic amenities, and improved quality of life. (EPA, 2007, iii)

COST

Table 1. Summary of Cost Comparisons Between Conventional and LID Approaches
from EPA's Reducing Stormwater Costs Through Low Impact Development (LID) Strategies and Practices 2007.

Project[a]	Conventional Development Cost	LID Cost	Cost Difference[b]	Percent Difference[b]
2nd Avenue SEA Street	$868,803	$651,548	$217,255	25%
Auburn Hills	$2,360,385	$1,598,989	$761,396	32%
Bellingham City Hall	$27,600	$5,600	$22,000	80%
Bellingham Bloedel Donovan Park	$52,800	$12,800	$40,000	76%
Gap Creek	$4,620,600	$3,942,100	$678,500	15%
Garden Valley	$324,400	$260,700	$63,700	20%
Kensington Park	$765,700	$1,502,900	-$737,200	-96%
Laurel Springs	$1,654,021	$1,149,552	$504,469	30%
Mill Creek,[c]	$12,510	$9,099	$3,411	27%
Prairie Glen	$1,004,848	$599,536	$405,312	40%
Somerset	$2,456843	$1,671,461	$785,382	32%
Tellabs Corporate Campus	$3,162,162	$2,700,650	$461,510	15%

[a] Some of the case study results do not lend themselves to display in the format of this table (Central Park Commercial Redesigns, Crown Street, Poplar Street Apartments, Prairie Crossing, Portland Downspout Disconnection, and Toronto Green Roofs).
[b] Negative values denote increased cost for the LID design over conventional development costs.
[c] Mill Creek costs are reported on a per-lot basis.

COST

Table 1: Cost savings from installing LID stormwater controls in residential developments.

Location	Description	LID Cost Savings*
Meadow on the Hylebos Residential Subdivision Pierce County, WA	9-acre development reduced street width, added swale drainage system, rain gardens, and a sloped site terrace to slowly release stormwater to a creek. Stormwater pond reduced by 2/3, compared to conventional plan. (Zickler 2004)	LID cost 9% less than conventional
Somerset Community Residential Subdivision Prince George's Co., MD	80-acre development included rain gardens on each lot and a swale drainage system. Eliminated a stormwater pond and gained six extra lots. (NAHB Research Center Inc. 2003)	$916,392 $4,624 per lot
Pembroke Woods Residential Subdivision Frederick County, MD	43-acre, 70-lot development reduced street width, eliminated sidewalks, curb and gutter, and 2 stormwater ponds, and added swale drainage system, natural buffers, and filter strips. (Dietz 2004; Lehner et al. 2001)	$420,000 $6,000 per lot
Madera Community Residential Subdivision Gainesville, FL	44-acre, 80-lot development used natural drainage depressions in forested areas for infiltration instead of new stormwater ponds. (PATH 2005)	$40,000 $500 per lot
Prairie Crossing Residential Subdivision Grayslake, IL	667-acre, 362-lot development clustered houses reducing infrastructure needs, and eliminated the need for a conventional stormwater system by building a natural drainage system using swales, constructed wetlands, and a central lake. (Lehner et al. 2001; Conservation Research Institute 2005)	$1,375,000- $2,750,000 $3,799-$7,458 per lot
SEA Street Retrofit Residential street retrofit Seattle, WA	1-block retrofit narrowed street width, installed swales and rain gardens. (Tilley 2005)	$40,000
Gap Creek Residential Subdivision Sherwood, AK	130-acre, 72-lot development reduced street width, and preserved natural topography and drainage networks. (U.S. EPA 2005; Lehner et al. 2001; NAHB Research Center Inc. 2003)	$300,021 $4,819 per lot
Poplar Street Apartments Residential complex Aberdeen, NC	270-unit apartment complex eliminated curb and gutter stormwater system, replacing it with downspouts areas and swales. (U.S. EPA 2005)	$173,000
Kensington Estates* Residential Subdivision Pierce County, WA	24-acre, 103-lot hypothetical development reduced street width, used porous pavement, vegetated depressions on each lot, and reduced stormwater pond size. (CH2MHill 2001; U.S. EPA 2005)	$96,800 $643 per lot
Garden Valley* Residential Subdivision Pierce County, WA	10-acre, 34-lot hypothetical development reduced street width, used porous paving techniques, added swales between lots, and a central infiltration depression. (CH2MHill 2001)	$62,000 $1,795 per lot
Circle C Ranch Residential Subdivision Austin, TX	Development employed filter strips and bioretention strips to slow and filter runoff before it reached a natural stream. (EPA 2005)	$165,000 $1,250 per lot

COST

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CLEAR. 2019. *National Low Impact Development (LID) Atlas.* University of Connecticut's Center for Land Use Education and Research. http://clear.uconn.edu/. Accessed 8 JAN 19.

Create A Clean Water Future. http://www.cleanwaterfuture.com/

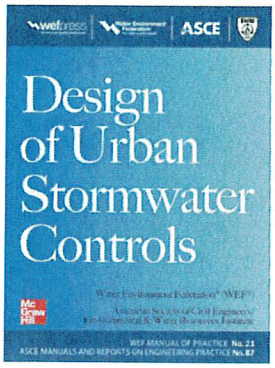
EPA. 2007. *Reducing Stormwater Costs through Low Impact Development (LID) Strategies and Practices. EPA 841-F-07-006.* United States Environmental Protection Agency, Nonpoint Source Control Branch (4503T). Washington, DC. December.

Table 2: Cost savings from installing LID stormwater controls in commercial developments.

Location	Description	LID Cost Savings*
Parking Lot Retrofit Largo, MD	One-half acre of impervious surface. Stormwater directed to central bioretention island. (U.S. EPA 2005)	$10,500-$15,000
Old Farm Shopping Center* Frederick, MD	3.3-acre site redesigned to reduce impervious surface, added bioretention islands, filter strips, and infiltration trenches. (Zielinski 2000)	$36,230 $3,996 per acre[a]
270 Corporate Office Park* Germantown, MD	12.8-acre site redesigned to eliminate pipe and pond stormwater system, reduce impervious surface, added bioretention islands, swales, and grid pavers. (Zielinski 2000)	$27,900 $2,180 per acre[a]
OMSI Parking Lot Portland, OR	6-acre parking lot incorporated bioswales into the design, and reduced piping and catch basin infrastructure. (Liptan and Brown 1996)	$78,000 $13,000 per acre[a]
Light Industrial Parking Lot* Portland, OR	2-acre site incorporated bioswales into the design, and reduced piping and catch basin infrastructure. (Liptan and Brown 1996)	$11,247 $5,623 per acre[a]
Point West Shopping Center* Lexana, KS	Reduced curb and gutter, reduced storm sewer and inlets, reduced grading, and recuired land cost, used pervous pavers, added bioretention cells and native plantings. (Beezhold 2006)	$168,998
Office Warehouse* Lexana, KS	Reduced impervious surfaces, reduced storm sewer and catch basins, reduced land cost, added bioswales and native plantings. (Beezhold 2006)	$317,483
Retail Shopping Center*	9-acre shopping development reduced parking lot area, added porous pavers, clustered retail spaces, added infiltration trench, bioretention and a sand filter, reduced curb and gutter and stormwater system, and eliminated infiltration basin. (Center for Watershed Protection 1998b)	$36,182 $4,020 per acre[a]
Commercial Office Park*	11-acre development reduced impervious surfaces, reduced stormwater ponds and added bioretention and swales. (Center for Watershed Protection 1998b)	$140,466 $12,344 per acre[a]
Tellabs Corporate Campus Naperville, IL	55- acre site developed into office space minimized site grading and preserved natural topography, eliminated storm sewer pipe and added bioswales. (Conservation Research Institute 2002)	$564,473 $10,263 per acre[a]
Vancouver Island Technology Park Redevelopment Saanich, British Columbia	Constructed wetlands, grassy swales and open channels, rather than piping to control stormwater. Also used amended soils, native plantings, shallow stormwater ponds within forested areas, and permeable surfaces on parking lots. (Tilley 2003)	$530,000

Source: ECONorthwest, with data from listed sources
Notes: * Indicates hypothetical or modeled project, not actually constructed
[a] Dollar amounts as reported at the time of study.
[b] Per-acre cost savings calculated by ECONorthwest.

IS IT GSI, LID, OR GOOD DESIGN?



SOUTHEAST CITY A

- Population: 65,000
- Has a stormwater utility
- Allowed / required LID for several years
- Several City Owned LID projects
- Maintenance has not been an issue
- "We don't do anything different for our LID measures"
- Mulch replaced with other landscaped features
- Weeding done with other landscaped features
- Biggest issue was training for recreation department staff

SOUTHEAST CITY B

- Population: 80,000
- Has a stormwater utility
- Allowed / required LID for several years
- Several City Owned LID projects
- Mulch is replaced often
- Seeing water quality benefits (one stream currently being removed from impaired waters list)
- Maintenance is not a big issue
- Annual stormwater improvement budget about $1 million a year. None of that budget anticipated for LID repair or maintenance.
- Notices individual home owners embracing small parcel size LID measures
- Loves tree planters

SOUTHEAST CITY C

- Population: 25,000
- Allowed / required LID for several years
- Dedicated Stormwater Manager with maintenance staff
- Algae blooms being noticed it wet ponds (education campaign being done)
- No known maintenance to LID measures
- LID measures required by ordinance, but staff would prefer they were not required

SOUTHEAST CITY D

- Population: 25,000
- Most systems have just been through one three-year maintenance inspection.
- LID in practice around five years
- Regulations have been award winning
- Regulations have been tweaked
- Few Conflicts
- Previous thoughts:
  - "It's a great idea"
  - Not a silver bullet
- Has not killed development
- Compliance has not been an issue
- Has become second nature
- Maintenance has not been an issue

Standard #3 – Runoff Reduction

Runoff reduction practices shall be sized and designed to retain the first 1.0 inch of rainfall

Standard #4 – Water Quality

Stormwater management systems shall be designed to retain or treat the runoff from 85% of the storms that occur in an average year, and reduce average annual post-development total suspended solids loadings by 80%

Standard #5 – Stream Channel Protection

1. 24-hour extended detention storage of the 1-year, 24-hour return frequency storm event
2. Erosion prevention measures, such as energy dissipation and velocity control
3. Preservation of the applicable stream buffer

Standard #6 – Overbank Flood Protection

Overbank flood protection shall be provided by controlling the post-development peak discharge rate to the pre-development rate (natural or existing condition, as applicable) for the 25-year, 24-hour return frequency storm event

Standard #7 – Extreme Flood Protection

Extreme flood protection shall be provided by controlling and/or safely conveying the 100-year, 24-hour storm event

Standard #8 – Downstream Analysis

Due to peak flow timing and runoff volume effects, some structural practices fail to reduce discharge peaks to pre-development levels downstream from the development site. A downstream peak flow analysis shall be provided to the point in the watershed downstream of the site or the stormwater management system where the area of the site comprises 10% of the total drainage area.

Standard #9 – Construction Erosion and Sedimentation Control

Erosion and sedimentation control practices shall be utilized during the construction phase of development or during any land disturbing activities.

IMPACT AREA

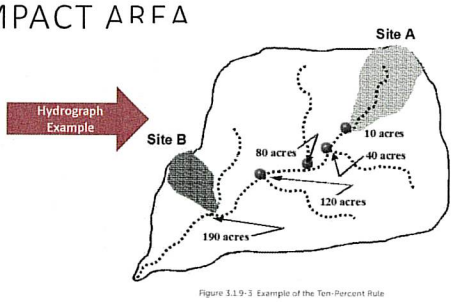


Figure 3.1.9-3 Example of the Ten-Percent Rule

Standard #9 – Construction Erosion and Sedimentation Control

Erosion and sedimentation control practices shall be utilized during the construction phase of development or during any land disturbing activities.

Standard #10 – Stormwater Management System Operation and Maintenance

The stormwater management system, including all best management practices and conveyances, shall have an operation and maintenance plan to ensure that it continues to function as designed.

Standard #11 – Pollution Prevention

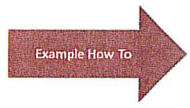
To the maximum extent practicable, the development or redevelopment project shall implement pollutant prevention practices and have a stormwater pollution prevention plan

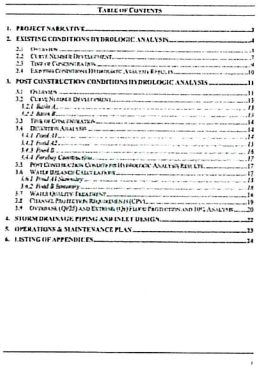
Standard #12 – Stormwater Management Site Plan

To the maximum extent practicable, the development or redevelopment project shall implement pollutant prevention practices and have a stormwater pollution prevention plan.

Hydrology & Hydraulic Design Report

Example How To





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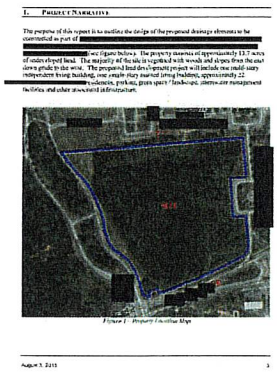


1. Project Narrative

The purpose of this report is to outline the design of the proposed drainage elements to be constructed as part of [redacted]. See figure below. The property consists of approximately 12.7 acres of undeveloped land. The majority of the site is vegetated with woods and slopes from the east down grade to the west. The proposed land development project will include one multi-story independent living building, one single-story married living building, approximately 22 [redacted] cabanas, parking, grass open / landscape, storm water management facilities, and other associated infrastructure.

Figure 1 – Property Location Map

2. Existing Conditions Hydrologic Analysis

2.1 Overview

The site is located north of [redacted]. The majority of the 13.7 acre total site is expected to be disturbed. The existing property contours wooded slopes (at the order of approximately 7%). A large stony sloped hill stock pile area exists along the northern property line. A small (1.5 ac-ft) storm-water impoundment exists near the small, east corner of the site. In general, the site surface flows east to west via moderate slopes to drainage structures just east of [redacted]. Stormwater exits the site through two locations; a culvert near the southwest corner of the site (referred to as Basin D) and a 36-inch storm pipe near the northwest corner of the site (referred to as Basin A).

In order to model the existing conditions hydrologic attributes of the site, the primary study points of the site were at the two storms that exit points described above. In addition to the two site points, the [redacted] was also considered. Findings from this report were utilized to analyze further Downstream Analysis points which included:

A point downstream from Basin A where storm water exits the [redacted]. At this point Basin A is 21% of the total drainage area.
A point downstream of Basin B is where stormwater combines with drainage from south of [redacted]. At this point Basin B is 19% of the total drainage area.
A point downstream of both Basins A and B where each flow into [redacted]. Combined Basins A and B make up 140% of the total drainage area. [redacted] served as the termination point of the Downstream Analysis study.

The modeling was performed in Hydraflow Hydrographs 2015 utilizing the SCS methodology for each basin look periodically. Please note, in each basin description and the Table 6 – Summary of Basin Hydrologic Modeling Parameters on the following subsection that the acreage of each basin is between 0 to 2,000 acres, thus the selection of the SCS method is applicable. Rainfall depths were taken from the [redacted].

The figures on the following pages outline the basin delineations, soils, and land covers utilized in the modeling of the existing conditions for the project.

