The Mobile Bay National Estuary Program

South Alabama Stormwater Regulatory Update

September 2021

Prepared For:

The Mobile Bay National Estuary Program

118 North Royal Street – Suite 601

Mobile, Alabama 36602

Prepared By:

John Carlton, CPESC 33507A US Highway 31 Spanish Fort, Alabama 36527





This report has been prepared under contract PO # 43223, 490-5550-3600-2900-EW-MC

Executive Summary

In 2018, a review of existing laws, regulations, permits and ordinances at the federal, state, and local levels was conducted for the geopolitical boundaries of the immediate Mobile Bay Watershed, *i.e.*, Mobile and Baldwin counties. The 27 jurisdictions reviewed included Mobile County and its 11 incorporated towns and cities, and Baldwin County and its 14 incorporated towns and cities, with all lands being under state and federal jurisdiction. Approximately 50 county and municipal government regulations were reviewed relative to a number of factors influencing stormwater runoff, water quality, wetland protection and stream and shoreline protection. The codified regulations of each local entity were reviewed, and a chart listing regulatory requirements was prepared. Responses were compiled into a Regulatory Matrix for ease of comparison. The 2018 report is available on the Mobile Bay National Estuary website at:

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

This project provides an update to the 2018 report and Matrix based on regulatory changes over the intervening time period and adds a new category of "Trash/Garbage" intended to document current policies and practices related to trash and garbage handling throughout the two coastal counties.

In summary, it was determined that all but four local jurisdictions address construction-phase BMP implementation (same as 2018), and all but two have post-construction stormwater management requirements (down from five in 2018). The degree to which each entity is engaged in these efforts still varies greatly, as do the specific stormwater management requirements. Fourteen (up from 12 in 2018) of the local jurisdictions have some form of local wetland and/or stream protection initiative, usually in the form of a setback or buffer. Thirteen local governments (up from eight in 2018) now have some reference to Low Impact Development (LID), although only four appear to have a mandatory LID requirement, and only four have shoreline protection initiatives. Ten local governments are currently required to have MS4 NPDES permit coverage.

The added garbage and trash handling surveys indicate that 25 of the 27 jurisdictions provide or contract for routine garbage pick-up for its residents, with 23 also providing a "bulky"/trash/yard debris program. It should be noted that several jurisdictions in Baldwin County do not have separate programs but rely on the county-wide ordinances and collection programs. Only 19 of the 24 jurisdictions responding have anti-litter ordinances and 16 active anti-litter programs. Of the few jurisdictions providing data, there have been a combined total of 5,597 citations issued within the past 12 months with 92% of these being within the City of Mobile. Twelve jurisdictions have recycling programs; two are curbside programs and 10 are drop-off programs (note that two jurisdictions have both types of program available). Several jurisdictions without local recycling programs in Baldwin County rely on the County-wide recycling program.

Inconsistencies, overlap, and gaps in regulatory requirements lead to confusion within the regulated community and are not conducive to good watershed-wide resource and stormwater management. The Matrix still indicates a range of local stormwater

management requirements; however, more consistency between jurisdictions is noted compared to 2018. Efforts to resolve many of the inconsistencies noted in the 2018 report are considered an improvement to the stormwater management goals necessary to protect the valuable wetland and water resources of Mobile and Baldwin counties.

Acknowledgements

The author wishes to thank the following individuals and entities for their assistance and contributions to the project:

Roberta Swann, Christian Miller, and Bethany Hudson of the Mobile Bay National Estuary Program for their guidance and assistance in gathering background information, distribution, and follow-up contact on the surveys; editorial comment; and providing project management. Diane Burnett and Nicole Taylor with the South Alabama Regional Planning Commission for assistance in gathering the more elusive local regulations. Don Bates, Ashley Campbell, and Leslie Gahagan for feedback on the trash and garbage survey content. And, of course, all of the local government program staffs that were contacted and provided valuable feedback.

Table of Contents

Exec	utive Summary	<u>1</u>
I.	<u>Introduction</u>	. <u>4</u>
II.	Project Scope and Objective	. <u>5</u>
III.	<u>Methods</u>	. <u>5</u>
IV.	Overview of Laws, Regulations and Ordinances	. <u>9</u>
	A. <u>Federal</u>	. <u>9</u>
	B. State	<u>10</u>
	C. Local	<u>11</u>
V.	Regulatory Framework	<u>13</u>
	A. Overlap	<u>13</u>
	B. Gaps	<u>13</u>
	C. Inconsistencies	<u>16</u>
VI.	Observations and Opportunities	<u>17</u>
_		

Appendix I – Master Regulatory Matrix

Appendix II – Matrix with Detailed Trash and Garbage Survey Results

Appendix III – List of Local Regulations and Ordinances, References and Websites

Appendix III – Copy of Garbage, Trash and Litter Survey Form

I. Introduction

Throughout the history of modern civilization, humans have realized the need to govern and regulate an ever-increasing number of human activities for the common good and overall health and welfare of the general public. Early efforts were rooted primarily in common law doctrines (nuisance, trespass, negligence, strict liability, and the public trust doctrine). The first environmental laws were fairly broad and focused primarily on basic sanitation, but, over time, the prescriptiveness of these laws and regulations has increased as our basic knowledge and understanding of "causes and effects" has evolved and in response to various court rulings. Perhaps the first "environmental" statute in the United States was the Rivers and Harbors Act of 1899. Around the middle of the 20th century, society began to accept the fact that there was a need to protect the public health, welfare, and safety through protection of the environment, primarily air and water quality, and environmental laws and regulations were developed to abate known pollution problems. Subsequently, statutes have been enacted that focus on the beneficial use and management of natural resources and various conservation measures (endangered species, coastal zone management, national parks, etc.).

Nationally, great progress has been made in improving the quality of water in our rivers and streams through the implementation of the Clean Water Act and control of point sources of pollution. We now understand that nonpoint sources of pollution are the primary contributing factor to the majority of the country's remaining water quality issues, and stormwater runoff is the main delivery system of pollutants to our waterways. We also realize this particular issue needs to be addressed on a watershed scale, since rivers, streams, and stormwater runoff do not recognize political boundaries. Historically, stormwater was only considered an issue, and therefore regulated, due to flooding concerns associated with increased runoff volume from developed areas. However, when the Clean Water Act was amended and reauthorized in 1987, Congress mandated that the Environmental Protection Agency (EPA) address certain sources of stormwater runoff through the National Pollutant Discharge Elimination System (NPDES), and in 1990 EPA began requiring NPDES permits for 11 categories of "industrial" activities, including runoff from large urban areas and construction (land-disturbing activities).

Most states have been authorized by EPA to implement the NPDES program, and in Alabama, the Alabama Department of Environmental Management (ADEM) is the lead water quality and NPDES-permitting agency. Several counties and municipalities throughout the State, as well as the Alabama Department of Transportation (ALDOT), are currently permitted under the Municipal Separate Storm Sewer System (MS4) portion of the NPDES program, which has precipitated various local ordinances related to the management of stormwater. Recognizing the importance of these local requirements in managing stormwater, as well as other natural resources, the EPA and Mobile Bay National Estuary Program (MBNEP) require that watershed management plans include a review of the regulatory drivers within the watershed. The purpose of this effort is to update the catalogue of stormwater regulatory requirements as reported in the *South Alabama Stormwater Regulatory Review* (2018) and report the results of a survey on trash and garbage management in Mobile and Baldwin counties.

II. Project Scope and Objective

During the development of the D'Olive Creek Watershed Management Plan in 2010, a Matrix format was developed to help organize and analyze local government regulations and ordinances relating to stormwater management. A survey form and questionnaire were developed to solicit information from municipal and county staffs responsible for implementing the local ordinances and the information used to complete an Excel® spreadsheet (the Matrix) to assist in the identification of inconsistencies or regulatory gaps. The Survey/Questionnaire and Matrix format was refined and used again in the development of the *Weeks Bay Watershed Management Plan* (2017), and similar formats have been commonly used in the various watershed management plans developed throughout coastal Alabama.

