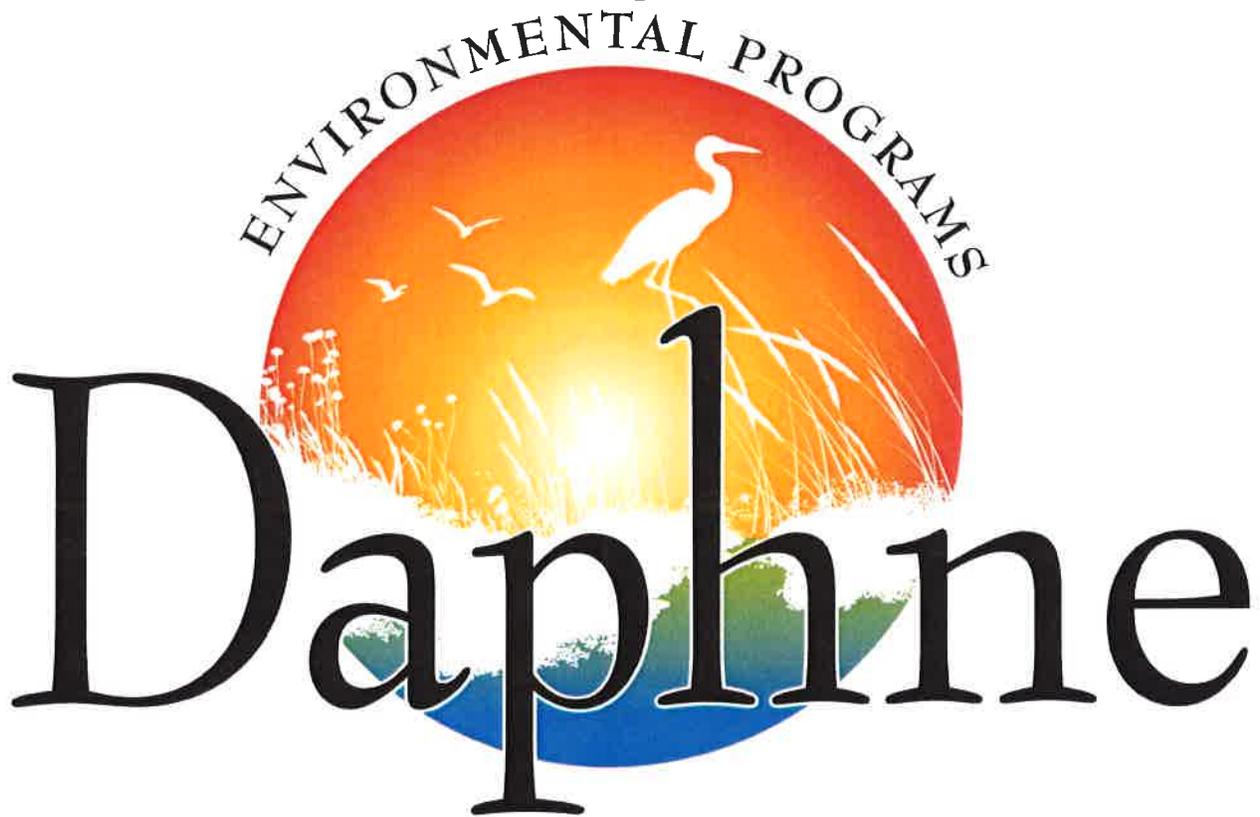


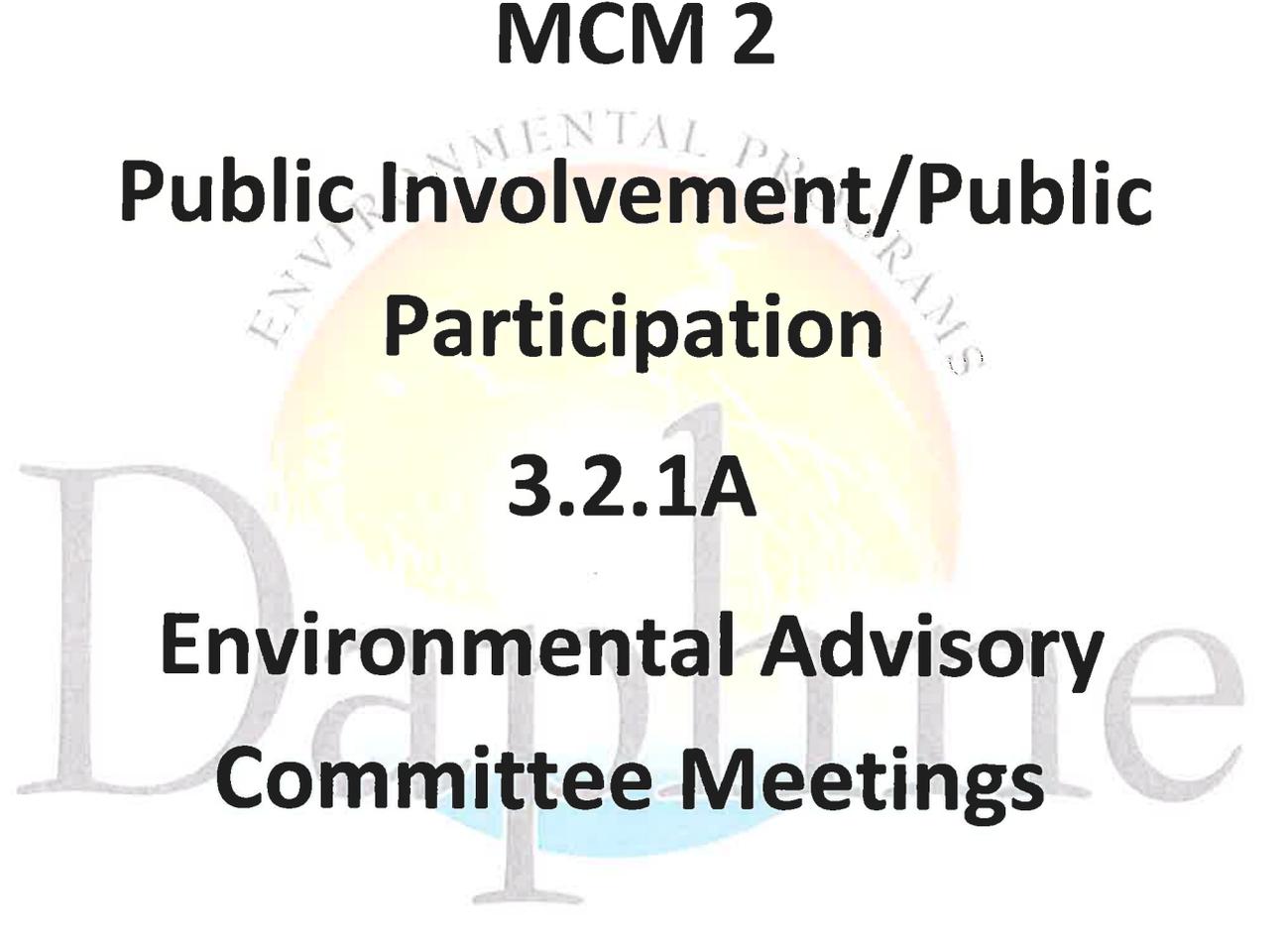
# MCM 2

## Public Involvement/ Public Participation



**City of Daphne Phase II MS4  
MCM 2 Public Involvement/Public Participation Permit Cycle Compliance Report**

3.2	Public Involvement/Participation Strategy	Goal	2012	2012	2013	2013	2014	2014	2015	2015	2016	2016
			Proposed	Achieved	Proposed	Achieved	Proposed	Achieved	Proposed	Achieved	Proposed	Achieved
3.2.1A	Environmental Advisory Committee	Hold 4 Meeting Annually	4	5	4	6	4	4	4		4	
3.2.1B	Environmental Advisory Committee	EAC Review and Update SWMPP	✓	✓	✓	✓	✓	1	✓		✓	
3.2.2A	Watershed Organizations	Initiate the re-establishment of the D'Olive Watershed Working Group (DWWG)	✓	✓	2	2	*	*	*	*	*	*
3.2.2B	Watershed Organizations	Staff will attendant document D'Olive Creek Inter-governmental Task Force (DWTF) meetings	4	4	4	4	3	3	Qty		Qty	
3.2.3	Baldwin County Water Festival and Coastal Kids Quiz	The City will participate in 1 event per year	1	1	1	2	1	3	1		1	
3.2.4A	Community Clean-Up Day and Household Waste Amnesty Day	City will participate and /or sponsor 1 clean up day a year	1	1	1	1	1	1	1		1	
3.2.4B	Community Clean-Up Day and Household Waste Amnesty Day	Dependent on funding, the City will sponsor/and or assist with a Household Hazardous Waste Amnesty Day per permit cycle	*	*	*	*	*	*	*	*	✓	
3.2.5	Curbside Recycling & Used Motor Oil Recycling Program	City will track the quantity of recycled goods and report data in annual report	✓	✓	✓	✓	✓	✓	✓		✓	
3.2.6	Arbor Day Tree Give Away	City will sponsor and/or assist with a local Arbor Day Celebration	✓	✓	✓	✓	✓	✓	✓		✓	
3.2.7A	Environmental Web Page	Create and update an Environmental Page and post links to the City's SWMP Plan and Annual Report	✓	✓	✓	✓	✓	✓	✓		✓	
3.2.7B	Environmental Web Page	Expand and update Web Page to include storm water related topics	*	*	✓	✓	✓	✓	✓		✓	
3.2.7C	Environmental Web Page	Create and update email link on Web Page for public stormwater inquires and complaints	*	*	*	*	1	✓	1		1	
3.2.7D	Environmental Web Page	Maintain and update web page	✓	✓	✓	✓	✓	✓	✓		✓	
3.2.8	Comprehensive Land Use Plan	Within Permit Cycle the EAC will review and make recommendations for the future updates	*	*	*	*	✓	✓	*	*	*	*
3.2.9	Coordination with Other Agencies and Groups on Environmental Efforts	City Staff will attend 4 Environmental Agency meetings a years	4	18	4	31	4	22	4		4	
3.2.10	Call Center	Review current complaint routing system and determine if the creation of a dedicated environmental Hot Line is warranted	*	*	*	*	*	*	*	*	1	
3.2.11	Eastern Shore MS4s Meetings	In years one (1) through (5), host or attend one meeting a year.	1	1	1	1	1	1	1		1	
3.2.12A	Alabama Water Watch Monitoring (AWW)	In year one (1), initiated communication with AWW	1	1	*	*	*	*	*	*	*	
3.2.12B	Alabama Water Watch Monitoring (AWW)	In year two (2),sponsor AWW training and purchase 3 AWW Kits	*	*	3	4	*	*	*	*	*	
3.2.12C	Alabama Water Watch Monitoring (AWW)	In years three (3) through (5), purchase replacement chemicals for the AWW kits and submit collected AWW data.	*	*	*	*	✓	✓	✓		✓	
*	<b>Not Proposed for Permit Year</b>	Attachment Included in Report				<b>Total</b>	<b>23</b>	<b>43</b>				



**MCM 2**  
**Public Involvement/Public**  
**Participation**

**3.2.1A**

**Environmental Advisory**  
**Committee Meetings**

**MCM 2 Public Involvement and Participation**  
**3.2.1A Daphne Environmental Advisory Committee Meetings**

EAC Meeting Date	Topics
4/28/2014	ByLaws, Community Resilience Results, LID, Project Updates
6/23/2014	ByLaws, Project Updates, and goals for EAC
8/25/2014	Bylaws Adopted, Hydrology Study Reviewed
10/27/2014	CIAP RFQ, Hydrology Report Finalized, Land Acquisitions



Daphne Environmental Advisory Committee Meeting  
Monday, April 28, 2014  
4:00 p.m.

1. Mike Shelton – Presentation
2. EAC By-laws

Update on Projects:

- 1) D'Olive Watershed
- 2) Gator Alley
- 3) Forever Wild

\*Future LID (Low Impact Development) Workshop

New Business:

Next Meeting:

Adjourn:

**Meeting Minutes**  
Monday, April 28, 2014 - 4:00 PM  
City of Daphne - Environmental Advisory Committee  
Daphne City Hall – Executive Boardroom

**MEMBERS PRESENT:** Bret Webb, Carl Pinyerd, Art Hosey, Chester McConnell, John Peterson, Richard Johnson, Ashley Campbell and Michele T. Hanson.

**Guest:** Mike Shelton

**CALL TO ORDER**

Bret Webb called the meeting to order at 4:06 p.m.

**APPROVAL OF MINUTES:**

**Motion by Chester McConnell, seconded by John Peterson** to approve the March 24, 2014 minutes with corrections. Motion carried. Minutes were adopted.

**1) Presentation by Mike Shelton, Weeks Bay Coastal Training Program Coordinator.**

Mr. Shelton presented the committee with information regarding the Coastal Community Resilience Index. He has also made this presentation to the City Council. Several community leaders, representing the city, met to discuss different scenarios of storms and how to prepare Daphne for this event. The committee discussed at length the six elements of the tool; which are Critical Infrastructure & facilities, Transportation Issues, Community Plan & Agreements, Mitigation Measures, Business Plans and Social Systems. The summary is attached for your review. The results are an ongoing research. The City of Daphne turned in a medium/high rating, getting a more formalize agreement with mutual aid systems and ecumenical groups. Become more involved with the local emergency planning committee through EMA, get a current response plan from Thomas Hospital, coordinate training for employees, directors, council & committee members, create incentives for residents to improve resilience , explore multi-lingual education opportunities.

**2) EAC By-laws**

Richard stated that the by-laws were not established or adopted. He recommends that we create some by-laws and will research the organizational meeting minutes and try to find what was discussed. We do know that the meeting date was established as the 4<sup>th</sup> Monday of the month. He recommends that we do adopt a set of by-laws and make them as simple as possible. He will ask the city clerk to research other committee's by-laws as a starting point. Bret will send all the information he has.

**UPDATE ON PROJECTS:**

**1. D'Olive Watershed**

Mobile Bay Estuary has signed contracts with NFWF and that has initiated the 6.7 million dollar grant and NEP has hired a consultant to work with them to design the projects. The first set of projects will be in Spanish Fort & Daphne which includes Joes Branch. Thompson Engineering will be doing this phase and has primary field work and are in the early stages of design. This is a true habitat & wetland restoration.

**2. Alligator Alley**

We did get released from ALDOT to start the property acquisition. We are having the appraisal done and hopefully that will be back the first part of May. We know we have a willing seller if the price is right. We are hopeful that we can advertise for bid in June and begin work in August.

**3. Forever Wild**

We have a Forever Wild nomination that was submitted by Village Point for 100 acres on D'Olive Bay for the purchase and preservation. Village Point is requesting a resolution of support from the City Council. We are in the process of writing that resolution to be sent to Building and Property Committee first and then to the Council. In June, there is a meeting in Guntersville to discuss the projects to award the funds to, we are not in the top 3, but are still on the short list. Selena Vaughn will be attending that meeting and take the resolution with her and hopefully move us up the list.

## Meeting Minutes

Monday, April 28, 2014 - 4:00 PM

City of Daphne - Environmental Advisory Committee

Daphne City Hall – Executive Boardroom

### 4. Future LID Workshop

There is a big emphasis on Low Impact Development and the NEP wants to see city's with impaired watersheds to not just promote LID, but require it. We want to educate local consultants regarding this, so once the Gator Alley project is started, Dr. Brantley wants to have a one day workshop to educate. We will have more training in the fall as well.

Auburn has a workshop on Bio-Retention and the use of it in the LID Handbook. I will send to Michele to email to everyone.

Our annual ADEM audit was done and we are compliant. We did not have our Construction Best Management Ordinance in place at the time of the audit however it has since been completed and adopted.

### NEW BUSINESS:

No new business was discussed. There was discussion on recruiting new members for the committee. Richard stated that all we need is a resume and that they are a Daphne resident. Richard thanked those who attended the Volunteer Breakfast for coming out.

**Next Meeting:** *There will be no meeting in May due to the Memorial Day Holiday.*

**ADJOURN:** Motion by Carl Pinyerd, Seconded by John Peterson to adjourn. Meeting adjourned at 4:58 pm.



Daphne Environmental Advisory Committee Meeting  
Monday, June 23, 2014  
4:00 p.m.

- I. **CALL TO ORDER**
  
- II. **PUBLIC PARTICIPATION & CORRESPONDENCE**
  - A. Comprehensive Plan – Hazard Mitigation: Presentation by Adrienne Jones
  
- III. **OLD BUSINESS**
  - A. Minutes – May 19, 2014 Meeting
  
- IV. **NEW BUSINESS**
  - A. ByLaws – Sample bylaws to review
  
- V. **CHAIRMAN’S REPORT**
  
- VI. **UPDATE ON PROJECTS**
  - A. NFWF Grant
  - B. Gator Alley
  - C. Storm Drainage/Grant – Edgar Circle: potential NRCS Emergency Watershed Program Site
  - D. Forever Wild
  
- VII. **FUTURE BUSINESS**
  - A. Next Meeting –
  
- VIII. **ADJOURNMENT**



Daphne Environmental Advisory Committee Meeting  
Monday, August 25, 2014  
4:00 p.m.