Figure 2A - Existing Condition Basin Map

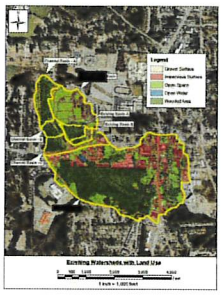


Figure 2B - Overall Existing Conditions Basin Map

2.2 Curve Number Development

Curve numbers were identified for each basin through the use of aerial photography and the previously mentioned [redacted] Drainage Study. The following table identifies the curve number determination:

Table 2 - Pre-Developed Curve Number Tables

Table 2A - [redacted] Basin

Land Cover	HSG	Area (acres)	CN	AxCN
Open Space	A	83.31	61	5,082
Open Space	C	1.71	74	127
Open Water		0.57	98	56
Wooded Area	B	81.91	55	4,751
Wooded Area	C	11.11	70	778
Impervious Surface		73.23	98	7,177
Gravel Surface	B	1.83	90	165
Wooded Area	B	0.07	55	4
		238.04	**71.18**	**16,941**

Table 2B - [redacted] Pond Basin

Land Cover	HSG	Area (acres)	CN	AxCN
Open Space	A	24.70	61	1,512
Open Space	C	0.70	74	52
Wooded Area	B	2.04	55	112
Wooded Area	C	0.60	70	0
Impervious Surface		12.03	98	1,179
		39.36	**72.17**	**2854.15**

Table 2C – Channel Basin A

Land Cover	HSG	Area (acres)	CN	AxCN
Open Space	B	5.99	61	365
Open Space	C	0.25	74	19
Wooded Area	B	2.24	55	109
Wooded Area	C	1.21	70	102
Impervious Surface		1.32	98	129
		21.11	**66.75**	**1409.11**

Table 2D - Channel Basin B

Land Cover	HSG	Area (acres)	CN	AxCN
Open Space	B	1.81	61	80
Open Space	C	0.49	74	51
Wooded Area	B	4.48	55	246
Wooded Area	C	1.07	70	75
Impervious Surface		0.74	98	73
		8.29	**63.30**	**524.79**

Table 2E - Channel Basin - C

Land Cover	HSG	Area (acres)	CN	AxCN
Open Space	B	1.78	61	231
Open Space	C	1.11	74	82
Wooded Area	B	8.35	55	460
Wooded Area	C	0.62	70	43
Impervious Surface		1.41	98	726
		21.02	**72.68**	**1527.80**

Table 2F - Existing Basin A

Land Cover	HSG	Area (acres)	CN	AxCN
Open Space	B	1.76	61	65
Open Space	C	0.10	74	7
Wooded Area	B	7.23	55	398
		8.99	**55.98**	**469.71**

Table 2G - Existing Basin B

Land Cover	HSG	Area (acres)	CN	AxCN
Open Space	B	1.67	61	102
Open Space	C	0.00	74	0
Wooded Area	B	2.71	55	127
Impervious Surface		0.03	98	01
		4.01	**64.40**	**314.16**

Currently, the site covered almost entirely by woods and underlain by Hydrologic Soil Group B. Therefore a Curve Number of 55 was estimated for the pre-developed condition for both basins.

2.3 Time of Concentration

The time of concentration was calculated by two different methods. For each of the offsite basins, time of concentration was computed utilizing the SCS equation:

$$Tc = 1902^{*}[(1000/CN)-9]^{0.7} / 1900 S^{0.5} \text{ (eq. 1)}$$

Where:
- Tc = time of concentration in minutes
- L = hydraulic length, if watershed lumped flow path) in feet
- CN = SCS runoff Curve number
- S = average watershed slope in percent

(Source: Applied hydrology, Ven Te Chow, David R. Maidment, Larry W. Mays, McGraw-Hill)

This equation was developed by the SCS from agricultural watershed data and has been adapted to small urban basins. The following parameters were utilized in computing the time of concentration:

- Hydraulic Length
- Weighted Curve Number
- Watershed Slope

Watershed slopes were determined utilizing ArcGIS (v. 9.3) to determine the change in elevation over the watershed length. Hydraulic lengths were determined by measuring the longest flow path within each sub basin within the ArcGIS map. Calculations for these basins are included in the Appendix in the attached [redacted].

Time of concentration for the existing onsite basins were estimated based on procedures described in SCS TR-55. Time of concentration was estimated based on three different types of flow regimes: overland flow, shallow concentrated, and channel flow. A five minute minimum time of concentration was assumed for small basins. Calculated time of concentrations can be found in the Hydrograph Reports as part of Appendix B, and channel flow through storm pipe networks can be found in the Appendix under the Storm Pipe Calculations Sections. Please note that time of concentrations for offsite basins are taken from previous studies prepared by [redacted] for the downstream analysis as required per special ordinance.

Basin	Tc
[redacted] Basin	19.9
[redacted] Pond Basin	13.7
Channel Basin A	25
Channel Basin B	22.4
Channel Basin C	9.9
Existing Onsite Basin A	18.4
Existing Onsite Basin B	17.6

2.4 Existing Conditions Hydrologic Analysis Results

The results of the analysis of the existing conditions for the project are outlined in the following tables.

Table 2 – Peak Pre-Developed Runoff Rates (cubic feet per second)

Analysis Point	1-Yr	2-Yr	5-Yr	10-Yr	25-Yr	50-Yr	100-Yr
Basin A	1.3	3.6	7.9	11.8	17.6	20.60	25.5
Basin B	4.3	7.0	11.21	14.3	19.0	21.4	25.1
Channel Basin C	25.9	43.0	63.9	80.4	103.2	119.5	132.1
Channel Basin B	3.9	7.1	12.1	16.2	22.1	25.2	30.0
Channel Basin A	13.7	22.6	36.8	48.0	64.1	72.4	85.2

Runoff volumes can be found in the Hydraflow Summary Report section of Appendix B.

3. Post Construction Conditions Hydrologic Analysis

3.1 Overview

The property will be developed into the [redacted] facility including associated open spaces, parking, utilities, stormwater management facilities and landscape/hardscape areas. Stormwater runoff will be managed via a series of drainage pipe systems and three (3) stormwater management facilities. Stormwater Management Facility A2 will serve only as dry extended detention pond. It will discharge to downstream Stormwater Management Facility A1, which will be a Micropool extended Detention Pond, equipped with a forebay, a micropool and wetlands plantings for stormwater quality. Stormwater Facility B will also have be a Micropool Extended Detention Pond of similar construction. Please note that this detention analysis and design provided herein is provided for complete build out of the facility, as detailed in the figure below. Modifications to the proposed layout below need to consider relative hydrologic and hydraulic affects within this study.

Figure 3A - Post Construction Conditions Basin Map

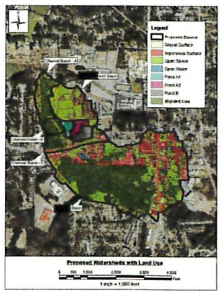


Figure 3A - Overall Post Construction Conditions Basin Map

3.3 Curve Number Development

3.3.1 Basin A

Basin A is the portion of the site that enters along the southwest portion of the site. Drainage is conveyed through many pipes through the [redacted] and spread out to existing detentions detailed in this and shocking pipe left to [redacted] Basin A is so broken up into two sub-basins. The exact basin A1 flows into the farmer that drains to basin A2. The outflow from A2 flows into Stormwater Management Pond A1, along with Basin A1.

The following table qualifies the various land use/ cover types developed for the basin.

Table 3 – Proposed Conditions Curve Number for Basin A (A1 and A2)

Post-developed basin A1

Land Cover	Area (ac)	CN	CN * Area (ac)
Impervious Surface	5	98	3.9
Open Space	5	61	3.7
	81	79.5	7.6

Post-developed basin A2

Land Cover	Area (ac)	CN	CN * Area (ac)
Impervious Surface	5	98	3.9
Open Space	5	61	3.7
	10	79.5	7.6

Combined basins A1 and A2

Land Cover	Area (ac)	CN	CN * Area (ac)
Impervious Surface	8	98	4.8
Open Space	8	61	3.6
	17	79.5	8.4

3.3.2 Basin B

Basin B consists of all the land to the south and east corner of the property. This Basin was composed of a portion of an existing swale that discharges into a small detention basin) and the remainder of the site. The following table outlines the various land use / soils coverage developed for the basin.

Table 4 – Proposed Conditions Curve Number for Basin B

Post-Developed basin B

Land Cover	Area (ac)	CN	CN * Area (ac)
Impervious Surface	5	98	4.9
Open Space	5	61	3.6
	9.1	79.5	8.5

3.3 Time of Concentration

Time of concentration for the post developed onsite basins were estimated based on procedures as described in the previous 2nd section above. Time of concentration was estimated based on three different types of flow regimes: sheet flow, shallow concentrated, and channel flow. A 10-minute minimum time of concentration was assumed for small basins. Calculated time of concentrations for found in the Hydrograph Reports as part of Appendix B, and channel flow through storm pipe networks can be found in the Appendix under the Storm Pipe Calculations Section. Please note that time of concentrations for offsite basins are taken from previous studies prepared studies [redacted] for the downstream analysis as required per special ordinance.

Basin	Tc
Post-Dev Onsite Basin A1	6.3
Post-Dev Onsite Basin A2	6.0
Post-Dev Onsite Basin A Bypass	5.0
Post-Dev Onsite Basin B	10.0
Post-Dev Onsite Basin B Bypass	5.0

3.4 Detention Analysis

As noted above, four ponds are proposed as part of this project. The following tables outline the proposed outflow rates for each pond. Stage-storage-discharge tables can be found in the attached Hydrograph summary report for each pond.

3.4.1 Pond A1

Pond A1 is a Wet Extended Detention Pond, equipped with a forebay, a micropool and wetlands plantings for stormwater quality. The pond is designed in accordance with the Georgia Stormwater Management Manual with a wet pool treating the depth up to 18 inches deep and containing at least 0.1 inches of wet storage per impervious acre. This storage was provided in depths ranging up to 18 inches, and provides the minimum benchmarks for wetlands plantings. The wet storage was verified by the combination of low permeability soil. See Section 3.7 regarding Water Quality Treatment requirements, including water quality volumes and outflow sizing requirements. A forebay is also sized to contain the 1 inches per impervious acre of contributing drainage area. It provided using gabion basket walls (or riprap walls) within the pond area. Side slopes are graded at 3 feet horizontal to 1 foot vertical slope with an safety bench near the confluence does not include dam pond areas over 4 feet.

Regular maintenance will be provided in accordance with Section 5.0 of this report. Please note that this pond cannot be fully gravity drained as the Outlet Control Structure, and additional pumping may be required to empty the pond for regular inspection and maintenance. This should be taken when emptying the pond to accommodate the wetlands plantings.

The following tables detail the Outlet Control Structure and other pond construction requirements.

Table 5 – Outlet Data for Pond A1

Outlet / Orifice Size	Circular Orifice (in)	V-Notch Weir
# Outlets	2	1
Basin Invert	0	0
Dia. Barrel	4	-
Type	Concrete	Concrete
Invert Elevation (ft)	853.0	855.0
Length (ft)	0	0
Slope (%)	0	0
# Weir	0.61	0.3
Orifice Coefficient	0.6	0.6

Table 6 – Weir Data for Pond A1

Weir Type	Riser (4 ft round)
Crest Elevation (ft)	857.0
Crest Length (ft)	12.0
Weir Coefficient	3.33

3.4.2 Pond A2

Pond A2 is similar in all and design to Pond A1. Pond A2 is a second Dry Extended Detention Pond with no current additional water quality features since it drains into A1 where these functions are implemented.

The following tables detail the Outlet Control Structure and other pond construction requirements.

Table 7 – Outlet Data for Pond A2

Outlet / Orifice Size	Circular Orifice (in)
# Outlets	1
Basin Invert	0
Dia. Barrel	4.0
Type	Concrete
Invert Elevation (ft)	849.0
Length (ft)	0
Slope (%)	0.01%
# Weir	0.61
Orifice Coefficient	0.6

Table 8 – Weir Data for Pond A2

Weir Type	Riser (4 ft round)
Crest Elevation (ft)	853.0
Crest Length (ft)	12.0
Weir Coefficient	3.33

3.4.3 Pond B

Pond B is a Micropool Extended Detention Pond, equipped with a forebay, a micropool and wetlands plantings for stormwater quality. The pond is designed in accordance with the Georgia Stormwater Management Manual with a wet pool treating the depth up to 18 inches deep and containing 0.1 inches of wet storage per impervious acre. This storage was provided in depths ranging up to 18 inches, and provides the minimum benchmarks for wetlands plantings. The wet storage was verified by the combination of low permeability soil. See Section 3.7 regarding Water Quality Treatment requirements, including water quality volumes and outflow sizing requirements. A forebay is also sized to contain the 1 inches per impervious acre of contributing drainage area. It provided using gabion basket walls (or riprap walls) within the pond area. Side slopes are graded at 3 feet horizontal to 1 foot vertical slope with an safety bench around the confluence does not include dam pond areas over 4 feet.

Regular maintenance will be provided in accordance with Section 5.0 of this report. Please note that this pond cannot be fully gravity drained as the Outlet Control Structure, and additional pumping may be required to empty the pond for regular inspection and maintenance. This should be taken when emptying the pond to accommodate the wetlands plantings.

The following tables detail the Outlet Control Structure and other pond construction requirements.

Table 9 – Outlet Data for Pond B

Outlet / Orifice Size	Circular Orifice (in)
# Outlets	1
Basin Invert	0
Dia. Barrel	4
Type	Concrete
Invert Elevation (ft)	853.5
Length (ft)	0
Slope (%)	0.01%
# Weir	0.61
Orifice Coefficient	0.6

Table 10 – Weir Data for Pond B

Weir Type	Riser (4 ft round)
Crest Elevation (ft)	857.0
Crest Length (ft)	12.00
Weir Coefficient	3.33

3.4.4 Overflow Conveyance

A freeboard has been provided at Ponds A1 and B to trap and collect the first flush of sediment in the runoff. Forebays are also ponds for the first 0.1 inch of runoff for the property has surface drainage both in each pond was provided using a gabion basket (or riprap) wall. Proper maintenance of the forebays is provided in the operation of the stormwater management facilities, and is referenced in the O&M Checklist. The following summarizes the forebay data summarized at the end of the project.

Location	Forebay Invert Area	Required Volume	Provided Volume
Pond A1	4.8 acres	1,742 cu. ft.	1,832 cu. ft.
Pond B	3.8 acres	1,360 cu. ft.	2,042 cu. ft.

3.5 Post Construction Conditions Hydrologic Analysis Results

The results of the analysis of the post-construction conditions for the project are outlined in the following tables.

Table 11 – Post Construction Peak Runoff Rates results (cfs per second)

Subbasin Point	2-YEAR	5-YEAR	10-YEAR	25-YEAR	50-YEAR	100-YEAR
Basin A	2.8	3.2	3.8	4.3	4.8	5.3
Basin B	5.1	6.7	7.9	9.3	10.4	11.5
Channel Basin C	39.9	45.0	49.8	55.4	59.8	64.3
Channel Basin D	28	9.3	10.3	12.2	13.3	14.7
Channel Basin E	13.7	23.5	26.8	30.8	33.5	36.2

Hydrograph volumes and peak discharges can be found in Appendix B.

3.6 Water Balance Calculations

Because the drainage area of both ponds are less than 25 total acres, a water balance calculation is required for each. Water balance calculations help determine if a discharge area is large enough, or has the right characteristics, to support a permanent pool of water during average or extreme conditions. Water balance is defined as the change in volume of the permanent pool resulting from the total inflow minus the total outflow (period or gain/loss). The following consists of rainfall, run-off and flow flow into the pond. The outflow consists of infiltration, evaporation, evapotranspiration, and surface overflow out of the pond or wetland.

The following tables detail the Water Balance Calculations for both ponds. The existing behavior of this volume supplied at normal pools, as the balance in the results for the water balance equation calculated for each pond basin.

Please note that sufficient runoff is generated in each area when compared to the normal pool.

3.6.1 Pond A1 Summary

Pond A1 Elevation	853	854	855	856	857	858	859	860	861	862	863	864
Pond A1 Area (sf)	0	1,742	3,484	5,226	6,968	8,710	10,452	12,194	13,936	15,678	17,420	19,162
Pond A1 Area (ac)	0.00	0.04	0.08	0.12	0.16	0.20	0.24	0.28	0.32	0.36	0.40	0.44
Pond A1 Volume (cf)	0	1,742	5,226	10,452	17,420	26,130	36,582	48,776	62,712	78,390	95,810	114,972
Pond A1 Volume (ac-ft)	0.00	0.04	0.12	0.24	0.40	0.60	0.84	1.12	1.44	1.80	2.20	2.64
Pond A1 Outflow (cfs)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Impervious Area = 4.9 acres
Percent Impervious = 57%

Rv = 0.05 + 0.009 I = 0.05 + 0.009 (57) = 0.56
WQv (ac-ft) = 1.2 (Rv) A / 12 = 1.2 (0.56) (3.4) / 12 = 0.474 ac-ft = 20,647 cu ft

For a micropool dry extended detention pond, only 0.1 inch per impervious acre is required, as such, only 1,720 cu. ft. is required to be stored in the micropool. The available WQv at Pond A1 is 2,382 cu ft. meeting the criteria.

Pond B Basin
Site Area = 6.2 acres
Impervious Area = 3.6 acres
Percent Impervious = 58%

Rv = 0.05 + 0.009 I = 0.05 + 0.009 (58) = 0.57
WQv (ac-ft) = 1.2 (Rv) A / 12 = 1.2 (0.607) (10.8) / 12 = 0.355 ac-ft = 15,464 cu ft

For a micropool dry extended detention pond, only 0.1 inch per impervious acre is required, as such, 1,244 cu. ft. is required to be stored in the micropool. The available WQv at Pond B is 2,153 cu ft. meeting the criteria.