The purpose of this project is to identify and catalog local regulatory requirements related to stormwater management throughout Mobile and Baldwin counties using the "Matrix" format, consistent with the original 2018 report. Based on the Matrix, regulatory gaps and/or inconsistencies and regulatory changes have been identified and are discussed. Additionally, a new category related to the management of trash and garbage has been created and added to the Matrix. The completed regulatory Matrix (one for each county) appears as Appendix I. A more detailed Matrix of survey responses to the trash and garbage categories appears in Appendix II.

III. Methods

The regulatory areas of interest identified for the project were based on the factors used in the original *Stormwater Management Regulatory Review* (2018) and are consistent with the watershed management planning process. These areas are construction-phase best management practice (BMP) requirements, post-construction-phase stormwater management requirements, coastal area resource protection, low impact design requirements, and shoreline structures and stabilization. Areas of interest related to trash and garbage management were developed with input from the MBNEP, representatives of local government, and Osprey Initiative. Input was also solicited from the Coastal Alabama Stormwater Team. The areas of interest are handling of household garbage, handling of trash and debris (i.e., yard waste, bulky items, white goods, etc.), litter regulations and anti-littering programs, and recycling. It is hoped that the results from the trash and garbage management survey will be useful in efforts to develop a comprehensive litter mitigation strategy for coastal Alabama.

In collaboration with the MBNEP, a request to provide updated stormwater management information and to complete a trash/garbage survey was developed and distributed to the 27 local jurisdictions within Mobile and Baldwin counties. Due in part to a lack of responses, additional information was gathered via on-line searches, telephone, and/or email contact with local governments, as necessary, to complete the Matrix. Again, the South Alabama Regional Planning Commission (SARPC), which routinely assists local

governments with development of planning regulations, proved to be an invaluable resource in the effort to obtain copies of regulations that were not available on-line.

The Matrix Stormwater Regulatory Categories are intended to be read as the question "Does the local jurisdiction have codified regulations or ordinances that require or specify..." for the regulatory areas of interest listed above and as defined below:

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.

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 long-term 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?

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 LID 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.

In most cases where the local regulations are specific, the requirement is listed in the Matrix (*e.g.*, Site Size: one acre, Setback: 25', etc.). In cases where the regulations mention a related requirement by having a vague or non-specific requirement (*e.g.*, a design standard of "good engineering judgement", etc.), "Not Specified" is used. Most local jurisdictions specify that state and federal permits are required and the Matrix responses are only affirmative (Yes) if the local jurisdiction mentions requirements independent of the state or federal government requirements. The Matrix also indicates if the local jurisdiction is currently covered under a NPDES MS4 permit. In several cases, the author consulted

with the local program staff for clarification but otherwise relied on his own interpretation of the regulations to complete the Matrix.

A list of the local regulations and ordinances that provided the basis for the information presented in the Matrix is included as Appendix III. The list includes most of the citations from the 2018 report and new or updated regulations that are noted with an asterisk (*).

The Matrix has been expanded to include several Litter/Trash/Garbage Categories that are intended to be read as the question "Does the local jurisdiction provide, or have codified regulations or ordinances that require or provide for…" for the areas of interest listed defined below:

Household Garbage: Is there a routine garbage collection program available to citizens and businesses, is participation mandatory? Additional questions related to garbage collection included: collection frequency and cost, is participation mandatory, and who provides the collection service?

Trash/Debris/Bulky/Yard Waste (Trash): Is there a routine trash collection program available to citizens and businesses? Additional questions related to the trash/debris category included: collection frequency and cost, is participation mandatory, and who provides the service?

Dumpster Regulations: Are dumpsters required/regulated at commercial sites? Additional questions related to dumpsters included: who provides the service and is there a requirement for public trash receptacles outside of businesses?

Litter Ordinance: Is there a local enforceable litter ordinance? Additional questions related to litter included: How many litter citations were issued in the past 12 months (or previous fiscal year)?

Anti-Litter Program: Is there an active anti-littering program? If yes, a brief description of the program was requested.

Recycling Program: Is there an active recycling program? If yes, is it a curb-side or drop-off style program.

A copy of the Garbage/Trash/Debris/Litter survey that was developed and distributed is included as Appendix IV. The master Matrix for each county contains responses for the major categories. Separate matrices, one for Mobile County and one for Baldwin County, were prepared to list all of the survey questions/responses, except the regulatory citations, and are included as Appendix II. The response to the survey was poor, and much of the data was gathered through on-line searches and phone calls to the local jurisdictions. Still, many "no responses" were recorded with the most frequent being related to regulatory citations. The few that were provided are included in the overall list of citations in Appendix III.

IV. Overview of Existing Laws and Regulations

The majority of our actions related to development activities and stormwater are driven by various legal authorities (statutes and codes, executive orders, etc.) and associated case law, legal requirements (rules, regulations, ordinances, interpretive writings, etc.), and/or legal rights and doctrine (riparian, trespass, public trust, etc.), all of which overlap and interplay. The collection of garbage and trash is not usually mandated at the federal or state levels and is primarily a local concern (the state or federal government do not require collection programs, although they do regulate transportation and disposal of waste). However, there is a Statewide anti-littering program managed by People Against a Littered State (PALS), which is a non-profit organization that oversees a number of programs including: Adopt-A-Mile, Adopt-A-Stream, Coastal Clean-up, and others. PALS also provides support to local towns, cities, and communities to further anti-littering programs (see: https://www.alpals.org/).

Further, federal, state and local governments are continuously in the process of changing and evolving through practical experience, technology and legal interpretation of the various statutes and ordinances used to regulate stormwater. The controversy over the definition of "waters of the US" is a good example. It should be noted that flood control ordinances were not specifically reviewed as part of this effort; however, flood control ordinances can often be in direct conflict with good stormwater management practices, with the first attempting to remove water as quickly as possible and the latter seeking to slow the release rates and/or reduce volumes. Further, all aspects of local development requirements (e.g., parking space requirements, sidewalks, green space) that could potentially impact stormwater quality management efforts, particularly LID practices, should be reviewed in more detail.

A. Federal Laws, Regulations and Permits

The primary regulatory drivers associated with stormwater management and aquatic resource protection are based upon federal law, most notably in the Federal Water Pollution Control Act (FWPCA) of 1972 and the Clean Water Act (CWA) amendments of 1977. Collectively, these statutes, and the rules and regulations promulgated pursuant thereto, provide the legal basis for regulating water quality, the discharge of pollutants, dredged or fill material, and stormwater management. The most pertinent portions of the FWPCA/CWA are:

- CWA §303 (33 USC §1313) Water quality standards and TMDL program
- CWA §319 (33 USC §1329) Non-point source pollution program
- CWA §401 (33 USC §1341) and CWA §401(a) State Water Quality Certification
- CWA §402 (33 USC §1342) NPDES permitting program
- CWA §404 (33 USC §1344) Dredged/fill material discharged to waters of the US

In addition to the FWPCA/CWA, the Coastal Zone Management Act (16 USC 1451), administered by the National Oceanic and Atmospheric Administration (NOAA), provides coastal states the opportunity to develop and implement coastal area management programs to manage coastal resources.

These federal statutes and regulations apply nationwide. A more thorough discussion of these various federal laws and regulations can be found in the *Weeks Bay Watershed Management Plan* (2017) and the original *South Alabama Stormwater Regulatory Review* (2018). It should be noted that the US EPA NPDES construction stormwater permit that was effective during the 2018 review is unchanged (and scheduled to be renewed in 2022).

B. State Laws, Regulations and Permits

Most of the federal statutes and regulations provide that a state may be delegated the authority to administer the program if they can satisfactorily demonstrate that they have implemented, and will implement, an equivalent state statute and program. This is, in fact, the case in Alabama for most of the federal statutes referenced above. The Alabama Department of Environmental Management (ADEM), through the authority vested by the Alabama Water Pollution Control Act (*Code of Alabama 1975*, § 22-22), Alabama Coastal Zone Management Act (*Code of Alabama 1975*, § 9-7-10), and Alabama Environmental Management Act (*Code of Alabama 1975*, § 22-22A) is the state's primary environmental regulatory agency. With the exception of the Coastal Zone Management Act, the State statutes and regulations apply throughout the State of Alabama. A thorough discussion of the various State statutes can be found in the original *Stormwater Management Regulatory Review* (2018).