I. **CALL TO ORDER**

II. **PUBLIC PARTICIPATION & CORRESPONDENCE**

A.

III. **OLD BUSINESS**

A. Minutes – June 23, 2014 Meeting

IV. **NEW BUSINESS**

A. By-Laws – Final Draft

B. New Committee Member Appointment – Donald J. Ouellette (Resume Attached)

C. D'Olive Creek Watershed Study

V. **CHAIRMAN'S REPORT**

VI. **UPDATE ON PROJECTS**

A. NFWF Grant

B. Gator Alley

C. Storm Drainage/Grant

D. Forever Wild

VII. **FUTURE BUSINESS**

A. Next Meeting – October 27<sup>th</sup> & December 22<sup>nd</sup>

VIII. **ADJOURNMENT**

**Meeting Minutes**  
Monday, August 25, 2014 - 4:00 PM  
City of Daphne - Environmental Advisory Committee  
Daphne City Hall – Executive Boardroom

**MEMBERS PRESENT:** Bret Webb, Carl Pinyerd, Art Hosey, Chester McConnell, Elliott Riser, Richard Johnson, Ashley Campbell and Michele T. Hanson.

**Absent:** John Peterson, Stan Arbaczaukas, Fred Nation

**CALL TO ORDER**

Bret Webb called the meeting to order at 4:07 p.m.

**PUBLIC PARTICIPATION:**

No one present to address the committee.

**OLD BUSINESS:**

A. Approval of Minutes:

**Motion by Elliott Riser, seconded by Chester McConnell** to approve the June 23, 2014 minutes. All in favor. Motion carried. Minutes were adopted.

B. Approval of Agenda:

**Motion by Elliott Riser, seconded by Chester McConnell** to approve the August 25, 2014 agenda. All in favor. Motion carried.

**NEW BUSINESS:**

A. ByLaws – Final Draft

Committee reviewed the draft bylaws. Richard stated that the terms of the members need to be determined, he suggested 2 year staggered terms beginning in October with the fiscal year. The committee changed the officer election from calendar year to fiscal year with election to be in October. All members were in agreement.

The committee now consists of 8 members, with the approval of Don Ouellette to be determined tonight. Each council district is represented, however that is not required.

**Motion by Chester McConnell, seconded by Carl Pineyard** to adopt the bylaws for the Environment Advisory Committee. All in favor. Motion carried. Bylaws were adopted.

B. New Committee Member Appointment: Donald J. Ouellette

The committee reviewed the resume of Mr. Ouellette. **Motion by Chester McConnell, seconded by Elliott Riser** to favorably recommend to the council the appointment of Mr. Ouellette to the Environmental Advisory Committee. All in favor. Motion carried.

C. D'Olive Creek Watershed Study

Ashley reviewed the study with the committee. She stated that about 4 years ago, the city was awarded a \$500,000 grant to do the study and to implement a stream restoration project. The monitors were put out early this year and we had the perfect rain events for this study. The data collected has already helped with the restoration of Joe's Branch. This study can help with future developments in Daphne.

**CHAIRMAN'S REPORT:**

No Report.

**UPDATE ON PROJECTS:**

A. NFWF Grant

Met last week with the representatives of the area and construction of the last phase of Joe's Branch is under contract and is expected to begin in January. The NEP has 4 engineering groups that they use on a rotating basis for each job that comes up. The overseer for the jobs is Dr. Greg Jennings and he will be evaluating all the plans. They are also doing the same process with the contractors. There is more information on the NEP website.

## Meeting Minutes

Monday, August 25, 2014 - 4:00 PM

City of Daphne - Environmental Advisory Committee

Daphne City Hall – Executive Boardroom

### B. Gator Alley

The bridge has been rebuilt and through a TAP grant that was awarded to the city will begin rebuilding the trail head. The trail head, which is the parking area on North Main Street will be twice the size of the current parking using brick pavers and using a step pool system for the drainage going to D'Olive Creek. The biggest part of this is the property acquisition of the property to the immediate west of the parking area. The appraisal of \$83,100.00 for the .43 acre has been submitted to ALDOT for approval. The plans are complete. There is a Grand Re-Opening scheduled for Wednesday, September 3<sup>rd</sup> at 9:00 a.m. with refreshments to follow at the Hampton Inn. All committee members are invited to attend.

### C. Storm Drainage/Grant

The city received 1.395 million dollars of FEMA money for public infrastructure. Also \$360,000 of Emergency Protection dollars in a contingency fund which was used on a project on Piedmont Circle as well as several other projects going on in the city.

### D. Forever Wild

The council did pass a resolution of support and it has been sent to Forever Wild and we are in a wait and see pattern.

Ashley brought to the committee a concern for a resident that needs to be hooked up to the sewer system, if the committee knows of anyone who could assist financially. It would cost \$2500 to abandon the septic and hook up to the sewer system. Utilities will roll their fee in to a 5 year payment plan, but the cost of the plumber comes out of her pocket first. Will try to local some volunteers for in kind services.

### **FUTURE BUSINESS:**

**Next Meeting:** *October 27<sup>th</sup> and December 22<sup>nd</sup>.*

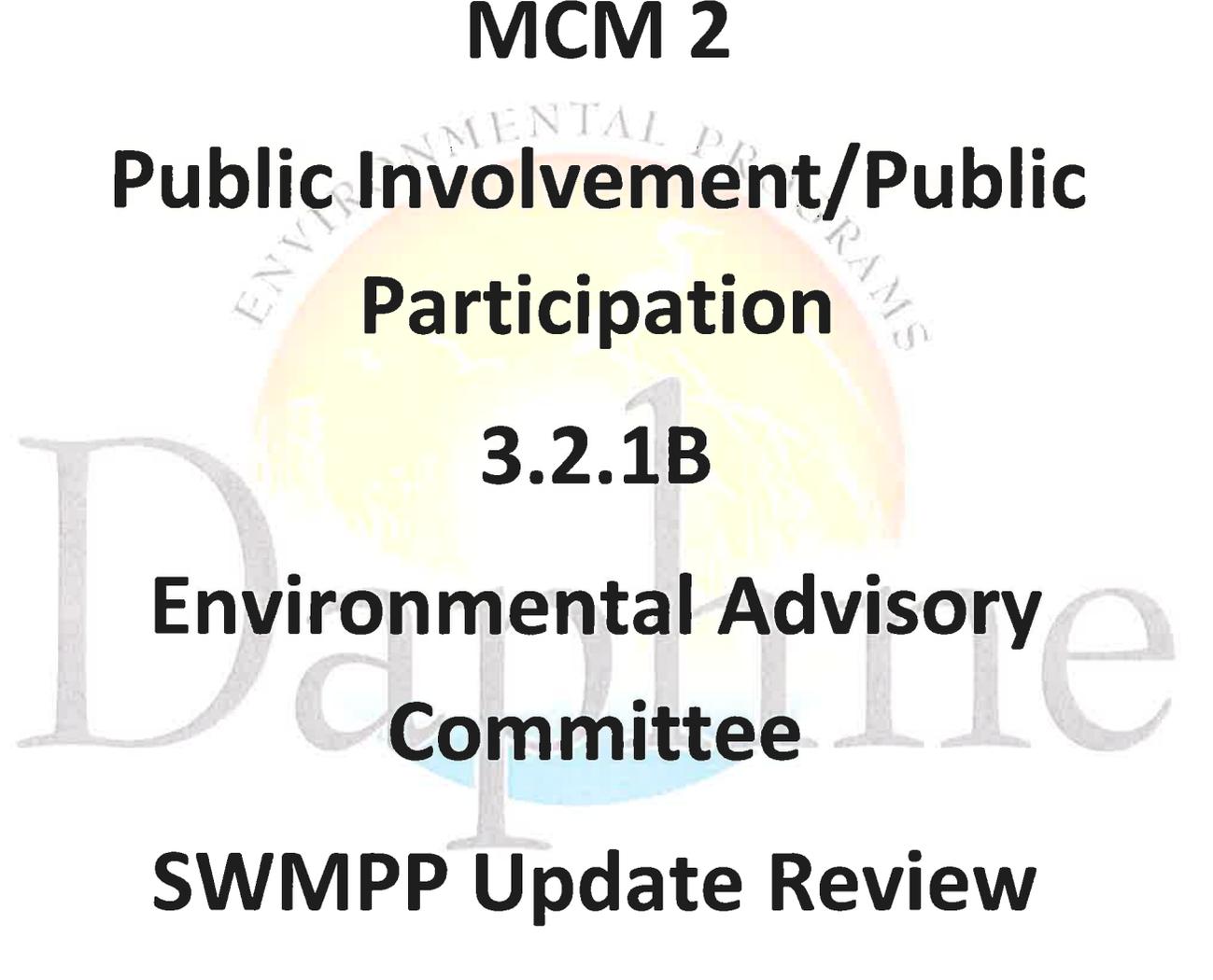
### **ADJOURN:**

**Motion by Carl Pinyerd, Seconded by Chester McConnell** to adjourn. Meeting adjourned at 5:03 pm.



Daphne Environmental Advisory Committee Meeting  
Monday, October 27, 2014  
4:00 p.m.

- I. **CALL TO ORDER**
- II. **APPROVAL OF MINUTES & AGENDA**
  - A. Approve August 25, 2014 EAC Minutes
  - B. Approve October 27, 2014 Agenda
- III. **PUBLIC PARTICIPATION & CORRESPONDENCE**
- IV. **OLD BUSINESS**
- V. **NEW BUSINESS**
  - A. CIAP RFQ Review EAC Representation
  - B. Hydrology Study – Potential Stormwater Management Site – Land Acquisition
- VI. **CHAIRMAN’S REPORT**
- VII. **UPDATE ON PROJECTS**
  - A. NFWF Grant
    - D ‘Olive Creek
      - I-10
      - Hwy 90
      - CR 13
    - B. Gator Alley
    - C. Joe’s Branch
    - D. Forever Wild
    - E. Tiawasee Creek – CIAP Project – Land Donation
- VIII. **FUTURE BUSINESS**
  - A. Upcoming Training
    - LID – Birmingham ( <https://www.smores.com/h9px8-low-impact-development> )
    - Trimble GPS - Daphne
  - B. Next Meeting – December 22<sup>nd</sup>
- IX. **ADJOURNMENT**



**MCM 2**  
**Public Involvement/Public**  
**Participation**

**3.2.1B**

**Environmental Advisory**  
**Committee**

**SWMPP Update Review**

**MCM 2 Public Involvement/Public Participation**  
**3.2.1B EAC Review of Stormwater Management Program Plan**

<b>EAC Member</b>	<b>2015 Survey Monkey Completed</b>
Art Hosey	Yes
Carl Pineyard	Yes
Chester McConnell	No
Don Oullette	Yes
Dr. Brett Webb	Yes
Elliot Riser	Yes
Fred Nations	Yes
John Lake	Yes
John Peterson	Yes
Pat Rudicell	No
Richard Johnson-Chair	No
Stan Arbaczauskas	No



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2014-2015 Daphne's Environmenta...

- CURRENT VIEW ?
- SAVED VIEWS (1) ?
- EXPORTS ?
- SHARED DATA ?

FILTERED: 9 of 10 respondents

Export All Share All

Question Summaries Data Trends Individual Responses

All Pages

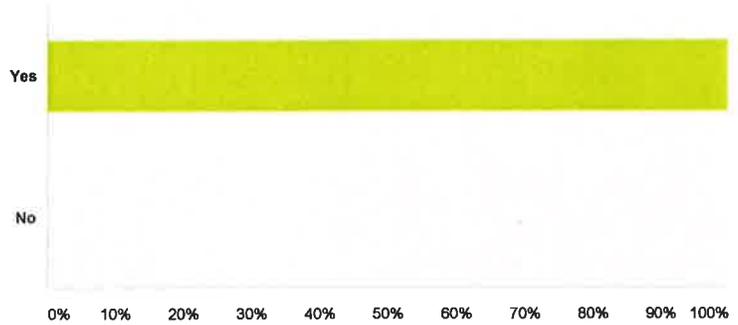
PAGE 1: Daphne's Storm Water Management Program Plan (SWMPP)

Q1

Customize Export

As a member of the City's Environmental Advisory Committee, have you received the City's 2014-2015 Storm Water Management Program Plan (SWMPP) , hereafter referred to as the Plan, from the Environmental Programs Manager?

Answered: 8 Skipped: 1



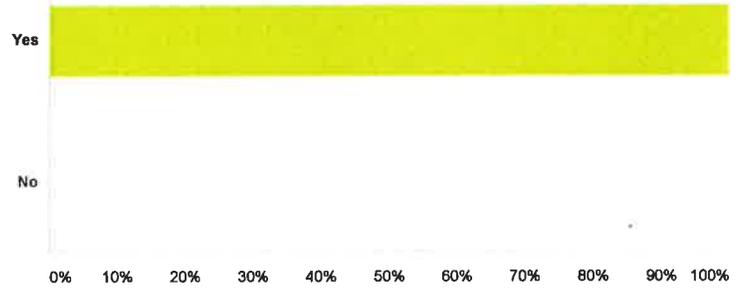
Answer Choices	Responses
Yes	100.00% 8
No	0.00% 0
Total	8

Q2

Customize Export

Have you reviewed the Plan?

Answered: 8 Skipped: 1



Answer Choices	Responses
Yes	100.00% 8
No	0.00% 0
Total	8

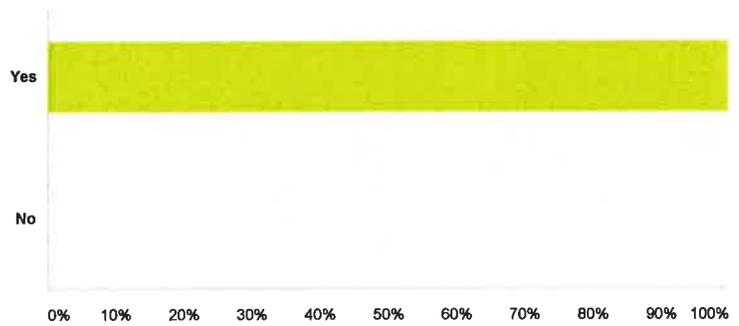
Q3

Customize

Export

### Are you satisfied with the City's overall SWMPP?

Answered: 8 Skipped: 1



Answer Choices	Responses
Yes	100.00% 8
No	0.00% 0
Total	8

#### PAGE 2: Evaluation of Sections

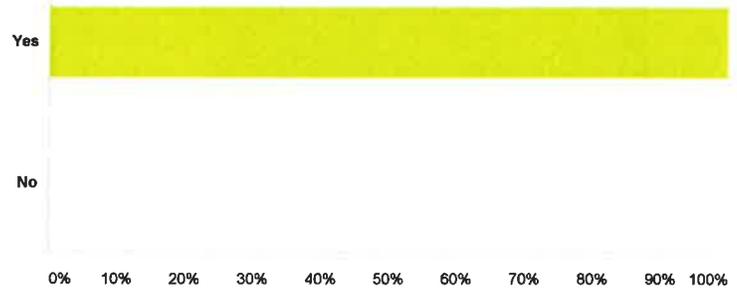
Q4

Customize

Export

### Are the Goals and Strategies for Education Outreach adequate?

Answered: 8 Skipped: 1



Answer Choices	Responses	
▼ Yes	100.00%	8
▼ No	0.00%	0
Total		8

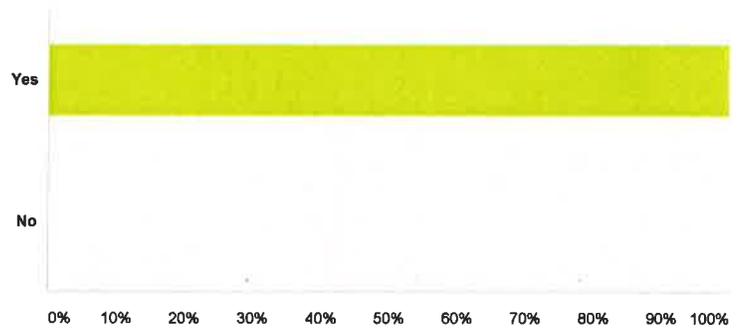
Q5

Customize

Export

### Are the Goals and Strategies for Public Participation adequate?

Answered: 8 Skipped: 1



Answer Choices	Responses	
▼ Yes	100.00%	8
▼ No	0.00%	0
Total		8

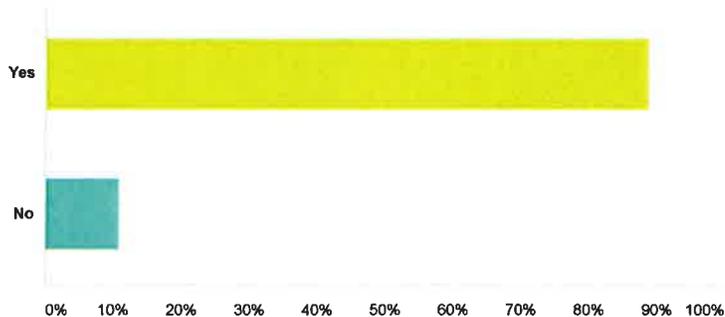
Q6

Customize

Export

### Are the Goals and Strategies for Illicit Discharge adequate?

Answered: 9 Skipped: 0



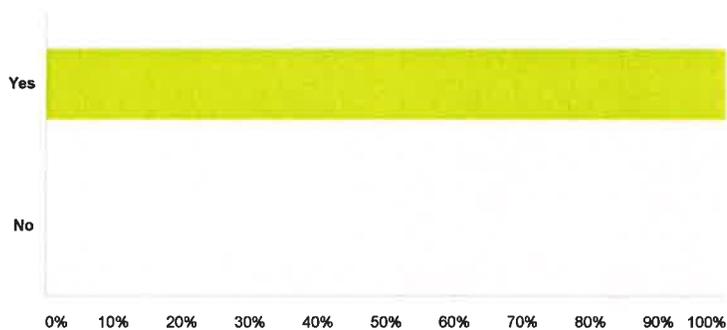
Answer Choices	Responses
Yes	88.89% 8
No	11.11% 1
Total	9