Because of the small WQ volumes remaining to be routed for each basin, the hydraulic head calculations show orifices below 2 inches at each location. As such, [redacted] was used to increase the minimum orifice diameter to 3 inches for Ponds A1 and B1for two ponds providing water quality treatment with trash rack to prevent clogging. The 3-inch orifice was then considered a sufficient CPv combination orifice releasing the Channel Protection rates well less than 2 cfs from each pond at the 1-year, 24-hour storm event.

3.8 Channel Protection Requirements (CPv)

Channel protection requirements were provided for the developed areas of the site at each pond outfall location. The CPv for the site was calculated in accordance with the [redacted] and using SCS- Technical Release 55 for estimating the volume of runoff required to be slowly released over a 24 hour period. Sizing criterion was used to determine the best-fit primary outlet control orifice for the outlet control device using the Maximum Hydraulic Head with Routing method. Please note that each wet pond and dry extended detention basin accounts for the CPv requirement for that specific basin.

Table 12 - Channel Protection Analysis Summary

Basin	Pre Dev Runoff Volume 1 yr event (cf)	Post Dev Runoff Volume 1 yr event (cf)	Needs Channel Protection Because of Increased Runoff Volume ?	Estimated Post Dev AVG Discharge Rate For 24 hr Flow (cfs)	Provided AVG Discharge Rate (cfs)
Basin A	9,310	29,925	Yes	0.52	0.52
Basin B	12,557	23,515	Yes	0.34	0.34

A summary of the 1-year 24-hour runoff rates for the entire basin leaving the site is provided in the following subsection.

3.9 Overbank (Qp25) and Extreme (Q) Flood Protection and 10% Analysis

Overbank and Extreme Flood Protection considerations were determined compared at five different locations. Those locations are as follows:

1. At Basin B's discharge location from the site.
2. At Basin A's discharge location from the site.
3. Downstream from Basin B, where drainage confluence with drainage from [redacted] and Channel Basin C (Study Point C)
4. Downstream from Basin A, where drainage combines with Basin B, Channel Basin C and Channel Basin D (Study Point D).
5. Downstream from both Basin's A and B, where all discharges for the area combine, including Channel Basin A and [redacted] basin, prior to entering [redacted] Study Point A)

The results of the pre-developed conditions detailed earlier are presented again in the table below for direct comparison to the post-developed conditions at each storm interval. The difference is noted in red. In all conditions the post developed is less than pre-developed.

Table 13 - Pre- Post Pre-Improved Runoff Rate Comparison Summary (cfs)

Analysis Point	1-Yr	2-Yr	5-Yr	10-Yr	25-Yr	50-Yr	100-Yr
Pre Basin A	1.3	3.6	7.3	11.8	17.6	25.69	25.5
Post Basin A	0.8	1.2	1.6	1.9	2.3	2.4	5.1
Difference	-0.5=	-2.41	-5.7=	-9.9=	-15.3=	-18.3=	-20.4=
Pre Basin B	4.3	7.9	11.01	14.3	18.0	21.8	25.1
Post Basin B	0.4	0.7	1.0	1.3	1.6	1.8	2.0
Difference	-3.9=	-7.1=	-10.0=	-13.0=	-17.4=	-19.9=	-23.1=

Analysis Point	1-Yr	2-Yr	5-Yr	10-Yr	25-Yr	50-Yr	100-Yr
Pre-Developed Study Point C	124.9	194	244.9	370.1	488.3	543.13	629.8
Post-Developed Study Point C	124.5	192.3	243.8	372.7	484.4	541	627.1
Difference	(0.4)	(1.7)	(1.1)	(1.6)	(3.9)	(2.1)	(2.7)

Analysis Point	1-Yr	2-Yr	5-Yr	10-Yr	25-Yr	50-Yr	100-Yr
Pre-Developed Study Point B	127	197.6	330.5	382.7	497.5	559.3	643.9
Post-Developed Study Point B	126.3	196.3	298.8	380.2	483.3	551.4	640
Difference	(0.7)	(1.3)	(1.8)	(2.5)	(4.2)	(4.9)	(3.9)

Analysis Point	1-Yr	2-Yr	5-Yr	10-Yr	25-Yr	50-Yr	100-Yr
Pre-Developed Study Point A	142	218.6	324.9	415.8	539.9	603.1	698.5
Post-Developed Study Point A	141.2	216.8	321.5	412.3	535.1	597.5	692.3
Difference	(0.8)	(1.8)	(3.4)	(3.5)	(4.8)	(5.6)	(6.2)

4. Storm Drainage Piping and Inlet Design

Stormwater runoff will be conveyed throughout the site via sheet flow and a series of subsurface drainage systems. The onsite storm system was designed using 25-year storms. All hydraulic calculations were performed using manning's equation. A copy of the output from the model has been included in the report illustrating inlet flows, times of concentration.

Rainfall intensities were obtained from [redacted] of Appendix A of the GSMM. The time of concentration was determined using the procedures outlined within the GSMM and the USDA SCS TR 55. Each pipe drainage line has its own time of concentration based on travel time in the pipe line and an inlet time of concentration of 5 minutes.

5. Operation & Maintenance Plan

Detailed Operation and Maintenance recommendations for Wet Ponds should be referenced directly in the Georgia Stormwater Management Manual, latest edition. Specific information regarding the operation and maintenance for these structural controls is provided in the following below. Please see Appendix E for the Operation &Maintenance Inspection Report for Stormwater Management Ponds.

Table 14 - Typical Maintenance Activities for Wet Ponds

Activity	Schedule
• Clean and remove debris from inlet and outlet structures • Mow side slopes	Monthly
• If wetland components are included, inspect for invasive vegetation	Semiannual Inspection
• Inspect for damage, paying particular attention to the overall structure, inlet pipes, and the outlet structure • Note signs of hydrocarbon build up, and remove appropriately • Monitor for sediment accumulation in the facility and facilities • Continue to ensure that inlet and outlet devices are free of debris and operational. • Check all control gates, valves or other mechanical devices.	Annual Inspection
• Repair undercut or eroded areas	As Needed
• Perform wetland plant management and harvesting	Annually (if needed)
• Remove sediment from the forebay	5 to 7 years or after 50% of the total forebay capacity has been lost
• Monitor sediment accumulations and remove sediment when the pool volume has become reduced significantly or the pond becomes eutrophic.	10 to 20 years or after 25% of the permanent pool volume has been lost

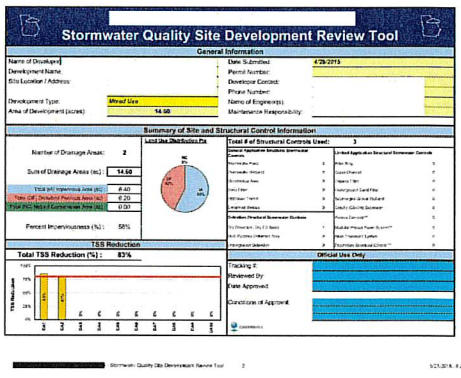
Table 15 - Typical Maintenance Activities for Dry Detention / Dry ED Basins

Activity	Schedule
• Remove debris from basin inlet / or structures outlet structure and channel paths/ditch.	Annually and following significant storm events
• Remove sediment buildup • Repair undercut or eroded areas. • Perform structural maintenance and outlets.	As needed based on inspection
• Mow or limit structural vegetation	Routine

Please note that the Structural Control Maintenance Checklists for Stormwater Ponds is available in the Georgia Stormwater Management Manual, latest edition.

6. Listing of Appendices

A – Stormwater Quality Site Development Review Tool
B – InfoSoft+ Hydrafloss 1h drop+ash Data Sheets
C – Storm Pipe Calculations
D – Pye Lake Southern Tributary Drainage Study



Stormwater Quality Site Development Review Tool

General Information

Name of Drainage[redacted]
Development Name:
Site Location / Address:
Development Type: Mixed Use
Area of Development (acres): 14.50
Date Submitted: 4/28/2015
Permit Number:
Developer Contact:
Phone Number:
Name of Engineer(s):
Maintenance Responsibility:

Summary of Site and Structural Control Information

Number of Drainage Areas: 2
Size of Drainage Areas (ac.): 14.50
Total (sf) Impervious Area (ac): 8.40
Total (sf) Disturbed Pervious Area (ac): 6.20
Total (sf) Natural Conservation Area (ac): 0.00
Percent Imperviousness (%): 58%

Land Use Distribution Pie

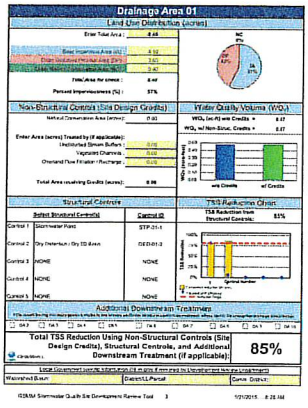
TSS Reduction

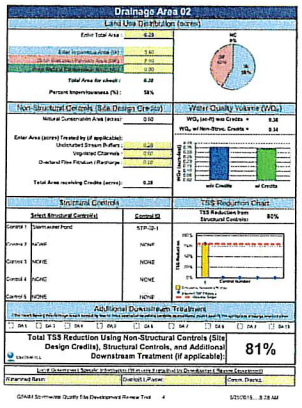
Total TSS Reduction (%): 83%

Total # of Structural Controls Used: 3

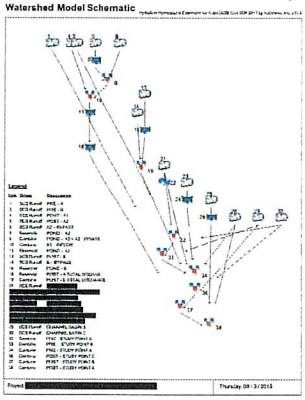
Official Use Only

Tracking #:
Reviewed By:
Date Approved:
Conditions of Approval:



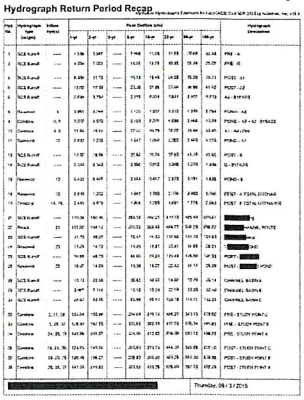


Watershed Model Schematic



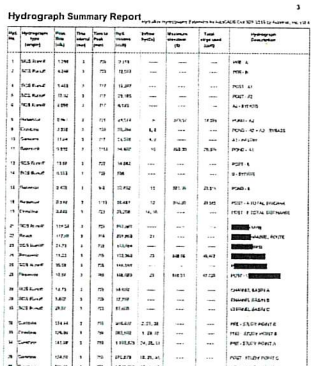
Thursday, 09 / 3 / 2015

Hydrograph Return Period Recap



Thursday, 09 / 3 / 2015

Hydrograph Summary Report



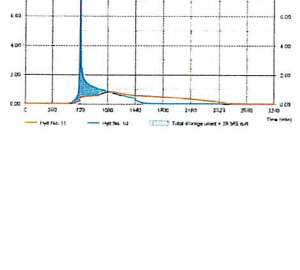
Thursday, 09 / 3 / 2015

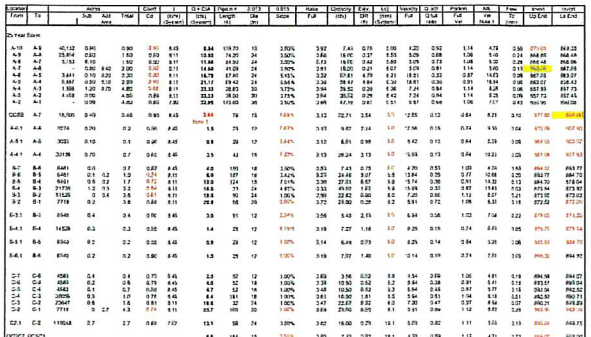
Hydrograph Report

Hyd. No. 11

POND - A1

Hydrograph type	= Reservoir	Peak discharge	= 0.810 cfs
Storm frequency	= 1 yrs	Time to peak	= 1113 min
Time interval	= 3 min	Hyd. volume	= 54,187 cuft
Inflow hyd. No.	= 10 - A1 - INFLOW	Max. Elevation	= 660.30 ft
Reservoir name	= POND A1	Max. Storage	= 29,585 cuft





[redacted] Southern
Tributary Drainage Study

[redacted]

January 2014

[redacted]

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1. INTRODUCTION 1
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[redacted]

FREQUENTLY OBSERVED STORMWATER DESIGN FAILURES

1. Failure to include bypass area in detention basins.
2. Failure to include offsite watershed area.
3. Failure to delineate basin properly.
4. Failure to develop and route the hydrograph.
5. Failure to consider downstream concerns (tailwater elevations, outlet velocities, downstream issues).
6. Failure to consider overall detention context (for example a detention basin in a flood plain or wetland area).
7. Failure to apply an appropriate standard of care.
8. Failure to negotiate sufficient fees for adequate design.
9. Failure to communicate the need to the client.
10. Failure to appropriately design vegetation.

LOADING YOUR TOOLBOX

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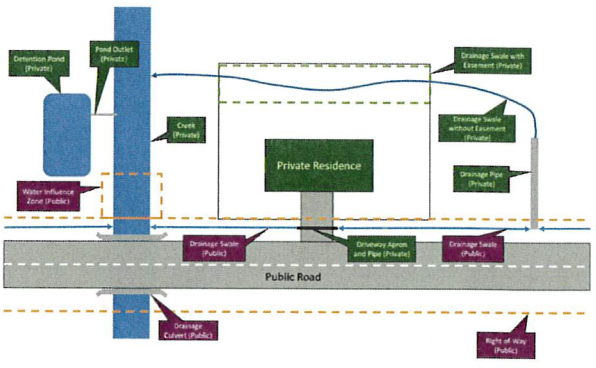
Extent of Service:



Level of Service:

As funds are available:

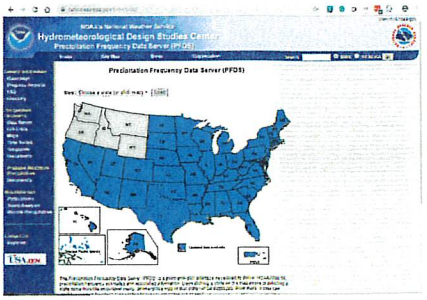
The City shall conduct inspections and prioritize and make necessary repairs to the public stormwater management system as required. The City shall provide regulatory enforcement to owner(s) responsible for maintaining and inspecting private stormwater management systems. The City of Rincon's Stormwater Manager, or assigned responsible party, shall respond to stormwater concerns and provide an evaluation of whether the system if private or public.

Note that current funding levels do not permit the City's desired level of service

• QGIS. "Welcome to the QGIS Project." https://qgis.org/en/site/, Accessed October 19, 2019

• USDA. "Web Soil Survey." websoilsurvey.sc.egov.usda.gov. Accessed October 19, 2019.

• NOAA (2017). NOAA Atlas 14 Point Precipitation Frequency Estimates. NOAA National Weather Service Hydrometeorological Design Studies Center Precipitation Frequency Data Server (PFDS). April 21, 2017. https://hdsc.nws.noaa.gov/hdsc/pfds/ Accessed October 19, 2019.



Bookmark

Bookmark

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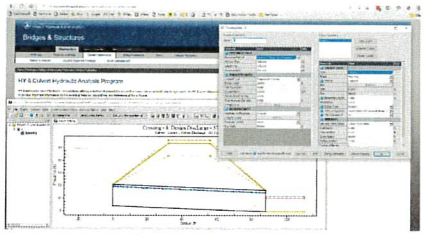

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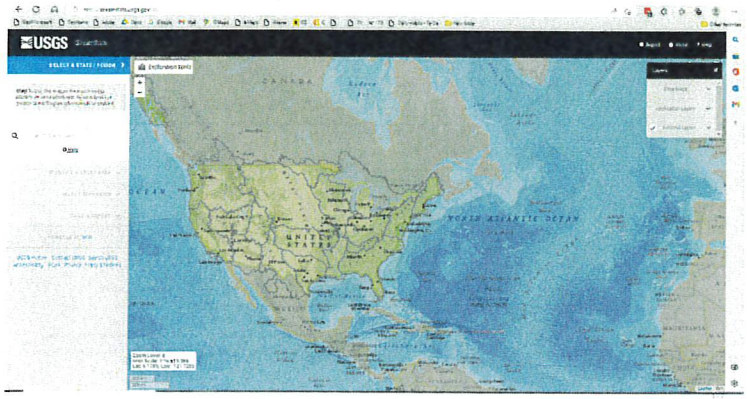
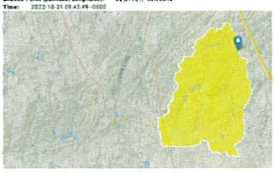
American Concrete Pipe Association. (2022, October 31). The Concrete Pipe Design Manual. Retrieved from https://www.concretepipe.org/wp-content/uploads/2014/09/cp-manual.pdf

• USGS. "StreamStats." StreamStats: Streamflow Statistics and Spatial Analysis Tools for Water-Resources Applications | U.S. Geological Survey (usgs.gov). Accessed October 31, 2022.