The primary ADEM NPDES permit relevant to this project is ALR1000000, addressing construction stormwater discharges. Although the construction NPDES general permit was renewed in March of 2021 (expiring in March 2026), there were no changes in the requirements related to the primary areas addressed in this Matrix. A copy of the current version of the permit is available on the ADEM website at:

http://adem.alabama.gov/programs/water/waterforms/ALR16CGP.pdf

State laws related to garbage/trash collection programs are primarily vested in the Alabama Department of Public Health, which is responsible for implementing the *Solid Wastes and Recyclable Materials Management Act* as amended by Act No. 2247 Regular Session, Code of Alabama 1975, Section 22-27-1. The rules promulgated under this Act (Rs. 420-3-5) state that: "Each person who generates solid waste, in addition to adhering to all local ordinances, resolutions, laws, or rules pertaining to solid waste shall provide for the effective and nuisance free handling of his own solid waste in accordance with the requirements of these Rules." The rules require licensing/permitting of collectors and transporters (and transfer stations) but does not require that local jurisdictions implement a collection program.

ADEM permits solid waste disposal facilities (landfills) pursuant to Code of Alabama 1975, § 22-27 through its Solid Waste Program rules (Rs. 335-13).

There is also a Statewide littering law, codified as Code of Alabama 1975, § 13A-7-29, which was amended in 2019 to change littering to a class B misdemeanor and increase

penalties. The statute also provides that any county can be authorized to enforce the law within their jurisdiction.

C. Local Jurisdiction Regulations and Ordinances

According to <u>uslegal.com</u>, under Dillon's Rule, a municipal government has authority to act only when:

- (1) the power is granted in the express words of the statute, private act, or charter creating the municipal corporation;
- (2) the power is necessarily or fairly implied in, or incident to, the powers expressly granted; or
- (3) the power is one that is neither expressly granted nor fairly implied from the express grants of power but is otherwise implied as essential to the declared objects and purposes of the corporation.

The local cities and towns, as municipal corporations under Alabama law, have the authority to implement zoning, regulate new development, and manage stormwater. The legal basis for this authority can be found in the *Code of Alabama 1975*: §11-40 through §11-52.

Some municipalities historically exercised their authority to issue permits within their police jurisdiction or "extraterritorial jurisdiction" (ETJ), while others historically confined permitting to the city limits. However, the State of Alabama has recently enacted Senate Bill 107, which amends several sections of the above referenced statutes and will effectively limit a municipality's permitting and code enforcement jurisdiction to its corporate limits, thereby returning permitting of land development in any ETJ to the county.

The county government's statutory authority is somewhat more limited. The county requirements obviously apply countywide in areas not subject to a municipality's planning or permitting jurisdiction. *Code of Alabama 1975* §11-19-1 through 24 provides general authority for counties to adopt zoning ordinances in flood prone areas. As noted above, with the enactment of Senate Bill 107, county requirements related to development will expand into what has historically been a municipality's ETJ.

Baldwin County cites Act 91-719 of the Alabama Legislature as amended by Act No. 93-668, Act No. 98-665, Act No. 2006-609 and Act No. 2010-719 as the authority for developing its planning and zoning program and subdivision regulations. The county is divided into 33 planning districts, of which 16 currently have adopted ordinances for their district.

Mobile County cites *Code of Alabama 1975* §11-24-1. *et. seq.* as the authority for its subdivision regulations. Although Mobile County states in its stormwater management plan that it does not have authority to require or enforce the use of BMPs during construction, with the exception of implementing local zoning districts, its statutory authority appears to be essentially the same as Baldwin County.

In addition to the regulatory drivers noted above, subdivision restrictive covenants can also play an important role in stormwater management. Usually, within a residential subdivision, property owners' associations are incorporated, and for most there exist various subdivision restrictions that have been recorded and are imposed to regulate the activities within the subdivision. By nature, these restrictions look inward without consideration of neighboring property and, until recently, most do not address stormwater management. As evidenced in the Matrix, homeowner associations are routinely being held responsible for the maintenance of the post-construction stormwater management systems, and many may not even realize it. Just within the Weeks Bay Watershed in Baldwin County, over 250 private stormwater management ponds were located (WBWMP, 2017). It is very likely that subdivision restrictions related to stormwater management are essentially nonexistent and, where they do exist, are as varied as there are subdivisions.

V. Regulatory Framework

The stated purpose and objective of the original 2018 project was to identify and catalog local regulatory requirements related to stormwater management and provide baseline information on the regulatory requirements sufficient to establish the existing regulatory framework. This was accomplished and presented in the original *Stormwater Management Regulatory Review* (2018). The purpose and objective of the present effort is to simply update the catalog of regulatory requirements (the Matrix) to reflect regulatory changes since the original report. Regulatory overlap, gaps, and inconsistencies still exist and always will to varying degrees. For a more thorough discussion of regulatory overlap, gaps, and inconsistencies, please refer to the original *South Alabama Stormwater Regulatory Review* (2018).

A. Overlap

Obviously, there is overlap among federal, state, and local requirements, and the *Weeks Bay Watershed Management Plan* (2017) provides an excellent example using the permitting of a proposal to fill jurisdictional wetlands, which would require:

- A proper CWA §404 permit Either an individual permit with review by all agencies and the public or a Nationwide Permit (NWP),
- Appropriate ADEM §401 water quality certification,
- Consideration of CWA §303(d) impacts (for listed stream segments),
- ADEM coastal program consistency determination (if in the coastal area),
- A CWA §402 NPDES construction stormwater permit (if greater than one acre will be disturbed),
- City and/or county land disturbance permits,
- City and/or county development permits and plat approvals, and
- City and/or county building permits.

This overlap is unavoidable; however, the degree of regulatory overlap has been reduced by delegation of certain programmatic or regulatory authority by EPA to ADEM and, for certain coastal program requirements, from ADEM to the local authorities. Several local jurisdictions simply reference compliance with the ADEM requirements for construction phase BMPs, with some even requiring that ADEM-required inspection reports be submitted to the city. This obviously results in a reduction in regulatory overlap and inconsistency without sacrificing protection of resources. Regulatory overlap has not been identified in recent watershed management plans in Mobile and Baldwin counties as a significant issue or impediment to implementation of good stormwater management practices.

B. Gaps

States often rely on federal regulatory requirements, and in turn local governments rely on state requirements, to provide a measure of consistency and some level of "minimum standards." The federal and state environmental and stormwater requirements are necessarily designed to be applied at a national or statewide level and, while appropriate

at their respective levels, may not be meaningful or provide the level of protection needed for a particular local resource and should be considered only as "minimum standards." The federal and state requirements are also more difficult to modify because of their broader application and implications, which becomes a problem when regulations do not address critical issues or have become antiquated. Also, there are several areas where there are no federal or state standards/regulations (i.e., post-construction stormwater management, LID, garbage collection, etc.).

Therefore, local governments must fill the gaps to protect these vital resources from both direct and indirect impacts associated with development. The Matrix identifies where local ordinances beneficial to good watershed management may be falling short or lacking all together.

Reviewing the updated stormwater regulatory Matrix, 22 of 27 local jurisdictions (~81%) have their own construction-phase BMP requirements, but within Mobile County the rate is only ~67%. Most of the jurisdictions that do not have specific local construction-phase BMP requirements state that the ADEM permit requirements must be met. Post construction stormwater management requirements showed the largest improvement, with ~93% of local jurisdictions now having requirements. Three jurisdictions within Mobile County have added post-construction stormwater management requirements over the past four years. Currently, 13 local jurisdictions (~48%), up from 10 jurisdictions in 2018*, address post-construction stormwater quality. Coastal resource protection requirements are still only evident in ~44% of the local jurisdictions, although all jurisdictions mention the State and/or federal permitting requirements. The ones mentioning coastal resource protection are generally those that are partially located within the State's regulatory CZM area. LID and shoreline protection requirements are still only evident in about 30% and 15%, respectively (shoreline protection is perceived as less critical in the more inland communities without traditionally navigable waterways). Ten of the 27 jurisdictions are currently covered under the NPDES MS4 program permit. The 2021 updated Matrix shows changes, due to changed regulations or corrections to 2018 data, in red.

*Note that the data for the original *Stormwater Management Regulatory Review* (2018) were actually gathered in 2017.

