

The Mobile Bay National Estuary Program

South Alabama Stormwater Regulatory Review



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Scope and Objectives

- Based on format used in D'Olive Creek and Weeks Bay Watershed Management Plans
- Review existing municipal and county requirements relating to stormwater and resource management
- Provide a regulatory framework baseline
- Highlight need for regulatory consistency

Area Covered

- Mobile County
 - 11 incorporated municipalities
- Baldwin County
 - 14 incorporated municipalities

Methods

- Project started by Mississippi Alabama Sea Grant Legal Program
- Completed using the MATRIX format and data from the Weeks Bay Watershed Management Plan

5 General Areas of Interest

- Construction Phase BMPs
- Post-Construction Stormwater Management
- Coastal Resource Protection (wetlands and streams)
- Low Impact Development
- Shoreline Structures and Stabilization

“Does the local jurisdiction have codified regulations or ordinances that require or specify...”

Construction Phase BMP Requirements: the use of temporary best management practices (BMPs) to control erosion and sedimentation during construction (land disturbance)

Design Standards: standards for the design of temporary BMPs during construction

BMP Design Storm: a certain size or type rainfall event that temporary BMPs should withstand

Site Size: the use of BMPs during construction for a certain size site

Stabilization Time: how long an area can remain denuded of cover

BMP Repair/Maintenance Time: how quickly BMPs must be maintained or repaired

Non-compliance Reporting: that operators report any non-compliance with local regulations

Buffer Requirement: a setback or buffer be maintained between active construction and waterways or wetlands

“Does the local jurisdiction have codified regulations or ordinances that require or specify...”

Post Construction Stormwater Management Requirements: the use of permanent stormwater controls or management system for stormwater runoff from the completed project

Stormwater Quality: that stormwater discharged from the completed project be treated to improve the quality of water

Stormwater Quantity: that the quantity of stormwater discharged from the completed project be managed

Design Storm: a certain size or type rainfall event for the design of permanent stormwater management facilities

Site Size: permanent stormwater management for certain size sites

Routine Inspection: that permanent stormwater management controls be regularly inspected

Maintenance: who is responsible for routine maintenance of permanent stormwater management facilities

Reporting: that routine reports of permanent stormwater management facilities be submitted

Calculation Method: what methods or formulae are to be used to design permanent stormwater management facilities

“Does the local jurisdiction have codified regulations or ordinances that require or specify...”

Coastal Area Resource Protection: measures intended to protect coastal resources, particularly waterways and wetlands

Wetland/Stream Buffer: a natural buffer or setback from wetlands or streams

Permit Requirement: that a separate local permit be obtained for projects impacting coastal resources

Low Impact Development (LID): the use of permanent low impact development measures or green infrastructure (GI)

Development Size: that LID/GI be used on certain size sites

Impervious Cover: that impervious cover reduction be considered during project development

On-Site Retention: on-site retention (no discharge) of stormwater

LID Standards: design standards and specification for LID/GI

Shoreline Stabilization: certain practices be used for shoreline stabilization projects

Piers and Bulkheads: design requirements for piers and bulkheads

Living Shorelines: that “living shorelines” be used in lieu of hardened shoreline protection methods

SOUTH ALABAMA STORMWATER REGULATORY REGULATORY REQUIREMENTS

Regulatory Category	US EPA	ADEM	Mobile County	Bayou la Batre	Chickasaw	Citronelle	Creola	Dauphin Island	Mobile	Mt. Vernon	Prichard	Saraland	Satsuma	Semmes
Construction Phase BMPs Requirements	Yes	Yes	Yes	Yes	Yes	No	Yes	No	Yes	No	Yes	Yes	Yes	Yes
Design Standards	Not Specified	AL Handbook*	Handbook	Not Specified	Not Specified	N/A	USDA Field Manual**	N/A	Not Specified	N/A	Not Specified	USDA Field Manual	USDA Field Manual	AL Handbook
BMP Design Storm	2yr-24hr	2yr-24hr	Not Specified	Not Specified	Not Specified	N/A	10 year	N/A	Not Specified	N/A	Not Specified	10 year	10 year	2yr-24hr
Site Size	>1 ac. ⁴	>1 ac.	>1 ac.	Any	>1 ac.	N/A	Any	N/A	>4,000 ft ²	N/A	>10,000 ft ²	Any	Any	>500 ft ²
Stabilization Time	immediate/14 days	Immediate	Not Specified	60 Days	Not Specified	N/A	30 days	N/A	10 days	N/A	7 days / 30 days	30 days	30 days	14 days
Site Inspections	1 per week or 1 per 2 weeks + 1/4" rain	State-Random / Con. 1/month + 3/4" rain	Monthly	Not Specified	Not Specified	N/A	N/A	N/A	Not Specified	N/A	3/4" rainfall	N/A	N/A	City-Periodic Engineer-Regular
BMP Repair/Maintenance Time	immediate / 7 days	5 days	Not Specified	Not Specified	Not Specified	N/A	Not Specified	N/A	Not Specified	N/A	Not Specified	Not Specified	Not Specified	Not Specified
Non-compliance Reporting	Yes	Yes	No	No	No	N/A	N/A	N/A	Not Specified	N/A	No	N/A	N/A	Yes
Buffer Requirement ⁵	50'	Yes- 25'	No	Stream Width or 25'	No	N/A	Yes- Not Specified	N/A	No	N/A	Not Specified	Yes- Not Specified	Yes- Not Specified	Yes 75'-150'
Post Construction SW Mngt Requirements	No	No	Yes - limited areas	Yes	Yes	No	Yes	No	Yes	No	No	Yes	Yes	Yes
Stormwater Quality	No	No	No	No	Yes	N/A	No	N/A	Yes	N/A	N/A	>10 ac. - Yes	>10 ac. - Yes	Yes - treat 1"
Stormwater Quantity	No	No	Yes	Yes	Yes	N/A	Yes	N/A	Yes	N/A	N/A	Yes	Yes	Yes
Design Storm	N/A	N/A	10 yr / 100 yr	10 yr	2 and 10 yr	N/A	10-yr	N/A	10-yr & 1.14"/24hr.	N/A	N/A	25-yr/24-hr	2 & 10 yr	2-100 yr
Site Size	N/A	N/A	Any commercial	>2,500 ft ²	10 ac.	N/A	Not Specified	N/A	>4,000 ft ²	N/A	N/A	>2 ac	>2 ac	Not Specified
Routine Inspection	N/A	N/A	Yes-annual	No	Yes-annual	N/A	No	N/A	Yes	N/A	N/A	No	No	Biannual
Maintenance Reporting	N/A	N/A	Owner	Developer/Owner	Not Specified	N/A	Landowner	N/A	Developer/Owner	N/A	N/A	Developer/Owner	Developer/Owner	Developer/Owner
Calculation Method	N/A	N/A	Not Specified	Not Specified	Not Specified	N/A	Not Specified	N/A	Not Specified	N/A	N/A	Not Specified	Not Specified	Rational Method
Coastal Area Resource Protection	Yes	Yes	Yes	Refers to ADEM Div 8	No	No	No	No	No	No	No	No	Refers to ADEM Div 8	Yes
Wetland/Stream Buffer	50 ft.	25 ft.	Varies 25-100'	Stream Width or 25'	No	N/A	N/A	N/A	No	N/A	N/A	Yes- Not Specified	Yes- Not Specified	Yes 75'-150'
Permit Requirement	Yes - COE ⁶	Yes	No	No	No	N/A	N/A	N/A	No	N/A	N/A	No	No	No
Low Impact Development	No	No	No	No	Yes	No	No	No	No	No	No	Optional	Yes	No
Development Size	N/A	N/A	N/A	N/A	Not Specified	N/A	N/A	N/A	N/A	N/A	N/A	Not Specified	N/A	N/A
Impervious Cover	No	No	N/A	No	Yes	N/A	N/A	N/A	No	N/A	N/A	No	No	No
On-site Retention	No	No	N/A	No	Yes	N/A	N/A	N/A	No	N/A	N/A	Yes-Infiltration	Yes-Infiltration	No
LID Standards	No	No	N/A	No	No	N/A	N/A	N/A	No	N/A	N/A	No	Yes	No
Impediments to LID	N/A	N/A	N/A	N/A	No	N/A	N/A	N/A	N/A	N/A	N/A	No	No	N/A
Shoreline Stabilization	N/A	Yes	No	No	No	No	No	No	No	No	No	No	No	No
Piers and Bulkheads	N/A	Yes	N/A	No	No	N/A	N/A	N/A	No	N/A	N/A	No	No	No
Living Shorlines	N/A	No	N/A	No	No	N/A	N/A	N/A	No	N/A	N/A	No	No	No

Summary of Matrix Regulatory Responses

Regulatory Category	Baldwin Yes	Baldwin No	Mobile Yes	Mobile No
Construction Phase BMPs regulations	14	1	9	3
Post Construction Phase SW Management regulations	14	1	8	4
Coastal Resource Protection regulations	8	7	4	8
Low Impact Development regulations	6	9	2	10
Shoreline Protection regulations	4	11	0	12
MS4 Permit Coverage	4	11	6	6

MATRIX incorporates data from 27 local jurisdictions plus ADEM and EPA

Approximately 50 local government regulations/ordinances reviewed

- **~85%** of the local jurisdictions have both Construction Phase BMP requirements and Post-Construction Phase Stormwater Management requirements
- **~37%** have requirements addressing Stormwater Quality
- **~44%** have some level of Coastal Resource Protection requirements
- **~30 %** have LID requirements
- **~15%** have Shoreline Protection requirements
- 10 of 27 local jurisdictions have current NPDES MS4 permit coverage

Regulatory Framework

Overlap

- unavoidable
- not necessarily bad

Gaps

- leave resources under protected
- lead to inconsistencies

Inconsistencies

- inevitable
- confusing
- inequitable resource protection
- occasionally necessary

Observations and Opportunities

We tend to regulate most what we understand best (e.g. signs), so:

- Education is critical
- Consistency is beneficial, especially related to:
design standards, site size, repair timeframe, stabilization
timeframe, inspection frequency, etc.
- Methods to implement LID practices should be reconciled while the
number of entities requiring it are fewest (now)

Observations and Opportunities

Resources don't follow political boundaries, so:

- Design standards for post-construction stormwater controls should be watershed based (volume based hydrology) and consistent throughout a watershed, regardless of political boundaries
- Wetland and stream buffers and setbacks should be based on resource types (emergent wetland, forested wetland, perennial stream, intermittent stream, etc.) but consistent throughout a watershed

Observations and Opportunities

Additional efforts are needed to coordinate stormwater requirements with other requirements (flood zone, green space, parking, etc.)

The proverbial “perfect ordinance” was not found (because it probably doesn’t exist)

Simply copying someone else’s ordinances is usually not the best option

The full report is available on the NEP website:

http://www.mobilebaynep.com/images/uploads/library/Regularory_Review.pdf

- Provides a brief review of the selected federal and state regulations relating to stormwater and resource management
- Contains the completed MATRIX
- Makes specific recommendations for standards where consistency is most appropriate
- Provides a list of the regulations/ordinances reviewed