StreamStats Report

Region ID: AL
Workspace ID: AL20221031144356182000
Clicked Point (Latitude, Longitude): 33.01101, -86.72243
Time: 2022-10-31 09:43:56 -0500



Collapse All

Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
AL_SVI2020	Mapped streamflow variability index as defined in SIR 2020-5099	0.414	
CONTDA	Area that contributes flow to a point on a stream	5.214	square miles
DRAREA	Area that drains to a point on a stream	5.21	square miles
L3_PIEDMNT	Percent of basin in the EPA Level III Piedmont ecoregion	100	

Parameter Code	Parameter Description	Value	Unit
L3_SE_PLNS	Percent of basin in the EPA Level III Southeast Plains ecoregion	0	
PRECIPRG16	Basin average mean annual precipitation for 1981 to 2010 from PRISM	58.14	inches
URBAN	Percentage of basin with urban development	2.38	percent

Peak Flow Statistics

Peak Flow Statistics Parameters [Peak Region 1 2020 5032]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
CONTDA	Contributing Drainage Area	5.214	square miles	0.94	1037

Peak Flow Statistics Parameters [Peak Statewide Small Stream 2020 5032]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
CONTDA	Contributing Drainage Area	5.214	square miles	0.13	14

Peak Flow Statistics Parameters [Peak Urban Statewide Except Reg3 2010 5012]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
CONTDA	Contributing Drainage Area	5.214	square miles	1	43
URBAN	Percent Urban	2.38	percent	22	100

Peak Flow Statistics Flow Report [Peak Region 1 2020 5032]

PII: Prediction Interval-Lower, Plu: Prediction Interval-Upper, ASEs: Average Standard Error of Prediction, SE: Standard Error (other -- see report)

Statistic	Value	Unit	ASEp
50-percent AEP flood	705	ft^3/s	75

Statistic	Value	Unit	ASEp
20-percent AEP flood	1230	ft^3/s	27
10-percent AEP flood	1630	ft^3/s	27
4-percent AEP flood	2160	ft^3/s	28
2-percent AEP flood	2590	ft^3/s	28
1-percent AEP flood	3040	ft^3/s	29
0.5-percent AEP flood	3490	ft^3/s	30
0.2-percent AEP flood	4120	ft^3/s	32

Peak Flow Statistics Flow Report [Peak Statewide Small Stream 2020 5032]

PII: Prediction Interval-Lower, Plu: Prediction Interval-Upper, ASEs: Average Standard Error of Prediction, SE: Standard Error (other -- see report)

Statistic	Value	Unit	ASEp
50-percent AEP flood	675	ft^3/s	59
20-percent AEP flood	1120	ft^3/s	36
10-percent AEP flood	1510	ft^3/s	26
4-percent AEP flood	2070	ft^3/s	20
2-percent AEP flood	2530	ft^3/s	17
1-percent AEP flood	3040	ft^3/s	19
0.5-percent AEP flood	3570	ft^3/s	23
0.2-percent AEP flood	4360	ft^3/s	30

Peak Flow Statistics Disclaimers [Peak Urban Statewide Except Reg3 2010 5012]

Some or more of the parameters is outside the equivalent range. Extrapolation may be occurring

Peak Flow Statistics Flow Report [Peak Urban Statewide Except Reg3 2010 5012]

Statistic	Value	Unit
Urban 50-percent AEP flood	344	ft^3/s
Urban 20-Percent AEP flood	685	ft^3/s
Urban 10-percent AEP flood	1150	ft^3/s
Urban 4-percent AEP flood	1970	ft^3/s

DRAINAGE REQUIREMENT TEMPLATE

Comment Template Statements:

- Please provide a design narrative containing, at a minimum: project location, existing drainage conditions, proposed drainage concepts, topography, and scale map of on and off-site drainage areas, (5.11.2(a)) (App 2)
- Please provide a map showing pre-development and post-development time of concentration flow routes, (5.11.2(a)) (App 2)
- Please provide an evaluation of the pre and post-differential runoff containing, at a minimum, the: drainage area of the site, pervious area, impervious area, weighted coefficients, time of concentration, rainfall intensities, allowable discharge (2, 5, 10, 25, 50, 100-year storms), pre and post hydrographs, (5.11.2(a)) (App 2)
- Please provide a summary sheet that provides pre-development and post-development flows in the summary (5.11.2(b)) (App 2)
- Please provide pond routing calculations in legible tabulated form with ratios of inflow to outflow, (5.11.2(a)) (App 2)
- Please provide inlet and gutter calculations containing, at a minimum: basin areas, time of concentration, intensities, peak flow rates, captured inlet flows & bypass flows, spacing, and hydraulic grade lines, (5.11.2(a)) (App 2)
- Please provide culvert pipe calculations containing, at a minimum: locations, types, sizes, slopes, flows, velocities, headwater and tailwater elevations, (5.11.2(a)) (App 2)
- Please provide Open Channel Drainage Systems calculations containing, at a minimum: flows, velocities, slopes, and pipe sizing for future driveway culverts, (5.11.2(a)) (App 2)
- Please revise grades so that the proposed fill does not restrict the water flow of adjacent properties or unnaturally redirect stormwater to adjacent properties, (5.11.2(a))
- Please provide drainage rights where the new drainage system diverts water into an unnatural water system or on private land adjacent to the subdivision, (5.11.2(a))
- Please provide drainage rights where the new drainage system directs unnatural channelized flow into non-channelized flow on private land adjacent to the subdivision, (5.11.2(a))
- Please provide provisions to carry away by pipe or open ditch any spring or surface water that exists either previously to, or as a result of, the subdivision. Such drainage facilities shall be located in the road right-of-way where feasible or in common areas with perpetual unobstructed drainage easements of sufficient width, ((5.11.2(a)) (5.11.5(b))
- Please provide an evaluation of the required Retention/Detention Ponds containing, at a minimum: pond drainage area, storage Capacity (required volume, provided volume), elevations (pond bottom, water elevation per storm event, pond top), Outfall structure (type, sizing, discharge rate, elevations), Verification of adequacy of discharge (Post-vs-Pre dev. Rates), (5.11.2(a)) (App 2)
- Please provide complete drainage calculations, (5.11.2(a))
- Please provide all assumptions, maps, and computations for each inlet, pipe, or ditch section, (5.11.2(a))
- Please provide signed and sealed design data and calculations by an AL PE, (5.11.2(a)), (5.12.3)
- Please provide a summary of the assumptions, calculations, and design results for the whole project and each drainage basin, (5.11.2(a))
- Please identify in the drainage calculations the method used to accommodate potential development from the upstream properties, (5.11.2(b))
- Please document the effect of the development on downstream drainage areas on existing downstream drainage facilities, (5.11.2(c))
- Please provide a downstream analysis (of pre-vs-post-adjusted flows) to the point in the watershed where the new drainage system affects the natural system (where the area affected comprises 10% of the total drainage area, (5.11.2(c)), (5.12.1(d)), (5.12.1(h)), (5.12.1(i)), (5.12.1(j)), (5.12.1(k)), (5.12.1(l))(m))
- Please provide inlets so that surface water is not carried across any intersection or for a distance of more than 600 feet in the gutter, (5.11.3(a))
- Please revise the design so that the spread of surface water in the gutter shall not exceed ½ of the design lane width, (5.11.3(a))
- Please provide calculations showing that the backwater from drainageways, bridges, box culverts, and other stormwater systems will not backwater onto upstream properties or otherwise adversely affect them, (5.11.3(b))
- Please use the following design storms: side drain or lateral storm sewer - minimum 10 yr, storm crossing (closed) storm sewer - minimum 25 yr, storm; culvert (Open) cross drainage - minimum 25 yr, storm; bridge or bridge Culvert - minimum 50 yr, storm / FEMA Flood Zone Requirements, (5.11.3(b)) (Standards for Road Construction, 3.4),
- Please provide 18" min (13"x22" arch equivalent) roadway cross drain pipes and common driveway culvert pipes per ALDOT standards, (5.11.3(c))
- Please provide ALDOT-approved materials for pipes outside of the travel way, (5.11.3(c))
- Please provide open ditches with 3:1 side slopes, flat bottoms, and 0.3% (min) grade, (5.11.3(d))
- Please provide a permit for V-bottom open ditches from County Engineer, (5.11.3(d))
- Please provide detailed drainage plans and calculations signed and sealed by a PE, (5.11.4)
- Please provide a field-verified topography map showing existing and proposed contours (NAVD 88) at one-foot intervals (or permit by the County Engineer to use greater intervals) of the entire property and adjacent rights-of-way, (5.11.4(a))
- Please provide documentation of the existing drainage system, including, but not limited to, pipes, culverts, inlets, ditches, and ponds, (5.11.4(b))
- Please provide documentation of the proposed drainage system, including pipes, culverts, junction boxes, inlets, ditches, retention/detention facilities, and an outline of the on-site drainage areas for each inlet and ditch cross-section, (5.11.4(c))
- Please label and present in a tabular form the overall drainage plan, plan view, and plan/profile sheets of all proposed pipes, culverts, junction boxes, and inlets, (5.11.4(c))
- Please provide the structure location, type, size, inlet flow line, and outlet flow line elevation of all drainage structures, (5.11.4(d))
- Please provide the cross-section of each ditch section, (5.11.4(e))
- Please provide other pertinent information necessary to review the drainage plans, (5.11.4(f))
- Please note in the plans that all pipes shall be placed in excavated trenches to the line and grade shown on the plans, (5.11.5(a))
- Please note in the plans that all methods and materials used to construct and install all drainage pipes and structures shall adhere to current ALDOT specifications and Standard Drawings, (5.11.5(a))
- Please note that all Structures proposed under traffic must be poured in place or precast concrete as per ALDOT Standard Drawings, (5.11.5(b))

Comment Template Statements:

- Please provide anchor details for plastic pipe with less than 24" cover, (5.11.5(b))
- Please provide a junction box every 300-feet, at each angle point, and change in grade for cross drain pipes, and common driveway culvert pipes, (5.11.5(c))
- Please require in the plans a smooth and gradual transition from the gutter to inlet not less than 50 inches where type "S" inlets are used in conjunction with valley gutters, (5.11.5(d))
- Please provide junction boxes pours-in-place or pre-cast concrete per ALDOT Standard Drawings (or permit otherwise from the County Engineer), (5.11.5(e))
- Please provide easements conforming to the lines of the watercourse and width for maintenance for all watercourses, drainage ways, channels, or streams, (5.11.5(e))
- Please depict perpetual unobstructed easements at least 20 feet in width and have satisfactory access to the road for all drainage facilities where topography prevents the practical inclusion in the right-of-way on property outside the right-of-way, (5.11.5(b))
- Please require in the plans that no fence, hedgerow, or other obstruction may be placed so as to obstruct access to the drainage facilities from such public right-of-way or public property, (5.11.5(b))
- Please note on the preliminary and final plat the maintenance responsibilities of any drainage easements and common areas. The note shall also state that Baldwin County will not be responsible for maintaining said common areas or drainage easements, (5.11.5(b))
- Please note the following DRAINAGEAUTILITY EASEMENTS: EXTERNAL REAR AND SIDE BOUNDARY LOT LINES: 15 FEET; INTERIOR REAR AND SIDE LOT LINES: 7.5 FEET, (5.11.5(c))
- Please do not include the drainage and utility boundary lines on the Preliminary/Final Plats unless requested by the Planning and Zoning Staff, (5.11.6(c))
- Please provide a generalized drainage plan, with a sheet size and scale of the Preliminary Plan containing the layout of the proposed lots and common areas, the existing one (1) foot contours of the subject property and all adjacent rights-of-way, the proposed flow direction of all stormwater, the proposed location of stormwater management facilities, the location of all existing drainage structures within 100 feet of the proposed development, the design Q at each outfall source, the FEMA flood zones; and all wetlands and labeled as jurisdictional and non-jurisdictional, (5.11.7)
- Please provide stormwater management facilities where there is an increase in the amount of stormwater runoff, (5.12.1)
- Please submit detailed engineering calculations and plans, including historical runoff, developed runoff, developed runoff with detention/retention, stormwater facility details, method of discharge, and other information as required for review, (5.12.1)
- Please provide post-development release rates that do not exceed pre-development rates, (5.12.1)
- Please include the maintenance method for the detention/retention pond after completing the development, (5.12.1)
- Please include a note that all Retention/Detention facilities shall be owned, operated, and maintained by development entities and shall not be accepted for maintenance by the Baldwin County Commission, (5.12.1)
- Please include provisions to address 100-year storm events to ensure that retention/detention facilities survive such events, (5.12.1)
- Please note that the design is in accordance with good engineering and good workmanship. Use of the information contained in the regulations for placement of any structure or use inland, shall not constitute a representation, guarantee, or warranty of any kind by Baldwin County Commission, its officers or employees, of the practicality, adequacy or safety and shall not create liability upon or cause action against any such public body, office, or employee for any damage that may result pursuant thereto, (5.12.2(a))
- Please sign, seal, and date all plans, specifications, and calculations submitted for review or approval,(5.12.1(b)), (AL PE Rules)
- Please note that all plans, specifications, and calculations meet the minimum standards and requirements of the County and other applicable authorities, (5.12.1(b))
- Please provide the sign, seal, and date (by the PE in charge) for each plan, profile, and special drawing sheet for a project, (5.12.1(b))
- Please clearly add the name or license number of the PE if necessary, (5.12.1(b))
- Please provide calculations using the SCS Method to determine the sizing of stormwater detention/retention areas, (5.12.1(d))
- Please provide a differential runoff evaluation that consists of the determination of rates of runoff before and after development, determining the required volume of retention/detention, and verifying the adequacy of discharge and control structures, (5.12.1(d)(1))
- Please provide a design based on at least the worst-case scenario of runoff up to and including a 100-year, 24-hour rainfall event, (5.12.1(d)(1))
- Please provide the post-development discharge from detention/detention facilities equal to or less than pre-development conditions for a 2, 5, 10, 25, 50 & 100-year storm event, (5.12.1(d)(1))
- Please provide a hydraulic analysis to show that in no case shall the discharge from a drainage basin exceed the hydraulic capabilities (including up-stream routing) of the downstream drainage structures and facilities, (5.11.2(c)) (5.12.1(d)(1)), (5.12.1(h)), (5.12.1(i)), (5.12.1(j)), (5.12.1(k))
- Please model areas within the Fish River and Wolf Bay Watersheds in accordance with (5.12.1(d)(2)) and (5.12.1(d)(3)),
- Please provide retention/detention facilities within the parcel limits of the project under consideration, (5.12.1(d))
- Please remove retention/detention or ponding from the public road right-of-way or within the Highway Construction Setback Line as per Act No. 94-572 of the Legislature of Alabama, (5.12.1(e))
- Please provide a special request permit to locate retention/detention facilities off-site, (5.12.1(e))
- Please remove retention/detention facilities from jurisdictional wetlands, (5.12.1(e))
- Please preserve existing onsite areas that currently retain stormwater within the common areas and in their current state, (5.12.1(e))
- Please provide a permit by the County Engineer to fill in existing onsite detention/retention facilities where no jurisdictional wetlands are involved and provide compensatory storage capacity onsite and in the same drainage basin, (5.12.1(e))
- Please provide a waiver of stormwater management by the County Engineer allowing discharge from a development into a tidally influenced body of water, (5.12.1(e))
- Please provide erosion/sedimentation control requirements, requirements of other governmental agencies, and control of velocities of stormwater leaving the site for waivers of stormwater management into tidally influenced water bodies, (5.12.1(e))
- Please locate all retention/detention facilities, open swales (ditches), and access to these facilities in common areas, (5.12.1(f))
- Please provide (in the recorded plat) common areas for the retention/detention facilities and include provisions for maintenance in the Trust Indentures, (5.12.1(f))
- Please provide seed, fertilizer, and mulch, sodded, paved, or lined treatment in reservoir areas before Final Plat approval, (5.12.1(g))
- Please show that hydraulic elevations resulting from channel retention/detention shall not adversely affect adjoining properties, (5.11.2(c)), (5.12.1(d)(1)), (5.12.1(h))
- Please show that permanent lakes with fluctuating volume controls used as retention/detention areas have maximum ponding elevations no closer than 30 feet horizontally from any building and less than 2 feet below the lowest all elevation of any building, (5.12.1(i))