2021 Summary of Stormwater Regulatory Matrix Responses by Local Governments

Regulatory Category	Balo	dwin	Mobile			
	Yes	No	Yes	No		
Construction Phase BMPs regulations	14	1	8	4		
Post Construction Phase SW Management regulations	14	1	11	1		
Coastal Resource Protection regulations	8	7	4	8		
LID regulations	7	8	5	7		
Shoreline Protection regulations	4	11	0	12		
MS4 Permit Coverage	4	11	6	6		

State solid waste handling statutes and rules make the generator responsible for the proper handling of their waste until it is collected by an approved collector/transporter or properly disposed of in an approved manner. Most all local jurisdictions have a similar requirement, or reference the state rules, in their respective local ordinances. A review of the Garbage/Trash/Litter survey Matrix indicates 25 of 27 local jurisdictions have a routine household garbage collection program available to residents, with mandatory participation required in 75%. It should be noted that some jurisdictions within Baldwin County require their residents to participate in the countywide collection program for both household garbage and debris/bulky collection. Since Mobile County has no household garbage collection program, residents in the County, along with the residents of Semmes and Dauphin Island, must make private arrangements for garbage collection. The 24 responses to the collection frequency question indicate that once-per-week collection is the most prevalent, with seven jurisdictions having more frequent collections ranging from twice per week to daily collection in portions of downtown Mobile.

2021 Summary of Garbage/Trash/Litter Matrix Responses by Local Governments

Category	Balo	dwin	Mobile			
	Yes	No/NR	Yes	No/NR		
Routine Garbage Collection Program	15	0	9	3		
Routine Trash/Bulky Collection Program	15	0	8	4		
Litter Ordinance	10	5	10	2		
Anti-Litter Program	9	6	9	3		
Recycling Program	7	8	5	7		

NR = No Response

Pricing for routine garbage collection ranges from \$15.00 per month up to \$26.00 per month. Trash, yard debris, and bulky item services are available in all but one jurisdiction that offers garbage service, and one jurisdiction without routine garbage service provides dumpsters for trash and yard waste. The cost for trash, debris, and bulky item pick-up is included in the household garbage collection fee. The frequency of trash, yard waste, and bulky items varies from once per week to "as needed," where the property owner calls to request service. These services are provided by the jurisdiction in half of the cases, with a contractor (or county) providing the services in the other half. In nine jurisdictions dumpsters are regulated at private business, but in only one case does the jurisdiction provide the dumpster. Only two jurisdictions currently require that public trash receptacles be provided outside of businesses. Twenty of the 27 jurisdictions, plus the State, have littering ordinances, and the 14 jurisdictions responding indicated that a total of 5,595 littering citations were issued over the previous 12 months (or last fiscal year). Of these, 92% were within the City of Mobile and half of the respondents indicated zero citations issued. No information was solicited from the State regarding littering citations. Eighteen jurisdictions indicated that they have some form of active anti-littering program that range in scope from full litter patrols to sponsorship, or participation in, local "cleanup days."

Twelve jurisdictions report having some sort of recycling program with eight being drop-off programs and seven being curb-side service (three jurisdictions report having both styles). It should be noted that in Baldwin County, the recycling program (drop-off) is available to all citizens.

C. Inconsistencies

Regulatory inconsistencies between federal, state, and local units of government are inevitable and can contribute to ineffective watershed management, serve as impediments to restoration efforts, and cause confusion in the regulated community. Addressing regulatory inconsistency was a high priority item identified by both the development community and local government representatives during the public planning workshop held as part of the Weeks Bay Watershed Management Planning process.

Regulatory inconsistencies have even precipitated legal action between jurisdictions (Baldwin County v Bay Minette, et. al., 854 So. 2d 42 [Ala. 2003]) whereby the County was attempting to prevent municipalities from issuing permits outside of their respective city limits because of potential differences in regulatory standards between the County and the various municipalities. This particular legal action was likely one of the driving forces behind Senate Bill 107, which limits a municipality's authority related to construction stormwater management to their respective corporate limits. The fact that creeks and rivers do not respect or follow political boundaries, and what happens relative to stormwater runoff in an upstream community having impacts on all communities downstream, highlights the need for consistent stormwater management policies and practices.

Between-jurisdiction inconsistencies are readily apparent in the Matrix. Most notable are the requirements for stabilization time frames, which are the most critical elements in erosion control. Other obvious inconsistencies are in design standards and storms; site size to which the requirements apply, post-construction stormwater treatment requirements, and buffers and setbacks. A more detailed discussion of the impacts of regulatory inconsistencies appears in the original *Stormwater Management Regulatory Review* (2018).

Resolving the majority of the inconsistencies identified in the Matrix to achieve common watershed protection goals would be beneficial to both local governments and the development community (developers, builders, consultants, etc.) and will foster wise stewardship of the resources within the watersheds.

Although not a focus of this project, several instances of "internal" inconsistencies were noted within a local jurisdiction's regulations, *i.e.*, requiring one standard in one section and a different standard in another.

VI. Observations and Opportunities

Most of the following observations and opportunities appear in the original *South Alabama Stormwater Regulatory Review* (2018) and are still appropriate.

- Educating elected officials and members of planning and zoning commissions so
 that the long-term benefits of wise resource management (including stormwater
 management) and consequences of poor management are better understood would
 facilitate better governing (regulation and decision making).
- The various planning and regulatory staffs of the local units of government are generally well-educated on the principles and practices of stormwater management. However, until the establishment of the local Baldwin County planning workgroup established through the Weeks Bay Watershed Management effort, there has been little formal interaction between jurisdictions. The group, Plan Lower Alabama Now (PLAN), along with the D'Olive Intergovernmental Task Force, could serve as models for information sharing among jurisdictions to facilitate consistency, or at least a common set of minimum standards in local regulatory requirements related to resource and stormwater management.
- Educating existing homeowner associations about stormwater management and requiring minimum subdivision stormwater management practices in newly recorded covenants would help ensure long-term maintenance and functioning of the systems.
- Educating the general public about the benefits of, and need for, good resource and stormwater management practices help build the popular opinion necessary to sway political action.

A common suggestion in the local watershed management plans reviewed and reiterated here is that local governments are encouraged to set consistent requirements related to resource and stormwater management. As evidenced in the Matrix, there is a range of design standards and/or design references cited, and while each has merit for the particular settings for which they were developed, some are more or less appropriate for urban areas than others. The original *South Alabama Stormwater Regulatory Review* (2018) has a more thorough discussion regarding standardization of design standards that is still pertinent.

Post-construction stormwater management is arguably more important than "during-construction" phases of a project since potential stormwater impacts will continue for the life of the completed project. Therefore, consistent stormwater management policies and regulations are even more necessary. As indicated earlier, regulations intended to mitigate flooding issues were not specifically reviewed as part of this project or the original effort. However, many of the regulatory requirements for detention or retention were found in "flood control" ordinances. Since we now understand that simply catching the runoff and releasing it at a controlled rate may not be the best option for flood control or water quality because it does nothing to reduce the increase in overall volume being discharged or to remove pollutants, new thinking is necessary to ensure better long-term stormwater management.

The variability of post-construction stormwater management regulatory requirements between jurisdictions is due in part to the lack of federal or State requirements. As discussed above, the best way to achieve stormwater management goals is to ensure that design standards that address both flooding and water quality within a watershed are consistent between all jurisdictions within the watershed. These standards should consider the "timing" of stormwater discharges and also incorporate LID measures that reduce the overall volume of runoff from a completed project, something that very few local jurisdictions address. Currently, two jurisdictions (Baldwin County and Orange Beach) have watershed or water body specific requirements (i.e. detention requirements based on receiving stream), and one jurisdiction has recently added a timing aspect to detention requirements (Summerdale). A more detailed discussion of this issue can be found in the Weeks Bay Watershed Management Plan (2017) and is applicable to all of coastal Alabama. Each watershed should be evaluated, similarly to what was done for Fish River by Baldwin County, to determine the best stormwater runoff management scenario for specific watersheds.