Q7

Customize Export

### Are the Goals and Strategies for Construction Site Management adequate?

Answered: 8 Skipped: 1



Answer Choices	Responses
Yes	100.00% 8
No	0.00% 0
Total	8

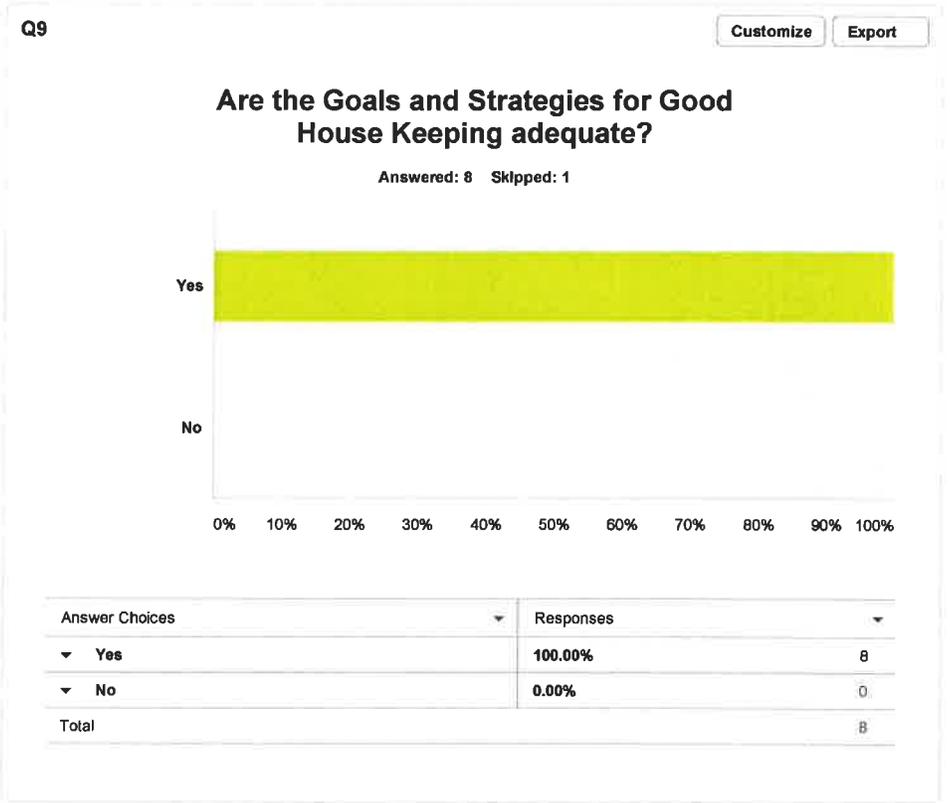
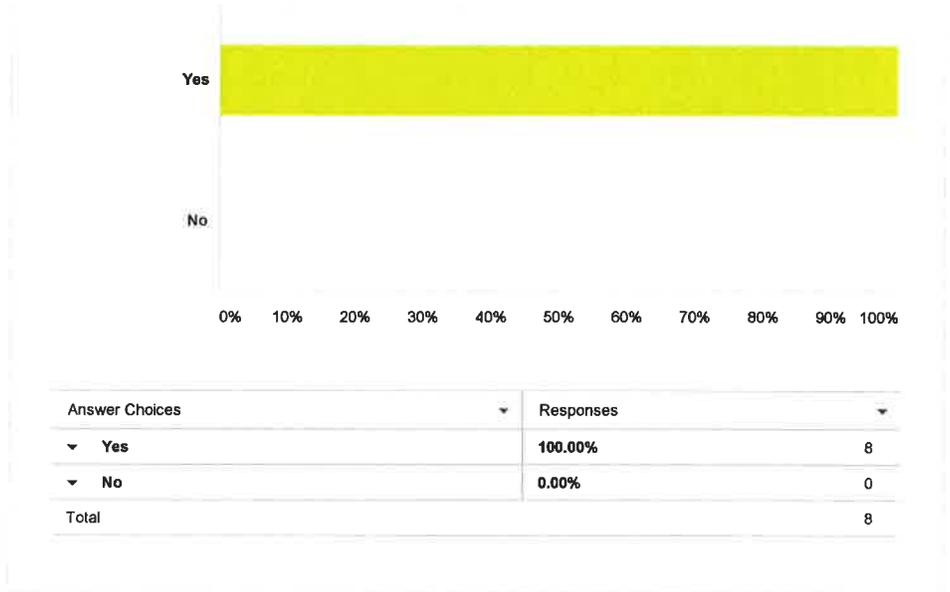
PAGE 3

Q8

Customize Export

### Are the Goals and Strategies for Post Construction Management adequate?

Answered: 8 Skipped: 1



**Q10** Export

### Please use question number with any comment.

Answered: 4 Skipped: 5

**Responses (4)** [Text Analysis](#) [My Categories](#)

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Showing 4 responses

General- looks like a good piece of work to me. Fred Nation  
3/16/2015 12:45 PM [View respondent's answers](#)

6. Glad to see residential car washing discharges not included.  
3/12/2015 2:26 PM [View respondent's answers](#)

Have only two comments, one I voiced at the meeting and that is their needs to be one place with all the abbreviations identified. Second: I guess I don't understand the term Measurable Goals, Not sure what is being measured, they appear to be goals to me. I can see a lot of work went into this document, good work. Don  
3/11/2015 1:14 PM [View respondent's answers](#)

8. We still have issues on developed subdivisions not maintaining their ponds properly. The standards in place today, will not help us in existing ponds that are not being maintained. One such location is off of Wedgewood Drive (Forest Wood Subdivision) where their pond is not maintained at all and has become a location for mosquito breeding and other vectors. I think the city should plan on doing nuisance work on these properties and pursue the individual homeowners civilly for repayment.  
3/10/2015 4:30 PM [View respondent's answers](#)

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# **MCM 2**

## **Public Involvement/Public Participation**

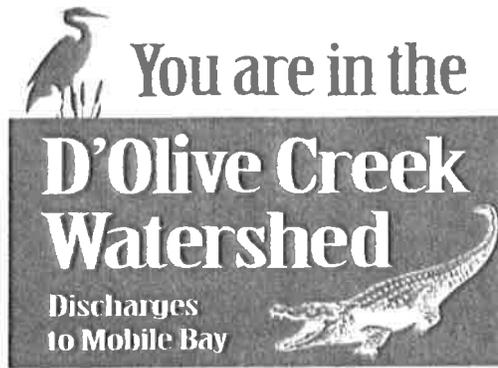
### **3.2.2B**

#### **DWITF Meetings**

**Dapline**

**MCM 2 Public Involvement and Participation**  
**3.2.2A and 3.2.2B D'Olive Watershed Meetings**

<b>D'Olive Watershed Intergovernmental Task Force (DWITF)</b>	<b>Date</b>	<b>Topic</b>	<b>Location</b>	<b>Agency</b>
	4/22/2014	NFWF Grant	Scenic Overlook	MBNEP
	8/23/2014	NFWF Grant	Daphne City Hall	MBNEP
	10/3/2014	DWITF	Spanish Fort	MBNEP



**D'Olive Watershed Intergovernmental Task Force**

**October 3, 2013**

**8:00 AM**

**Spanish Fort City Hall**

Agenda

1. Current Status

- Joe's Branch restoration
- D'Olive restoration
- Prioritization of future projects

2. Ordinance consistency

- Daphne status update
- Spanish Fort status update
- Other updates from Baldwin County (new Fairhope ordinance?)

3. Create a Clean Water Future

- Approval of Resolutions of Support
- Education and outreach

## **MCM 2**

# **Public Involvement/Public Participation**

### **3.2.3**

## **Baldwin County Water Festival &**

## **Coastal Kids Quiz**

MCM Public Participation/Public Involvement

3.2.3 BC Water Festival Coastal Kids Quiz

Event Name	Date	Location
Coastal Kidz Quiz	5/1/2014	Daphne United Methodist Church
Water Festival-School	5/15/2014	Daphne Elementary
Water Festival-School	5/14/2014	Foley Elementary





# BOOK OF MEMORIES



Results of The

**13<sup>th</sup> Annual**

## **Coastal Kids Quiz**

Held at

**Daphne United Methodist Church**

**May 1, 2014**

Presented by

*The Project CATE  
Foundation, Inc.*



IRC § 501(c)(3)



IRC § 501(c)(3)

## Ashley Campbell

---

**From:** L & C BARNETTE <lcarnette@bellsouth.net>  
**Sent:** Friday, May 02, 2014 1:58 PM  
**To:** bcl6163@gmail.com; Rudd Schultz; Louise Duffy; Angela.Underwood@dcnr.alabama.gov; msullivan@ttlusa.com; dhoward@joinacf.org; ljakubowski@joinacf.org; mberte@joinacf.org; jaw621@gmail.com; Iporter@gulfquest.org; Michael Shelton; Lee Yokel; Ashley Campbell; Valencia E. Chaney; atanner@southernco.com; Beth Thomas; glcunnin@southernco.com; wmharvil@southern.com; jmboshel@southernco.com; danbrennan58@yahoo.com; judypstout@mchsi.com; Tom Hutchings  
**Cc:** Neil Johnston; bcl6163@gmail.com; Katie; Lewis Cassidey; Kris Lester  
**Subject:** A BIG ROUND OF THANKS

I just wanted to send out a quick note out and thank you all for making time out of your schedules to participate in the 2014 Coastal Kids Quiz. I know so often with thanks and praise comes..."We couldn't do it without you!" I hope you know that this is absolutely true!!! The volunteers actually shape this experience for these kids. We have heard year after year how much this means to the participants and so many of you have had a hand year after year in shaping these young minds!

Personally, (and on behalf of the Coastal Kids Quiz), I am extremely grateful to each one of you for sharing with us your time and talents.

For pics..check out the facebook page at <https://www.facebook.com/ACFCoastalKidsQuiz...>

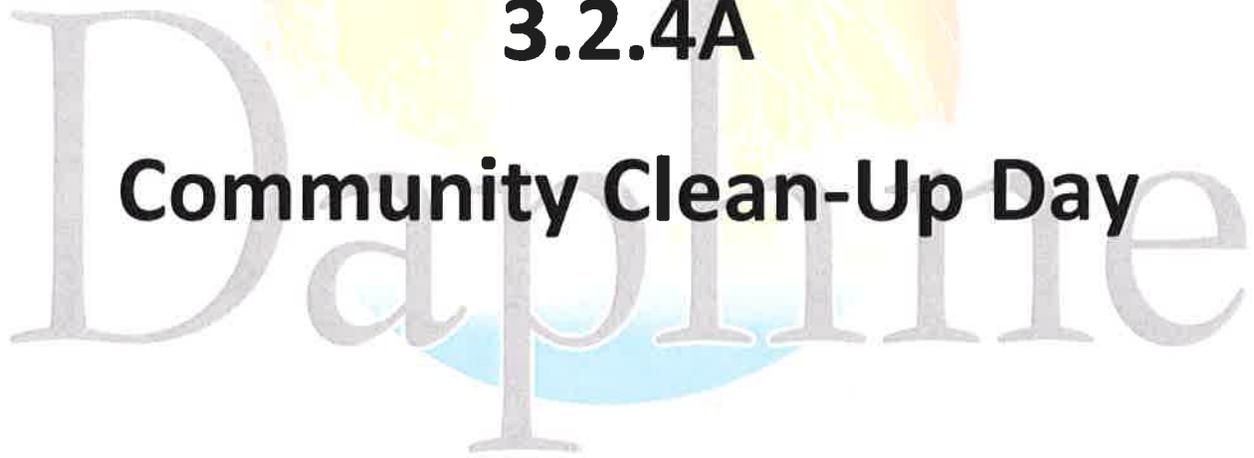
Have a great weekend!  
Cathy

## **MCM 2**

# **Public Involvement/Public Participation**

### **3.2.4A**

## **Community Clean-Up Day**



# 27TH ANNUAL ALABAMA COASTAL CLEANUP

*Get the Trash Out of the Splash*

**SATURDAY  
9-20-2014  
8:00 a.m. - noon**



visit [www.alabamacoastalcleanup.com](http://www.alabamacoastalcleanup.com) or call 251-621-1216



STATE OF ALABAMA  
DEPARTMENT OF CONSERVATION AND NATURAL RESOURCES  
STATE LANDS DIVISION, COASTAL SECTION

ROBERT BENTLEY  
GOVERNOR  
  
N. GUNTER GUY, JR.  
COMMISSIONER  
CURTIS JONES  
DEPUTY COMMISSIONER

**5 Rivers ~ Alabama's Delta Resource Center**  
31115 – 5 Rivers Boulevard  
Spanish Fort, Alabama 36527  
(251) 621-1216  
(251) 621-1331 Fax

PATRICIA J. POWELL  
DIRECTOR  
STATE LANDS DIVISION  
  
PHILLIP E. HINESLEY  
COASTAL SECTION CHIEF

July 28, 2014

Mayor Dane Haygood  
CITY OF DAPHNE  
P.O. Drawer 400  
Daphne, Alabama 36526

RE: 27<sup>th</sup> Annual Alabama Coastal Cleanup

Dear Mayor Haygood:

The Annual Alabama Coastal Cleanup is fast approaching. The Coastal Cleanup has become an environmental highlight for the State of Alabama serving as the largest volunteer event focused on the removal of marine debris. This year, the State of Alabama will host the 27<sup>th</sup> Annual Coastal Cleanup on **Saturday, September 20, 2014**.

As you may know, the Alabama Coastal Cleanup is part of a larger national, and international, event held annually on the third Saturday in September. Since the beginning of the Alabama Cleanup in 1987, it has been recorded that **72,310 volunteers** have participated in the Alabama Coastal Cleanup and removed **1,458,664 pounds** of marine debris from Alabama's valued coastline.

We, the Alabama Coastal Cleanup Coordinators, Alabama Department of Conservation and Natural Resources (ADCNR) State Lands Division-Coastal Section and Alabama People Against A Littered State (PALS), would like to request that a dumpster, or other type of trash receptacle, be located in the area of **MAY DAY PARK**. This park will serve as the check-in site for the Daphne Cleanup Zone of the Coastal Cleanup.

Please help us make this year's Coastal Cleanup a great success by providing your support to this worthy cause. In addition, Priscilla Dabney (251-367-1902) will be the volunteer Zone Captain for the Daphne Zone. If you would like, I am available to speak with the City Council regarding this issue and the Annual Alabama Coastal Cleanup.

Your assistance is greatly appreciated. I look forward to hearing from you soon.

Sincerely,

Phillip Hinesley  
Coastal Section Chief

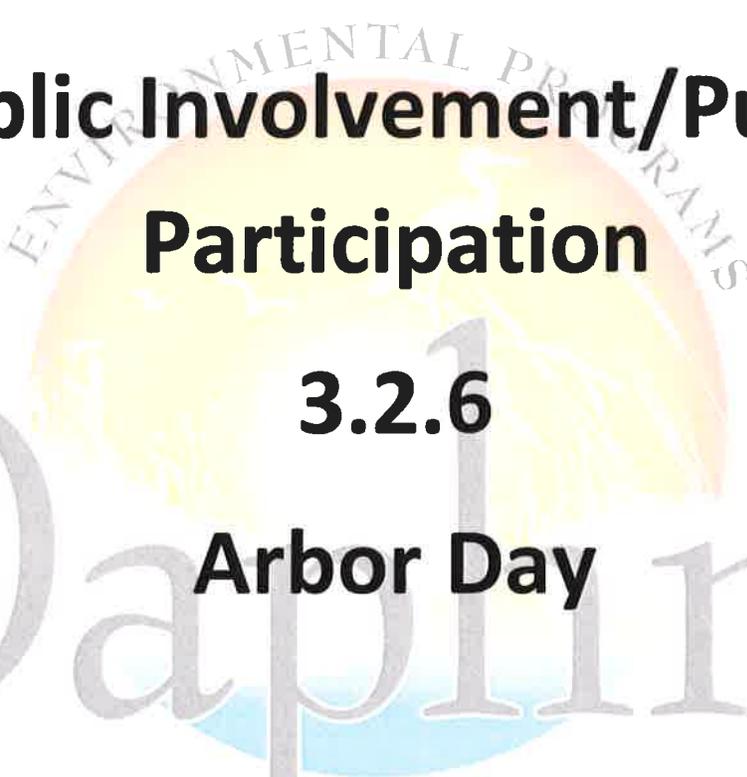
**MCM 2**  
**Public Involvement/Public**  
**Participation**

**3.2.5**

**Curbside Recycling**  
**Program**

MCM Public Involvement/Public Participation  
3.2.5 City Recycle Totals

Company	Date	Recycled Product	Qty
Shoreline Environmental	2/26/2014	Used Oil Filters Drums	2.00
Shoreline Environmental	4/17/2014	Used Oil Filters Drums	1.00
Shoreline Environmental	8/12/2014	Used Oil Filters Drums	1.00
Shoreline Environmental	8/18/2014	Used Oil Gallons	427.00
Shoreline Environmental	8/18/2014	Used Antifreeze Gallons	50.00
Shoreline Environmental	10/7/2014	Used Oil Filters Drums	1.00
Shoreline Environmental	11/10/2014	Used Oil Gallons	310.00
Shoreline Environmental	11/10/2014	Oil & Water Gallons	20.00
Shoreline Environmental	11/19/2014	Used Oil Filters Drums	1.00
Shoreline Environmental	12/17/2015	Used Oil Gallons	100.00
Noah Addison DBA AWTR	5/3/2014	Automobile Tires	86.00
Noah Addison DBA AWTR	5/3/2014	Trucks/Bus Tires	36.00
Tarpon Paper, Loxley, AL	7/6/1905	Pounds (lbs) Co-Mingled Paper, Plastic, Aluminum, Etc.	3343489.90
CompuPoint, Norcross, Ga	7/6/1905	Pounds (lbs) Electronics	18600.00
ASM, Mobile, AL	7/6/1905	Pounds (lbs) Junk, Scrap Metal	34129.90
2014 PW Mechanic Barn Totals			
2014 Total Used Oil Gallons	837.00		
2014 Oil & Water	20.00		
2014 Total Used Oil Filters Drums	6.00		
2014 Total Used Antifreeze Gallons	50.00		
2014 Total Tires	122.00		



**MCM 2**  
**Public Involvement/Public**  
**Participation**

**3.2.6**

**Arbor Day**

Daphne

# CITY OF DAPHNE

## ARBOR DAY TREE GIVE-AWAY

The Daphne Beautification Committee and the Daphne Public Works Department have planned an exciting "Arbor Day" celebration for the citizens of the City of Daphne.



Saturday – February 15, 2014  
Daphne Civic Center 7:00 AM  
(in front of the Recreation Department)  
2605 Highway 98  
Daphne, AL 36526

**3,700 Trees will be given away as part of the City's Arbor Day celebration to promote the Jubilee City's beautification and the need to plant trees for a healthier environment.**

There will be 20 different species available:

*Crape Myrtles (red, white, pink, purple)*  
*White Dogwood*  
*Eastern Redbud*  
*Tulip Poplar*  
*Southern Magnolia*  
*Sweetbay Magnolia*  
*Okame Cherry*  
*Yoshino Cherry*  
*Ironwood*  
*Hornbeam*

*River Birch*  
*Red Maple*  
*Bald Cypress*  
*Willow Oak*  
*Sourwood*  
*Ginkgo*  
*Carolina Silverbell*  
*Saucer Magnolia*  
*Hackberry*  
*Fringe – Grancy Graybeard*

Additional contributors: Future Farmers of America Chapter & John Manning–Daphne High School Teacher (preparation of trees), Daphne Utilities will be supplying hot dogs and bottled water, Starbucks will be providing coffee, Girl Scout Troops 8012, 8278 & 8195 will be selling Girl Scout Cookies and Baldwin County Master Gardeners will be on hand to assist with planting information. Coca Cola Bottling Company Consolidated will provide bottled water.

*Thanks to Riviera Utilities for their contribution and assistance.*

*Daphne Utilities will be giving away packaged fertilizer for the trees.*



**TREE CITY USA**

# **MCM 2**

## **Public Involvement/Public Participation**

### **3.2.7 A, B, C & D**

## **Environmental Web Page Links & Updates**

Finance / Revenue / Bids  
Building Departments  
Forms



- ..... Emergency Alerts
- ..... Notification Sign Up
- ..... City Departments
- ..... Daphne Events
- ..... Forms & Applications
- ..... Daphne Police Department
- ..... Fire Dept Public Education
- ..... Daphne Animal Shelter



Thank you for visiting the City of Daphne Environmental Management page! To learn more about our efforts or to contact us, please use the menu above.

[Home](#) | [Stormwater Runoff](#) | [Watersheds](#) | [Stormwater Management](#)

**Stormwater Runoff**

**Stormwater runoff** is generated when water from rain or other precipitation flows over land or impervious surfaces (such as paved streets, parking lots, and building rooftops) and does not seep into the ground. As this runoff flows, it accumulates debris, chemicals, sediment and other pollutants that could harm water quality if it is discharged untreated into our local water bodies.

[back to top](#)

**Watersheds**

Information coming soon!

[back to top](#)

**Stormwater Management (MS4)**

Under the 1987 Clean Water Act Amendments, the U.S. EPA developed new stormwater regulations to address storm water that might impact water quality. These new regulations were set up in a two Phase National Polluted Discharge Elimination System (NPDES) permitting approach based upon population and are enforced by the U.S. EPA, delegated to most States. The expression Municipal Separate Storm Sewer System (MS4) was given to the permittees. The regulatory definition of an MS4 (40 CFR 122.26(b)(8)) is "a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains): (i) Owned or operated by a state, city, town, borough, county, parish, district, association, or other public body (created to or pursuant to state law) including special districts under state law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under section 208 of the Clean Water Act that discharges into waters of the United States. (ii) Designed or used for collecting or conveying stormwater, (iii) Which is not a combined sewer, and (iv) Which is not part of a Publicly Owned Treatment Works (POTW) as defined at 40 CFR 122.2." In practical terms, operators of MS4s can include municipalities, counties, state and federal departments of transportation, and public universities.

Phase I, issued in 1990, dealt with MS4s serving an urban population greater than 100,000 people and in Alabama. There are approximately 750 Phase I MS4s in the United States (US).

Phase II, issued in 1999, requires regulated small MS4s in urbanized areas, as well as small MS4s outside the urbanized areas that are designated by the permitting authority, to obtain NPDES permit coverage for their stormwater discharges. The City of Daphne fell into this phase of permitting. There are approximately 6,700 Phase II MS4s in the US.

In Alabama, the Alabama Department of Environmental Management (ADEM) enforces the NPDES MS4 permitting program. In 2012, the City of Daphne was designated by ADEM as an owner/operator of a Phase II MS4. The City received its initial MS4 Phase II Stormwater NPDES permit ALR040039 ([Link to permit](#)) on December 21, 2011. The current permit coverage will expire on January 31, 2016.

The intent of the Phase II regulations is to reduce the adverse impacts to water quality and aquatic habitat by the development of a stormwater management program, instituting the use of controls and measurable goals for the following six stormwater related "*Minimum Control Measures (MCM)*"

- **Public Education and Outreach MCM** – The Public Education and Outreach (MCM 1) requires the City to implement and evaluate a public education and outreach program that distributes educational materials to the community or conducts equivalent outreach activities about the impacts of polluted discharges on water bodies and the steps that the public can take to reduce pollutants in stormwater runoff to the maximum extent practical.
- **Public Participation / Involvement** – The Public Participation / Involvement (MCM 2) requires the City to develop, implement and evaluate a public participation program centered on the City's Stormwater Management Program and its annual report. Ongoing activities for public involvement may include advisory councils, watershed associations, committees, stewardship programs and other environmental related activities.
- **Illicit Discharge Detection and Elimination (IDDE)** – The Illicit Discharge Detection and Elimination (MCM 3) requires the City to develop, implement, enforce, and evaluate a program to detect and eliminate illicit discharges and improper disposal, including spills not under the purview of another responding authority, into the City's regulated MS4 area, to the maximum extent practicable.
- **Construction Site Runoff Control** – The Construction Site Stormwater Runoff Control (MCM 4) requires the development, implementation, and enforcement of a program to reduce, to the maximum extent practicable, pollutants in any stormwater runoff to the MS4 from construction activities that result in a total land disturbance of greater than or equal to one (1) acre and activities that disturb less than one (1) acre but are part of a larger common plan of development or sale that would disturb one (1) acre or more.
- **Post-Construction Stormwater Management** – The Post-Construction Stormwater Management (MCM 5) goal is to minimize water quality impacts from new development and re-development sites by ensuring the implementation of proper Best Management Practices and their long term maintenance.
- **Pollution Prevention / Good Housekeeping** – The Pollution Prevention / Good Housekeeping for Municipal Operations (MCM 6) requires the City to develop and implement a program for pollution prevention and good housekeeping for its municipal operations. It also requires the development and implementation of an employee training program designed to prevent and reduce stormwater pollutants, to the maximum extent practicable, in areas such as parks maintenance, fleet and building maintenance, new construction and land disturbances, stormwater system maintenance, and all other applicable municipal operations.

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[Home](#) | [Workshops](#) | [Watershed/Stream Restoration](#) | [Teacher's Corner](#)

#### **Workshops**

Information coming soon!



- Animal Shelter
- Parks & Recreation
- Schools & Churches
- Medical Facilities
- Utilities
- Community Development
- Senior Opportunities
- Library
- Public Works
- Human Resources
- Fire Department
- Police Department
- IT Department

- All About Daphne
- Tourism
- Bayfront Pavilion
- Civic Center

- Events Calendar
- News
- Notification Sign Up
- Photo Gallery
- Jubilee Breeze Magazine

- Finance / Revenue / Bids
- Building Departments
- Forms

- Emergency Alerts
- Preparedness
- Useful Phone Numbers
- Shelter Information
- Related Links
- Employee Notifications

- Mayor
- City Council
- Council Agenda
- Council Packet
- Ordinances
- Office of the City Clerk
- Committees
- Court



Daphne City Hall  
 P.O. Box 400  
 Daphne, Alabama 36526  
 251 621 9000



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**Watershed/Stream Restoration**

Information coming soon!

[back to top](#)

**Teacher's Corner**

Information coming soon!

[back to top](#)

[Home](#) | [Report Illegal Discharge](#) | [Press](#) | [Contact Information](#)

**Report Illegal Discharge**

If you believe that pollutants are being discharged into Daphne creeks, or the city's storm sewer system, please contact us using one of the following methods:

- Call our office at (251) 621-3080, or
- Fill out the [Reporting Illicit Discharge Form](#). Please submit the form by:
  - Email: [acampbell@daphneal.com](mailto:acampbell@daphneal.com)
  - Mail: P.O. Box 400, Daphne, AL 36526

**Please ensure the following information is provided in your e-mail or voice mail:**

- Name
- Address
- Phone
- Location or Address of Problem
- Type of Problem
- Date of occurrence
- Name of company and/or description of individuals involved

**IF YOU ARE REPORTING AN EMERGENCY SITUATION THAT COULD RESULT IN IMMINENT AND SUBSTANTIAL DANGER TO THE HEALTH AND SAFETY OF PERSONS, PLEASE DISREGARD THE FORM AND CALL 911.**

The City of Daphne provides this service to allow concerned citizens to file e-mail or telephone/voice mail reports regarding the discharge of pollutants to rivers, creeks, and the storm sewer system within the city limits of Daphne. A tracking number will be assigned to each complaint received and an investigation initiated. The results of the investigation and any actions taken shall be documented and submitted to ADEM in the City's annual storm water program report.

Note: Anonymous complaints received by e-mail or telephone, or complaints with unverifiable contact information cannot be investigated. It is the policy of the City of Daphne to keep contact information confidential.

**False Complaints**

Please remember that reporting violations of environmental laws is a serious matter, and could result in criminal and/ or civil sanctions being assessed against the person or company being reported. Knowingly or intentionally making a false complaint is a violation of Alabama Law.

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**Press**

Click [here](#) to sign up to receive Daphne Environmental Management updates and alerts!

[News Articles](#)

- [Algae Systems](#): working with Daphne Utilities to produce fuel from sewage

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**Contact the Environmental Programs Manager**

Information coming soon!

[back to top](#)

[Home](#) | [Brochures](#) | [Links](#) | [Documents](#)

#### **Brochures**

Information coming soon!

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#### **Links**

- [Clean Water Future](#) : A public service campaign to help Alabamians learn more about stormwater runoff and its impacts; increase demand for stormwater management programs; and provide tools that empower Alabama residents to reduce polluted runoff in our waterways.
- [The Mesothelioma Center \(Asbestos.com\)](#) : The Mesothelioma Center is an asbestos awareness group that works to educate the public about the dangers of asbestos. Asbestos can cause many different diseases including lung cancer and mesothelioma. This organization works with those afflicted by asbestos-related diseases and helps them find local doctors, treatment centers and support groups, all free of charge. Their website has the most up to date information on the topic including Alabama specific information.

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#### **Documents**

- [2014 City of Daphne Stormwater Management Programs Plan](#)
- [2014 City of Daphne MS4 Water Quality Monitoring Plan](#)
- [City of Daphne MS4 Permit](#)
- [City of Daphne MS4 Phase II Permit Modification](#)

#### **MS4 Phase II Annual Reports:**

- **2013-2014 Annual Report**
  - [Compliance Chart – Goals & Achievements](#)
  - [MCM 1 Compliance](#)
  - [MCM 2 Compliance](#)
  - [MCM 3 Compliance](#)
  - [MCM 4 Compliance](#)
  - [MCM 5 Compliance](#)
  - [MCM 6 Compliance](#)
  - [Water Quality Monitoring Compliance](#)
- **2012-2013 Annual Report**
  - [Compliance Graph](#)
  - [MCM 1 Compliance](#)
  - [MCM 2 Compliance](#)
  - [MCM 3 Compliance](#)
  - [MCM 4 Compliance](#)
  - [MCM 5 Compliance](#)
  - [MCM 6 Compliance](#)

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PACSYNC

## **MCM 2**

# **Public Involvement/Public Participation**

### **3.2.8**

## **Comprehensive Plan**

### **EAC Review**

# CITY OF DAPHNE STAKEHOLDER MEETINGS

## Meetings

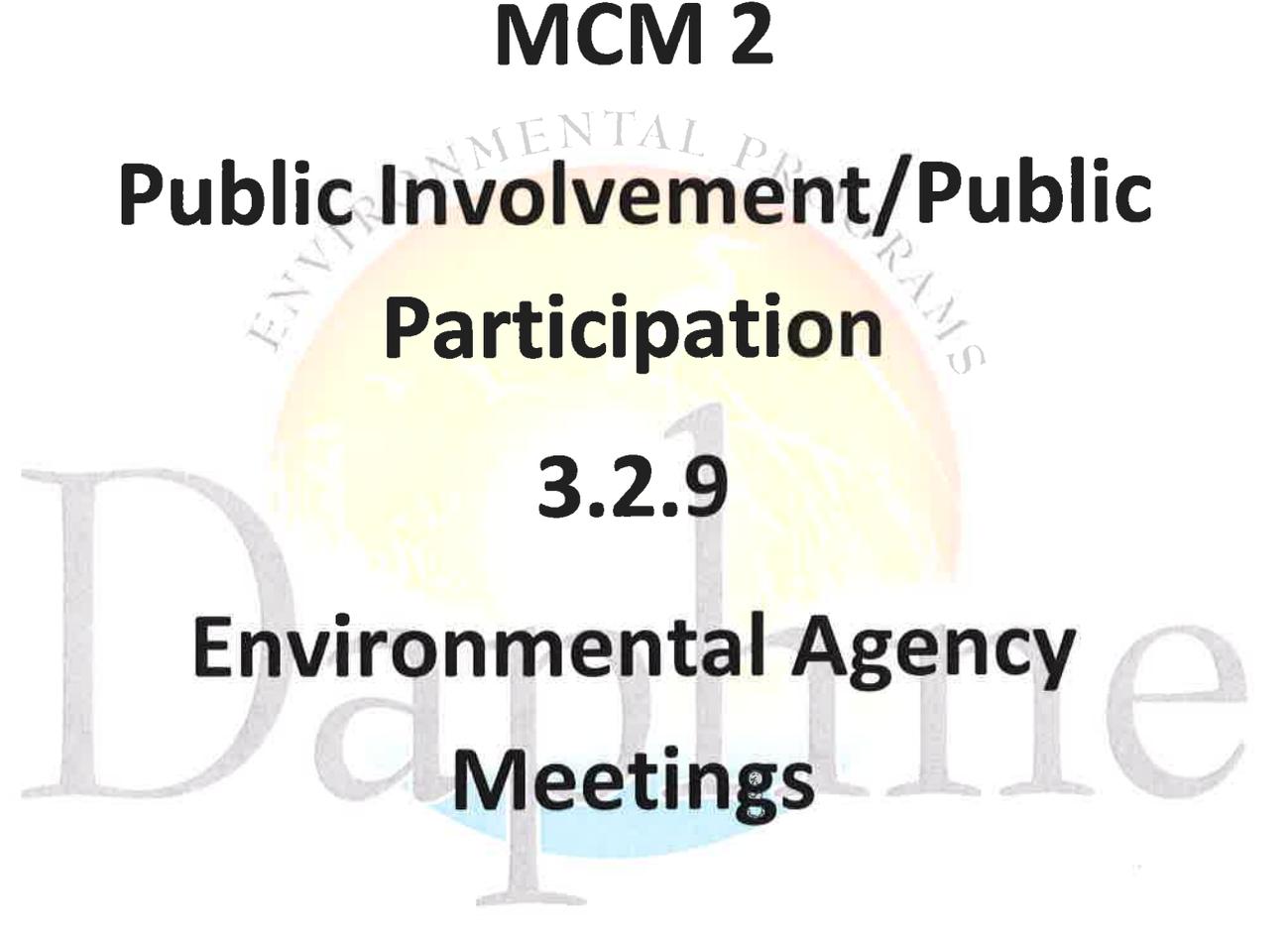
1. 6/2-Buildings & Properties
2. 6/9-Finance
3. 6/11-Public Safety
4. 6/11-Recreation
5. 6/16-Public Works
6. 6/18-PC
7. 6/23-EAC
8. 6/23-IDB
9. 6/25-ESMPO
10. 6/25-DRA
11. 07/02-Beautification
12. 07/08-Library (Friends)
13. **08/13-PC**