Comment Template Statements:

- Please show that permanent lakes have maximum side slopes (for the fluctuating area) of 3:1, or proper provisions are included for safety, stability, and ease of maintenance, (5.12.1(i)(1))
- Please consider the viability of permanent impoundments, (5.12.1(j)(1))
- Please note that the entire fluctuating area (or susceptible to overflow) of the permanent reservoir shall be, sodded or paved before release of surety if required by the County, (5.12.1(j)(4))
- Please obtain approval for other methods of retention/detention, such as seepage pits, trench drains, etc.,
- Please submit documentation, including but not limited to soil data, percolation data, geological features, maintenance procedures, etc., for review and consideration of other methods of retention/detention, (5.12.1(j))
- Please submit verification of adequacy, including proof of adequacy of the volume of retention for each drainage basin, tributary (2) peak runoff to the basin; balanced maximum outflow rate from the low-flow structure; ratios of inflow to outflow; sizing of the overflow facilities; stability of dikes; safety features; maintenance features; routing calculations in legible tabulated form; "Pre-dev-elopment", "Post-development" and Post-development with detention intensity/duration graphic; and additional documentation as required for complex projects, (5.12.1(k))
- Please provide calculations that demonstrate the adequacy of the system for a 2, 5, 10, 25, 50 & 100-year storm event, (5.12.1(k))
- Please provide stability and safety features if the project scope requires special attention in this area of design, (5.12.1(k))
- Please provide retention/detention facilities with obvious and effective control structures, (5.12.1(l))
- Please provide a plan view and sections of the structure with details in the plans, (5.12.1(l))
- Please show that in no case shall the discharge from a drainage basin exceed the hydraulic capabilities of the downstream drainage, (5.11.2(c)), (5.12.1(d)(1)), (5.12.1(h)), (5.12.1(i))
- Please demonstrate that the maximum overflow opening, or emergency spillway is designed to accept the total peak runoff of the improved tributary area during the base flood, (5.12.1(j)(1))
- Please provide proper engineering analysis in analyzing secondary discharge routing of greater intensity than the basic design storm to avoid economic losses or downstream damage, (5.11.2(c)), (5.12.1(d)(1)), (5.12.1(h)), (5.12.1(i)), (5.12.1(j)), (5.12.1(j)(2))
- Please review the maximum probable precipitation event, (5.12.1(j)(3))
- Please evaluate the existing downstream pipe sizing outside the developer's control jurisdiction,
- Please revise drainage so that discharge from a drainage basin does not exceed the hydraulic capabilities of the downstream drainage structures and facilities, (5.11.2(c)), (5.12.1(d)(1)), (5.12.1(h)), (5.12.1(i)), (5.12.1(j)), (5.12.1(j)(2)), (5.12.1(j)(3))
- Please provide Stormwater Detention/Retention Plan Sheets containing: a topography map of the proposed retention/detention facility area(s); existing and proposed contour lines at 1-foot intervals of the entire property and full width of all adjacent rights-of-way; all proposed pipes, control structures, headwalls, riprap, junction boxes, including location, size, and flow line elevations; detailed drawings of the control structure(s); and cross sections of each stormwater facility, (5.12.3)
- Please provide notes indicating that the retention/detention facilities are to be partially or fully operational before clearing the vegetation, (5.13.4)
- Please note that silt and debris shall be removed periodically to maintain design storage, (5.13.4)
- Please note that the responsibility for maintenance of the retention/detention facilities and drainage structures within easements shall remain with the developer until responsibility is transferred to a property owners /homeowners' association, (5.12.4)
- Please note the developer (and, after the transfer or responsibility, the property owner's association) shall keep such retention/detention facilities free of silt, debris, undergrowth, and any vegetation that would interfere with the proper function, (5.12.4)
- Please note that the association shall classify and explicitly accept responsibility for maintenance, (5.12.4)
- Please provide a letter from the owner/developer indicating the chain of responsibility for maintenance of all drainage structures or systems along with a copy of the proposed instrument of organization for the property owners/homeowners' association with the Final Plat submittal, (5.12.4)
- Please submit an ADEM-approved, PE-prepared Construction Best Management Practices Plan, (5.13.1)
- Please provide the following additional erosion control items, (5.13.1) ——
- Please provide an erosion and sedimentation control plan that is a part of the construction plans and meets the requirements of ADEM before the commencement of any land-disturbing activity, including but not limited to tree cutting and root removal, (5.13.1(a))
- Please provide the following standards in Priority Construction Sites, (5.13.1(a)) ——
- Please note that persons engaged in land-disturbing activities shall take all measures to protect all public and private property, including roadways, from damage by such activities, (5.13.1(b))
- Please apply the more restrictive rule where there is a conflict in requirements of authorities having jurisdiction, (5.13.1(c))
- Please note that the applicant shall notify the County Engineer or his/her designee as soon as the initial BMPs have been installed so that the BMPs can be inspected, (5.13.2(a))
- Please note that no land disturbing activities, except those necessary to install the BMPs, shall occur until after the inspection is complete and approved, (5.13.2(a))
- Please note that the person engaged in or conducting the land-disturbing activity shall be responsible for maintaining all temporary and permanent erosion and sedimentation measures and facilities during site development, (5.13.2(c))
- Please note that it is the responsibility for maintaining all permanent erosion and sedimentation control measures and facilities after the site development is completed shall be with the landowner until vegetative cover and site stabilization is achieved. Maintenance of these facilities lies with the landowner until assumed by other parties, (5.13.2(c))
- Please note that this the construction of all roads and bridges shall conform to the current Alabama Department of Transportation's "Standard Specifications for Highway Construction," (5.15)
- Please note that Best Management Practices for erosion control shall be used throughout construction and development. The developer shall be responsible for all erosion control in accordance with ADEM regulations and for securing any permits required by ADEM, (5.15)
- Please note that a Subdivision Permit is required from the County Engineer before the construction of any improvements can begin, (5.15)
- Please note that it shall be the duty and responsibility of the developer or contractor to schedule and coordinate a Pre-Construction Conference with all involved parties before the beginning of construction. Once this conference has occurred and all requirements have been met, the County Engineer will issue the Subdivision Permit, and construction may begin, (5.15(a))
- Please note that all contractors must be properly licensed in Alabama, (5.15(a))
- Please note that a copy of the current Alabama General Contractor's License of the prime contractor shall be provided to Baldwin County Engineer or his/her designee at the Pre- Construction Conference, (5.15(a))
- Please note that it shall be the duty and responsibility of the developer or contractor to give written notice to the County Engineer or his/her designee one working day before starting any phase of construction, (5.15(b))
- Please note that the developer or contractor shall notify the County Engineer or his authorized agent in writing the day work is resumed after a delay of more than five (5) working days. This includes all construction phases, clearing, grading, drainage, gutters, inlets, base, surfacing, and any work that pertains to the street, road, or development, (5.15(b))

Comment Template Statements:

- Please note that after all BMPs have been installed or constructed, but before any other construction takes place, the contractor shall notify the County Engineer to inspect the required BMPs in accordance with Section 5.13.2(A). (5.15(b)
- Please note that land within floodways and floodprone areas contain the following statement: "All or part of the property contained within this subdivision lies in a Floodway or Flood Plane Area as determined by the Federal Emergency Management Agency's Federal Insurance Rate Map. Purchasers of property within this subdivision are advised that the construction of improvements may be subject to additional insurance requirements and building regulations." (5.19.1)
- Please design trees within flood-prone areas to minimize flood damage and provide adequate drainage to reduce exposure to flood hazards. (5.19.2)
- Please provide base flood elevations (5.18.2(c))
- Please preserve and retain flood prone areas along existing watercourses in that natural state within a common area or drainage easement. (5.19.2)

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Table 9-6 Baldwin County Phase II MS4
MCM 5 Pollution/Good Housekeeping Strategies and Goals

NPDES Permit Section	SWMPP Section	9-Pollution Prevention/Good Housekeeping Strategies	Goal	Pollution Targeted	Responsible Departments
Part III-5aii	*9.2.6.*	*Flood Management*	*Throughout the permit cycle, within the County's MS4 boundary, evaluate flood management projects and track data in annual report.*	*Storm Water*	*Building Inspections*
2023/2024		**Project**	**Description**		
		None	None		

Table 9-6 Baldwin County Phase II MS4

MCM 5 Pollution/Good Housekeeping Strategies and Goals

NPDES Permit Section	SWMPP Section	9-Pollution Prevention/Good Housekeeping Strategies	Goal	Pollution Targeted	Responsible Departments
Part III-5aii	*9.2.6.1*	*Community Rating System (CRS)*	*During the permit cycle, track CRS public outreach and education activities and provide a summary in the annual report.*	*Storm Water*	*P&Z*
2023/2024		**Type**	**Description**		
		Training	Severe Weather Preparedness		
		Brochure	Flood Safety		
		Booklet	Flood Hazard Protection Newsletter		

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Charles F. (Skip) Gruber
Chairman

EMCEE:

Debbie Williams
WKRG 5

LOCAL METEOROLOGIST PANEL DISCUSSION:

Ed Bloodsworth
WKRG 5

Jason Smith
FOX 10

Alan Sealls
NBC 15

SPEAKERS:

ZACH HOOD
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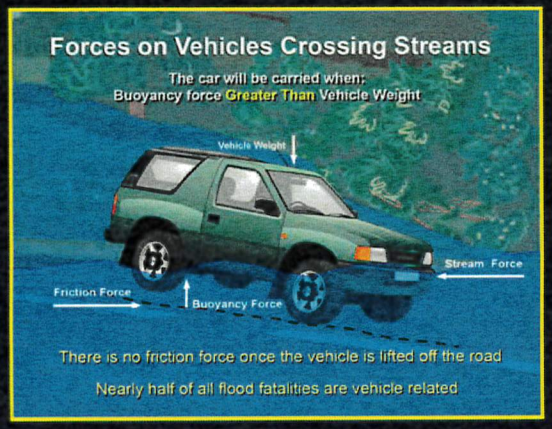
- ✓ 12 inches of moving water can carry off a small car.
- ✓ 18 to 24 inches of water can carry away larger vehicles including trucks, vans and SUVs.

If you come to an area that is covered with water, you may not know the depth of the water or the condition of the road or ground underneath. This is especially true at night, when your vision is more limited. Play it safe. Wheather driving or walking any time you come to a flooded area, Turn Around Don't Drown®.



WHEN FLOODED TURN AROUND DON'T DROWN

Learn more about Flood Safety at:

www.weather.gov/floodsafety

NATIONAL WEATHER SERVICE

Flood Safety

for you and your family

Before a Flood

- ✓ Stay informed-visit weather.gov or tune into your local news for the latest forecast.
- ✓ Determine weather your home, school or work is in an area likely to flood.
- ✓ Learn which roadways are likely to flood and find an alternative route so you can avoid them.
- ✓ Create a communications plan so your family will know how to connect during an emergency.
- ✓ Assemble an emergency kit.
- ✓ If you might be evacuated, pack your bags and include items for your pets so your're ready to leave at a moment's notice.
- ✓ Charge all essential electronics.
- ✓ Be proactive-leave before the floooding starts to avoid getting stranded.

Image from the FEMA Photo Library

During a Flood

- ✓ Stay informed-tune into your local news for updates on flooding in progress.
- ✓ Get to higher ground if you are in an area that is subject to flooding.
- ✓ Follow evactuation orders and heed warning signs.
- ✓ If you have time before you evacuate, disconnect utilities and appliances.
- ✓ Avoid flood waters. It is NEVER safe to drive or walk through flood waters.

After a Flood

- ✓ Stay informed-tune into your local news for updates on affected areas and the safety of your drinking water.
- ✓ Avoid floodwaters-standing water can hide chemicals that can make you sick, power lines that can cause electrocution and sharp debris that can seriously harm you.
- ✓ Avoid disaster areas-your presence may hamper emergency operations.
- ✓ Heed road closure and cautionary signs.
- ✓ Wait for the "all clear" before returning to an area that was impacted by flooding.
- ✓ Contact your family and loved ones to let them know you're ok.

Image from the FEMA Photo Library

For more information, visit

www.weather.gov/floodsafety/

For Local Weather Information

Area Television Stations

Channel **3** (ABC) WEAR TV
Channel **5** (CBS) WKRG TV
Channel **10** (NBC) WALA TV
Channel **15** (FOX) WPMI TV
Channel **44** WJTC TV

Area Radio Stations

WABB AM/FM (1480)
WABF AM (1220)
WAVH FM (106.5)
WBCA AM (1110)
WBHY AM (840)
WBHY FM (88.5)
WBLX FM (92.5)
WBUB FM (104.1)
WDLT FM (98.3)
WDLT AM (600)
WGOK AM (900)
WHEP AM (1310)
WHIL FM (91.3)
WJLQ FM (100.7)
WKSJ FM (94.9)
WMXC FM (99.9)
WMOB AM (1360)
WNTM AM (710)
WNSP FM (105.5)
WPCS FM (89.3)
WQUA FM (102.1)
WRKH FM (96.1)
WTKK FM (TK-101)
WUWF FM (91)
WXBM FM (102.5)
WXWY AM (100)
WZEW FM (92.1)

Survive Severe Storms!

A Weather Radio Can Be a Good Investment

Protect yourself and your family from disasters! During or after an emergency, it might be several days before vital services are restored. NOAA emergency alert weather radios activate to provide you with immediate information about life threatening events, giving you extra time to prepare and evacuate if necessary.

Important Contact Information

Baldwin County Building Inspection
(251) 972-6837

Baldwin County Planning and Zoning
planning@baldwincountyal.gov
(251) 580-1655

Baldwin County Highway Department
(251) 937-0371

Baldwin County Highway – Permitting (Subdivision) Division
(251) 937-0278

Baldwin County Emergency Management

Central Region	(251) 972-6807
North Region	(251) 937-0317
Eastern Shore	(251) 990-4605

Community Rating System Program (CRS) Coordinator
(251) 580-1655 ext. 7230

Baldwin County Planning & Zoning Department

www.planning.baldwincountyal.gov

Main Office – Mailing
22251 Palmer Street
Robertsdale, Al. 36567
Main Office—Physical
22070 Highway 59
Robertsdale, AL 36567
(251)580-1655
Foley Satellite Office
201 East Section St.
Foley, AL 36535
(251) 972-8523

If you would like to be notified of other information on zoning and development in your area and throughout Baldwin County, please sign up to receive our "Get Notified" emails. Once subscribed you will receive via email our quarterly newsletter, agendas for upcoming meetings, action reports and other news and information. To subscribe, visit https://open.baldwincountyal.gov/pandzsubscribe. The service is free and users will be able to subscribe or unsubscribe the list at will.

Baldwin County Commission Planning and Zoning Department

Flood Hazard Protection Newsletter

April 2023

Sink or Swim? Bringing Communities Together to Tackle Flooding

Flooding affects all communities in coastal Alabama. It's important to have a forum or "user group" where local communities can meet, share, learn, and communicate information about flooding and how to improve flooding management and outreach. To help meet this need, a flooding user group, the South Alabama Flood Engagement Team (SAFE-T) was formed as part of the Community Resilience Initiative (CRI). CRI began in 2016 and is a collaborative effort led by the Alabama Department of Conservation and Natural Resources and Weeks Bay Reserve with funding from the National Oceanic and Atmospheric Administration or NOAA. An advisory team that includes the Alabama Department of Economic and Community Affairs, Baldwin County Soil and Water Conservation District, City of Orange Beach, Coastal States Organization, FEMA, Grand Bay National Estuarine Research Reserve, MS-AL Sea Grant, NOAA, Smart Home America, and South Alabama Regional Planning Commission collaborates with communities in Mobile and Baldwin Counties to address flooding and floodplain management problems. SAFE-T was created as a network of practitioners to increase floodplain management capacity through shared challenges, solutions, and resources.