Lack of maintenance of post-construction stormwater management facilities (basins) is a common problem, and there are varied opinions on "who" should be responsible. Most local jurisdictions (the ones requiring retention/detention) require that the "owner" be responsible for long-term maintenance. However, these same jurisdictions are specifying the design standards of the facilities and performing, or requiring, inspection and certification to ensure proper construction; readily assume responsibility of the street and stormwater drainage infrastructure appurtenant to the streets and basin(s); and, for those with MS4 permit coverage, are responsible for discharges from the basins. So it appears that the local jurisdictions are vested in the proper operation of the facilities and should consider accepting maintenance responsibility concurrent with acceptance of new streets and drainage infrastructure.

The Coastal Resource Protection requirements reviewed focused primarily on wetlands and waterways and what type buffer or setback requirements the local jurisdictions implement independent of State or federal requirements. The Matrix indicates that approximately 44% of the local jurisdictions have some requirements aimed at protecting these coastal resources, and two (Dauphin Island and Orange Beach) have requirements that any wetland mitigation be undertaken within the jurisdiction. It should be noted most local jurisdictions are outside of the ACAMP regulatory area.

Green Infrastructure (GI) or LID that focus on improving the quality of runoff and reducing the overall volume of runoff from completed projects are no longer new concepts. The majority of these practices are focused on having the stormwater infiltrate the ground as close to the point of rainfall impact as possible.

The lack of specific State or federal requirements or standards for LID is resulting in most jurisdictions not incorporating them into local ordinances. Of the twelve jurisdictions (up from eight in 2018) that do specifically mention LID in their regulations, only three actually have specific treatment requirements, and each of those have different standards. Readers are also referred to Section 6.5 of the *Weeks Bay Watershed Management Plan*

(2017) and the original *South Alabama Stormwater Regulatory Review* (2018) for a more detailed discussion of LID.

The proper handling and disposal of household garbage is paramount to protecting human health and the environment. Since the State regulations mandate that the individuals generating the waste are responsible for proper disposal, providing a means for them to accomplish this task would only seem logical; otherwise, they are left to their own devices. Mobile County not providing county-wide service that could cover jurisdictions without their own local program creates a huge gap in service, and the cost to an individual to arrange for routine garbage collection will be significantly higher than if an entire community were being served.

MOBILE COUNTY

Regulatory Category	Mobile County	Bayou la Batre	Chickasaw	Citronelle	Creola	Dauphin Island	Mobile	Mt. Vernon	Prichard	Saraland	Satsuma	Semmes
Construction Phase BMPs Requirements	No	Yes	Yes	No	Yes	No	Yes	No	Yes	Yes	Yes	Yes
Design Standards	N/A	USDA Field Manual	Not Specified	N/A	USDA Field Manual**	N/A	Not Specified	N/A	USDA Field Manua/	USDA Field Manual	USDA Field Manual	AL Handbook
BMP Design Storm	N/A	25 yr	Not Specified	N/A	25 year/10 year	N/A	Not Specified	N/A	10 year	10 year	10 year	2yr-24hr
Site Size	N/A	Any	>1 ac.	N/A	>1 ac.	N/A	>4,000 ft ²	N/A	>10,000 ft ²	Any	Any	>500 ft ²
Stabilization Time	N/A	13 / 30 days	Not Specified	N/A	13 days/30 days	N/A	10 days	N/A	7 days / 30 days	30 days	30 days	14 days
		City-initial installation			City-initial installation							City-Periodic
Site Inspections	N/A	Contractor-per ADEM	Not Specified	N/A	Contractor-per ADEM	N/A	per ADEM	N/A	3/4" rainfall	N/A	N/A	Engineer-Regular
BMP Repair/Maintenance Time	N/A	Not Specified	Not Specified	N/A	5 days	N/A	5 days	N/A	Not Specified	Not Specified	Not Specified	5 days
Non-compliance Reporting	N/A	No	No	N/A	No	N/A	Not Specified	N/A	No	N/A	N/A	No
Buffer Requirement ⁵	N/A	Wetland 30' Stream 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	Yes - limited areas	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes
Otaman on ality	NI.	NIa	Vaa	Ne	Nia	N.a.	Vaa	NI/A	Ma	Yes- Treat 0.5" - 1" at 80% TSS removal	40 as Vas	V twt 4"
Stormwater Quality Stormwater Quantity	No Yes	No Van	Yes Yes	No Yes	No Van	No Yes	Yes	N/A	No Yes		>10 ac - Yes Yes	Yes - treat 1"
		Yes			Yes		Yes	N/A	2-100-yr	Yes		Yes 2-100 yr
Design Storm Site Size	10 yr / 50 yr	25yr-24hr/10/100 yr >2,500 ft ²	2 and 10 yr 10 ac	1/10/100-yr	10-yr / 50 yr	10-yr / 50 yr Not Specified	10-yr & 1.2"/24hr. >4,000 ft ²	N/A N/A	1 acre / 10 acre	2yr / 10yr / 25yr 10 ac	1/10/100 yr; 2 /10 yr 143560 sg.ft.	Not Specified
Routine Inspection	Any commercial No	>2,500 ft ² Yes	Yes-annual	5 ac No	Not Specified No	No No	>4,000 ft² Yes	N/A N/A	No	Annual	143560 sq.it. No	Biannual
Maintenance	Owner	Developer/Owner	Not Specified	Not Specified	Landowner/City	Not Specified	Developer/Owner	N/A	Not Specified	Developer/Owner	Developer/Owner	Developer/Owner
Reporting	5 yr	3 vr	No No	No.	No	No.	Annual	N/A	No.	Yes	No	Yes
Calculation Method	Not Specified	Not Specified	Not Specified	Not Specified	Not Specified	Not Specified	Not Specified	N/A	Not Specified	Not Specified	Rational Method	Rational Method
Coastal Area Resource Protection	Yes	Refers to ADEM Div 8	No	No	No	No	No	No	No	No	Refers to ADEM Div 8	Yes
Wetland/Stream Buffer	Varies 25-100'	Wetland 30' Stream 25'	No	N/A	N/A	N/A	No	N/A	N/A	Yes- Not Specified	Yes- Not Specified	Yes 75'-150'
Local Permit Requirement	No	No	No	N/A	N/A	N/A	No	N/A	N/A	No No	No	No
Low Impact Development	No	Yes	Yes	No	Yes	No	No	No	No	Optional	Yes	No
Development Size	N/A	50 Lots or 20 acre	Not Specified	N/A	Major Subdivision	N/A	N/A	N/A	N/A	Not Spedified	N/A	N/A
Impervious Cover Reduction / Green Space	N/A	Yes	Yes	N/A	Yes	N/A	No	N/A	N/A	No	No	No
On-site Retention	N/A	Yes	Yes	N/A	Yes	N/A	No	N/A	N/A	Yes-Infiltration	Yes-Infiltration	No
LID Standards	N/A	LID Handbook	No	N/A	LID Handbook	N/A	No	N/A	N/A	No	Yes	No
Impediments to LID	N/A	No	No	N/A	No	N/A	N/A	N/A	N/A	No	No	N/A
Shoreline Stabilization	No	No	No	No	No	No	No	No	No	No	No	No
Piers and Bulkheads	N/A	No	No	N/A	N/A	N/A	No	N/A	N/A	No	No	No
Living Shorlines	N/A	No	No	N/A	N/A	N/A	No	N/A	N/A	No	No	No
MS4 Permit Coverage	ALR040043	No	ALR040044	No	No	No	ALS000007	No	ALS000002	ALR040045	ALR040046	No
Litter/Trash/Garbage Program	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
Household Garbage Pick-up Program	N/A	2/wk	2/wk	NR	1/wk	No	1/wk 1/day	1/wk	1/wk	2/wk	2/wk	N/A
Trash/Debris/Bulky/Yard Waste Pick-up Program	No	No	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	No
Commercial Dumposter Regulations	No	No	No	Yes	No	No	Yes	No	No	No	Yes	N/A
Litter Ordinance	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	NR
Anit-Litter Program	Yes	No	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	N/A
Recycling Program	Yes	No	No	NR	No	No	Yes	No	No	Yes	Yes	Yes

^{*} Alabama Handbook for Erosion Control, Sediment Control and Stormwater Management on Construction Sites and Urban Areas, September 2014

** USDA NRCS National Engineering Field Manual for Conservation Practices, January 2012

***ADEM Low Impact Development Handbook for the State of Alabama, and/or

Items in RED are new for 2021

Abbreviations and Foot Notes:

- 1 SCS = NRCS
- 2 ft^2 = square feet
- 3 Base Flood Elevation 4 ac. = acre
- 5 For waters unless otherwise specified
- 6 permitted thru Corps of Engineers

Alabama Cooperative Extension Service, ADEM and Auburn University, Planning for Stormwater Deveoping a Low Impact Solution, 2016

BALDWIN COUNTY

Regulatory Category	Baldwin County	Bay Minette	Daphne	Spanish Fort	Fairhope	Robertsdale	Loxley	Magnolia Springs	Silverhill	Summerdale	Foley	Elberta	Gulf Shores	Orange Beach	Perdido Beach
Construction Phase BMPs Requirements	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Construction i mase biin s requirements	163	140	163	AL Handbook	163	163	163	163	163	163	163	163	163	163	163
Design Standards	AL Handbook	N/A	AL Handbook	ALDOT Specifications	AL Handbook	USDA Field Manual**	USDA Field Manual**	AL Handbook	USDA Field Manual	Conform to ADEM Permit	AL Handbook	Not Specified	Not Specified	Not Specified	AL Handbook
BMP Design Storm	2yr-24hr	N/A	2yr-24hr	2yr-24hr	25yr-24hr	25 yr	10 yr	25yr -24hr	Not Specified	10 yr	Not Specified	10/25-year	Not Specified	25 yr	25 yr -24 hr
Site Size	,	N/A	>1,000 ft ²	>1,000 ft ²	All	Not Specified	Any Subdivision	Not Specified	· ·	>1 ac	>/= 500 ft² / 1/2 ac.	>1 ac.	>4,000 sf	Not Specified	
Stabilization Time	Any 10 or 13 days	N/A N/A	13 days	30 days	10 days	Not Specified Not	Not Specified	13 days	>1 ac 30 days	Not Specified	3/= 500 ft² / 1/2 ac.	14 days/30 days	Not Specified	Not Specified Not Specified	Any 10 - 13 days
Stabilization Time	10 01 13 days	IN/A	13 days	30 days	City-Random; Contractor-	NOt	Not Specified	13 days	30 days	Not Specified	City-Random / Contractor-	City-Random / Contractor-	Not Specified	•	City-Random / Contractor-
Site Inspections	Yes	N/A	Yes	Yes	Daily	No	No	Random-Town	No	No	"regular"	"regular"	Not Specified	Not Specified	No
BMP Repair/Maintenance Time	Not Specified	N/A	2 Days	5 Days	2 Days	No	Not Specified	Not Specified	Not Specified	Not Specified	2 Days	Not Specified	Not Specified	Not Specified	Not Specified
Non-compliance Reporting	No No	N/A	No No	No	No	No	No	No No	No	No	No No	No No	Not Specified	Not Specified	No
Non compliance responding	Wetland-30' Overlay Dist	14/71	140	140	140	140	140	140	140		30' - Wetland 50'	5'- 30' - Wetland	140t opcomed	Not openied	140
Buffer Requirement ⁵	Wetland 5' subdivisions	N/A	No	30'	30'	Yes-Unspecified Width	No	Yes - Varies (30-75')	Yes-Unspecified Width	No	- Waterway	25' - Waterway	30' Wetland	No	30'
Post Construction SW Mngt Requirements	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
i est estimation est innigentequinement	. 90				Treat 1.8", 85% Capture,	. 55	1.00	Yes- Treat First Flush (1.8" at	100	.00	Yes- Treat First Flush	. 55		.55	
Stormwater Quality	No	No	Yes	No	80% TSS Removal	Yes- 90% TSS removal	No	80% TSS removal)	No	Yes- Treat First Flush (1.0")	(1.25")	No	Yes- Capture 0.5"	Yes- Treat First Flush (1")	No
	Yes - Considers Timing	No	Yes	Yes	Yes - Considers Timing	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Design Storm	2 - 100 yr	N/A	2 - 100 yr	2 - 100 yr	2 - 100 yr	25 yr - 24hr	25 yr / 2-100 yr	2 - 100 yr - 24hr	25 yr	2-100 yr	2 - 100 yr	25 year	Not Specified	25 yr - 24hr	2-100 yr
2 55.3 5151111	, .		,	j.	j.	1ac/5ac/10ac depending on	. j. v = 150 j.	j	Commercial, Industrial,	,.				- J	j.
Site Size	Any	N/A	Any	Any	All Subdivisions	development	Any Subdivision	Not Specified	Residential Subdivisions	Any	500 ft ²	Varies 1 - 10 ac	Any	Not Specified	Any
Routine Inspection	No	N/A	1 / 5 yr	1/3 yr	1/ 3 yr	No	No	1 per 3 yr / 1 per 2 yr	No	Random by Town	Annual by City	No	No	Annual	No
Maintenance	Developer/Owner	N/A	Developer/Trustee	Developer/Owner Assoc.	Developer/Landowner	Developer/Owner	Developer/Landowner	Developer/Landowner	Developer/Landowner	Developer/Owner	Owner	Landowner	Not Specified	Owner	Developer/Trustees
Reporting	No	N/A	Yes	No	Yes	No	No	No	No	No	No	No	No	No	No
				<200 ac. Rational Method											
			Rational or Modified	>200 ac. Regression	Rational <100 ac,					<40 ac. Rational Method					
Calculation Method	SCS	N/A	Rational Method	Equations or SCS	SCS >100 ac	Rational = 200 ac</td <td>Not Specified</td> <td>Not Specified</td> <td>SCS</td> <td>>40 ac. NRCS TR-55</td> <td>NRCS TR-55</td> <td>Rational Method</td> <td>Not Specified</td> <td>Rational Method</td> <td>Not Specified</td>	Not Specified	Not Specified	SCS	>40 ac. NRCS TR-55	NRCS TR-55	Rational Method	Not Specified	Rational Method	Not Specified
Coastal Area Resource Protection	Yes	No	Yes	Yes	Yes	No	No	Yes	No	No	Yes	No	Yes	Yes	Yes
	Wetland-30' Overlay Dist				Wetland-30' Streams 50'-							5'-30'-Wetland / 25'-			
Wetland/Stream Buffer	Wetland 5' subdivisions	N/A	Stream 50' Wetland 30'	30'	100' (by watershed)	No	N/A	30' wetland/ 75' stream	N/A	N/A	30'-Wetland / 50'-Waterway	Waterway	30'-Wetland	No	30' Wetland
Permit Requirement	N/A	N/A	USACE	Yes	Yes	No	N/A	Yes	N/A	N/A	USACE/ADEM	USACE/ADEM	USACE/ADEM/CITY	ADEM/USACE	USACE
Low Impact Development	No	No	Yes	Yes	Yes	No	No	Yes	No	No	Yes	No	Optional	Yes	No
Development Size	N/A	N/A	No	N/A	Not Specified	No	No	Not Specified	N/A	N/A	N/A	N/A	N/A	Any	N/A
Impervious Cover	No	No	No	N/A	Optional	No	No	Optional	N/A	N/A	N/A	N/A	N/A	Yes	N/A
On-site Retention	No	No	No	N/A	Optional	No	No	Optional	N/A	N/A	Yes -1.25"	N/A	N/A	Yes- Treat First Flush (1")	N/A
								85% Treatment - 80%							
LID Standards	No	No	Yes	N/A	Not Specified	No	No	TSS Removal	N/A	N/A	LID Handbook***	N/A	N/A	Not Specified	N/A
Impediments to LID	N/A	N/A	No	N/A	No	No	No	No	N/A	N/A	No	N/A	No	No	Yes
Shoreline Stabilization	No	No	No	No	No	No	No	Yes	No	No	Yes	No	Yes	No	Yes
			USACE, ADCNR ADEM	USACE, ADCNR ADEM											
Piers and Bulkheads	N/A	N/A	Verification	Verification	N/A	No	No	Yes	N/A	N/A	Yes	No	Yes	N/A	Yes
. 1515 \$114 2 \$11110455			USACE, ADCNR ADEM	USACE, ADCNR ADEM											
Living Shorlines	N/A	N/A	Verification	Verification	N/A	No	No	Mentioned-not required	N/A	N/A	No	No	Optional	N/A	No
MS4 Permit Coverage	ALR040042	No	ALR040039	ALR040041	ALR040040	No	No	No	No	No	No	No	No	No	No
Litter/Trash/Garbage Program	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Household Garbage Pick-up Program	1/wk	1/wk	1/wk	1/wk	2/wk	1/wk	1/wk	1/wk	1/wk	1/wk	1/wk	1/wk	1-3/wk	1/wk	1/wk
Trash/Debris/Bulky/Yard Waste Pick-up Program	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Commercial Dumpster Regulations	No	NR	No	No	No	No	No	Yes	No	No	Yes	No	Yes	Yes	Yes
Litter Ordinance	No	NR	Yes	Yes	Yes	Yes	Yes	No	No	Yes	Yes	Yes	Yes	Yes	No
Anit-Litter Program	Yes	NR	Yes	Yes	Yes	No	Yes	No	No	No	Yes	Yes	Yes	No	Yes
Recycling Program	Yes	No	Yes	Yes	Yes	No	No	Yes	No	Yes	Yes	No	Yes	No	No
									-	•				•	