## Comprehensive Plan Elements Input Gathered

1. Community services/facilities
2. Implementation strategies
3. Recreation/open space
4. Hazard mitigation
5. Economic development
6. Transportation
7. Urban design
8. Housing
9. Education
10. **Land Use**

## E.A.C. QUESTIONNAIRE TALLY

	yes	no	
			<b>Goal to protect environmental resources and promote water quality, conservation and stormwater management</b>
			Valid Objectives?
1	9		<i>Develop and implement a comprehensive drainage study.</i>
2	9		Develop drainage master plan that identifies the preferred flood control alternatives of those identified in the drainage study.
3	9		Promote reduction in the amount of stormwater runoff from existing and newly -developed sites and smart reuse of stormwater.
4	8	1	Identify and protect environmentally-sensitive areas such as wetlands and riparian corridors along streams.
5	9		Promote the use of LID measures and identify tangible incentives for such use where appropriate.
6	9		Encourage innovative solutions to storm water management problems.
7	7	1	Advocate the use Alabama native plants on public and private property.
8	8		In areas identified as <i>critical or significantly impaired</i> , strongly encourage the use of innovative stormwater management system design which incorporates no less than 4 LID techniques.
9	9		Promote Clean Water Act goals and objectives through active participation in the NPDES MS4 permit program.
10	9		Reduce discharge of pollutants in stormwater.
11	9		Maintain an education and outreach program.
12	9		Maintain a public involvement and participation program.
13	9		Maintain an illicit discharge detection and elimination program.
14	9		Maintain program to minimize pollutants generated by qualified construction sites.
15	9		Maintain a program to monitor post-construction sites.
16	9		Maintain a program to exercise BMPs on and for city facilities .
17	8	1	Maintain a water quality monitoring plan and program to protect impaired streams.



**MCM 2**  
**Public Involvement/Public**  
**Participation**

**3.2.9**

**Environmental Agency**  
**Meetings**

**MCM 2 Public Participation Public Involvement  
3.2.9 Attendance of Other Agency Meetings**

<b>Environmental Agency</b>	<b>Date</b>	<b>Meeting Topics</b>	<b>Location</b>	<b>Env. Group</b>
<b>ADCNR Forever Wild</b>				
	9/18/2014	Forever Wild Friday Construction Nomination	Five Rivers	Forever Wild
<b>ADEM</b>				
	12/18/2014	ADEM Injection Well Meeting	Montgomery	ADEM
<b>ASWCS</b>				
	10/28/2014	ASWCS Preplanning Annual Conference	Clanton	ASWCS
	9/25/2014	Clearwater Workday	Daphne	ASWCS
	9/24/2014	Clearwater Workday	Daphne	ASWCS
<b>AWW</b>				
		AWW Sampling Site Location		
	9/22/2014	Determination	Daphne	NA-Builder
<b>ADCNR &amp; Baldwin County Commission</b>				
	7/21/2014	CIAP	Daphne-Site Visit	
	8/22/2014	CIAP	Five Rivers	ADCNR
	9/12/2014	CIAP	Five Rivers	ADCNR & BC
<b>Baldwin County Hazard Mitigation Planning Committee</b>				
	7/9/2014	Hazard Mitigation Grant	Summerdale	BC & ADCNR
	10/8/2014	Hazard Mitigation Grant	Summerdale	Baldwin County
				CWP
<b>Coastal Alabama Clean Water Partnership (CAWP)</b>				
	4/8/2014	CACWP-Partner Updates	Five Rivers	
	7/8/2014	CACWP-Partner Updates	Five Rivers	
<b>Mobile Bay National Estuary (MBNEP)Community Action Committee (CAC)</b>				
	9/26/2014	CAC CAST WebPage Campaign	Five Rivers	
	7/11/2014	CAC CAST	Five Rivers	MBNEP CAC

**MCM 2 Public Participation Public Involvement  
3.2.9 Attendance of Other Agency Meetings**

	12/17/2014	Respect the Connect Breakfast	Mobile	BC HMGP Committee Meeting
				MBNEP
<b>MBNEP Science Advisory Committee (SAC)</b>				
	11/21/2014	SAC DC Watershed Restoration Monitoring Planning Meeting	Mobile	MBNEP/DISL
<b>MBNEP NFWF</b>				
	5/29/2014	Joel Branch Property Owner Meeting	Daphne	MBNEP
	8/21/2014	NFWF	Daphne	MBNEP
<b>Mobile Bay National Estuary Project Implementation Committee (PIC)</b>				
	9/11/2014	MBNEP PIC- Watershed Plans	Five Rivers	
	9/29/2014	USEFWS Joe's Branch Field Eval	Spanish Fort	MBNEP
<b>Contractors</b>				
	9/5/2014	DR Horton	Daphne	

12/18/14 ADEM meeting - Montgomery



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

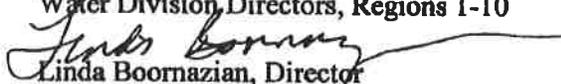
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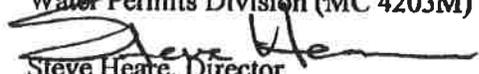
OFFICE OF  
WATER

MEMORANDUM

**SUBJECT:** Clarification on which stormwater infiltration practices/technologies have the potential to be regulated as "Class V" wells by the Underground Injection Control Program

**TO:** Water Division Directors, Regions 1-10

**FROM:**   
Linda Boornazian, Director  
Water Permits Division (MC 4203M)

  
Steve Heare, Director  
Drinking Water Protection Division (MC 4606M)

Over the past several years stormwater infiltration has become an increasingly effective tool in the management of stormwater runoff. Although primary stormwater management responsibilities within EPA fall under the Clean Water Act (CWA), the infiltration of stormwater is, in some cases, regulated under the Safe Drinking Water Act (SDWA) with the goal of protecting underground sources of drinking water (USDWs). Surface and ground water protection requires effective integration between the overlapping programs. This memorandum is a step forward in that effort and is meant to provide clarification on stormwater implementation and green infrastructure, in particular under the CWA, which is consistent with the requirements of the SDWA's Underground Injection Control (UIC) Program.

In April 2007, EPA entered into a collaborative partnership with four national groups (the Association of State and Interstate Water Pollution Control Administrators, the Low Impact Development Center, the National Association of Clean Water Agencies, and the Natural Resources Defense Council) to promote green infrastructure as a cost-effective, sustainable, and environmentally friendly approach to stormwater management. The primary goals of this collaborative effort are to reduce runoff volumes and sewer overflow events through the use of green infrastructure wet weather management practices.

Within the context of this collaborative partnership, green infrastructure includes a suite of management practices that use soils and vegetation for infiltration, treatment, and evapotranspiration of stormwater. Rain gardens, vegetated swales, riparian buffers and porous pavements are all common examples of green infrastructure techniques that capture and treat stormwater runoff close to its source. Green infrastructure management practices typically do not include commercially manufactured or proprietary infiltration

devices or other infiltration practices such as simple drywells, which do not provide for pre-treatment prior to infiltration.

The partnership is promoting green infrastructure as an effective approach to stormwater management because these practices are associated with a number of environmental benefits. In addition to reducing and delaying runoff volumes, green infrastructure approaches can also reduce pollutant levels in stormwater, enhance ground water recharge, protect surface water from stormwater runoff, increase carbon sequestration, mitigate urban heat islands, and increase wildlife habitat.

Given the multiple benefits that green infrastructure can provide, EPA and its partners have increased efforts to incorporate green infrastructure techniques into stormwater management strategies nationwide. In recent years, public support for these practices has gradually increased. For more information on green infrastructure, please visit [www.epa.gov/npdes/greeninfrastructure](http://www.epa.gov/npdes/greeninfrastructure).

There are cases where stormwater infiltration practices are regulated as Class V wells under the UIC program, and State and local stormwater managers report that some developers are hesitant to incorporate green infrastructure practices because they fear regulatory approvals will slow the process and increase costs. EPA believes those fears are unfounded and notes that most green infrastructure practices do not meet the Class V well definition and can be installed without regulatory oversight by the UIC Program. However, EPA remains committed to the protection of USDWs and emphasizes the need for UIC program compliance (per 40 CFR 144).

To provide clarification on which stormwater infiltration techniques meet EPA's UIC Class V well definition, EPA's Office of Water has developed the attached "Class V Well Identification Guide." State or Regional stormwater and nonpoint source control programs, developers, and other interested parties are requested to contact the State or Regional UIC Program Director with primary authority for the UIC Class V program when considering the use of practices that have been identified, or potentially identified, as Class V wells. UIC program managers should consider the proximity to sensitive ground water areas when looking at the suitability of stormwater infiltration practices. Depending on local conditions, infiltration without pretreatment may not be appropriate in areas where ground waters are a source of drinking water or other areas identified by federal, state, or local governments as sensitive ground water areas, such as aquifers overlain with thin, porous soils.

Please share this memo and the attached guide with your State and Regional stormwater, nonpoint source control, UIC and other ground water managers, as well as with appropriate green infrastructure contacts. These programs are encouraged to coordinate on stormwater management efforts when sensitive ground water issues arise.

Attachment

## Underground Injection Control (UIC) Program Class V Well Identification Guide

This reference guide can be used to determine which stormwater infiltration practices/technologies have the potential to be regulated as “Class V” wells. Class V wells are wells that are not included in Classes I through IV. Typically, Class V wells are shallow wells used to place a variety of fluids directly below the land surface. By definition, a well is “any bored, drilled, driven shaft, or dug hole that is deeper than its widest surface dimension, or an improved sinkhole, or a subsurface fluid distribution system” and an “injection well” is a “well” into which “fluids” are being injected (40 CFR §144.3). Federal regulations (40 CFR §144.83) require all owners/operators of Class V wells to submit information to the appropriate regulatory authorities including the following:

1. Facility name and location
2. Name and address of legal contact
3. Ownership of property
4. Nature and type of injection well(s)
5. Operating status of injection well(s)

For more information on Class V well requirements, please visit [http://www.epa.gov/safewater/uic/class5/comply\\_minrequirements.html](http://www.epa.gov/safewater/uic/class5/comply_minrequirements.html). For more information on green infrastructure, please visit <http://www.epa.gov/npdes/greeninfrastructure>.

The stormwater infiltration practices/technologies in rows A through I below are generally not considered to be wells as defined in 40 CFR §144.3 because typically they are not subsurface fluid distribution systems or holes deeper than their widest surface dimensions. If these practices/technologies are designed in an atypical manner to include subsurface fluid distribution systems and/or holes deeper than their widest surface dimensions, then they may be subject to the Class V UIC regulations. The stormwater infiltration practices/technologies in rows J through K however, depending upon their design and construction probably would be subject to UIC regulations.

	Infiltration Practice/Technology	Description	Is this Practice/Technology Generally Considered a Class V Well?
A	Rain Gardens & Bioretention Areas	Rain gardens and bioretention areas are landscaping features adapted to provide on-site infiltration and treatment of stormwater runoff using soils and vegetation. They are commonly located within small pockets of residential land where surface runoff is directed into shallow, landscaped depressions; or in landscaped areas around buildings; or, in more urbanized settings, to parking lot islands and green street applications.	No.
B	Vegetated Swales	Swales (e.g., grassed channels, dry swales, wet swales, or bioswales) are vegetated, open-channel management practices designed specifically to treat and attenuate stormwater runoff. As stormwater runoff flows along these channels, vegetation slows the water to allow sedimentation, filtering through a subsoil matrix, and/or infiltration into the underlying soils.	No.
C	Pocket Wetlands & Stormwater Wetlands	Pocket/Stormwater wetlands are structural practices similar to wet ponds that incorporate wetland plants into the design. As stormwater runoff flows through the wetland, pollutant removal is achieved through settling and biological uptake. Several design variations of the stormwater wetland exist, each design differing in the relative amounts of shallow and deep water, and dry storage above the wetland.	No.
D	Vegetated Landscaping	Self-Explanatory.	No.
E	Vegetated Buffers	Vegetated buffers are areas of natural or established vegetation maintained to protect the water quality of neighboring areas. Buffer zones slow stormwater runoff, provide an area where runoff can infiltrate the soil, contribute to ground water recharge, and filter sediment. Slowing runoff also helps to prevent soil and stream bank erosion.	No

	<b>Infiltration Practice/Technology</b>	<b>Description</b>	<b>Is this Practice/Technology Generally Considered a Class V Well?</b>
F	Tree Boxes & Planter Boxes	Tree boxes and planter boxes are generally found in the right-of-ways alongside city streets. These areas provide permeable areas where stormwater can infiltrate. The sizes of these boxes can vary considerably.	No.
G	Permeable Pavement	Permeable pavement is a porous or pervious pavement surface, often built with an underlying stone reservoir that temporarily stores surface runoff before it infiltrates into the subsoil. Permeable pavement is an environmentally preferable alternative to traditional pavement that allows stormwater to infiltrate into the subsoil. There are various types of permeable surfaces, including permeable asphalt, permeable concrete and even grass or permeable pavers.	No.
H	Reforestation	Reforestation can be used throughout a community to reestablish forested cover on a cleared site, establish a forested buffer to filter pollutants and reduce flood hazards along stream corridors, provide shade and improve aesthetics in neighborhoods or parks, and improve the appearance and pedestrian comfort along roadsides and in parking lots.	No.
I	Downspout Disconnection	A practice where downspouts are redirected from sewer inlets to permeable surfaces where runoff can infiltrate.	In certain circumstances, for example, when downspout runoff is directed towards vegetated/pervious areas or is captured in cisterns or rain-barrels for reuse, these practices generally would not be considered Class V wells.
J	Infiltration Trenches	An infiltration trench is a rock-filled trench designed to receive and infiltrate stormwater runoff. Runoff may or may not pass through one or more pretreatment measures, such as a swale, prior to entering the trench. Within the trench, runoff is stored in the void space between the stones and gradually infiltrates into the soil matrix. There are a number of different design variations.	In certain circumstances, for example, if an infiltration trench is "deeper than its widest surface dimension," or includes an assemblage of perforated pipes, drain tiles, or other similar mechanisms intended to distribute fluids below the surface of the ground, it would probably be considered a Class V injection well.

	<b>Infiltration Practice/Technology</b>	<b>Description</b>	<b>Is this Practice/Technology Generally Considered a Class V Well?</b>
K	Commercially Manufactured Stormwater Infiltration Devices	Includes a variety of pre-cast or pre-built proprietary subsurface detention vaults, chambers or other devices designed to capture and infiltrate stormwater runoff.	These devices are generally considered Class V wells since their designs often meet the Class V definition of subsurface fluid distribution system.
L	Drywells, Seepage Pits, Improved Sinkholes.	Includes any bored, drilled, driven, or dug shaft or naturally occurring hole where stormwater is infiltrated.	These devices are generally considered Class V wells if stormwater is directed to any bored, drilled, driven shaft, or dug hole that is deeper than its widest surface dimension, or has a subsurface fluid distribution system.

- **LID Measures typically not considered to be Class V wells**
  - Rain gardens and bioretention areas
  - Vegetated swales
  - Stormwater wetlands
  - Tree boxes and Planter boxes
  - Permeable pavement
  - Downspout Disconnection if
    - Directed toward vegetated pervious areas
    - Captured in cisterns or rain barrels

- **LID Measures which can be considered Class V wells**
  - Infiltration Trench if
    - Deeper than it is wide
    - Has a subsurface distribution system intended to infiltrate fluids beneath the surface of the ground
  - Commercially Manufactured Stormwater Infiltration Devices
  - Drywells, Seepage Pits or Percolation Ponds, Improved Sinkholes (these measures provide direct path to groundwater)

**Alabama Chapter – Soil and Water Conservation Society**  
**Executive Board Meeting Agenda**  
**October 28, 2014**  
**10:00 a.m.**  
**Clanton, Alabama**

Call to Order	Monday Mbila
Secretary's Report	Josh Elliott • Approval of Minutes
Treasurer's Report	Leah Duzy
Area Vice-Presidents' Reports	
Area I	Tracy Cole
Area II	Jason Gardner
Area III	Randall McDaniel
Area IV	Luis Cruz-Arroyo
Area V	Alex Vaughan
Erosion & Sediment Control / CPESC	Earl Norton
Student Chapters	
Alabama A&M University	Monday Mbila
Tuskegee University	Ramble Ankumah
Membership Committee	Skip Ragsdale
Chapter Development Committee	Randall East
Certification Committee	Eddie Jolley
Education Committee	Perry Oakes
Nominating Committee	Steve Musser
Public Relations	Fay Garner
New Business	
Reviews of last Annual Meeting	Monday Mbila
Next Annual Meeting Planning Committee	Leslie Gahagan
Next Meeting	
Adjourn	

Baldwin County  
*Hazard Mitigation Planning Committee*

**Meeting Location & Time:**

Baldwin County Emergency Operations Center (Ops Room)  
23100 McAuliffe Drive  
Robertsdale, AL 36567  
July 9, 2014  
9:00am

**Agenda**

**I. Call to Order**

- A. Welcome and Introductions – Mitchell Sims, EMA Director

**II. Approval of Minutes**

- A. Last meeting – April 2, 2014

**III. Old Business**

- A. Bylaws – Adoption of final draft
- B. Officer Nominations
- C. Election of Chairperson, Co-Chairperson, and Secretary
- D. HMPC Meeting Schedule and plan update timeline
- E. Threat and Hazard Identification and Risk Assessment

**IV. New Business**

- A. DR-4176 – Hazard Mitigation Grant Program
- B. Open Discussion / Comments

**V. Adjournment**

- A. Next Meeting: Wednesday, 09/24/2014, at 09:00 at the Baldwin County EOC

Baldwin County  
*Hazard Mitigation Planning Committee*

**Meeting Location & Time:**

Baldwin County Emergency Operations Center (Ops Room)  
23100 McAuliffe Drive  
Robertsdale, AL 36567  
October 8, 2014  
9:00am

**Agenda**

**I. Call to Order**

- A. Welcome and Introductions – Landon Smith, Chairperson

**II. Approval of Minutes**

- A. Last meeting – July 9, 2014

**III. Old Business**

- A. HMPC Meeting Schedule and plan update timeline
- B. DR-4176 – Hazard Mitigation Grant Program

**IV. New Business**

- A. 2014-2015 Threat and Hazard Identification and Risk Assessment (THIRA)
- B. 2015 Emergency Operations Plan Revision
- C. Pre-Disaster Mitigation Grant Program – planning grant application status
- D. Open Discussion / Comments

**V. Adjournment**

- A. Executive Committee Meetings will be as needed and announced at least one full week prior to the date of the meeting.
- B. Next Full Body Meeting: Wednesday, 01/07/2014, at 09:00 at the Baldwin County EOC



*Coastal Alabama*  
**Clean Water Partnership**

**Coastal Alabama Clean Water Partnership  
Steering Committee Meeting  
Tuesday, April 8<sup>th</sup>, 2014  
1:00 PM  
Five Rivers Delta Center**

Agenda

1. Call to Order & Introductions
2. Clean Water Partnership Updates
  - Coastal Basin Update – Christian Miller
  - Statewide Update – Allison Jenkins
3. District Updates
  - Mobile County – Brian Keller
  - Baldwin County – Frank Trione
4. Forests as a Solution for Gulf Prosperity
  - Rick Cantrell, Black Briar Environmental
5. Partner Announcements
6. Adjourn



*Coastal Alabama*  
**Clean Water Partnership**

**Coastal Alabama Clean Water Partnership  
Steering Committee Meeting  
Tuesday, July 8<sup>th</sup>, 2014  
1:00 PM  
Five Rivers Delta Center**

Agenda

1. Call to Order & Introductions
2. Clean Water Partnership Updates
  - Christian Miller
3. District Updates
  - Mobile County – April Griffin
  - Baldwin County – Frank Trione
4. A Watershed Plan for Three Mile Creek
  - Mike Hanson, Dewberry
5. Planning for Trash Free Waters
  - BJ Smith, Shorecombers
6. Partner Updates
7. Adjourn



## **Mobile Bay National Estuary Program Community Action Committee Meeting**

Five Rivers Delta Center  
Friday July 11, 2014 at 11:30

### **Agenda**

1. Welcome
2. Approval of minutes
3. Documents Released/Under Review
  - a. Comprehensive Conservation & Management Plan
  - b. Three Mile Creek Watershed Management Plan
  - c. Living Shorelines Document
4. Survey
5. CAC Member Involvement
  - a. Anti-Litter Campaign
  - b. Watershed Management Planning
  - c. Citizens Guide to Engagement
6. Wal-Mart
7. City of Mobile Litter Ordinance
8. Next meeting
9. Adjourn

Mobile Bay NEP CAC Meeting  
July 11, 2014  
Five Rivers Delta Resource Center

**In attendance:** Ashley Campbell, D'Olive Working Group; Casi Callaway, Mobile Baykeeper; Leslie Gahagan, Wolf Bay Watershed Watch; Mark Berte, Alabama Coastal Foundation; Terry Sue Smith, Bayou La Batre Beautification Committee; Nickelle Stoll, Mobile Baykeeper; Chandra Wright, Little Lagoon Preservation Society; Debi Foster, The Peninsula of Mobile; Alice Keel, The Peninsula of Mobile; BJ Smith, Shorecombers Trash Blasting; Will Bridges, Dog River Clear Water Revival; Renee Edwards, Mobile Baykeeper; Mayor Brett Dungan, City of Bayou La Batre; Walter Ernest, Pelican Conservancy; Ray Mayhall, Fowl River Area Civic Association

**Staff:** Kelley Barfoot, Rick Frederick

*Meeting called to order at 11:37*

Approval of minutes was motioned was not made due to no one present from March 21, 2014 meeting. Introductions were made by each attendee.

Casi began by going over currently released documents out for comment and recommended each member review and make their comments before the appropriate deadlines. (MBNEP Comprehensive Conservation & Management Plan, Living Shorelines Document (under review by state), Three Mile Creek)

Casi discussed the CAC member survey in development. She stated each member would receive the survey within the next few weeks. She stated the information collected would help the CAC with gather information about each members group and community. The information would then be distributed among the group for trainings, workshops, meetings, presentations etc. This would also allow the group to build a repository for each member to use.

The members conducted a round-the-table group update:

- City of Daphne/D'Olive Working Group): Purchasing Football AD space in programs to conduct outreach regarding the Create A Clean Water Future Campaign. As well as conducting educational outreach throughout the Baldwin County Schools.
- Little Lagoon Preservation Society: Continuous participation in Coastal Cleanup and working with City of Gulf Shores for litter enforcement.
- The Peninsula of Mobile: Recently established a business community group who is speaking with local businesses regarding the trash and importance of protecting natural resources. Also recently established an infrastructure committee that is focusing on one block at a time. Their goal is to conduct block cleanups in the community. This committee has litter & blite captains that commit to keeping certain areas clean. They have created a database for calls/locations of complaints.
- Business Resources Committee (Rick Frederick, MBNEP): Recently released an RFP for Advertising Agencies for the Clean Water Future Campaign.
- Shorecombers Trash Blasting: Conducting trash training classes to develop action, master and implementation plans.
- Alabama Coastal Foundation: Conducting various educational programs that focus on anti-litter and stormwater. Establishment of Estuary Corps program in middle schools. Working with Keep Mobile Beautiful and the Mobile Downtown Alliance's Eco-Team for BayFest, MardiGras and Laps mini-music festival.

- Pelican Conservancy: Monitoring of illegal dumping on conservation easements. Continued participation in Coastal Cleanup.
- City of Bayou La Batre: Conducting comprehensive planning and grant opportunities. Using inmates to clean up areas of the city. Working with the Chamber on the Adopt-A-Mile program.
- Bayou La Batre Beautification Committee: Creating an Anti-Litter Campaign that can be used for all ages and all groups. Some areas of the city need specific care and the group is working to resolve those issues.
- Mobile Baykeeper: Conducting weekly cleanup events with Urban Mission Camp students. Main clean up area focus is the Three Mile Creek watershed. Promoted the use of reusable litter bags 'Litter Getter' at the kid's festival recently in Bienville Square. Focusing on other various education opportunities. Creating a citizens guide to conducting a trash cleanup events.
- Fowl River Area Civic Association: Continued participation in the Haz Mat collection day in Fowl River. Recently create a Trash Free Zone Community Campaign-A residential trash service company donated large cans that are placed at stop signs and various areas throughout the community that people can use to dump their litter in instead of along the streets or in the ditches. There are currently 6 cans and 10 Trash Free Zone signs in place.
- Dog River Clean Water Revival: Using trash catchers. Conducting community and water cleanups. Hosting grass planting workdays. Working with the City of Mobile regarding their recent litter ordinance.
- Wolf Bay Watershed Watch: Recently added more community cleanup events to the calendar. City of Foley has installed a Trash Rack in Bon Secour River. Currently working with four churches to conduct clean up events.

Leslie Gahagan discussed her recent success with Wal-Mart. She stated Walk-Mart in Foley had recently been cited for stormwater/trash violations. She spoke to the manager who stated that the corporate office had cut back the parking lot cleaning from 7 days down to 4, but that he was able to get a waiver from the corporate office to continue 7 day parking lot cleaning. She shared with the group a letter of 'praise' that she sent to the store manager for his corporation in addressing the stormwater/litter issues. Ray Mayhall suggested that CAC members should speak with the managers/regional managers and point out their violations and discuss we could work together to resolve their issues just as Leslie had done.

Casi gave a brief overview of the City of Mobile Litter Ordinance. She suggested that the CAC members should also do as Leslie did with Wal-Mart and send letters of 'praise' to the businesses that are complying with the new ordinance and thank them for their support. Ashely Campbell suggested the CAC design a beautification award that could be given to the businesses at a city luncheon or such event.

Casi closed the meeting by asking each member to complete the survey and review the documents out for comment and provide any where necessary.

Meeting adjourned at 12:55 p.m.

*Next CAC Meeting is scheduled for September 26<sup>th</sup> from 12:00-1:30 p.m. Please check the MBNEP events calendar at [www.mobilebaynep.com/events](http://www.mobilebaynep.com/events) for meeting details and/or meeting updates.*



**Mobile Bay National Estuary Program  
Community Action Committee Meeting**

Five Rivers Delta Center  
Friday September 26, 2014 at 12:00 pm

**Agenda**

1. Welcome
2. Approval of minutes from 3/21 meeting & 7/11 meeting
3. Website Development/Campaign Kit
4. Newsletter
5. CWF Advertisement
6. Workshops
7. Watershed Management Planning for Community Involvement
8. Next meeting
9. Adjourn

Mobile Bay NEP CAC Meeting  
September 26, 2014  
Five Rivers Delta Resource Center

**In attendance:** Ashley Campbell, D'Olive Working Group; Casi Callaway, Mobile Baykeeper; Leslie Gahagan, Wolf Bay Watershed Watch; Lauren Jakubowski, Alabama Coastal Foundation; Mayor Brett Dungan, City of Bayou La Batre; Chad Seaman, City of Bayou la Batre; Nickelle Stoll, Mobile Baykeeper; Dennis Hatfield, Little Lagoon Preservation Society; Debi Foster, The Peninsula of Mobile; David Dueitt, Lake Forest Improvement Committee; Emilee Lyons, Friends of Baldwin County; Harold White, Fowl River Area Civic Association; Jim Horner, Fairhope Environmental Advisory Board; Tuan Do (Dave), Boat People SOS

**Staff:** Kelley Barfoot, Linda Sierke

*Meeting called to order at 12:10*

Approval of minutes from the March 21, 2014 and the July 11, 2014 meeting was motioned by Harold White and seconded by Ms. Nickelle Stoll. Introductions were made by each attendee.

Ms. Kelley Barfoot gave an overview of the developed Clean Water Future website. She went through each page and explained its purpose and asked for any questions or comments. She then went through the Campaign Kit and how it can be used and personalized for each organization or community group.

She showed the latest CAC Newsletter and asked if any organization or community group wanted to add their events or information regarding their community to send her an email and she will include it in the monthly newsletter. She stated the goal was to have it be a monthly publication, but if not then it would be sent quarterly.

Ms. Ashley Campbell gave a presentation on the current advertisement for the Clean Water Future Campaign. She showed the group high school football ads that were designed for each high school in Baldwin County. She expressed how purchasing these ads can reach a broader community and will help to get the message across regarding Creating A Clean Water Future. Ms. Barfoot then showed the group a photo from a recent visit to Theodore High School (see attached presentation) and described the NEP's upcoming planning of a Trash-A-thon for the athletic program. She stated the idea would be for each player (football team) to get five to ten individuals or businesses to sponsor them for \$5.00/hr for a four hour cleanup. The Trash-A-Thon would be a way for the NEP to accomplish its goals within the Fowl River Watershed Management Plan of community involvement and the athletic department would use this as an opportunity to raise funds for its program. The group asked if this is something that could be done in their community as well and if the idea was an open idea for anyone to use and Ms. Barfoot said yes that the idea could be tweaked to fit within your community's needs.

Ms. Casi Callaway began discussing the importance of Community Involvement in Watershed Management Planning. She and Ms. Leslie Gahagan showed the group a working document and

asked for the group to help fill in the blanks. The document listed five aspects to community involvement and the group made their recommendations. (See below)

1. Gather Stakeholders in Community – Citizens, Businesses & property owners, Organizations, Non Profits (Churches), local & state government, school system, agriculture, local delegation, local & state agencies, utilities, define boundaries of impact areas,
2. Education and Information Program on Watershed Management Plans – Develop the details of the plan through stakeholder meetings- stormwater component (siltation), define the problems within the watershed, watershed education, define headwaters issues vs. basin issues,
3. Workshops and Community Enhancement Activities – Implement the details of the plan with stakeholder involvement- stormwater management, lawn care, living shorelines, community cleanup, clean marinas, email list,
4. Update Mobile Bay National Estuary Program’s Community Action Committee on Progress of the Plan
5. Develop a Marketing Campaign on the Plan – Social Media, Create a Clean Water Future

Casi closed the meeting by asking the group if there were any questions or comments. None were addressed.

Meeting adjourned at 1:45 p.m.

*Next Meeting will be the Annual Management Conference scheduled for December 17<sup>th</sup>. Please check the MBNEP events calendar at [www.mobilebaynep.com/events](http://www.mobilebaynep.com/events) for meeting details and/or meeting updates.*

RESPECT THE CONNECTION

Celebrating the stewardship of our coastal way of life

The Mobile Bay National Estuary Program invites you to join us for breakfast

Wednesday, December 17, 2014

7:30am

Crystal Ballroom, The Battle House Hotel

featuring a keynote by journalist and author

J. D. Crowe

Sponsored by  
Baldwin County Commission Dauphin Island Sea Lab  
Mobile County Commission

RSVP by December 12

tengland@mobilebaynep.com or call 251-380-7936

## D'Olive Watershed Restoration Monitoring Planning Meeting

**8:30am Friday November 21<sup>st</sup>, 2014**

Vision: Comprehensive restoration monitoring that enables quantitative assessment of restoration success and assessment of overall ecosystem function.

Goals: Develop a monitoring strategy that will answer these questions:

1. What, if any, changes are there in the water quality, sedimentation, flow, and habitat quantity and quality as a result of restoration efforts and management plan implementation?
2. How are potential ecosystem health indicators related to stressors and ecosystem functions/services?
3. What is the biological condition gradient (BCG) status of D'Olive watershed?

8:30am: Welcome and Background

9:00am: Identify what is needed to comprehensively monitor D'Olive Watershed (20 min ea)

- Sedimentation & Flow
- Water Quality
- Habitat Quantity & Quality
- Biological Indices

10:30: 15 Minute Break

10:45: Review Current/Past monitoring in D'Olive watershed

11:00: Identify gaps in current monitoring plan and how to address them

## **Mobile Bay Subwatershed Comprehensive Restoration Monitoring Framework**

**Vision:** Comprehensive restoration monitoring that enables quantitative assessment of restoration success and assessment of overall ecosystem function

### **Goals:**

To answer three questions:

1. What, if any, changes are there in the water quality, sedimentation, flow, biology, and habitat quantity and quality as a result of restoration efforts and management plan implementation?
2. How are potential ecosystem health indicators related to stressors and ecosystem functions/services?
3. What is the long-term status of the biological condition in the Mobile Bay watershed?

### **COMMENTS ON THE PROCESS AND RECOMMENDATIONS**

This framework outlines recommended monitoring procedures in relation to watershed restoration and watershed management plan implementation to understand ensuing impacts on the entire subwatershed. Development and implementation of a standardized monitoring protocol across the larger Mobile Bay watershed in all subwatersheds is critical for understanding the current health and function of the Mobile Bay Estuary and any shifts due to restoration. Recognizing the existing gap and need for such a plan in Mobile and Baldwin Counties the Mobile Bay National Estuary Program (MBNEP) tasked their Science Advisory Committee with development of a comprehensive monitoring framework. This plan contributes to the MBNEP's Five Year Comprehensive Conservation Management Plan, and can be integrated with larger monitoring networks being developed by the Gulf of Mexico Alliance, the Gulf of Mexico Coastal Ocean Observing System, and other partners.

This plan was developed by a working group of the Mobile Bay National Estuary Program Science Advisory Committee (SAC) and then approved by the rest of the SAC. These are thought to be the best available practices necessary to answer the questions laid forth in our goals. Recommendations of best practices reflect the group's professional opinion.

### **Desired Outcomes:**

The recommended protocols will result in standardized data collection for restoration efforts throughout Mobile and Baldwin Counties, allowing comparisons both temporally and spatially, improved decision making, and data preservation for future use. We recommend the monitoring program outlined within this framework be incorporated into all Watershed Management Plans and restoration

proposals and contracts. Ensuring utilization of this framework uniformly across all restorations and watersheds in Mobile and Baldwin counties will allow an interconnected network of data that can improve understanding of the processes of Mobile Bay as a whole. This will also serve as a model for future efforts across the Gulf Coast in developing larger, regional networks, including those envisioned by the Gulf of Mexico Alliance, the National Oceanic and Atmospheric Administration, and the Gulf of Mexico Coastal Ocean Observing System. To achieve these goals we recommend:

- 1) The adoption of this framework in every restoration request for proposals (RFP) and restoration contracts for Mobile and Baldwin County
- 2) Long-term monitoring based on this framework in every Watershed Management Plan for all watersheds in Mobile and Baldwin County
- 3) Data synthesis to develop tools and products for assessment of restoration success, adaptive resource management, and baseline establishment
- 4) Active engagement with county and municipality planners, resource managers, agencies working within the watershed, and other stakeholders to encourage implementation of monitoring and broad application of tools developed from data synthesis.

**Efficiency:**

These recommendations are not all inexpensive or new. Prior to design and implementation in specific watersheds we highly encourage an inventory of required and ongoing monitoring within the watershed to assess what resources are available and what can be leveraged. For example municipalities, businesses, and state and local agencies frequently must monitor to some degree to meet Clean Water Act MS4 requirements. Interagency cooperation will avoid redundancy and provide maximum success for the minimum investment for all partners.

**Data Utilization and Storage:**

In addition to the monitoring scheme laid forth here, we highly recommend implementation of a feedback mechanism into both developing and existing Watershed Management Plans (WMP). Collection of data is not enough; gathered data need to be synthesized and analyzed to determine if restoration and management practices are successful. This implementation will be different for each watershed; however, essential minimum requirements need to be met. It is critical the committee be devised of representatives from:

- The drafter of the WMP – to navigate any changes necessary to the plan
- The municipalities and counties within the watershed – to ensure buy in to the adaptive management process and supplement their efforts
- Agencies that will derive use from these data – to encourage focus on the watershed and implementation of necessary regulation
- Those performing the restoration – to evaluate progress of the restoration and give context to observed outcomes
- The Mobile Bay National Estuary Program – to coordinate effort and outcomes between surrounding watersheds and leverage existing partnerships

- Expert researchers – to perform analyses and interpret results

It is imperative that this committee be afforded the power needed to influence or direct the actions in the WMP based on monitoring results. Suggestions include: annual review and restructuring of the WMP based on monitoring data, review of the effectiveness of the restoration, a mechanism to address, edit, or introduce local policy based on baseline and restoration results, and implement adaptive management measures.

We also recommend that these data be housed within a regional partner to facilitate consistency, development of metadata, and promote public access to the data. Establishing a regional data repository will encourage integration within larger monitoring programs, expanding the context of the restoration effort and subsequent monitoring. This will also promote more research and data analysis, thereby improving our understanding of system function and management capabilities.

#### **Final Remarks**

This document was developed as a framework to guide individual subwatersheds in the Mobile Bay watershed in standardizing their restoration monitoring. This standardization encourages integration of data and assessment of health of the entire Mobile Bay Estuary. Commitment to these protocols ensures relevance of data and increases the capacity of our region to better manage our resources. This sampling regime will develop an understanding of what drives the successes and failures of restoration efforts. Applying this understanding to adaptive watershed management is critical to utilizing our scarce financial and ecological resources efficiently.



#### **SAMPLING PROTOCOLS**

We recommend that all of these monitoring efforts begin at least one year prior to implementation of restoration efforts to establish baselines. Monitoring should continue after restoration to track both short-term and long-term impacts. The minimum length of monitoring post restoration should be 3-5 years. We strongly recommend, if at all possible, transition of this monitoring into a sustained, long-term program for each subwatershed to continue tracking response to restoration and overall shifts in subwatershed health and function.

#### **Sedimentation and Flow**

Reducing sedimentation and flow are often at the core of restoration aims. If the primary goal of the restoration is to reduce sedimentation and flow, we recommend development of performance metrics specific to each restoration project for assessing success. We recommend the following monitoring metrics:

	Timing and Frequency	Location	Methodology
<b>Erosion Rates</b>	<ul style="list-style-type: none"> <li>• Begin in Nov/Dec</li> <li>• After every rainfall event <math>\geq 1</math> inch</li> </ul>	<ul style="list-style-type: none"> <li>• Upstream of restoration</li> <li>• Downstream of restoration</li> </ul>	<i>Staley et al., 2006</i>
<b>Continuous Monitoring - Sondes</b>	Every 15 minutes	<ul style="list-style-type: none"> <li>• Mouth of all 2<sup>nd</sup> order streams or strategically important locations</li> <li>• Receiving sub-basin</li> <li>• Prior to and after in-stream retention water bodies (e.g. small lakes or large retention ponds)</li> </ul>	<ul style="list-style-type: none"> <li>• Flow</li> <li>• Turbidity: <i>EPA, 2012</i></li> </ul>
<b>Continuous Monitoring – Automatic Water Grabs</b>	<ul style="list-style-type: none"> <li>• Any rainfall event <math>\geq 1</math> inch</li> <li>• Continue every 15 min until it has been dry for 3 days: <i>Citation</i></li> </ul>	<ul style="list-style-type: none"> <li>• Mouth of all 2<sup>nd</sup> order streams or strategically important locations</li> <li>• Receiving sub-basin</li> <li>• Prior to and after in-stream retention water bodies (e.g. small lakes or larger retention ponds)</li> </ul>	<ul style="list-style-type: none"> <li>• Total Suspended Solids</li> <li>• Suspended Sediment Annual Loading: <i>Cook &amp; Moss, 2008</i></li> </ul>
<b>Manual Monitoring – Develop Sediment Transport Model</b>	<ul style="list-style-type: none"> <li>• After any rainfall event <math>\geq 1</math> inch for 12 months</li> </ul>	<ul style="list-style-type: none"> <li>• Upstream of restoration</li> <li>• Downstream of restoration</li> <li>• Mouth of all 2<sup>nd</sup> order streams or strategically important locations</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Bed Sediment Transport Rates</b></li> <li>• <b>Bed Sediment Annual Loading: <i>Cook &amp; Moss, 2008</i></b></li> </ul>
<b>Manual Monitoring – Maintain Sediment Transport Model</b>	<ul style="list-style-type: none"> <li>• Two rainfall events annually: <ul style="list-style-type: none"> <li>○ Moderate flow event</li> <li>○ High flow event</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Upstream of restoration</li> <li>• Downstream of restoration</li> <li>• Mouth of all 2<sup>nd</sup> order streams or strategically important locations</li> </ul>	<ul style="list-style-type: none"> <li>• Bed Sediment Transport Rates</li> <li>• Bed Sediment Annual Loading: <i>Cook &amp; Moss, 2008</i></li> </ul>

**Comment [RC1]:** Alex can I get the citation that you mentioned for the timing on this?

**Comment [RC2]:** Marlon, can you get me the USGS 7 point model citation?

## Water Quality

Improved water quality is desired outcome from all restoration efforts. Given that water quality is a direct link to biological condition and ecosystem health, impacts must be quantified. It is critical to the evaluation of a restoration project to measure baselines and changes of water quality over time. For accurate assessment of water quality baselines and quantified changes in response to restoration we recommend monitoring:

	<b>Timing and Frequency</b>	<b>Location</b>	<b>Method</b>
<b>Continuous Monitoring - Sondes</b>	Every 15 minutes (see first flush)	<ul style="list-style-type: none"> <li>• Reference site</li> <li>• Upstream from restoration</li> <li>• Downstream from restoration                             <ul style="list-style-type: none"> <li>◦ Combine with sediment and flow continuous monitoring</li> </ul> </li> <li>• Receiving Sub-basin</li> <li>• In-stream retention water bodies</li> </ul>	<ul style="list-style-type: none"> <li>• Temperature</li> <li>• Dissolved Oxygen</li> <li>• pH</li> <li>• Conductivity</li> <li>• Photosynthetically Active Radiation                             <ul style="list-style-type: none"> <li>◦ Only in receiving sub-basin</li> </ul> </li> </ul>
<b>Continuous Monitoring – Automatic Water Grabs</b>	<ul style="list-style-type: none"> <li>• Any rainfall event <math>\geq 1</math> inch</li> <li>• Continue every 15 min until it has been dry for 3 days: <i>Citation</i></li> </ul>	<ul style="list-style-type: none"> <li>• Reference Site</li> <li>• Upstream from restoration</li> <li>• Downstream from restoration                             <ul style="list-style-type: none"> <li>◦ Combine with sediment and flow continuous monitoring</li> </ul> </li> <li>• Receiving sub-basin</li> <li>• In-stream retention water bodies</li> </ul>	<b>Nutrients</b>
<b>Chlorophyll-a</b>	Sample based on turnover in the receiving sub-basin	Receiving sub-basin <ul style="list-style-type: none"> <li>• Determine sampling locations within the sub-basin based on size and dynamics of the system</li> </ul>	<i>Welschmeyer, 1994</i>
<b>Other</b>	<ul style="list-style-type: none"> <li>• Consider additional 303d issues based on initial screening sampling with subsequent periodic reevaluations</li> <li>• Any additional issues specific to a subwatershed should be addressed with a detailed monitoring protocol</li> <li>• Hydrocarbons – Recommend an initial screening for issues and based on assessed levels implement a standard protocol</li> <li>▪ Protocols used should be submitted to the MBNEP SAC for integration into this framework to ensure consistency and standardization across the</li> </ul>		

**Comment [RC3]:** Can I please get a citation for this? Marlon do you have a standard that you use?

Mobile Bay Watershed
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**Habitats**

Habitats are the foundation of an ecosystem; shifts in habitat health and function directly impact the ecological and economic benefits of the watershed. To accurately assess the health of individual habitats we recommend the following monitoring for each habitat:

Submerged Aquatic Vegetation

	Timing and Frequency	Location	Method
<b>Bed Boundaries</b>	Annually at peak biomass	Receiving sub-basins	Aerial Photography; Tier 1, Neckles et al., 2011
<b>Species Composition and Density</b>	Annually at peak biomass	Receiving sub-basins – determine sampling locations depending on the size and dynamics of the system and the SAV beds	Percent Cover & Cores; Tier 2,3, Neckles et al.,

Wetlands

	Timing and Frequency	Location	Methods
<b>Acreage*</b>	Annually at peak biomass	<ul style="list-style-type: none"> <li>• Reference Site</li> <li>• Restoration Site</li> <li>• Downstream of restoration site</li> </ul>	USACE, 2010
<b>Floristic Quality Index (FQI)</b>	Annually at peak biomass	<ul style="list-style-type: none"> <li>• Reference Site</li> <li>• Restoration Site</li> <li>• Downstream of restoration (if applicable)</li> </ul>	Lopez & Fennessy, 2002
<b>Wetlands Rapid Assessment Protocol (WRAP)</b>	Annually at peak biomass	<ul style="list-style-type: none"> <li>• Same locations as the FQI</li> </ul>	Miller and Gonsalus, 1999
<b>Hydrogeomorphic (HGM) Model</b>	Annually at peak biomass	<ul style="list-style-type: none"> <li>• Receiving sub-basins</li> </ul>	Shafer et al., 2007

**Comment [RC4]:** Hey Tim, can I get a bit more information here? Just a quick blurb – aerial photography, surveyors, whatever it is?

\* Mobile and Baldwin Counties will have detailed mapping of critical habitat including wetlands conducted in 2015. It is the recommendation of this team that such mapping occur annually at peak biomass as part of a comprehensive watershed management plan for each sub-watershed. If such

mapping is not scheduled to in the year prior to and at least 3 years after restoration then follow this recommendation.

Streams and Riparian Buffers

	<b>Timing and Frequency</b>	<b>Location</b>	<b>Method</b>
<b>Rapid Stream Assessment for Riparian Buffers</b>	Annually at peak biomass	Entire watershed	<ul style="list-style-type: none"> <li>• <b>Citation</b></li> <li>• <i>Look to leverage effort with ADEM: ADEM conducts these around the state</i></li> </ul>
<b>Stream Quality Score</b>	Annually, during early spring, prior to adult insect emergence	<ul style="list-style-type: none"> <li>• 100 m reach segments</li> <li>• Upstream from restoration or a reference site</li> <li>• At restoration</li> <li>• Downstream from restoration</li> </ul>	<ul style="list-style-type: none"> <li>• <i>Barbour et al., 1999</i></li> <li>• <i>Be aware of agriculture, golf courses, and other potential sources of insecticide that could artificially skew results</i></li> </ul>

**Comment [RC5]:** Randy do you have this? Or maybe Tim or Marlon?

Oyster Reefs

	<b>Timing and Frequency</b>	<b>Location</b>	<b>Method</b>
<b>Reef Areal Dimension</b>	Annually and after events that impact oyster survival (i.e. hurricanes)	Receiving sub-basins	<i>Bagget et al, 2014</i>
<b>Reef Height</b>	Annually and after events that impact oyster survival (i.e. hurricanes)	Receiving sub-basins	<i>Bagget et al, 2014</i>
<b>Oyster Density</b>	Annually after peak growing season	Receiving sub-basins	<i>Bagget et al, 2014</i>
<b>Oyster Size-Frequency Distribution</b>	Annually after peak growing season	Receiving sub-basins	<i>Bagget et al, 2014</i>

Other Foundational Habitats

There are other habitats that may be critical within individual subwatersheds. For each of these habitats we recommend following a protocol based on published and standardized methods that details frequency and location. Protocols used should be submitted to the MBNEP SAC for integration into this framework to ensure consistency and standardization across the Mobile Bay Watershed

**Biological Communities**

- Sensitive habitats
  - Determine if there are any habitats (e.g. marine mammal feeding, resting, breeding habitats, nesting bird habitat etc.)
  - Develop a protocol based on published or standardized methods that details frequency and location
    - Developed protocol should be submitted to the MBNEP SAC for integration into this framework to ensure consistency and standardization across the Mobile Bay Watershed
- Invasive Species
  - Develop a protocol based on published and standardized methods that details frequency and location
- Endangered and Threatened Species
  - Determine if there are any endangered or threatened species
  - Develop a protocol based on published methods or standardized methods that details frequency and location

▼ ▼ ▼

## REFERENCES

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- Cook, M. R., and Moss, N. E., 2008, Analysis of water quality, sediment loading, biological resources, and impacts of land-use change on the D'Olive and Tiawasee Creek watersheds, Baldwin County, Alabama, 2008: Geological Survey of Alabama open file report 0811, pp. 20-31
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U.S. Army Corps of Engineers (USACE), 2010. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Atlantic and Gulf Coastal Plain Region (Version 2.0), ed. J. S. Wakeley, R. W. Lichvar, and C. V. Noble. ERDC/EL TR-10-20. Vicksburg, MS: U.S. Army Engineer Research and Development Center

U.S. Environmental Protection Agency, 2012, Water: monitoring and assessment, Section 5.5 Turbidity, <http://water.epa.gov/type/rsi/monitoring/vms55.cfm>

Welschmeyer, N.A., 1995. Fluorometric analysis of chlorophyll a in the presence of chlorophyll b and pheopigments. *Limnology and Oceanography* 39 (8), pp 1985-1992.

DRAFT



**Mobile Bay National Estuary Program**  
**Property Owners Meeting**  
Bryant Bank Daphne, AL  
Thursday May 29, 2014 at 11:00

**Agenda**

1. Welcome
2. National Fish and Wildlife Foundation Gulf Environmental Benefit Fund
3. Addressing the Problems
4. How can you help?
5. Our Intent
6. Questions

## Ashley Campbell

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**From:** Greg Jennings <jenningsenv@gmail.com>  
**Sent:** Tuesday, August 19, 2014 6:25 AM  
**To:** Linda Sierke; Roberta Swann; Ashley Campbell; Eve Brantley  
**Subject:** August 21

Linda, Roberta, Ashley, Eve,

I want to use our time efficiently on Thursday. Here is a tentative agenda for the day. My trip is short this time, but I will return for 3 days September 23-25 and will be available for phone calls every week as we get busier this Fall. I have been discussing Joes Branch with Wade Burcham regularly and have a good understanding of project status.

AGENDA (PLEASE EDIT) Thursday, August 21

- 8:00am Daphne City Hall (Coordination Team: Roberta, Linda, Ashley, Eve, Greg, NFWF)
- Project Status & Next Steps
  - PR & Education during Construction over next 12 months
  - Vegetation Planning & Implementation (short-term and long-term)
- 9:00am Daphne City Hall (add GMC Design Team: Lee, Galen, John Curry)
- Project Expectations of Design Team
  - Schedule for Scoping, Fee Agreement, Implementation
  - Coordination with Vegetation Team
- 9:30am Field Visit to I-10 Culvert
- Walk Entire Project to Understand Constraints and Scope
  - Reach Understanding with GMC on Next Steps for Scope/Fee
- 11:30am Adjourn to Lunch with GMC & Marlon Cook (re: Fowl River Watershed Study)
- 1:30pm Daphne City Hall (Coordination Team)
- Joes Branch Project Status & Next Steps
  - Communication Plan among Team members and with Contractors
  - Vegetation Planning & Implementation (short-term and long-term)
- 2:30pm Adjourn

Greg Jennings  
919-600-4790

# **MCM 2**

## **Public Involvement/Public Participation**

### **3.2.11**

#### **ES MS4 Meetings**

Dapline

**MCM 2 Public Participation/Public Involvement**

**3.2.11 ES MS4 Meetings**

<b>Environmental Agency</b>	<b>Date</b>	<b>Meeting Topics</b>	<b>Location</b>	<b>Env. Group</b>
<i>Eastern Shore MS4</i>	1/14/2015	ESMS4	Daphne	Fairhope, Daphne, Spanish Fort, Baldwin County

# Eastern Shore Phase II MS4s Annual Meeting

1-14-2015

## Agenda

### ES MS4 Representatives:

City of Fairhope- Kim Burmeister

City of Daphne- Ashley Campbell

City of Spanish Fort- Bruce Renkert, Matt Hinton

Baldwin County: Celena Boykin, Vince Jackson

### Topics to Discuss for Education Outreach

- ◆ Create a Clean Water Future Education Outreach Campaign-Support Resolutions and Agreements
- ◆ Baldwin County's 2015 Hazardous Waste Program-ESMS4 Participation
- ◆ ES MS4 Future Education Outreach Opportunities
  - ASWCS Annual Meeting June 22-24
  - Alabama Water Watch
  - Earth Day-Woods & Water-Jubilee Festival
  - Watershed Wagon
  - Water Festival March 18<sup>th</sup>, 2015 -BC Coliseum –
  - Coastal Kids Quiz May 5<sup>th</sup>,2015-DUMC
  - Football Programs-New CWF Brochures



# Eastern Shore Phase II MS4s Annual Meeting

## 1-14-2015-Minutes

### ES MS4 Representatives:

City of Fairhope- Kim Burmeister

City of Daphne- Ashley Campbell

City of Spanish Fort- Bruce Renkert, Matt Hinton

Baldwin County: Celena Boykin, Vince Jackson



### Topics to Discuss for Education Outreach

- ◆ Create a Clean Water Future Education Outreach Campaign-Support Resolutions and Agreements

*The Create a Clean Water Future Stormwater Education Outreach Campaign was discussed in detail. All three cities have joined the campaign by signing the agreement. The County was asked to consider joining. The City of Daphne will bring the campaign to a County Work Session for discussion.*

- ◆ Baldwin County's 2015 Hazardous Waste Program-ESMS4 Participation

*Baldwin County's Annual Hazardous Waste Day was held last year. The Cities asked the County if they could be a part of the event next year; financially or just by advertising the event. Vince stated he would find us a contact name and look into us partnering for next year's event.*

- ◆ ES MS4 Future Education Outreach Opportunities

*The events below and opportunities to participate in the events were discussed.*

ASWCS Annual Meeting June 22-24

Alabama Water Watch-Mike Shelton 251-928-9792

Earth Day Saturday April 18<sup>th</sup> –Call Kim Burmeister-251-990-2877

Woods & Water- April 25<sup>th</sup> Call Bruce Renkert or Matt Hinton 251-491-5302

Jubilee Festival-Call Ashley Campbell-251-234-7122

Watershed Wagon

*To schedule the Watershed Wagon call Mike Shelton 251-928-9792*

Water Festival March 18<sup>th</sup>, 2015 -BC Coliseum –

*To volunteer for the Water Festival Call Dorothy Howard at 251-990-6002*

Coastal Kids Quiz May 5<sup>th</sup>, 2015-DUMC

*To volunteer for the Coastal Kids Quiz Call Dorothy Howard at 251-990-6002*

Football Programs-New CWF Brochures

*The group agreed to work together to purchase the watershed high school football program adds for the 2015-2016.*

# **MCM 2**

## **Public Involvement/Public Participation**

### **3.2.12C**

#### **Alabama Water Watch Sampling Data & Replacement Chemicals**

Sites sampled by City of Daphne (No. of Sites: 6)

Select Site	Waterbody	Site Description	County	Latitude	Longitude	Last Date	No. Records	Map!	Google
<u>06015003</u>	D Olive Creek	Gordon Circle, Lake Forest	Baldwin	30.6540	-87.8869	23 Feb 2015	3		
<u>06015002</u>	D Olive Creek	Tom's Cove, Lake Forest	Baldwin	30.6534	-87.8949	19 Jan 2015	2		
<u>06015001</u>	D Olive Creek	155 Bay View Drive	Baldwin	30.6522	-87.8931	16 Feb 2015	4		
<u>06015006</u>	Tiawasee Creek	bridge at N Lamhatty Ln.	Baldwin	30.6311	-87.8741	18 Feb 2015	2		
<u>06015005</u>	Tiawasee Creek	Greenwood Drive in Lake Forest	Baldwin	30.6354	-87.8775	16 Mar 2015	3		
<u>06015004</u>	Tiawasee Creek	At golf course driving range	Baldwin	30.6496	-87.8956	10 Mar 2015	3		

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Site 06015001 is located in HUC12: 031602040505 in Baldwin County and is currently in the Group City of Daphne. Site is located on D Olive Creek. This site was first sampled on 11/17/2014 and last sampled on 2/16/2015. Total No. of Chemistry

records: 4, Bacteria Records: 0, and Bioassessment Records: 0

Number of Sampling Events: 4

Sample Date	Access	Tides	Air Temp	Water Temp	pH	DO1	DO2	Hard Drops	Alk Drops	Turb 1	Turb 2	Secchi	Comments
17 Nov 2014	1	4	8	14.5	6.5	8.4	8.8	3	5	3	-	-	rainfall last night 0.7 inch and this morning. 20 mph wind from NW. Clear. Hardness Reagent 5 expired 31 Oct 14
15 Dec 2014	1	99	20	15.5	6.5	9	9	1	3	1	-	-	Several weeks since significant rainfall. Weather clear and calm at the site when sampling. Hardness reagent #5 expired 10/14 - expect new supply next week.
12 Jan 2015	1	99	21	17	6.5	9	9	1	5	2	-	-	Note: Hardness #5 reagent expired 10/31/14 - replacement on order. Weather clear and calm with no noticeable rainfall for a week.
16 Feb 2015	1	99	18	16.5	6.5	9.4	9	3	4	1	-	-	overcast, wind S 17-26 mph, no rain in past 48 hrs.

Access: 1 - Adequate depth; 2 - Inadequate depth; 3 - Dry; 4 - No Access || Tide: 1 - Rising; 2 - Falling; 3 - Uncertain

Site 06015002 is located in HUC12: 031602040505 in Baldwin County and is currently in the Group City of Daphne. Site is located on D Olive Creek. This site was first sampled on 12/22/2014 and last sampled on 1/19/2015. Total No. of Chemistry records: 2, Bacteria Records: 0, and Bioassessment Records: 0

Number of Sampling Events: 2

Sample Date	Access	Tides	Air Temp	Water Temp	pH	DO1	DO2	Hard Drops	Alk Drops	Turb 1	Turb 2	Secchi	Comments
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22 Dec 2014	1	4	20.5	17.5	6.5	9	8.6	4	7	1	-	clear and calm. Had first significant rain two days ago in over a month, approx. 1 inch
19 Jan 2015	1	99	17	15	6.5	9.6	9.4	6	8	2	-	Clear and calm, very little rain in past week

Access: 1 - Adequate depth; 2 - Inadequate Depth; 3 - Dry; 4 - No Access || Tide: 1 - Rising; 2 - Falling; 3 - Uncertain

**Site 06015003 is located in HUC12: 0301602040505 in Baldwin County and is currently in the Group City of Daphne. Site is located on D Olive Creek. This site was first sampled on 12/29/2014 and last sampled on 2/23/2015. Total No. of Chemistry records: 3, Bacteria Records: 0, and Bioassessment Records: 0**

Number of Sampling Events: 3

Sample Date	Access	Tides	Air Temp	Water Temp	pH	DO1	DO2	Hard Drops	Alk Drops	Turb 1	Turb 2	Secchi	Comments
29 Dec 2014	1	4	16	17.5	6.5	8.4	8.8	1	3	2	-	-	clear and calm, overcast. Several inches of rain in the last week but none in less than 24 hrs.
26 Jan 2015	1	99	13	12	6.5	9.8	9.8	4	2	1	-	-	clear, wind NNW 15 - 23 mph, 2 in. rain 1/23 - 1/24 none since
23 Feb 2015	1	99	6.5	13	6.5	9.8	9.8	3	2	2	-	-	overcast, wind N15, trace of rain in past 48 hrs.

Access: 1 - Adequate depth; 2 - Inadequate Depth; 3 - Dry; 4 - No Access || Tide: 1 - Rising; 2 - Falling; 3 - Uncertain

**Site 06015004 is located in HUC12: 031602040505 in Baldwin County and is currently in the Group City of Daphne. Site is located on Tiawasee Creek. This site was first sampled on 12/30/2014 and last sampled on 3/10/2015. Total No. of**

Chemistry records: 3, Bacteria Records: 0, and Bioassessment Records: 0

Number of Sampling Events: 3

Sample Date	Access	Tides	Air Temp	Water Temp	pH	DO1	DO2	Hard Drops	Alk Drops	Turb 1	Turb 2	Secchi	Comments
30 Dec 2014	1	4	11	16	6.5	9	9	4	6	1	-	-	overcast, light wind. No rain for 48 hrs
02 Feb 2015	1	99	9	14.5	6.5	9.8	9.6	3	4	1	-	-	Clear, wind N 13 mph, 0.1 in. rain in past 24 hrs
10 Mar 2015	1	99	26.5	19	6.5	8.6	8.8	3	5	4	-	-	wind SSW 17 - 23, mostly cloudy, 1/75" rain in past 48 hrs.

Access: 1 - Adequate depth; 2 - Inadequate depth; 3 - Dry; 4 - No Access || Tide: 1 - Rising; 2 - Falling; 3 - Uncertain

Site 06015005 is located in HUC12: 031602040505 in Baldwin County and is currently in the Group City of Daphne. Site is located on Tiawasee Creek. This site was first sampled on 1/13/2015 and last sampled on 3/16/2015. Total No. of Chemistry records: 3, Bacteria Records: 0, and Bioassessment Records: 0

Number of Sampling Events: 3

Sample Date	Access	Tides	Air Temp	Water Temp	pH	DO1	DO2	Hard Drops	Alk Drops	Turb 1	Turb 2	Secchi	Comments
13 Jan 2015	1	4	10.5	15	6.5	9	8.6	2	4	1	-	-	overcast, cool and calm. No significant rain for at least 1 week,
09 Feb 2015	1	99	22.5	16.5	6.5	8.6	8.2	2	4	1	-	-	clear, wind NW 16-20 mph, no rain in past 48 hrs

16 Mar 2015	1	99	24.5	19	6.5	8	8	2	5	1	-	-	clear, wind SSW 11 mph, no rain in pat 48 hrs.
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Access: 1 - Adequate depth; 2 - Inadequate Depth; 3 - Dry; 4 - No Access || Tide: 1 - Rising; 2 - Falling; 3 - Uncertain

**Site 06015006 is located in HUC12: 031602040505 in Baldwin County and is currently in the Group City of Daphne. Site is located on Tiawasee Creek. This site was first sampled on 1/16/2015 and last sampled on 2/18/2015. Total No. of Chemistry records: 2, Bacteria Records: 0, and Bioassessment Records: 0**

Number of Sampling Events: 2

Sample Date	Access	Tides	Air Temp	Water Temp	pH	DO1	DO2	Hard Drops	Alk Drops	Turb 1	Turb 2	Secchi	Comments
16 Jan 2015	1	4	24	9	6	8.6	9	3	4	-	-	-	Rained yesterday, forgot tap water for turbidity test
18 Feb 2015	1	99	14	8	6.5	9.6	9.8	4	5	0	-	-	None.



**City of Daphne**

P.O.Box 400  
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# Purchase Order

Fiscal Year 2015

Page 1

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BLDG INSP- 1705 MAIN STREET  
251-621-3080  
  
DAPHNE, AL 36526

Vendor Phone Number 1 410 778 3100		Vendor Fax Number 1 410 778 6394		Requisition Number 00000967		Delivery Reference	
Date Ordered 01/07/15		Vendor Number 007759		Date Required 01/07/15		Freight Method/Terms	
						Department/Location BUILDING INSPECTIONS	
Item#	Description/Part No.	Qty/Unit	Cost Each	Extended Price			
001	ORIGINAL LAMOTTE ALA WATER WATCH TEST KITS 168000-54425	1.00 Each 111.25	111.25000	111.25			
			PO Total	111.25			

Manual Signature Required if over \$1000.

Mayor

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# Purchase Order

Fiscal Year 2015

Page 1

THIS NUMBER MUST APPEAR ON ALL INVOICES,  
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Purchase Order # **01500889-00**

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BLDG INSP- 1705 MAIN STREET  
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DAPHNE, AL 36526

Vendor Phone Number 1 410 778 3100		Vendor Fax Number 1 410 778 6394		Requisition Number 00000967		Delivery Reference			
Date Ordered 01/07/15		Vendor Number 007759		Date Required 01/07/15		Department/Location BUILDING INSPECTIONS			
Item#		Description/Part No.		Qty/Unit		Cost Each		Extended Price	
001		ORIGINAL LAMOTTE ALA WATER WATCH TEST KITS 168000-54425		1.00 Each 111.25		111.25000		111.25	
						PO Total		111.25	

Manual Signature Required if over \$1000.

Mayor

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# Alabama Water Watch Volunteer Monitoring Workshops

**Becoming a volunteer water monitor is a great step to protecting  
and restoring local water quality.**

Come get certified as an Alabama Water Watch Water Chemistry and/or  
Bacteriological Monitor in two workshops sponsored by the Mobile Bay  
National Estuary Program.

## **AWW Bacteriological Monitoring Workshop**

**Friday, Sept. 26<sup>th</sup> 5:30pm – 8:30pm**

Detect levels of E. coli in water as an indicator of fecal contamination.  
Determine if water is safe for drinking, swimming, and aquatic life.

## **AWW Water Chemistry Monitoring Workshop**

**Saturday, Sept. 27<sup>th</sup> 9:00 am – 3:00 pm**

Test physical and chemical characteristics of water to determine  
pollution sources and long- term trends in water quality.

**Where:** Daphne City Hall  
1705 Main Street  
Daphne, AL 36526

**For more information or to register, go to the Workshop Registration  
section of [www.alabamawaterwatch.org](http://www.alabamawaterwatch.org) or call the AWW Office at  
334-844-4785 (pre-registration required)**

*These workshops are offered free of charge and qualify for Continuing  
Education Units through Auburn University.*

Alabama  
Water  
Watch 