To establish SAFE-T, partners in the project reached out to floodplain managers, consultants, and community officials to establish the group's foundation and the first meeting was held in July 2018 with a goal to meet quarterly thereafter. Since that inaugural gathering, 15 meetings and trainings have been held with a range of participant expertise from both sides of Mobile Bay, including municipal and county floodplain managers, engineers, emergency managers, surveyors, insurance agents, and realtors. Throughout 2018 and 2019, SAFE-T met in-person, typically over a good hot lunch. Topics discussed have included government versus private market flood insurance, elevation certificates, data-driven flood research, and how local communities are using drones to communicate post-disaster conditions.

SAFE-T organizers faced a challenge in 2020 amidst the COVID-19 pandemic. How do you keep the ball rolling on an initiative whose goal is to bring people together during a time when in-person gatherings are discouraged? To keep up SAFE-T's momentum and also continue to offer professional education credit opportunities for the group's attendees, SAFE-T has transitioned to a virtual forum (for now). When asked about training needs over the past several years, learning more about FEMA's process to revise flood insurance rate maps has been a consistent theme among the group. This past October, SAFE-T organizers partnered with Alabama Department of Economic and Community Affairs and Wood Consulting to offer two, 3-hour virtual trainings for community officials and those making flood map change requests. In total, nine webinars and virtual trainings have been held so far, on topics including sea-level rise, hurricanes and global warming, environmental justice, and facilitating virtual meetings.

Most recently, a virtual introduction to FEMA's Community Rating System was held this January. The Community Rating System is a program that rewards communities for taking flood management actions that go above and beyond minimum standards. Communities received "points" for these efforts, and property owners in that community are rewarded with a discount on their flood insurance premiums. Of the 27 communities in coastal Alabama, five are currently participating in the program—Dauphin Island, Baldwin County, Foley, Gulf Shores, and Orange Beach. Alabama lags in participation compared to nearby states, so a long-term goal of the Community Resilience Initiative project has been to encourage more participation.

For the immediate future, SAFE-T will continue to bring flood management professionals together over our computer screens and telephones. We look forward to the day we can meet (and eat) together again in person to tackle flood issues.

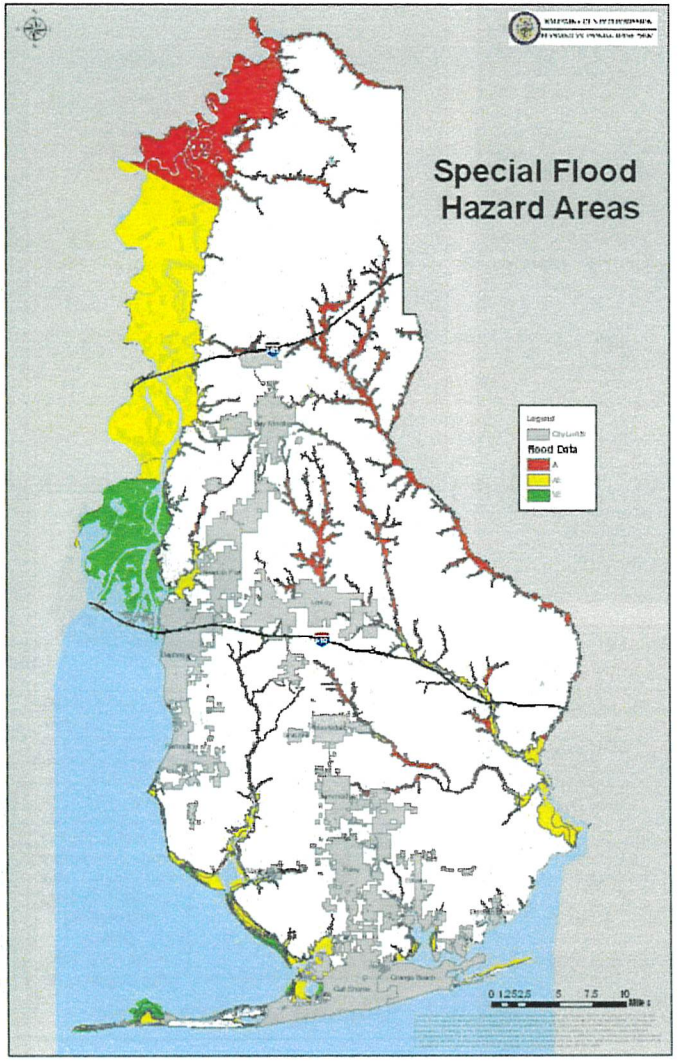
Article courtesy of Mike Shelton and Amy Gores

Baldwin County Special Flood Hazard Areas Map

Baldwin County is comprised of approximately 1,596.3 square miles (1,067,231 acres) of which 188,628 acres is in the A, AE and VE flood zones.
The Baldwin County Inspection Department maintains FIRM maps. These maps are available for public inspection during normal business hours. They may also be viewed at your local library. Elevation Certificates for the past few years may also be obtained at the Baldwin County Inspection Department. Staff is available to assist you with the following information:

* Whether a property is located within an NFIP or County mapped flood zone.
* FEMA flood zone and regulatory base flood elevation.
* FEMA Elevation Certificate, if available. The Elevation Certificate is an essential tool used to accurately rate flood insurance policies.
* Information on mandatory flood insurance purchase requirements.
* Regulatory provisions that may apply to your property.
* If available, whether or not the property has ever suffered any flood damage.

Upon written request, you may obtain a map of your property as it relates to a local flood hazard area. Contact the Baldwin County Planning & Zoning Department or visit their website at www.planning.baldwincountyal.gov.



Track the Tides is a citizen science project led by Weeks Bay Reserve that aims to increase awareness and local knowledge of nuisance flooding among residents of Fish and Magnolia Rivers and provide researchers with valuable data on these flood events. Nuisance flooding, sometimes referred to as high tide flooding, occurs when local sea level temporarily rises above the minor flooding threshold set locally by NOAA's National Weather Service. These floods happen in the absence of storm surge or riverine flooding. When water levels surpass the threshold, different threats to public safety arise. Communities might be faced with road closures, damage to infrastructure, and overwhelmed storm drains (Alabama - State Summaries 2019 (ncics.org).

The project utilizes educational trainings to fill in the gaps concerning what nuisance flooding is and the regional impacts on coastal communities. Following the trainings, willing participants host a stream gauge that is used by the homeowner to monitor and report water depth during flood events. Stream gauges, also known as staff gauges or water depth gauges, are vertical boards with graduated markings – like a large ruler - that indicate water depth. The gauges are installed by Reserve staff during periods of low precipitation and calm conditions at a water correlating with water level measurements at the Weeks Bay Tide station. These low-profile gauges are installed on waterfront owner's decks or boathouses and project participants simply snap a photo of the water level reading and submit the image via text to researchers at the Reserve. An additional project goal is to record how often and to what extent localized flooding occurs due to rainfall and storm events outside of what would be considered a "nuisance" flood. Therefore, select sites are asked to host rain gauges to collect precipitation data at key locations throughout the Weeks Bay watershed.

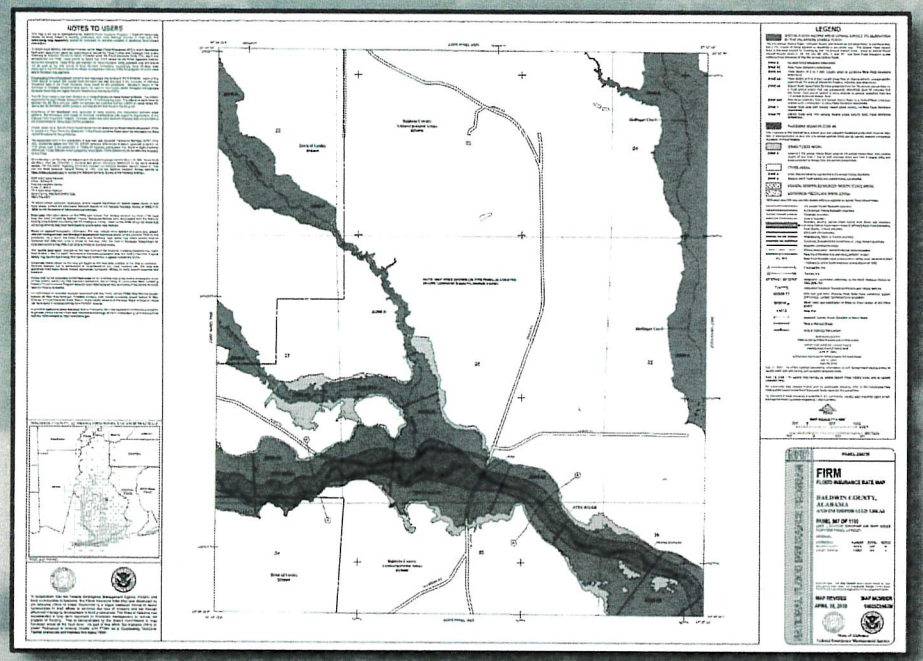
Finally, the Track the Tides project also aims to increase awareness about marine debris and steps homeowners can take to prevent litter from entering waterways. Anything from coolers to those colorful flamingo lawn ornaments can be swept up in a flood event. Many man-made materials are persistent and, when they are either intentionally or unintentionally introduced into the watershed, contribute to the larger plastic pollution problem that plagues our estuaries and world oceans. Marine debris can impact shorelines, disrupt food webs, and significantly decreases the aesthetic value of waterfront property and the ability to appreciate nature's beauty and restorative properties.

All the data collected from this project can be used to track the timing and influence of tides and rainfall events on water depths within the rivers. When it is compared to precipitation data, researchers can better understand the timing and extent of localized flooding from storm events. A better understanding of these dynamics will help inform management decisions for protecting homeowners and the environment during nuisance flood events. If you think you might be interested in learning more or hosting a staff gauge, contact the Reserve at (251) 928-9792 or e-mail Stewardship Coordinator Eric Brunden at eric.brunden@dcnr.alabama.gov

Nuisance flood - Flooding that causes public inconveniences such as road closures and overwhelmed storm drains, etc. sometimes referred to as high tide flooding. Generally localized, a high-tide flooding event occurs when local sea level temporarily rises above an identified threshold height for flooding, in the absence of storm surge or riverine flooding.
Want to mention our interest in all flood events – track changes in height, periodicity, length of time.

Soliciting volunteers who live on the Fish and Magnolia Rivers willing to help us track water depth over time by hosting site to install stream gauge - Volunteers will photograph stream gauge and send image to Reserve. Rain data stored within rain gauge periodically collected by Reserve staff.
Stream gauges installed by Reserve staff at a level that correlates with measurement recorded at the Weeks Bay Tide station.
Rain gauges installed at volunteers homes at key locations throughout watershed.
Will use data to track timing and influence of tide on the water depths within rivers, record time and extent of localized flooding caused by storm events and compare with precipitation data.
Possible use with future modeling efforts

Article courtesy of Eric Brunden



New flood maps for Baldwin County were approved in April 2019. All property owners should check with the Baldwin County Building Department to see if the flood zone on their property has changed. Many parcels were included in the New maps and will now require flood insurance.. *Baldwin Co. Bldg. Dept. 251-972-6837 / 251-990-4641 / 251-580-1886*

Baldwin County is an active participant in the National Flood Insurance Program (NFIP), which provides federally backed flood insurance in communities that enact and enforce floodplain regulations. Since its inception in 1968, the program has been successful in helping flood victims get back on their feet. This is important since property owners who hold a federally backed mortgage must purchase flood insurance if the property is located within a Special Flood Hazard Area (SFHA).

Baldwin County began its participation in the NFIP Community Rating System (CRS) Program in 1994. The CRS Program was developed by the Federal Insurance Administration to provide incentives for NFIP communities to implement more stringent floodplain standards than the minimum NFIP requirements. The CRS rewards these efforts with discounts on flood insurance premiums. The CRS uses a rating system to determine the amount of discount - the better the rating, the more the discount will be. Baldwin County currently holds a Class 7 CRS rating, which equates to a 15% discount on new or renewing flood insurance policies for all SFHA properties.

Since flooding is the most common natural disaster, it is important that you obtain the maximum protection. You can purchase flood insurance irrespective of where you reside in high, moderate, or low risk areas, and there is no exclusion as to what type of ownership you represent (i.e. homeowner, renter or business owner).

To help protect property and reduce potential losses due to flooding, please refer to this fact sheet in the event of an impending hurricane, tropical storm or notification of projected heavy rainfall. During extended periods of heavy rainfall, low-lying areas within the County are at risk for flooding. Visit the FEMA website (www.fema.gov) for more information on the National Flood Insurance Program (NFIP).

Baldwin County's Storm Ready Flood Warning System

Baldwin County has been designated as a StormReady Community by the National Weather Service. StormReady communities are better prepared to save lives from the onslaught of severe weather through advanced planning, education and awareness. No community is storm proof, but StormReady can help communities save lives.

Baldwin County's Emergency Management Agency uses several warning devices to warn residents and visitors of storms and potential rising water hazards.

A REVERSE 911 system was purchased in 2004 and allows Emergency Management to link its E911 telephone databases and existing GIS Mapping Systems to target a precise geographic area and quickly notify individuals in the event of a disaster or threat. Reverse 911 messages are prerecorded messages sent to home phones that are nonrestrictive and cell phones that are registered with the Emergency 911 Agency. The system has the capability to send messages via text and TTY/TDD calling for the hearing impaired.

Flood warnings are disseminated by the Emergency Alert System through local radio and television stations and by NOAA Weather Radio at 162.400 or 162.550 MHz depending on your location.

In the event of flood hazards, tune into local Radio and TV Stations for information. *(See back page for complete listing of local station identification numbers)*

The County provides real-time information regarding high water, road closures, and evacuation routes through Changeable Message Signs. Warnings may also be issued to affected businesses and residences by mobile public address systems on emergency vehicles. When you hear these messages you should follow the instructions and tune to your radio and TV stations for more information.

For additional information regarding Baldwin County's flood warning program, contact Baldwin County Emergency Management Agency at 251.972.6807.

Flood Monitoring Stations Aid in Early Detection of Rising Waters

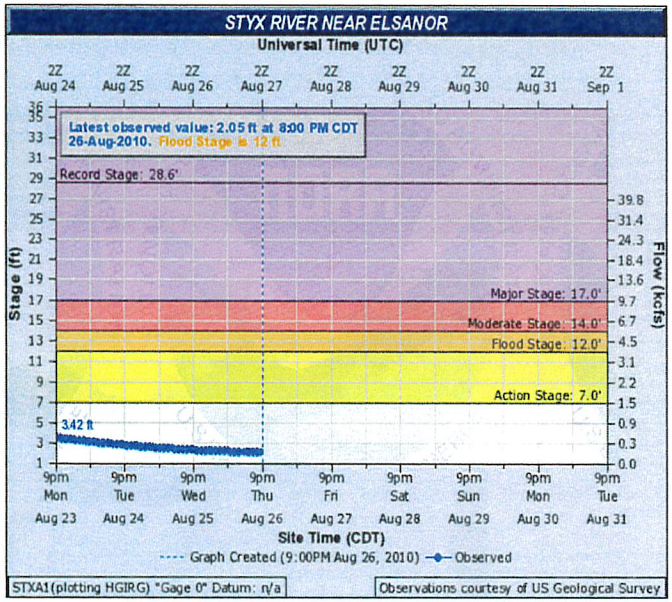
Flood monitoring stations are located on the Fish, Magnolia, Styx, Mobile and Perdido Rivers. These stations are monitored by the National Weather Service and Baldwin County Emergency Management Agency. This information is used to monitor stream flow and stream height for early detection of rising water. This monitoring allows emergency personnel to make better decisions about warning people in flood prone areas.

You can access forecasts online as well as weather discussions, radar information, and satellite photos through the National Weather Service flood forecast site which can be viewed at:

http://www.srh.noaa.gov/mob/?n=rivers

Additional USGS stream gages are located on the Fish River near Silverhill; the Magnolia River at US Highway 98; Wolf Creek below Foley; and the Styx River near Loxley. Data from these sites can be found on the USGS website at

http://waterwatch.usgs.gov/



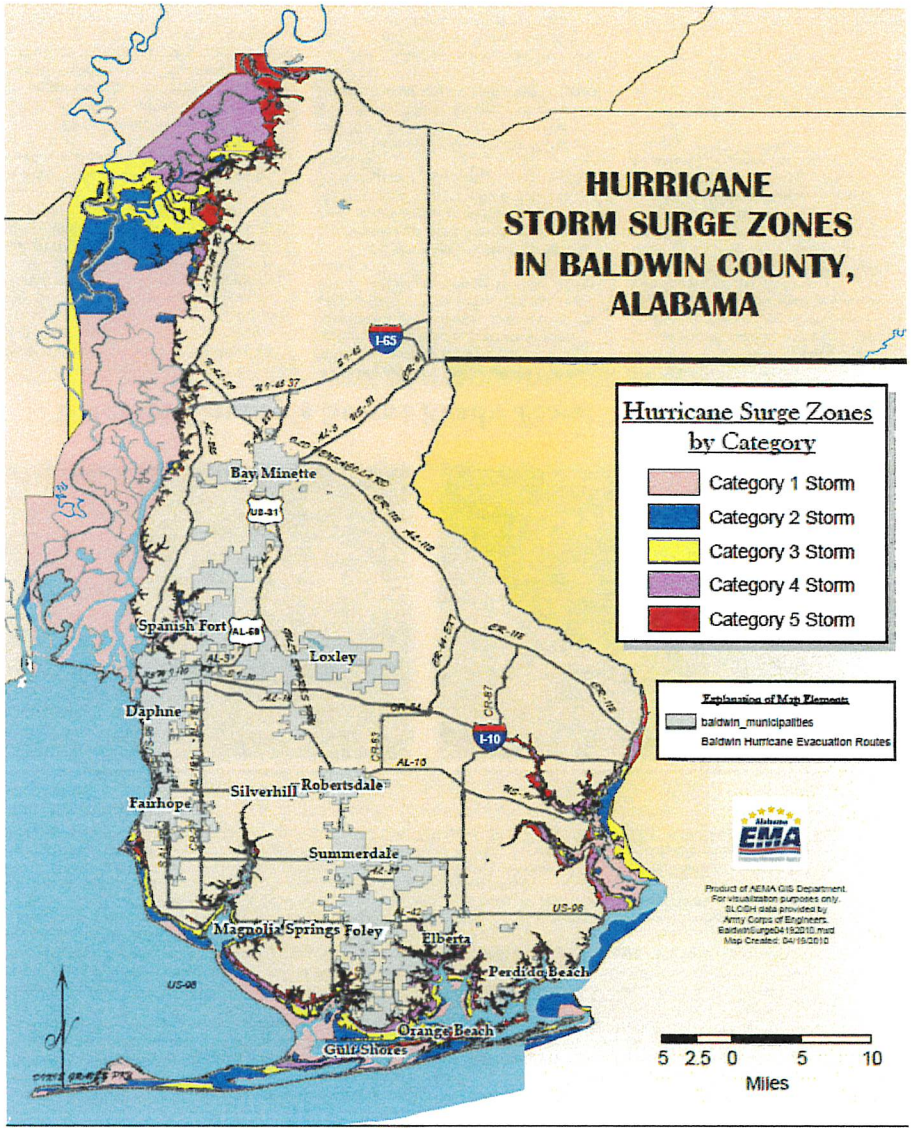
Flood Terms to Know!

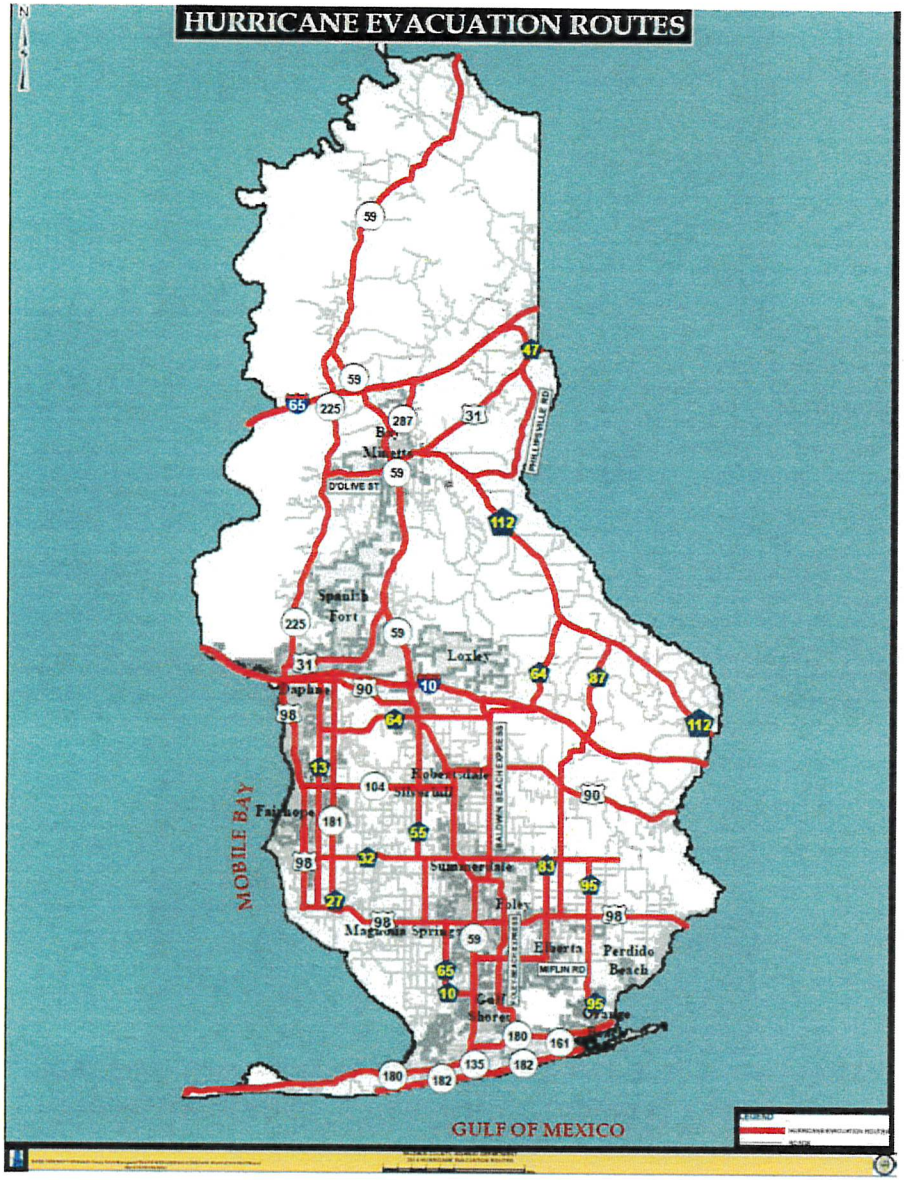
FLOOD WATCH: Flash flooding is possible within the watch area.

FLASH FLOOD WARNING: Flash flooding is imminent or has been reported in the warning area and evacuation is advisable.

*A flash flood is caused by excessive rainfall in a short period of time, generally less than 6 hours.

*When a flash flood warning is issued you may have 30 minutes or less to act. Therefore, you should preplan the actions you will take when a flood warning is issued.





Baldwin County Flood Hazard Facts

Some of the more prominent water bodies internal to the county include: Bay Minette Creek, Styx River, Blackwater River, Fish River, Magnolia River, Weeks Bay, Bon Secour River, the Gulf Intracoastal Waterway, Oyster Bay, Wolf Bay, Soldier's Creek and Palmetto Creek. Approximately 22 percent of the land in Baldwin County is considered wetland.

Baldwin County has suffered from numerous major flood events brought on by intense or prolonged rainfall and resulting in loss of life and millions of dollars in property damage. Based on historical information, the county can expect an average of 2.5 flood events per year.

Most flooding occurs along the Fish River located in the southwestern portion of the county and Styx River in the central eastern portion of the county. Other rivers and creeks in the county include the Mobile River, Perdido River, Bay Minette Creek, Hollinger Creek and their tributaries. The cities of Gulf Shores and Orange Beach and the Fort Morgan Peninsula are at the greatest risk for coastal flooding.

Baldwin County is located in southwestern Alabama on the Gulf of Mexico. The county encompasses an area of approximately 1,596.35 square miles and is bordered to the northwest by Washington County, to the north by Clarke and Monroe Counties, to the east by Escambia County, Florida, to the south by the Gulf of Mexico, and to the west by Mobile County. The County seat is in the City of Bay Minette which is located in the north central part of the county. A majority of Baldwin County is entirely surrounded by water, except for a 17– mile stretch along the northeastern border.

- It is surrounded by Mobile Bay, the Tensaw River, and Mobile River to the west; Little River to the north; Perdido River and Perdido Bay to the east; and the Gulf of Mexico to the south.
- There are approximately 1800 miles of streams and rivers in Baldwin County identified in the United States Census Bureau (USCB) TIGER files.

Hurricane & Tropical Depression Events that have affected Baldwin County since 2004

Hurricane Ivan -2004
Hurricane Katrina -2005
Hurricane Gustav-2008
Tropical Storm Ida-2009
Heavy Rains-March 26-27-2009
Historic Flooding-April 29-30, 2014

Flood Insurance Is For Your Financial Protection

It's Never Too Early to Purchase A Flood Insurance Policy

Being prepared for a flood includes having flood insurance. With floods, there is usually some resulting loss or damage of property. Unfortunately, homeowners' insurance policies do not cover flood damage. However, flood insurance coverage is available under the NFIP for participating communities with the exception of the Coastal Barrier Resources Act (COBRA) areas along the Fort Morgan Peninsula. In these areas, private flood insurance may be available.

Many people think they don't need flood insurance because federal disaster assistance will bail them out. But floods are not always declared a federal disaster area. Even when they are, aid is usually in the form of a loan, which must be paid back with interest. Flood insurance on the other hand, pays for all covered losses, and unlike loans, that money doesn't have to be paid back. You can cover your home's structure for up to $250,000, and its contents for up to $100,000. For businesses, structural coverage is available up to $500,000, and up to $500,000 for contents.

As a result of participating in the Community Rating System Program (CRS), Baldwin County has successfully reduced flood insurance premiums by 20% resulting in a savings to the citizens of Baldwin County. A 10% discount is provided for non-SHFAs. Instead of paying higher premiums, the money saved hopefully stays in the community.

Currently Baldwin County has 9,783 flood insurance policies in force which estimates to $2,126,335,400 respectively. Since inception into the NFIP, there have been 6,985 losses paid totaling approximately $204,410,128.

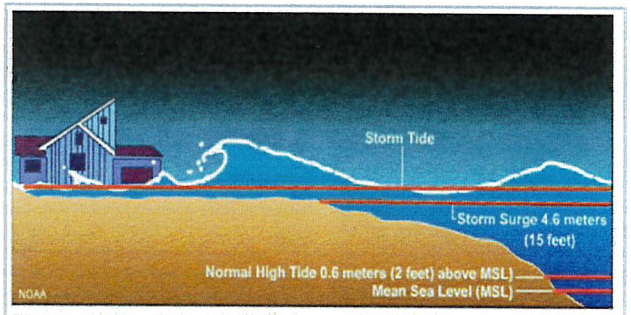
There are 6,080 policies in force in the SFHA, with an average premium (after 15% discount) of $621 which is a savings of $110 and a savings to the citizens of Baldwin County of $666,617. There are 1929 policies in force in the Non-SFHA, with an average premium (after 5% discount) of $334 which is a savings of $33,948.

For more information about flood insurance, property owners and potential buyers should contact their local insurance agent or call the toll-free information line for the National Flood Insurance Program (NFIP) at 1-800-427-4661.

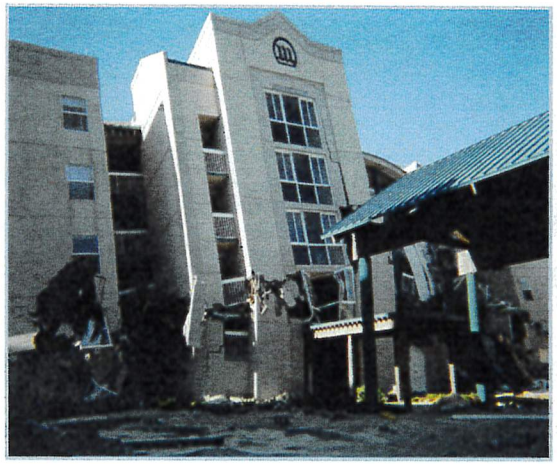
Storm Surge Can Cause Sweeping Damage

Wave and current action associated with the tide cause extensive damage. Water weighs approximately 1,700 pounds per cubic yard; extended pounding by frequent waves can demolish any structure not specifically designed to withstand such forces.

The current created by the tide combine with the action of the waves to severely erode beaches and coastal highways. Many buildings withstand hurricane force winds until their foundations, undermined by erosion, are weakened and fall.



Storm surge is a large dome of water, often 50 to 100 miles wide, that sweeps across the coastline where a hurricane makes landfall. The storm tide is the combination of the storm surge and the astronomical tide.



The level of surge in a particular area is also determined by the slope of the continental shelf. A shallow slope off the coast will allow a greater surge to inundate coastal communities. Communities with a steeper continental shelf will not see as much surge inundation although large breaking waves can still present major problems. Storm tides, waves, and currents in confined harbors severely damage ships, marinas, and pleasure boats.

In general, the more intense the storm, and the closer a community is to the right-front quadrant, the larger the area that must evacuate. The problem is always the uncertainty about how intense the storm will be when it finally makes landfall. Emergency managers and local officials balance the uncertainty with the human and economic risks to their community. This is why a rule of thumb for emergency managers is to plan for a storm one category higher than what is forecast. This is a reasonable precaution to help minimize the loss of life from hurricanes.

Top 10 Facts Everyone Should Know About The National Flood Insurance Program (NFIP)

1. Everyone Lives in a Flood Zone

You don't need to live near water to be flooded. Floods are caused by storms, melting snow, hurricanes and water backup due to inadequate or overloaded drainage systems, dam or levee failure etc.

2. Flood Damage Is Not Covered by Homeowner's Policies

You can protect your home, business, and belongings with flood insurance from the National Flood Insurance Program. You can insure your home with flood insurance for up to $250,000 for the building and $100,000 for your contents.

3. You Can Buy Flood Insurance No Matter If Your Flood Risk Is High, Medium or Low

It doesn't matter whether your flood risk is high, medium or low, you can buy flood insurance as long as your community participates in the National Flood Insurance Program. And, it is a good idea to buy for low or moderate risks— almost 25 percent of all flood insurance claims come from low and moderate risk areas.

4. Flood Insurance Is Easy To Get

The average flood insurance policy costs a little more than $300 a year for about $100,000 of coverage. In comparison, a disaster home loan can cost you more than $300 a month for $50,000 over 20 years.

5. Contents Coverage Is Separate, So Renters Can Insure Their Belongings Too

Up to $100,000 contents coverage is available for homeowners and renters. Whether you rent or own your home or business, make sure to ask your insurance agent about contents coverage since it is not automatically included with building coverage policies.

Flood Insurance Is Affordable

6.

The average flood insurance policy costs a little more than $300 a year for about $100,000 of coverage. In comparison, a disaster home loan can cost you more than $300 a month for $50,000 over 20 years.

There Is a Low-Cost Policy for Homes in Low to Moderate Risk Areas

7.

The Preferred Risk Policy is available for just over $100 a year. You can buy up to $250,000 of coverage for your home and $60,000 of coverage for your contents.

8. There is Usually a 30-Day Waiting Period Before Coverage Is Effective

Plan ahead so you're not caught without flood insurance when a flood threatens your home or business.

Federal Disaster Assistance is Not the Answer

9.

Federal disaster assistance is only available if the President of the United States declares a disaster. More than 90 percent of all disasters in the United States are not presidentially declared. Flood insurance pays even if a disaster is not declared.

10. Up To $1 Million of Flood Insurance Coverage Is Available for Non-Residential Buildings and The Contents

Up to $500,000 of coverage is available for non-residential buildings and up to $500,000 of coverage is available for the contents of non-residential buildings.

For more information about flood insurance, property owners should contact their local insurance agent or call the toll-free information line for the National Flood Insurance Program (NFIP) at: 1-800-427-4661.

The Four Stages of Flood Safety

Flood safety protection measures should be taken in four stages: Preparatory Flood Warning, Flood Warning, During the Flood and After the Flood.

Preparatory Flood Warning

- Have a stock of food that requires no cooking.
- Have a first aid kit available.
- Have your vehicle fueled.
- Consider purchasing flood insurance for your home and belongings. Homeowner's insurance does *NOT* cover flooding.
- Tune in to a radio, television or NOAA Weather Radio for flood warnings.
- Obey warnings from officials - evacuate when a notice is issued.
- Know your evacuation zone and route to a place of safety.
- Know what supplies to take with you.
- Be cautious and avoid flood-prone areas when leaving.
- Steps should be taken to reduce property losses:
  - Move outdoor furniture and carry downstairs furniture to upper floors or higher locations.
  - Sandbags can help slow down floodwaters to keep them from reaching your possessions.
  - Know what your current insurance policy does and does not cover. By retrofitting, you can minimize loss prior to floods by building floodwalls, elevating a structure, etc.

Flood Warning

- Store drinking water in sterile, covered containers.
- Move valuable objects higher. Place them on shelves, tables and countertops.
- Shut off electricity, gas and water to your home prior to leaving.
- Leave early enough to avoid traffic congestion.

During the Flood

- Stay on higher ground.
- Do not drive on a flooded road - more people drown in their cars than anywhere else. Do not drive around road barriers; the road or bridge may be washed out.
- If your vehicle stalls, abandon it immediately and seek higher ground.
- Do not attempt to wade across a flowing stream that is above your knees. Drowning is the number one cause of flood deaths, mostly during flash floods. Currents can be deceptive; if you walk in standing water, use a pole or stick to ensure that the ground is still there.
- Stay away from power lines and electrical wires. Electrical current can travel through water.
- Look out for Animals. Consider shelters where animals are allowed.

After the Flood

- Do not eat food that has come into contact with floodwater.
- Drink only bottled water or previously stored water.
- Look before you step. The grounds and floors may be covered with debris including broken bottles and nails. Floors and stairs that have been covered with mud can be slippery.
- Stay away from disaster areas. You may hamper rescue or recovery operations.
- Do not handle live electrical equipment.
- Do not allow children to play in standing water. It may be contaminated with chemicals or sewage.
- Use a flashlight to inspect for damage. Don't smoke or use candles, lanterns or open flames unless you know the gas has been turned off and the area has been ventilated.
- Report downed power lines to the local power company, Emergency Management Agency or local law enforcement authorities.
- Keep tuned in to local radio and television stations for instructions on how to obtain medical care and emergency assistance, such as water, food, clothing, shelter and further weather reports and conditions.

The Natural & Beneficial Functions of Wetlands and Storm water Management

The wetlands within Baldwin County are indispensable and fragile natural resources with significant development constraints due to flooding, erosion and soil limitations. When portions of floodplains are preserved or restored to their natural state, they provide many benefits to both human and natural systems. Open space resource areas adjacent to floodplain areas increase aesthetics and recreational opportunities; reduce the number and severity of floods, help handle storm water run-off, and minimize non-point water pollution.

Protecting freshwater and coastal wetlands is a critical goal of Baldwin County. Not only do wetlands add significant fish and wildlife habitat to the shore land area, but wetlands play an essential role in preserving water quality by functioning as a buffer for associated water bodies. According to the Southeast Watershed Forum, one acre of fresh water wetlands are valued at $630 each year for water quality, $594 for flood retention, $539 for recreational fishing and $1,832 for bird watching. Baldwin County has a wetland protection overlay district in all zoned areas that covers approximately 280,831 acres. The purpose of the wetland protection overlay district is to promote wetland protection, while taking into account varying ecological, economic development, recreational and aesthetic values.

Wetlands also mitigate flood damage by serving as flood storage areas, minimizing erosion damage to shorelines by slowing the velocity of runoff and replenishing groundwater supplies. American Rivers, a non-profit conservation organization, found that one wetland acre saturated to a depth of one foot holds 333,000 gallons of water, which can flood thirteen average homes thigh-deep. This wetland function protects downstream property owners from flood damage. The velocity of floodwaters decreases when met with resistance from the wetland vegetation, this decrease reduces the water's erosive potential and results in smaller, less severe flooding events.

Wetlands within Baldwin County are indispensable and fragile natural resources with significant development constraints due to flooding, erosion and soil limitations. In their natural state, wetlands serve man and nature. They provide habitat areas for fish, wildlife and vegetation; water quality maintenance and pollution control; flood control; erosion control; natural resource education; and many other causes. Damaging or destroying wetlands threatens public safety and the general welfare. It is therefore necessary for Baldwin County to ensure maximum protection for wetlands by discouraging development activities that may adversely affect wetlands.

Baldwin County regulates Storm water Management policies through the Subdivision Regulations for all new developments. Developments that increase storm water runoff are required to construct storm water management facilities. Baldwin County has provisions that impose requirements for land disturbing activities that require planning and implementation of effective sedimentation controls for individual lots and subdivision development sites. For more information on Erosion, Sedimentation or Storm water Management requirements for new developments, contact the Baldwin County Planning & Zoning Department at 251.580.1655 or the Subdivision Permitting Department at 251.937.0278. Both the Baldwin County Subdivision Regulations and Baldwin County Zoning Ordinances are available online at www.planning.baldwincountyal.gov

Help Reduce Your Risk Of Damage

County Inspection Departments and local libraries. To learn more about property protection measures, visit FEMA's website at HTTP://www.fema.gov/rebuild/mitigation.shtm and Baldwin County's website under www.planning.baldwincountyal.gov

FEMA provides grants, in certain situations, for property protection measures that reduce disaster losses and protect life and property from future disaster damages. Projects must provide a long-term solution to a problem. These grants are made to the state or local government rather than to the homeowner directly and often have a cost-share requirement. To learn more about these programs, contact the Baldwin County Inspection Department or visit FEMA's website at http://www.fema.gov/government/grant/hma/index.shtm

A new 3-foot concrete slab foundation was poured before elevating this house on cinder block piers to mitigate against flooding.

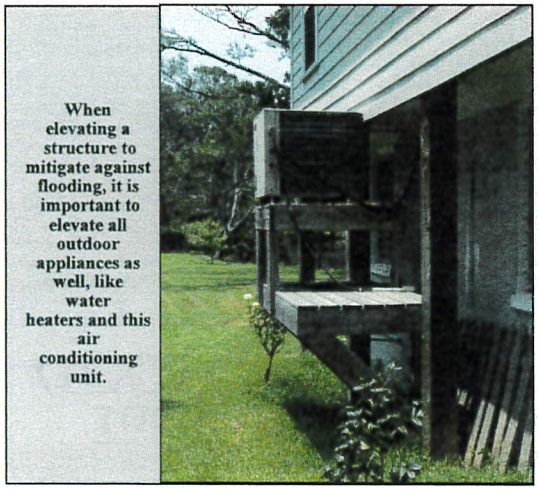
Flood Safety Measures Every Family Needs to Know

To reduce your risk of injury during a flood:

- Do not attempt to cross a fast flowing stream where water is above your ankles.
- Keep children away from rivers, ditches, culverts and storm drains.
- Do not travel on flooded roads or through dip sections.
- Never drive past a "Road Closed" barrier.
- If your home will be affected by flood waters, turn off all electric circuits at the fuse panel or disconnect switch
- Evacuate the flood hazard area in times of impending flood or when advised to do so by the Sheriff, Police or Fire Departments.
- Prepare a family plan that covers activities before, during and after flood emergencies.

Flood Protection Measures Can

New Construction MUST be elevated to Base Flood Elevation. A finished elevation certificate must be provided prior to final inspection.



When elevating a structure to mitigate against flooding, it is important to elevate all outdoor appliances as well, like water heaters and this air conditioning unit.

Every year, flooding causes more property damage in the United States than any other type of natural disaster. While construction practices and regulations have made new homes less prone to flooding, many existing structures remain susceptible. You can protect your property through a variety of measures that can vary in complexity and cost. Raising a house above the flood level is the best property protection method short of moving the building entirely out of the floodplain. If a building cannot be removed from harm's way, it can be protected on site. In areas of low flood threat, such as infrequent shallow flooding, barriers, and dry and wet flood proofing, can be effective approaches. Other property protection measures you can take include:

*Annually inspect your hurricane straps for corrosion and replace them if necessary.

*Annually inspect your pilings and floor system for splitting, rotting, termite damage, or rusted connecting bolts if your home is on pilings.

*Raise your furnace, water heater, and electric panel to higher floors or the attic if they are in areas of your home that may be flooded. Raising this equipment will prevent damage. An undamaged water heater may be your best source of fresh water after a flood.

*Avoid backflow of sewer lines by closing off all sewer line entries into the house. As a last resort, when floods threaten, use large corks or stoppers to plug showers, tubs, or basins.

*Seal walls in basement with waterproofing compounds to avoid seepage through cracks.

*Move furniture and any other valuables to higher floors.

*Keep materials like sandbags, plywood, plastic sheeting, and lumber handy for emergency waterproofing.

*Keep insurance policies, documents, and other valuables in a safe-deposit box.

*Keep watercourses free of fill/debris. Many people fail to recognize how regarding their yard, filling a wetland, or discarding debris in a watercourse can cause a problem to themselves and others.

There are publications and assistance in property protection available at the offices of the Baldwin

Floodplain Regulations Help Protect Property & Encourage Responsible Development

The unique natural water resources that distinguish Baldwin County as a top choice for living, recreation and employment, also require unique land use measures to protect and maintain them for future generations. Baldwin County's floodplain regulations are intended to protect private and public property, protect the environment, encourage responsible development and prevent the degradation and deterioration that results from unrestricted use and development.

Always check with the County Planning and Building Inspection Departments before you build, fill, alter, or grade on your property. All new developments, or any alterations, additions, or modifications to your building or land require a permit. Before you begin construction find out which permits and building standards apply by contacting the Baldwin County Building Inspection Department, Planning and Zoning Department, or the Highway Department to determine if you will be required to obtain a permit or to report any possible unauthorized development within the floodplain.

In addition to regular building permits, special regulations apply to construction in the floodplain and in floodways. No construction, including filling, is allowed in the mapped floodway without an engineering analysis that shows the project will not increase flood damage elsewhere. Any activity outside the floodplain but within a natural or man-made watercourse also requires a permit.

Elevation or flood-proofing may be required if you plan to substantially improve your existing structure located within a FEMA flood zone (the cost of the improvement or addition is 50 percent of the value of the existing structure). If your property is substantially damaged, Federal regulations may require you to elevate or floodproof as you rebuild. The document titled – "Answers to Questions about Substantially Damage Buildings" (FEMA-213, May 1991) will help answer questions on this topic and can be obtained free by calling 1-800-480-2520 or by online access at http://www.fema.gov/library.

If you suspect suspicious activity on whether or not a site obtained a permit, or was required to obtain a permit, contact the Baldwin County Planning & Zoning Department, Building Inspection Office or the Highway Department.

Photos courtesy of AL.com and Alabama Media Group

Increased Cost of Compliance (ICC) Coverage an Important Part

After a flood event, flood insurance policyholders are assured their claim will be paid and They will have additional options to fund rebuilding.

Flood insurance policyholders also may be eligible for Increased Cost of Compliance (ICC) coverage benefits. ICC coverage is an important part of most flood insurance policies. .ICC coverage provides:

* Up to $30,000 to help property owners who have been substantially damaged to reduce the risk of damage from future floods by elevating, flood proofing (for nonresidential structures), demolishing or relocating their building or home
* ICC coverage in addition to the building coverage for the repair of the actual physical damages from flooding; however, the total payout on a policy may not exceed $250,000 for residential buildings and $500,000 for nonresidential buildings.

A FEMA/State Disaster recovery center set up in Bay Minette

To be eligible for ICC funds, a building must be insured under the National Flood Insurance Program (NFIP) and must also either (1) be determined by a local building official TO BE substantially damaged or (2) qualify as a repetitive loss structure.

Substantial damage is flood-related damage that equals or exceeds 50 percent of the value of the building. When repaired, the structure must comply with local floodplain management ordinances. If the total damage from flooding is less than 50 percent of the market value of the building, ICC coverage is not available under the substantial damage provision.

Repetitive loss is flood-related damage that occurs twice over a period of 10 years, with the cost of each repair averaging 25 percent or more of the preflood market value of the building. Because the 25 percent cost is an average, it need not be equally distributed.

For example, if the damage was 35 percent of the value of the building in the first event and 15 percent of the value in the second event, the policyholder would qualify for ICC coverage. A flood insurance claim must have been paid in both cases, and it applies only if the community has adopted a repetitive loss

* provision in its floodplain management ordinance.

ICC coverage can help pay for four different types of mitigation activities to bring a building into compliance with the community's floodplain management regulations. These activities include elevation, flood proofing, relocation and demolition.

Elevation is the most common means of reducing a building's flood risk. The process consists of raising the building to or above the Base Flood Elevation (BFE). While NFIP policy requires only the lowest floor of the building to be raised to the BFE, some states and communities enforce a "freeboard" requirement, which mandates that the building be raised above the BFE to meet the community's flood protection level.

* For example, if the BFE for a structure is 4 feet, and the community adopts a 3-foot freeboard requirement, ICC coverage would help pay the cost of elevating the building to meet the 7 foot requirement.

Flood proofing applies only to nonresidential buildings. For a building to be certified as flood proof, it must be watertight to a level 1 foot above the BFE, or to the level of the freeboard requirement (if the community enforces one). Flood proof means that the walls must be substantially impermeable to water and designed to resist the stresses imposed by floods. Flood proofing techniques include installation of watertight shields for doors and windows, drainage collection systems, sump pumps

Continued on Page 11

Drainage System Maintenance Crucial To Reduce Flooding and Protect Road Systems

Baldwin County's drainage system is used to carry water away from homes and businesses into rivers and streams. It is important to consistently maintain this system so it can be used to full capacity. Proper drainage helps to reduce the risk of flooding and maintain the integrity of the road system. Baldwin County maintains all drainage ways and structures located on the County rights of way and County owned property.

Baldwin County prohibits any dumping of trash or yard debris in these areas, which could result in increased flooding or damages in areas that would otherwise be protected. Owners whose property is located within an identified flood area must ensure that their drainage infrastructure is kept in working order and free from any obstruction that could impede the free flow of water. If you experience problems in any of the County rights of way or wish to report any violations, you are encouraged to contact the County Engineering Department at 251.972.6897; 251.937.0371 or 251.990.4635.

Please help Baldwin County to ensure the capacity of this system. Keep streams and other conveyances that carry rainfall runoff through your property free of obstructions and debris such as trees, tall bushes, and trash.

Drainage systems obstructed with trash or other debris can cause an increased risk of flooding since the floodwaters have no place to drain. The increased flooding caused by those obstructed drains can severely undermine the local roadway infrastructure structure, leading to potential health and safety hazards.

Never dump or throw anything into the streets or storm drainage system. To do so is a violation of the Baldwin County Storm Water Quality Management Ordinance. If you see trash or debris in the storm drainage system, contact the Baldwin County Engineering Department immediately.

ICC Coverage
Continued From Page 10

and check valves; reinforcement of walls to withstand floodwater pressures; use of sealants to reduce seepage through and around walls; and anchoring the building to resist flotation, collapse and lateral movement.

Relocation involves moving the entire building to another location on the same lot or to another lot, usually outside the floodplain.

Relocation can offer the greatest protection from future flooding; however, if the new location is still within the Special Flood Hazard Area, the building must still be NFIP-compliant, meaning it must be elevated or flood proofed (if nonresidential).

Demolition may be necessary in cases where damage is too severe to warrant elevation, flood proofing or relocation; or the building is in such a poor condition that it is not worth the investment to undertake a combination of the above activities.

* All applicable permits must be obtained prior to demolishing the building.
* The property may be redeveloped after demolition is complete, subject to all applicable federal, state and community laws and requirements.

Table 9-6 Baldwin County Phase II MS4

MCM 5 Pollution/Good Housekeeping Strategies and Goals

NPDES Permit Section	SWMPP Section	9-Pollution Prevention/Good Housekeeping Strategies	Goal	Pollution Targeted	Responsible Departments
Part III-5d	*9.4*	*Program Evaluation*	*Throughout the permit cycle, review the PP/Good Housekeeping minimum control measure strategies and goals achieved and prepare an annual report and update the SWMPP*	*All*	*P&Z*
2023/2024			**Evaluation Comment:**		
			The PP/GH Minimum Control Measure strategies		
			and goals have been achieved and tracked in the		
			Annual Report's Spreadsheets. Proposed updates will		
			be detailed in the MCM Evaluation Summary.		