* Alabama Soil and Water Conservation Committee Alabama Handbook for Erosion Control, Sediment Control and Stormwater Management on Construction Sites and Urban Areas, June 2018

** USDA NRCS National Engineering Field Manual for Conservation Practices, January 2012

***ADEM Low Impact Development Handbook for the State of Alabama, and/or

Alabama Cooperative Extension Service, ADEM and Auburn University, Planning for Stormwater Deveoping a Low Impact Solution, 2016

Items in RED are new for 2021

Abbreviations and Foot Notes:

1 SCS = NRCS

2 ft^2 = square feet

3 Base Flood Elevation4 ac. = acre

5 For waters unless otherwise specified6 permitted thru Corps of Engineers

MOBILE COUNTY

Regulatory Category	Mobile County	Bayou la Batre	Chickasaw	Citronelle	Creola	Dauphin Island	Mobile	Mt. Vernon	Prichard	Saraland	Satsuma	Semmes
Household Garbage Pick-up Program	No	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	No
Collection Frequency	N/A	2/wk	2/wk	NR	1/wk	N/A	1/wk-daily	1/wk	1/wk	2/wk	2/wk	N/A
Cost per month	N/A	NR	\$ 20.00	NR	\$ 26.00	N/A	NC	NR	\$ 15.00	\$ 20.20	\$ 22.50	N/A
Participation Mandatory	N/A	NR	Yes	Yes	Yes	N/A	Yes	NR	Yes	Yes	No	N/A
Provided by Jurisdiction or Contractor		Jurisdiction	Contractor	Contractor	Contractor	N/A	Jurisdiction	Contractor	Jurisdiction	Contractor	Jurisdiction	N/A
Trash/Debris/Bulky/Yard Waste Pick-up Program	No	No	Yes	Yes	Yes	No**	Yes	No	Yes	Yes	Yes	No
Collection Frequency	N/A	N/A	NR	NR	1/wk	1/wk	1/2wks	N/A	1/2wks	1/wk	1/wk	N/A
Cost per month	N/A	N/A	NR	NR	0	0	0	N/A	0	0	0	N/A
Participation Mandatory	N/A	N/A	Yes	NR	No	No	Yes	N/A	Yes	Yes	No	N/A
Provided by Jurisdiction or Contractor	N/A	N/A	Contractor	Both	Contractor	Jurisdiction	Jurisdiction	N/A	Jurisdiction	Contractor	Jurisdiction	N/A
Dumpsters Regulated at Commercial Businesses	No	No	No	Yes	No	No	Yes	No	No	No	Yes	N/A
Dumpsters Service Provided by Jurisdiction or Contracted	N/A	N/A	Contractor	Jurisdiction	N/A	N/A	Private	N/A	N/A	N/A	Private	N/A
Trach Receptacles Required at Public Businesses	No	No	No	NR	No	No	Yes	No	No	NR	No	N/A
Littering Ordinance	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
Number of Citations in past 12 months	253	N/A	120	NR	NR	NR	5125	0	88	NR	0	N/A
Active Anti-Littering Program	Yes	No	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	NR
Recycling Program	Yes	No	No	NR	No	No	Yes	No	No	Yes	Yes	Yes
Curbside or Drop-off	Drop-off	N/A	N/A	NR	N/A	N/A	Drop-off	N/A	N/A	Curbside	Curbside	Drop-off

NC = No Charge

NR = No Response

0 indicates that cost included with monthly household garbage fee

^{**}Jurisdiction provides dumpsters on Fridays and Saturdays for residents to discard trash at no cost to resident.

BALDWIN COUNTY

Regulatory Category	Baldwin County	Bay Minette	Daphne	Spanish Fort	Fairhope	Robertsdale	Loxley	Magnolia Springs	Silverhill	Summerdale	Foley	Elberta	Gulf Shores	Orange Beach	Perdido Beach
Household Garbage Pick-up Program	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes*	Yes	Yes	Yes	Yes	Yes	Yes	Yes*
Collection Frequency	1/wk	1/wk	1/wk	1/wk	2/wk	1/wk	1/wk	1/wk	1/wk	1/wk	1/wk	1/wk	1,2,3/wk**	1/wk	1/wk
Cost per month	\$ 16.00	NR	\$ 15.40	\$ 16.58	\$ 20.00	NR	\$ 20.48	\$16.00	\$ 17.29	\$ 16.00	NR	NR	\$17.17/mo	NR	\$16.00
Participation Mandatory	Yes	NR	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
Provided by Jurisdiction or Contractor		Jurisdiction	Jurisdiction	Contractor	Jurisdiction	Jurisdiction	Jurisdiction	County	Jurdisdiction	County	Jurisdiction	Contractor	Contractor	Contractor	County
Trash/Debris/Bulky/Yard Waste Pick-up Program	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Collection Frequency	1/mo	1/wk	NR	1/wk	1/wk	1/wk	1/wk	1/mo	1per 2 wks	NR	As Needed	1/mo	1/wk	1/wk	1/mo
Cost per month	0	NR	NR	0	0	NR	0	0	NR	NR	NR	NR	0	NR	0
Participation Mandatory	No	NR	Yes	N/A	No	Yes	No	No	No	No	Yes	NR	Yes	No	No
Provided by Jurisdiction or Contractor	Jurisdiction	Jurisdiction	Contractor	Contractor	Jurisdiction	Jurisdiction	Jurisdiction	County	Jurisdiction	Jurisdiction	Jurisdiction	Jurisdiction	Contractor	Jurisdiction	County
Dumpsters Regulated at Commercial Businesses	Yes	NR	No	No	No	No	No	Yes	No	No	Yes	No	Yes	Yes	Yes
Dumpsters Service Provided by Jurisdiction or Contracted		NR	NR	N/R	N/A	N/A	N/A	Private	N/A	Private	Private	N/A	Prvate	Private	Private
Trach Receptacles Required at Public Businesses	No	NR	NR	No	No	No	No	No	No	No	No	No	NR	Yes	No
Littering Ordinance	No	NR	Yes	Yes	Yes	Yes	Yes	No	No	Yes	Yes	Yes	Yes	Yes	No
Number of Citations in past 12 months	N/A	NR	0	0	0	6	0	N/A	N/A	3	0	0	NR	NR	N/A
Active Anti-Littering Program	Yes	NR	Yes	Yes	Yes	No	Yes	No	No	No	Yes	Yes	Yes	No	Yes
Recycling Program	Yes	No	Yes	Yes	Yes	No	No	No*	No	Yes	Yes	No	Yes	No*	No*
Curbside or Drop-off	Drop-off	N/A	Curbside	Both	Both	N/A	N/A	N/A	N/A	Drop-off	Curbside	N/A	Both	N/A	N/A

^{*} Jurisdiction relys on Baldwin County ordinances and collection programs

^{**} Jurisdiction has varying pick-up frequency in different areas
0 indicates that cost included with monthly household garbage
fee

Appendix III

MBNEP Regulatory Review Update

List of Regulations and Ordinances, References and Websites

Federal

USDA NRCS - National Engineering Field Manual for Conservation Practices, January 2012

USDA NRCS - Urban Hydrology for Small Watersheds, TR-55, June 1986

U.S. Environmental Protection Agency (EPA) - 2017 NPDES Construction General Permit, February 16, 2017,

U.S. Geological Survey Water Science School website https://water.usgs.gov/edu/100yearflood.html

State

*Alabama Department of Environmental Management (ADEM) - NPDES General Permit ALR100000; effective April 1, 2021.

*ADEM Administrative Code R. 335-6, February 15, 2021 (Water Quality Program)

ADEM Administrative Code R. 335-8, May 8, 2013 (Coastal Program)

*ADEM – Construction Best Management Practices Plan (CBMPP) Guidance Template; January 2021

*Alabama Soil and Water Conservation Committee – Alabama Handbook for Erosion Control, Sediment Control and Stormwater Management on Construction Sites and Urban Areas; June 2018

Alabama Cooperative Extension Service, ADEM and Auburn University – Planning for Stormwater Developing a low impact solution, 2016

Local – Baldwin County

Baldwin County Subdivision Regulations; May 19, 2015

*Baldwin County Zoning Ordinances; as amended June 1, 2020

City of Bay Minette Subdivision Regulations; February 14, 2006, amended July 10, 2012

*City of Bay Minette Zoning Ordinance, Ordinance #992' April 6, 2020

City of Daphne Ordinance No. 2014-14, CBMPP Ordinance; April 21, 2014 (Applicable to SF residential)

City of Daphne Land Use and Development Ordinance; July 18, 2011 (Applicable to commercial developments and subdivisions).

Town of Elberta Subdivision Regulations; as amended August 20, 2009

*Town of Elberta Zoning Ordinance; as amended September 18, 2018

City of Fairhope Subdivision Regulations; March 8, 2007

City of Fairhope Code of Ordinance Chapter 7 Article VII (Erosion and Sediment Control Ordinance 1398); September 23, 1996

City of Fairhope Code of Ordinance Chapter 7 Article IX (Wetland Ordinance 1370); October 13, 2008

City of Foley Code of Ordinance Chapter 6.5 Article III (Erosion and Sediment Control Ordinance 15-1003); March 16, 2015

*City of Foley Code of Ordinance Chapter 4 Article IV (Manual for Design and Construction Standards Ordinance 1008-07); as amended through September 5, 2017

City of Foley Code of Ordinance Chapter 4 Article VIII (Shoreline Construction Activity Ordinance 1024-08); January 21, 2008.

Standards of the City of Gulf Shores, Alabama for Control of Erosion Sedimentation, and Storm Water Runoff

City of Gulf Shores Ordinance Number 1593; March 8, 2010

City of Gulf Shores Subdivision Regulations; September 22, 1987 as amended thru January 26, 2021

*Town of Loxley Zoning Ordinance; August 9, 2004 as amended thru April 11, 2016

*Town of Loxley Subdivision Regulations; July 8, 1991 as amended through February 19, 2020

Town of Magnolia Springs Zoning Ordinance (Ordinance #2010-06); June 22, 2010

*Town of Magnolia Springs Subdivision Regulations; June 1, 2021

The Subdivision Regulations [for] the City of Orange Beach, Alabama; July 2, 1991 as amended thru January 2007

The City of Orange Beach Ordinance 2003-741, April 1, 2003

The City of Orange Beach Ordinance 2005-855, January 18, 2005

Town of Perdido Beach Subdivision Regulations, May 4, 2011

*Town of Perdido Beach Land Use and Zoning Ordinance, #2011-02, as amended through May 24, 2018

City of Robertsdale - Land Use Ordinance; as amended August 3, 2015

Silverhill Zoning Ordinance of the Town of Silverhill, Alabama; January 17, 2000

*City of Spanish Fort "Clean Water Ordinance", Ordinance Number 516-2017.

City of Spanish Fort Subdivision Regulations; February 8, 2016

City of Fairhope Subdivision Regulations; March 8, 2007

*The Subdivision and Development Regulations of the Town of Summerdale, Alabama; May 29, 1997 as amended through November 15, 2018

*Summerdale Alabama Zoning Ordinance; July 13, 2020

Local – Mobile County

Mobile County Flood Damage Prevention Ordinance; March 11, 2010

The Subdivision Regulations of Mobile County, Alabama; December 13, 2004 as amended thru April 26, 2005

The Zoning Ordinance of the City of Bayou la Batre, Ordinance #495; March 22, 2005

City of Bayou La Batre Subdivision Regulations; March 29, 2020

*City of Bayou La Batre Flood Damage Prevention Ordinance (No. 2020-002); May 28, 2020

City of Chickasaw Stormwater Discharge Plan, Ordinance #1540; December 1, 1998

Zoning Ordinance of the City of Chickasaw, Ordinance #2016-03; March 22, 2016

The Zoning Ordinance of the City of Citronelle, Ordinance #1059; January 13, 1987

City of Citronelle Subdivision Regulations, Ordinance #1280; January 24, 2013

* City of Citronelle, Ordinance #1324; May 14, 2020

*Subdivision Regulations of the City of Creola, Alabama; Adopted June 18, 2019

*The Zoning Ordinance of the City of Creola; May 2002 as amended thru February 2019

Zoning Ordinance of the Town of Dauphin Island, Alabama, Ordinance #96; November 18, 2014 as amended thru June 2015

*Flood Damage Prevention Ordinance of the Town of Dauphin Island, Alabama, Ordinance #55A February 15, 2018 as amended May 19, 2020

*Mobile City Code, Chapter 17, Storm Water Management and Flood Control; as amended May 19, 2020

Subdivision Regulations Town of Mount Vernon, Alabama; June 25, 2007

*The City of Prichard Zoning Ordinance No. 2083; December 2020

The City of Prichard Land Disturbance Ordinance No. 1952; September 18, 2008

The City of Saraland Land Use and Development Ordinance; December 27, 2007

*The City of Saraland Post Construction Stormwater Management Ordinance (#1022); December 10, 2015

*City of Saraland Compiled Ordinance; March 24, 2016

*The Zoning Ordinance of the City of Satsuma, Alabama; Ordinance #482, as amended thru January 7, 2020

*City of Satsuma Flood Damage Prevention Ordinance (#530, #490), May 5, 2020

The City of Semmes, AL Subdivision Regulations; January 27, 2012 as amended thru Aril 26, 2016

The City of Semmes Design and Construction Manual; September 11, 2012

Items noted with an * are new/updated since 2018.

WEBSITES

https://alconservationdistricts.gov/resources/erosion-and-sediment-control/

http://codes.findlaw.com

http://definitions.us.legal.com

https://www.epa.gov/npdes/epas-2017-construction-general-permit-cgp-and-related-documents

http://library.municode.com/al/

http://sos.alabama.gov

https://www.epa.gov/npdes/epas-2017-construction-general-permit-cgp-and-related-documents

https://water.usgs.gov/edu/100yearflood.html

http://www.adem.state.al.us/default.cnt

https://directives.sc.egov.usda.gov/viewerFS.aspx?hid=21429

http://www.aces.edu/natural-resources/water-resources/watershed-planning/stormwater-management/documents/1467207286 lowimpactdistribution59.pdf

Appendix IV

South Alabama Stormwater Regulatory Update 2021 SAMPLE of the Garbage, Trash and Litter Survey Form

Additional Survey Questions related to Garbage/Trash/Debris /Litter:

Household Garbage: Does the it	urisdiction have a routine garbage collect	ion program available to all
	What is the collection frequency a	
	Is participation in the program m	
	ration(s):	
	ion or privately contracted?	
Trash/Debris: Does the jurisdicti	ion have a routine trash/debris/bulky/ya	rd waste collection program
available to all residents and bus	sinesses? What is the freque	ency and cost per month for the
	articipation in the program mandatory?	
the regulatory citation(s):		Is the
service provided by the jurisdicti	ion or privately contracted?	Are
	t commercial businesses: If	
	ely provided?	
	receptacles outside of businesses?	
	e a littering ordinance that provides for fi	
	ration(s):	
indicate the number of citations,	/violations/penalties issued within the pa	ast 12 months:
	tive anti-litter program (education/outre f yes, please provide a brief description:	
Recycling: Does the jurisdiction h	nave a recycling program? Curbsi	ide or Drop-off?
Respondent Name:	lurisdiction:	Date: