Alabama Department of Environmental Management

Total Maximum Daily Load (TMDL)
for
Mobile Bay
Assessment Unit ID # AL03160205-0300-100 (Old ID)
Assessment Unit ID # AL03160205-0300-101 (New ID)
Pathogens (Enterococci)

Alabama Department of Environmental Management
Water Quality Branch
Water Division
December 2010

Figure 1-1. Site Map of the Original Impaired Portion of Mobile Bay: AL03160205-0300-100

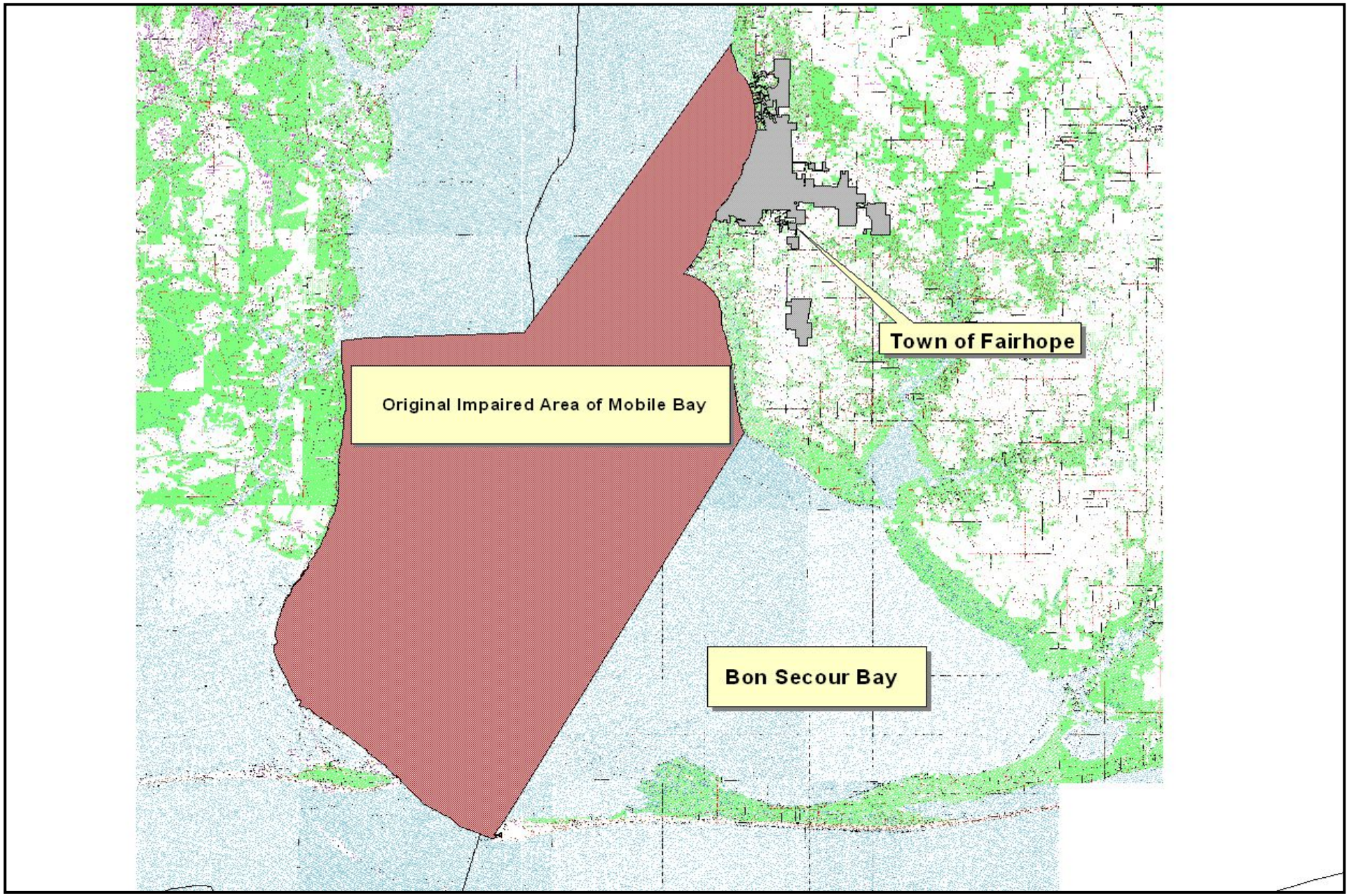

Figure 1-2. Site Map of the Revised Impaired Portion of Mobile Bay: AL03160205-0300-101

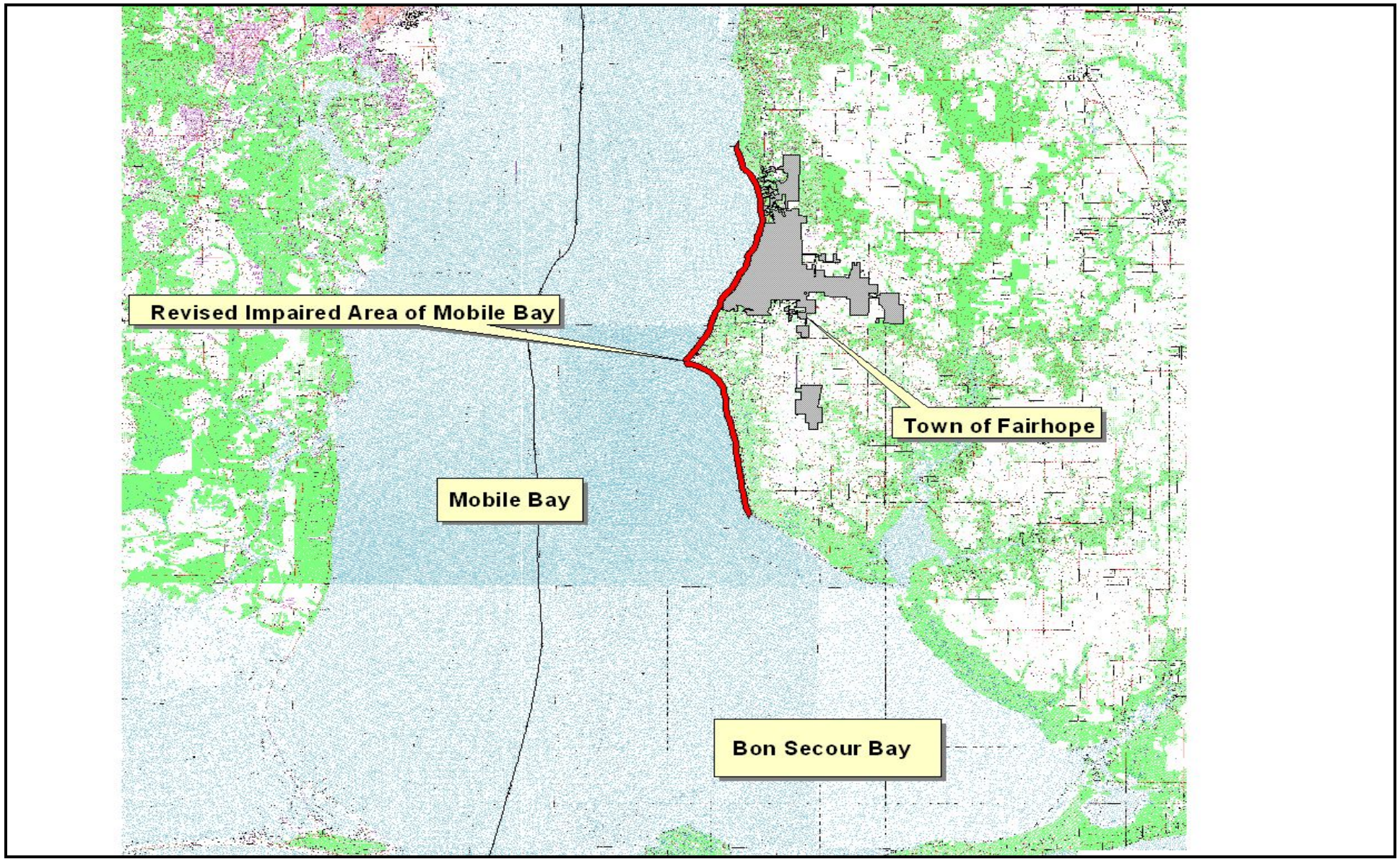

Figure 1-3. Landsat Photo of Mobile Bay

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1.0 Executive Summary

Section §303(d) of the Clean Water Act and EPA's Water Quality Planning and Management Regulations (40 CFR Part 130) requires states to identify waterbodies which are not meeting their designated uses and to determine the Total Maximum Daily Load (TMDL) for pollutants causing the use impairment. A TMDL is the maximum amount of pollutant a waterbody can assimilate while meeting all applicable water quality standards for the pollutant of concern. All TMDLs include a wasteload allocation (WLA) for all National Pollutant Discharge Elimination System (NPDES) regulated discharges, a load allocation (LA) for all nonpoint sources, and an explicit and/or implicit margin of safety (MOS).

Mobile Bay has a drainage area of just under 44,000 square miles. In terms of area, it is the sixth largest in the nation. It has a mean annual flow of 62,000 cfs, the fourth largest in the nation. It has an average depth of 10 feet. North to south, the bay is approximately 32 miles long. At its widest point from east to west, it is 23 miles long. It is bordered on the north by the Mobile River delta area. The primary freshwater inflow comes from the Mobile River, with additional inflows from the Tensaw, Spanish, Apalachee, and Blakeley Rivers. It is bordered on the west, east, and south by Mississippi Sound, Perdido Bay, and the Gulf of Mexico, respectively. The bay is subject to a diurnal tide with a range of approximately 1.5 to 2 feet.

The original listed area, predominantly the southwest portion of the bay, can be seen in Figure 11. The revised listed area is shown in Figure 1-2. Figure 1-3 is a Landsat photo of the whole bay. The listed portion of the bay has two use classifications – Shellfish Harvesting (SH) and Fish & Wildlife (F&W). The impaired area of the bay was first placed on the §303(d) List in 1998 as a result of shellfish harvesting closures between March 1994 and December 1997. During that time frame, it was closed 17.5% of the time. The Seafood Branch of the Alabama Department of Public Health (ADPH) is responsible for decision-making with respect to harvesting status (i.e., when a shellfish bed is open or closed for oyster harvesting). The criterion employed by the Seafood Branch for harvesting status is stage elevation of the Mobile River at the Bucks Water Intake located in northern Mobile County. Oyster beds are closed when river stage reaches 8 feet.

Since the original listing of the impaired portion of the bay, an extensive set of pathogen data has been acquired from four routine monitoring programs managed by ADEM and ADPH. Of all the available ambient water quality data collected, the only data indicating a pathogen impairment is Beach Monitoring data acquired by ADEM for human health issues with respect to whole body contact (i.e., swimming). All of the monitoring data indicating impairment is located near the shores of the bay (near-shore data), whereas the rest of the data is located in deeper waters (far-shore data). Hence, the near-shore data suggests pathogen impairment whereas the far-shore data does not. In recognition of this difference, the Department will divide the current, impaired portion of the bay into two sub-portions: an impaired, near-shore portion and an unimpaired, far-shore portion. The current TMDL will apply only to the near-shore portion of the bay. A

delisting analysis will be performed in the future for the far-shore portion. The current assessment unit (AL03160205-0300-100) will be replaced with two new assessment units. The unit for the impaired, near-shore portion will be AL03160205-0300-101 and that for the far-shore area will be AL03160205-0300-102. Shown in Table 1-1 below is a summary of this breakdown. As can be seen from the table, the impaired portion of the bay extends 1,000 feet from shore. It is believed that 1,000 feet is a sufficient distance to account for near-shore pollution impacts.

In summary, the current TMDL applies only to the impaired, near-shore portion of the bay – assessment unit AL03160205-0300-101. A future delisting analysis will be performed for the far-shore portion of the bay – assessment unit AL03160205-0300-102.

Table 1-1: Assessment Unit Revisions to Mobile Bay*

Assessment Unit ID	Waterbody Name	Uses	Causes	Sources	Size	Downstream / Upstream Locations	Year Listed	Draft TMDL Date	
AL03160205-0300-100	Mobile Bay	Shellfish Harvesting Fish & Wildlife	Pathogens	Urban runoff/storm sewers	170.60 sq. miles	Segment classified for shellfish harvesting	1998	2010	**Old Segment**
AL03160205-0300-101	Mobile Bay	Shellfish Harvesting Fish & Wildlife	Pathogens	Urban runoff/storm sewers	2.31 sq. miles	out to 1000 feet offshore from Mullet Point to Ragged Point	1998	2010	**Impaired (near-shore) Segment**
AL03160205-0300-102	Mobile Bay	Shellfish Harvesting Fish & Wildlife	Pathogens	Urban runoff/storm sewers	168.29 sq. miles	Segment classified for shellfish harvesting except out to 1000 feet offshore from Mullet Point to Ragged Point	1998	2010	**Unimpaired (far-shore) Segment**

*Please note that the word “segment” in Table 1-1 is synonymous with the words “area” and “portion” in the preceding narrative.

Table 1-2 is a summary of existing and allowable pathogen concentrations required to meet the applicable water quality pathogen single sample criterion for the impaired portion of Mobile Bay. Table 1-3 lists the TMDL (maximum allowable) pathogen concentrations under critical conditions for the impaired portion of the bay.

Table 1-2. Existing Pathogen Conditions and Required Reductions

Source	ExistingConditions (col/100 mL)	Allowable Conditions (col/100 mL)	Margin of Safety (MOS) (col/100 mL)	Percent Reduction (%)
Nonpoint Source	3670	94	10	97
Point Source	0.65	14	0	0
Total	3670	94	10	97

Point source numbers represent fecal coliform concentrations expressed as a most probable number (MPN). Nonpoint Source and Total numbers represent enterococci concentrations.

Table 1-3. Enterococci TMDL for Impaired Portion of Mobile Bay

TMDL = WLA + LA + MOS					
TMDL	Margin of Safety (MOS)	Waste Load Allocation (WLA)[a]			Load Allocation (LA)
		WWTPs[b]	MS4s[c]	Leaking Collection Systems[d]	
(col/100mL)	(col/100mL)	(col/100mL)	(% reduction)	(col/day)	(% reduction)
104	10	35/104/275[e]	97	0	97

a. There are no CAFOs in the subject watershed. Future CAFOs will be assigned a waste load allocation (WLA) of zero.
b. Both existing and future WWTPs must meet applicable instream water quality criteria for pathogens at the point of discharge.
c. Future MS4 areas would also be required to demonstrate consistency with the assumptions and requirements of this TMDL.
d. The objective for leaking collection systems is a WLA of zero. It is recognized, however, that a WLA of 0 colonies/day may not be practical. For these sources, the WLA is interpreted to mean a reduction in pathogen loading to the maximum extent practicable, consistent with the requirement that these sources not contribute to a violation of the water quality criteria for pathogens.
e. The applicable enterococci limits for the existing Fairhope WWTP are 35 col/100mL, 104 col/100mL and 275 col/100mL which represent the summer (Jun-Sept) monthly average limit, the summer (Jun-Sept) daily maximum limit, and the winter (Oct-May) daily max limit respectively.

Compliance with the terms and conditions of existing and future NPDES sanitary and stormwater permits will effectively implement the WLA and demonstrate consistency with the assumptions and requirements of the TMDL. Required load reductions in the LA portion of this TMDL can be implemented through voluntary measures and may be eligible for CWA §319 grants.

The Department recognizes that adaptive implementation of this TMDL will be needed to achieve applicable water quality criteria and we are committed towards targeting the load reductions to improve water quality in the Mobile Bay watershed. As additional data and/or information become available, it may become necessary to revise and/or modify the TMDL accordingly.

2.0 Basis for §303(d) Listing

2.1 Introduction

Section §303(d) of the Clean Water Act and EPA's Water Quality Planning and Management Regulations (40 CFR Part 130) require states to identify waterbodies which are not meeting their designated uses and to determine the total maximum daily load (TMDL) for pollutants causing use impairment. The TMDL process establishes the allowable loading of pollutants for a waterbody based on the relationship between pollution sources and instream water quality conditions, so that states can establish water quality-based controls to reduce pollution and restore and maintain the quality of their water resources (USEPA, 1991).

The State of Alabama has identified a 170.6 square mile portion of Mobile Bay as impaired for pathogens. The §303(d) listing was originally reported on Alabama's 1998 List of impaired waters based on oyster harvesting status data acquired from the Seafood Branch of the ADPH. Additional pathogen data has been acquired by ADEM

and ADPH since the time of the original listing. Such data provide documentation that a small portion of the Mobile Bay segment remains impaired and the larger portion of the originally impaired segment now qualifies to be removed from the 303(d) list in the near future.

2.2 Problem Definition

Waterbody Impaired:	Portion of Mobile Bay from Mullet Point to Ragged Point extending out to 1,000 feet offshore
Impaired Area:	2.31 square miles
Contributing Drainage Area:	28.57 square miles
Water Quality Standard Violation:	Enterococci (Pathogens)
Water Use Classification:	Shellfish Harvesting (SH) and Fish and Wildlife (F&W)

Usage Related to Classification:
The impaired portion of Mobile Bay has two use classifications: SH and F&W. Usage of waters for the SH classification is described in ADEM Admin. Code R. 335-6-10-.09 (4) (a), (b), (c), and (d) as follows:

(a) Best usage of waters: propagation and harvesting of shellfish for sale or use as a food product.
(b) Conditions related to best usage: waters will meet the sanitary and bacteriological standards included in the National Shellfish Sanitation Program Model Ordinance, 1999, Chapter IV, published by the Food and Drug Administration, U.S. Department of Health and Human Services and the requirements of the State Department of Public Health. The waters will also be of a quality suitable for the propagation of fish and other aquatic life, including shrimp and crabs.
(c) Other usage of waters: it is recognized that the waters may be used for incidental water contact and recreation during June through September, except that water contact is strongly discouraged in the vicinity of discharges or other conditions beyond the control of the Department or the Alabama Department of Public Health.
(d) Conditions related to other usage: the waters, under proper sanitary supervision by the controlling health authorities, will meet accepted standards of water quality for outdoor swimming places and will be considered satisfactory for swimming and other whole body water-contact sports.

Usage of waters for the F&W classification is described in ADEM Admin. Code R. 335-6-10-.09 (5) (a), (b), (c), and (d) as follows:

(a) Best usage of waters: fishing, propagation of fish, aquatic life, and wildlife, and any other usage except for swimming and water-contact sports or as a source of water supply for drinking or food-processing purposes.
(b) Conditions related to best usage: the waters will be suitable for fish, aquatic life and wildlife propagation. The quality of salt and estuarine waters to which this classification is assigned will also be suitable for the propagation of shrimp and crabs.
(c) Other usage of waters: it is recognized that the waters may be used for incidental water contact and recreation during June through September, except that water contact is strongly discouraged in the vicinity of discharges or other conditions beyond the control of the Department or the Alabama Department of Public Health.
(d) Conditions related to other usage: the waters, under proper sanitary supervision by the controlling health authorities, will meet accepted standards of water quality for outdoor swimming places and will be considered satisfactory for swimming and other whole body water-contact sports.

Pathogen Criteria:
Pathogen criteria of waters for the SH classification are described in ADEM Admin. Code R. 335-6-10-.09 (4) 7.(i) and (ii) as follows:

(i) Not to exceed the limits specified in the National Shellfish Sanitation Program Model Ordinance, 1999, Chapter IV, published by the Food and Drug Administration, U. S. Department of Health and Human Services.
(ii) For incidental water contact and recreation during June through September, the bacterial quality of water is acceptable when a sanitary survey by the controlling health authorities reveals no source of dangerous pollution and when the geometric mean E. coli organism density does not exceed 126 colonies/100 ml nor exceed a maximum of 235 colonies/100 ml in any sample in non-coastal waters. In coastal waters, bacteria of the enterococci group shall not exceed a geometric mean of 35 colonies/100 ml nor exceed a maximum of 104 colonies/100 ml in any sample. The geometric mean shall be calculated from no less than five samples collected at a given station over a 30-day period at intervals not less than 24 hours. When the geometric mean bacterial organism density exceeds these levels, the bacterial water quality shall be considered acceptable only if a second detailed sanitary survey and evaluation discloses no significant public health risk in the use of the waters. Waters in the immediate vicinity of discharges of sewage or other wastes likely to contain bacteria harmful to humans, regardless of the degree of treatment afforded these wastes, are not acceptable for swimming or other whole body watercontact sports.

Pathogen criteria of waters for the F&W classification are described in ADEM Admin. Code R. 335-6-10-.09 (5) 7.(i) and (ii) as follows:

(i) In non-coastal waters, bacteria of the E. coli group shall not exceed a geometric mean of 548 colonies/100 ml; nor exceed a maximum of 2,507 colonies/100 ml in any sample. In coastal waters, bacteria of the enterococci group shall not exceed a maximum of 275 colonies/100 ml in any sample. The geometric mean shall be

calculated from no less than five samples collected at a given station over a 30-day period at intervals not less than 24 hours.
(ii) For incidental water contact and recreation during June through September, the bacterial quality of water is acceptable when a sanitary survey by the controlling health authorities reveals no source of dangerous pollution and when the geometric mean E. coli organism density does not exceed 126 colonies/100 ml nor exceed a maximum of 487 colonies/100 ml in any sample in non-coastal waters. In coastal waters, bacteria of the enterococci group shall not exceed a geometric mean of 35 colonies/100 ml nor exceed a maximum of 158 colonies/100 ml in any sample. The geometric mean shall be calculated from no less than five samples collected at a given station over a 30-day period at intervals not less than 24 hours. When the geometric bacterial coliform organism density exceeds these levels, the bacterial water quality shall be considered acceptable only if a second detailed sanitary survey and evaluation discloses no significant public health risk in the use of the waters. Waters in the immediate vicinity of discharges of sewage or other wastes likely to contain bacteria harmful to humans, regardless of the degree of treatment afforded these wastes, are not acceptable for swimming or other whole body watercontact sports.

Criteria Exceeded:

Criteria for different use classifications are not always the same. In the event that a waterbody has multiple use classifications, the most stringent of the criteria will apply, thereby ensuring that criteria are maintained for each use classification. An assessment of the pathogen criteria for the impaired portion of Mobile Bay results in the following applicable seasonal criteria:

Summer (June – September):
The geometric mean for enterococci may not exceed 35 cols/100 mL;
The single sample maximum for enterococci may not exceed 104 cols/100 mL.

Winter (October – May):
The single sample maximum for enterococci may not exceed 275 cols/100 mL.

Of the ADEM and ADPH monitoring data, there were numerous exceedances of the applicable pathogen criteria at the three Beach Monitoring stations. The exceedance value selected for load reductions was the one that resulted in the highest percentage reduction to the watershed. That value was a single sample enterococci measurement taken on 6/2/04 at Fairhope Beach that had a reported concentration of 3670 cols/100 mL.

3.0 Technical Basis for TMDL Development

3.1 Water Quality Target Identification

The single sample enterococci allowable concentration of 94 colonies/100 mL will be used for TMDL development. This concentration was derived by using the single

sample criterion of 104 colonies/100 mL and a 10% (10 colonies/100 mL) explicit margin of safety. This allowable concentration is considered protective of water quality standards and should not allow any of the applicable criteria to be exceeded year-round.

3.2 Source Assessment

3.2.1 Point Sources in the Mobile Bay Watershed

Continuous Point Sources

There is one continuous point source near the impaired portion of the bay – the Town of Fairhope (AL0020842). Its draft permit information is shown in Table 3-1, and its discharge location is shown in Figure 3-1. Distance from the discharge to the nearest point on shore is 0.54 miles. Any future NPDES regulated discharges that are considered by the Department to be a pathogen source will be required to meet the instream water quality criteria for pathogens at the point of discharge.

Historically, Fairhope has been allowed dilution for pathogens up to the distance corresponding to the ZID. This was the case when the bay was listed in 1998, and is still the case in the current permit. However, it was discovered recently that Fairhope has an end-of-pipe discharge and not a multiport diffuser. The Department does not allow dilution for pathogens for end-of-pipe discharges. Hence, Fairhope's permit is being modified in the current draft to reflect that reality (Fairhope's permit is currently up for reissuance). Fairhope will therefore receive end-of-pipe limits corresponding to the appropriate enterococci water quality criteria in its reissuance.

Non-Continuous Point Sources

The Town of Fairhope lies within a Phase I Municipal Separate Stormwater Sewer System (MS4) area; therefore a WLA will be applicable to its MS4 system. It is currently permitted as a part of the City of Mobile's Phase I permit (ALS000002). Baldwin County (including the Town of Fairhope) has requested its own Phase I permit in the future.

Sanitary sewer overflows (SSOs) have the potential to severely impact water quality and can often result in the violation of water quality standards. It is the responsibility of the NPDES wastewater discharger, or collection system operator for non-permitted "collection only" systems, to ensure that releases do not occur. Unfortunately releases to surface waters from SSOs are not always preventable or reported. From a review of ADEM files it was determined that numerous SSOs have occurred in the Fairhope area, with many ending up in the bay. These overflows typically occur from manholes. SSO overflow data for Fairhope can be found in Appendix B, Table 7-5.

Future NPDES regulated stormwater discharges will be required to demonstrate consistency with the assumptions and requirements of this TMDL.

3.2.2 Nonpoint Sources in the Mobile Bay Watershed

Nonpoint sources in this watershed appear to be limited to urban runoff. The following are examples of how different landuses can contribute to Enterococci bacterial loading:

- Agricultural land can be a source of Enterococci bacteria due to runoff from pastures, animal operations, improper land application of animal wastes, and animals with access to streams. These mechanisms can significantly contribute to the loading of Enterococci bacteria.

- Forested areas can be a source of Enterococci bacteria due to the presence of wild animals such as deer, raccoons, turkeys, beavers, waterfowl, etc. Control of these sources is usually limited and may be impractical in most cases. As a result, forested areas are not specifically targeted in this TMDL.

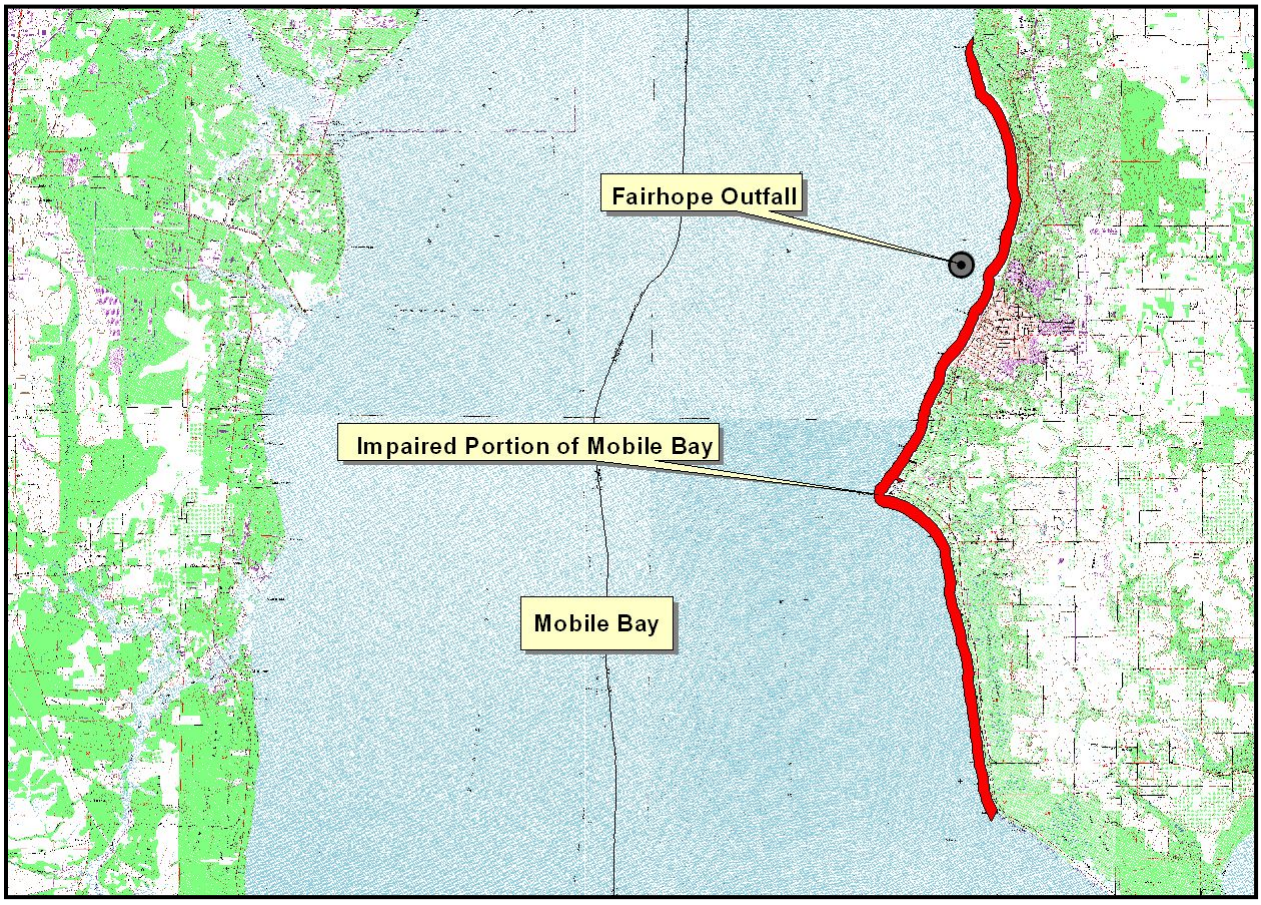
- Developed land can be a source of Enterococci bacteria due to storm water runoff, illicit discharges of wastewater, runoff from improper disposal of waste materials, failing septic tanks, leaking sewer infrastructure, and domestic animals. An illicit discharge refers to non-permitted facilities or individuals discharging wastewater through storm drains and/or directly to the waterbody.

- The residential section of the Town of Fairhope probably has a limited number of older homes still with septic systems. Septic systems can contribute to pathogen loadings when failing or not operating properly.

Table 3-1: Fairhope Draft Permit Information (AL0020842)

Design Flow	Min. DO	CBOD5	NH3-N	Enterococci (cols/100 mLs)	
(mgd)	(mg/L)	(mg/L)	(mg/L)	Monthly Avg	Daily Max
4	2	15	10	35*	104/275**
DO, CBOD5, and NH3-N reported as monthly averages.					
*Limit applied as a monthly geometric mean from June through September.					
**First limit (104) is the summer (June-Sept) daily max; second limit (275) is the winter (Oct-May) daily max.					

Figure 3-1: Point Sources near the Impaired Portion of Mobile Bay



3.3 Land Use Assessment

Landuse for the Fairhope area was determined using ArcView 3.3 in conjunction with landuse datasets derived from the 2001 National Land Cover Dataset (NLCD). Figure 3-2 displays landuse areas and Table 3-2 displays landuse percentages both for individual uses as well as aggregate uses.

Figure 3-2. Landuse Map for the Contributing Watershed to Mobile Bay

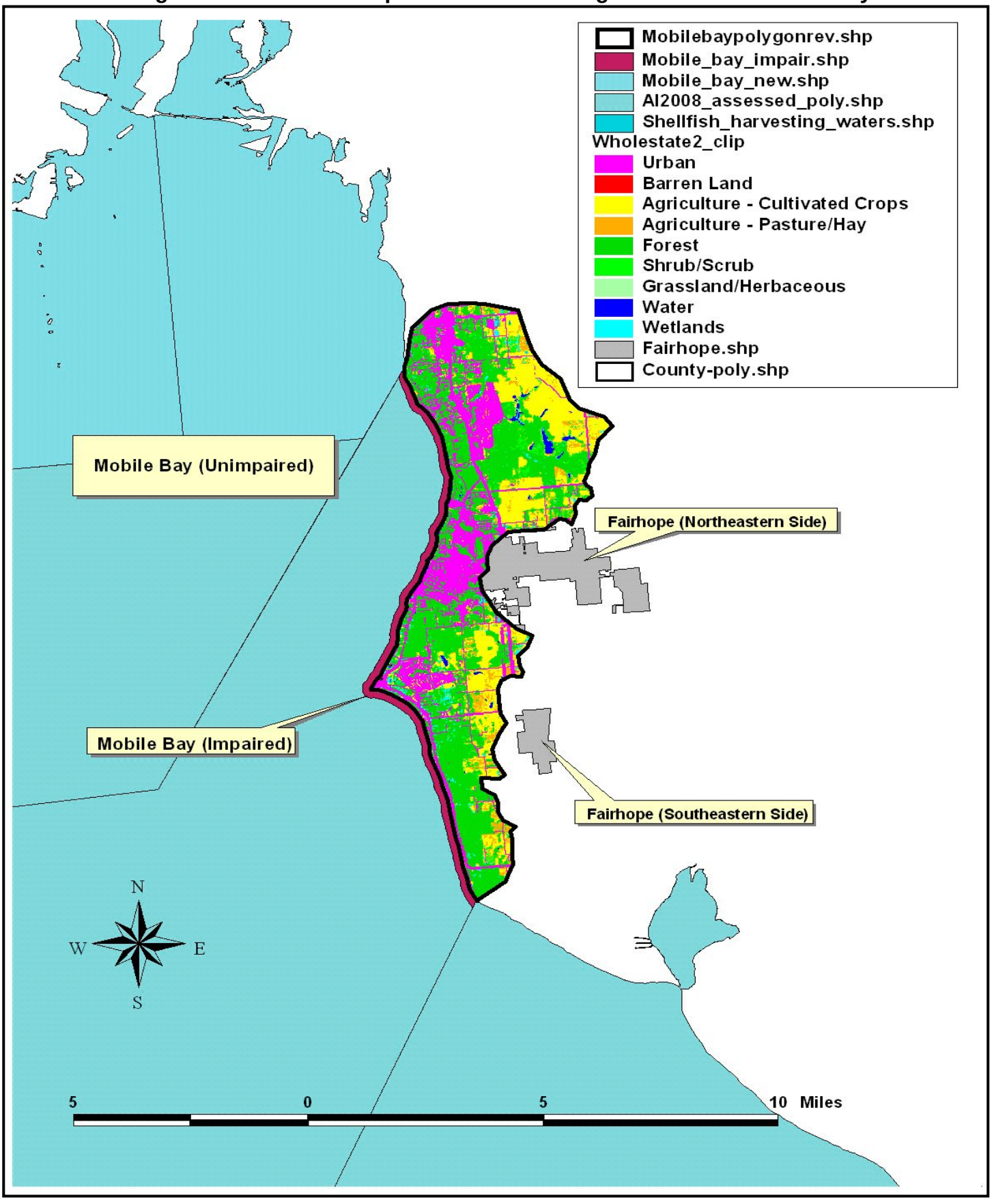


Table 3-2. Landuse for the Contributing Watershed to Mobile Bay

Landuse	Area (sq m)	Area (sq mi)	Area (acres)	Percentage
Open Water	1473300	0.57	364.1	2.0%
Developed, Open Space	12813300	4.95	3166.2	17.3%
Developed, Low Intensity	3966300	1.53	980.1	5.4%
Developed, Medium Intensity	1242000	0.48	306.9	1.7%
Developed, High Intensity	360000	0.14	89.0	0.5%
Deciduous Forest	1487700	0.57	367.6	2.0%
Evergreen Forest	23846400	9.21	5892.6	32.2%
Mixed Forest	4035600	1.56	997.2	5.5%
Shrub/Scrub	3960900	1.53	978.8	5.4%
Grassland/Herbaceous	101700	0.04	25.1	0.1%
Pasture/Hay	4088700	1.58	1010.3	5.5%
Cultivated Crops	14939100	5.77	3691.5	20.2%
Woody Wetlands	1250100	0.48	308.9	1.7%
Emergent Herbaceous Wetlands	422100	0.16	104.3	0.6%
Total	**73987200**	**28.57**	**18282.6**	**100.0%**
Aggregate Landuse	**Area (sq m)**	**Area (sq mi)**	**Area (acres)**	**Percentage**
Agriculture	19027800	7.35	4701.9	25.7%
Forest	29369700	11.34	7257.4	39.7%
Developed	18381600	7.10	4542.2	24.8%
Other	7208100	2.78	1781.2	9.7%
Total	**73987200**	**28.57**	**18282.6**	**100.0%**

3.4 Linkage between Numeric Targets and Sources

Pollutant loadings from forested areas tend to be low due to their filtering capabilities and will be considered as background conditions. The most likely sources of pathogen loadings in this watershed are from urban runoff, SSOs, failing septic tanks, and the Fairhope WWTP. Individual loads and reductions will not be calculated for the range of nonpoint sources, but rather, the loadings and reductions will be calculated as a single total load and reduction.

3.5 Data Availability and Analysis

As indicated earlier in the Executive Summary, there have been four different programs under which pathogen data has been acquired since the original listing of the bay. Three of them are administered by the Department while one is performed by the Seafood Branch of the ADPH. Data acquired from the Seafood Branch is simply referred to in this document as Seafood Branch data. The raw data is listed in Appendix B and a map of the Seafood Branch stations is shown in Figure 3-6. There are three stations – 120, 125, and 126. Data goes back to 2004 to remain consistent with the 6-year rule explained in our Water Quality Assessment and Listing Methodology (ADEM, 2010).

The three ADEM programs are Beach Monitoring, 303(d), and a special bay study performed in 2003 and 2004. The Beach monitoring program has been in effect for approximately 10 years with the purpose of protecting human health for whole body contact within coastal waters (i.e., swimming). The data is collected by ADEM and the Baldwin County Health Department. Results of the data go to the Baldwin County Health Department for assessment employing ADEM's water quality criteria for

pathogens in the coastal area. If values exceed the criteria, then the health department issues a swimming advisory until subsequent data indicates there is no longer a problem. There are three Beach Monitoring stations in the impaired portion of the bay, all located along the beaches of Fairhope. They are Fairhope Beach, Volanta Avenue, and the Orange Street Pier/Beach. A map of the stations is shown in Figure 3-5.

ADEM's second relevant monitoring program is 303(d). The purpose here is to acquire additional data since the time of the listing data. The additional data will either support the original listing decision or it will suggest that the waterbody should be delisted. There are three 303(d) stations: MB-4, MB-5, and MB-9. They are shown in Figure 3-3.

The Department's third program under which data was collected was a special bay study performed in 2003 and 2004. The purpose of this study was to collect two comprehensive sets of data that could be employed to calibrate and verify a dynamic model for Mobile Bay. There were four stations under this study: MB-4BS, MB-5BS, MB-9BS, and 8735180-BS. The "BS" suffix refers to the fact that this was a special bay study. The first three stations are in the same locations as their 303(d) counterparts. The fourth station is an ALAMAP station. ALAMAP stations are established by EPA as probabilistic locations employed to perform environmental assessments on a regional level. A map of bay study stations is shown in Figure 3-4. Table 3-3 gives location descriptions for all the sampling stations and the program with which they are associated.

Of the data collected from the four monitoring programs, the only one which shows exceedances for pathogen concentrations is the Beach Monitoring program. Data for all the other programs indicates no impairment. An inspection of station locations reveals that the stations with exceedances are near-shore while those with no exceedances are located in deeper waters. This suggests that the pathogens causing impairment are localized while the majority of the listed portion of the bay is supporting its designated use with respect to pathogens. Hence, the majority of the original listed portion of Mobile Bay will be delisted in the future, while the near-shore portion will have a pathogen TMDL developed (i.e., the current TMDL).

There were numerous exceedances of both single sample and geomean criteria at all three Fairhope Beach Monitoring locations. The data was evaluated against both geomean and single sample criteria in the summer (June through September) and a single sample criterion only in the winter (October through May). As stated earlier, the summer geomean and single sample criteria are 35 and 104 cols/100 mL, respectively, while the winter single sample criterion is 275 cols/100mL.

The exceedance event which results in the largest pathogen reduction occurred at Fairhope Beach on June 2, 2004. This was a single sample event with a measured enterococci value of 3,670 cols/100 mL.

At the time of the June 2, 2004, exceedance event, Fairhope had an NPDES permit with one pathogen limit only. That limit, corresponding to EPA parameter code 74055, comes from the National Shellfish Sanitation Program, and had a value of 14 cols/100 mL MPN (most probable number). It was applied in the permit as a monthly average limit. From available DMR data, Fairhope's average effluent concentration for June 2004 was 0.65 cols/100 mL. As can be seen, there was no exceedance of the 14 MPN criterion during that month for Fairhope.

Figure 3-3. Map of ADEM 303(d) Sampling Stations in Mobile Bay

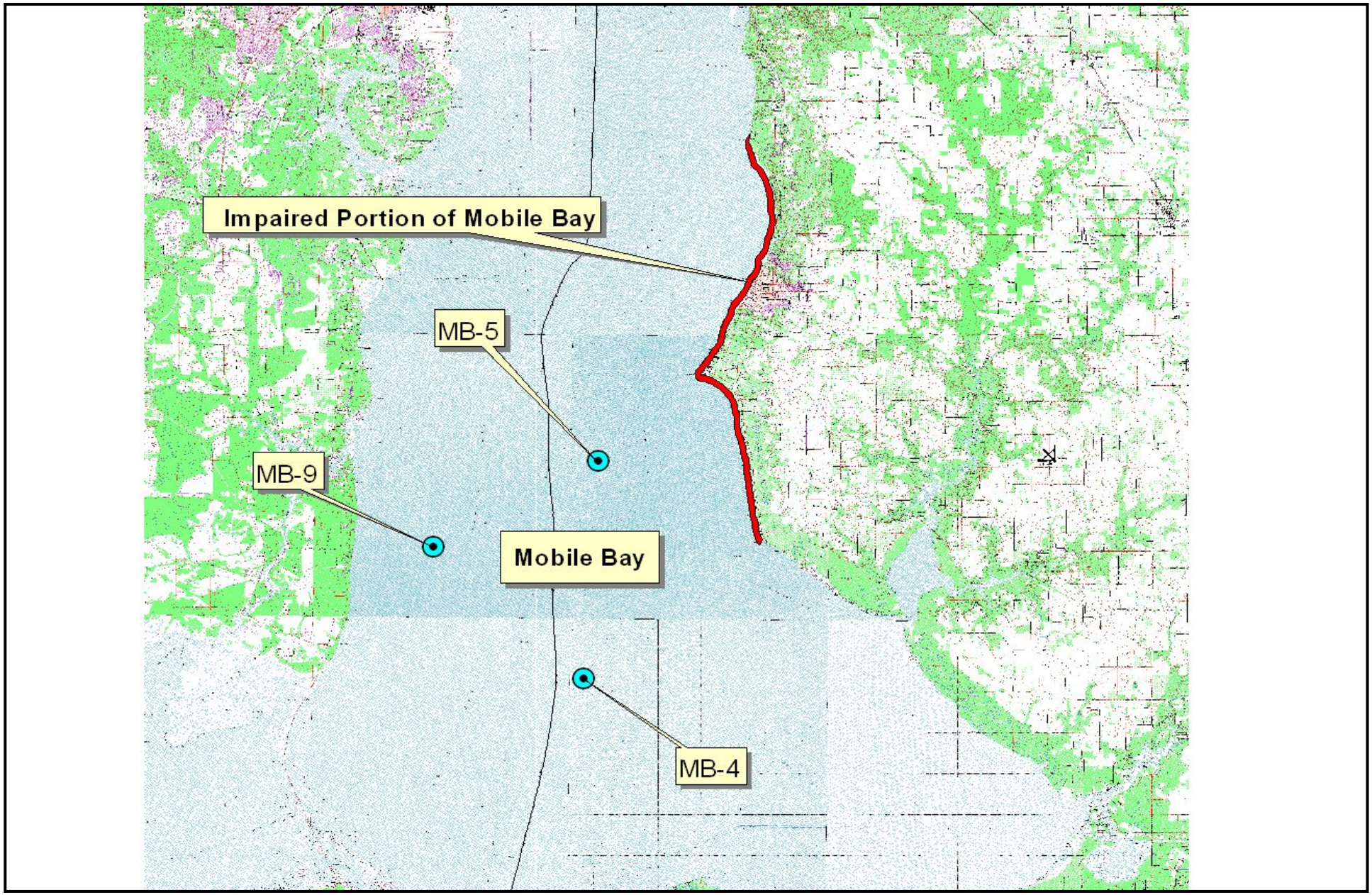


Figure 3-4. Map of ADEM 2004 Bay Study Stations in Mobile Bay

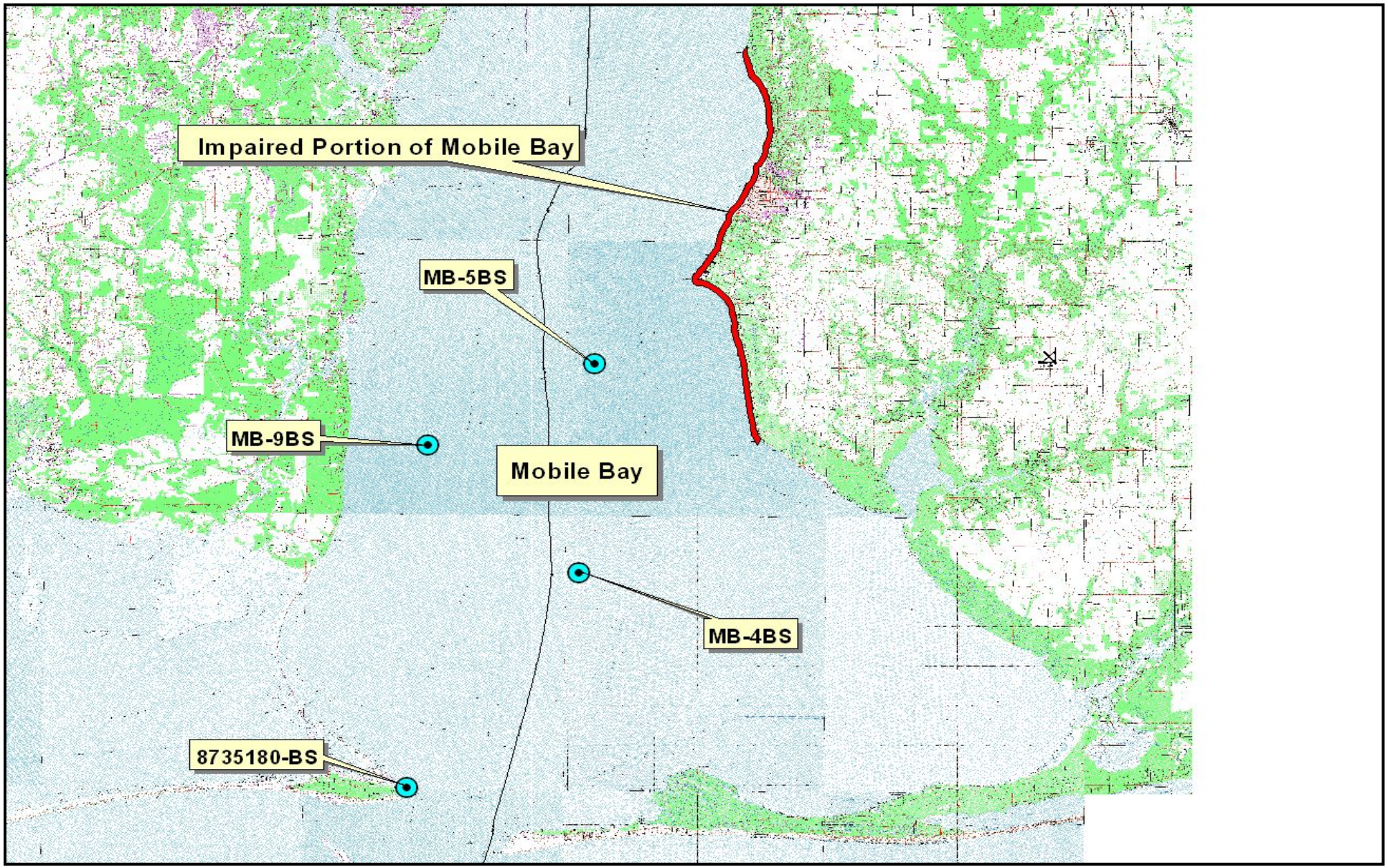


Figure 3-5. Map of ADEM Beach Monitoring Stations in Mobile Bay

Figure 3-6. Map of Seafood Branch Stations in Mobile Bay

Table 3-3. Mobile Bay Sampling Station Location Descriptions

Station ID	Program	Location Description	Latitude	Longitude
MB-4	303(d)	South Central Mobile Bay	30.34873	-87.99288
MB-5	303(d)	Central Mobile Bay	30.44438	-87.98683
MB-9	303(d)	SW Mobile Bay South of Denton Reef	30.40598	-88.06662
MB-4BS	Bay Study	Same as MB-4	30.34873	-87.99288
MB-5BS	Bay Study	Same as MB-5	30.44438	-87.98683
MB-9BS	Bay Study	Same as MB-9	30.40598	-88.06662
8735180-BS	Bay Study	SW Mobile Bay near Dauphin Island	30.25065	-88.07482
Volanta Ave, Fairhope	Beach Monitoring	Moblie Bay at Fairhope	30.54154	-87.90411
Fairhope Beach	Beach Monitoring	Moblie Bay at Fairhope	30.52807	-87.90956
Orange Street Pier/Beach, Fairhope	Beach Monitoring	Moblie Bay at Fairhope	30.51584	-87.9174
120	Seafood Branch	SW Corner of Mobile Bay North of Dauphin Island	30.29967	-88.12600
125	Seafood Branch	SW Corner of Mobile Bay North of Dauphin Island	30.30667	-88.10667
126	Seafood Branch	SW Portion of Mobile Bay near Fowl River	30.44750	-88.08300

3.6 Critical Conditions

Critical conditions typically occur during the summer months. This can be explained by the nature of storm events in the summer versus the winter. Periods of dry weather interspersed with thunderstorms allow for the accumulation and washing off of bacteria into streams, resulting in spikes of bacteria counts. In winter, frequent low intensity rain events are more typical and do not allow for the build-up bacteria on the land surface, resulting in a more uniform loading rate.

3.7 Margin of Safety

There are two methods for incorporating a Margin of Safety (MOS) in the analysis: 1) implicitly incorporate the MOS using conservative model assumptions to develop allocations, or 2) by explicitly specifying a portion of the TMDL as the MOS and using the remainder for allocations.

Both an explicit and implicit MOS was incorporated into this TMDL. The MOS accounts for the uncertainty associated with the limited availability of Enterococci data used in this analysis. An explicit MOS was applied to the TMDL by reducing the Enterococci single sample mean criterion concentration by ten percent. The single sample mean criterion was reduced by ten percent to achieve a target concentration of 94 colonies/100mL. An implicit MOS was incorporated in the TMDL by basing the existing condition on the highest measured Enterococci concentration that was collected during critical conditions.

4.0 TMDL Development

4.1 Definition of a TMDL

A total maximum daily load (TMDL) is the sum of individual waste load allocations for point sources (WLAs), load allocations (LAs) for nonpoint sources including natural background levels, and a margin of safety (MOS). As discussed earlier, the MOS is both implicit and explicit in this TMDL.

A TMDL can be denoted by the equation:

TMDL = WLAs + LAs + MOS

The TMDL is the total amount of pollutant that can be assimilated by the receiving waterbody while achieving water quality standards under critical conditions.

For some pollutants, TMDLs are expressed on a mass loading basis (e.g. pounds per day). However, for pathogens, TMDL loads are typically expressed in terms of organism counts per day (colonies/day), in accordance with 40 CFR 130.2(i). In this instance, flow was not a consideration due to the tidal influence, small watershed size, and very localized exceedances. Therefore, a percent reduction was based solely on the highest exceedance value measured in terms of concentration.

4.2 Reduction and TMDL Calculations

A percent reduction approach was utilized to calculate the pathogen TMDL for Mobile Bay. The following equation was used to calculate the appropriate load reduction:

$$= \frac{(\text{Highest Exceedance} - \text{Single Sample Criterion w/ MOS})}{\text{Highest Exceedance}} \times 100\%$$

The single sample criterion was used because it yielded the greatest reduction among the available data. Allowable concentrations were calculated for the single sample criterion of 104 colonies/100mL. The TMDL was based on a single sample violation that produced percent reductions of enterococci necessary to achieve applicable water quality criteria. Since the exceedance was a localized value indicative of near-shore impacts, the contributing watershed was limited to the near-shore area of the bay. The contributing watershed is shown in Figure 3-1 and is approximately 26 square miles, much less than the watershed area of the original listed portion of the bay.

Percent Reduction Calculation:

$$\frac{(3670 \text{ col/100 ml} - 94 \text{ col/100 ml})}{3670 \text{ col/100 ml}} \times 100\% = 97\%$$

The difference in the pathogen concentrations between the existing conditions (violation event) and the allowable conditions converted to a percent reduction represents the total load reduction needed to achieve the enterococci water quality criterion. The TMDL was calculated as the total daily enterococci concentration to Mobile Bay as evaluated at the Fairhope Beach station. Table 4-1 shows the pathogen reductions required for the selected exceedance event that occurred on June 2, 2004.

Table 4-1. Existing Pathogen Conditions and Required Reductions

Source	Existing Conditions (col/100 mL)	Allowable Conditions (col/100 mL)	Margin of Safety (MOS) (col/100 mL)	Percent Reduction (%)
NPS	3670	94	10	97
Point Source	0.65	14	0	0
Total	3670	94	10	97

a. Point source numbers represent fecal coliform concentrations expressed as a most probable number (MPN). Nonpoint Source and Total numbers represent enterococci concentrations.

The TMDL, WLA, LA and MOS values necessary to achieve the applicable Enterococci TMDL are provided in Table 4-2 below.

Table 4-2. Enterococci TMDL for Impaired Portion of Mobile Bay

TMDL = WLA + LA + MOS					
TMDL	**Margin of Safety (MOS)**	**Waste Load Allocation (WLA)[a]**			**Load Allocation (LA)**
		WWTPs[b]	**MS4s[c]**	**Leaking Collection Systems[d]**	
(col/100mL)	**(col/100mL)**	**(col/100mL)**	**(% reduction)**	**(col/day)**	**(col/100mL)**
104	10	35/104/275[e]	97	0	94

a. There are no CAFOs in the subject watershed. Future CAFOs will be assigned a waste load allocation (WLA) of zero.
b. Both existing and future WWTPs must meet applicable instream water quality criteria for pathogens at the point of discharge.
c. Future MS4 areas would also be required to demonstrate consistency with the assumptions and requirements of this TMDL.
d. The objective for leaking collection systems is a WLA of zero. It is recognized, however, that a WLA of 0 colonies/day may not be practical. For these sources, the WLA is interpreted to mean a reduction in pathogen loading to the maximum extent practicable, consistent with the requirement that these sources not contribute to a violation of the water quality criteria for pathogens.
e. The applicable enterococci limits for the existing Fairhope WWTP are 35 col/100mL, 104 col/100mL and 275 col/100mL which represent the summer (Jun-Sept monthly average limit, the summer (Jun-Sept) daily maximum limit, and the winter (Oct-May) daily max limit respectively.

4.3 TMDL Summary

As indicated earlier, the available data suggests that the bulk of the original listed portion of Mobile Bay is not impaired. This can be considered the portion of the bay not subject to localized, near-shore effects. Therefore, the far-shore portion of the bay will be delisted in the future. The near-shore portion of the bay obviously has impairment

due to pathogens. These pathogen impacts are a result of MS4 pollution, SSOs, and urban runoff. The near-shore portion of the bay is addressed in this TMDL.

Compliance with the terms and conditions of existing and future NPDES sanitary and stormwater permits will effectively implement the WLA and demonstrate consistency with the assumptions and requirements of the TMDL. Required load reductions in the LA portion of this TMDL can be implemented through voluntary measures and may be eligible for CWA §319 grants.

The Department recognizes that adaptive implementation of this TMDL will be needed to achieve applicable water quality criteria and we are committed towards targeting the load reductions to improve water quality in the Mobile Bay watershed. As additional data and/or information become available, it may become necessary to revise and/or modify the TMDL accordingly.

5.0 Follow-up Monitoring

ADEM has adopted a basin approach to water quality management; an approach that divides Alabama's fourteen major river basins into five groups. Each year, the ADEM water quality resources are concentrated in one of the five basin groups. One goal is to continue to monitor §303(d) listed waters. Monitoring will help further characterize water quality conditions resulting from the implementation of best management practices in the watershed. This monitoring will occur in each basin according the schedule shown.

Table 5-1. §303(d) Follow Up Monitoring Schedule

River Basin Group	Year to be Monitored
Alabama / Coosa / Tallapoosa	2010
Escatawpa / Upper Tombigbee / Lower Tombigbee / Mobile	2011
Black Warrior / Cahaba	2012
Chattahoochee / Chipola / Escatawpa / Perdido-Escambia	2013
Tennessee	2014

6.0 Public Participation

As part of the public participation process, this TMDL was placed on public notice and made available for review and comment. The public notice was prepared and published in the four major daily newspapers in Montgomery, Huntsville, Birmingham, and Mobile, as well as submitted to persons who have requested to be on ADEM's postal and

electronic mailing distributions. In addition, the public notice and subject TMDL was made available on ADEM's Website: www.adem.state.al.us. The public can also request paper or electronic copies of the TMDL by contacting Mr. Chris Johnson at 334-271-7827 or cljohnson@adem.state.al.us. The public was given an opportunity to review the TMDL and submit comments to the Department in writing. At the end of the public review period, all written comments received during the public notice period became part of the administrative record. ADEM considered all comments received by the public prior to finalization of this TMDL and subsequent submission to EPA Region 4 for final review and approval.

Appendix A

References

ADEM Administrative Code, 2007. Water Division - Water Quality Program, Chapter 335-6-10, Water Quality Criteria.

ADEM Administrative Code, 2007. Water Division - Water Quality Program, Chapter 335-6-11, Use Classifications for Interstate and Intrastate Waters.

Alabama's §303(d) Monitoring Program. ADEM.

Alabama Department of Environmental Management (ADEM), Alabama's Water Quality Assessment and Listing Methodology, 2010.

Alabama Department of Environmental Management, 1998 - 2008 §303(d) List. ADEM.

United States Environmental Protection Agency, 1991. Guidance for Water Quality-Based Decisions: The TMDL Process. Office of Water. EPA 440/4-91-001.

Mobile Bay National Estuary Program web site; http://www.mobilebaynep.com/.

Comprehensive Sanitary Survey of Alabama's Area I and III Shellfish Growing Waters in Mobile & Baldwin Counties. 2007. Alabama Department of Public Health – Seafood Branch.

Appendix B
Water Quality Data

Table 7-1: Mobile Bay ADEM 303(d) Data

Station_ID	Date	Time (24hr)	Fecal Coliform (col/100ml)	Fecal Coliform oor	Rev Fecal (cols/100 mLs)	Entero (cols/100 mLs)	Entero oor	Rev Entero (cols/100 mLs)
MB-4	4/20/2004	1210		---		2	L	1
MB-4	5/25/2004	935		---		2	L	1
MB-4	6/21/2004	1055	1	<MDL	0.5	1	L	0.5
MB-4	7/21/2004	930	1	<MDL	0.5	1	L	0.5
MB-4	7/21/2004	945	1	<MDL	0.5	1	L	0.5
MB-4	8/17/2004	1205	1	<MDL	0.5	1	L	0.5
MB-4	9/9/2004	1005	1	<MDL	0.5	1	L	0.5
MB-4	10/14/2004	1110	1	<MDL	0.5	1	L	0.5
MB4	3/20/2007	1030	2	L	1	2	L	1
MB4	4/24/2007	1145	2	L	1	2	L	1
MB4	6/21/2007	1225	2	L	1	2	L	1
MB4	7/25/2007	1125	2	L	1	2	L	1
MB4	8/14/2007	1105	2	L	1	2	L	1
MB4	9/13/2007	1004	2	L	1	2	L	1
MB-4	3/26/2008		2	L	1	2	L	1
MB-4	7/2/2008		2	L	1	2	L	1
MB-4	7/14/2008		2	L	1	2	L	1
MB-4	7/15/2008		2	L	1	2	L	1
MB-4	7/17/2008		2	L	1	2	L	1
MB-4	7/22/2008		2	L	1	2	L	1
MB-4	9/8/2008		2	L	1	2	L	1
MB-4	9/17/2008		2	L	1	2	L	1
MB-4	9/18/2008		2	L	1	2	L	1
MB-4	9/23/2008		2	L	1	2	L	1
MB-4	9/25/2008		2	L	1	2	L	1

Summer Entero criteria:	
SS<=104 cols/100 mLs	
Geomean<=35 cols/100 mLs	
Count=	19
SS Exceedances=	0
% Exceedances=	0.0
# Geomeans=	2
# Geomean Exceedances=	0
% Geomean Exceedances=	0.0

Winter Entero criteria:	
SS<=275 cols/100 mLs	
Count=	6
SS Exceedances=	0
% Exceedances=	0.0
Fecal Count=	23
Geomean=	0.8
Median=	1
# Samples>43=	0
% Samples>43=	0

Note: Summer (June-Sept) highlighted in green. Winter not highlighted.

Table 7-1: Mobile Bay ADEM 303(d) Data (Cont.)

Station_ID	Date	Time (24hr)	Fecal Coliform (col/100ml)	Fecal Coliform oor	Rev Fecal (cols/100 mLs)	Entero (cols/100 mLs)	Entero oor	Rev Entero (cols/100 mLs)
MB-5	4/15/2004	1220		---		2	L	1
MB-5	5/18/2004	945		---		1	L	0.5
MB-5	5/18/2004	1015		---		1	L	0.5
MB-5	7/19/2004	1010	1	<MDL	0.5	1	L	0.5
MB-5	8/17/2004	1130	1	<MDL	0.5	1	L	0.5
MB-5	9/8/2004	1140	1	<MDL	0.5	1	L	0.5
MB-5	10/14/2004	1150	1	<MDL	0.5	1	L	0.5
MB5	3/21/2007	1000	2	L	1	2	L	1
MB5	4/25/2007	1045	2	L	1	2	L	1
MB5	5/16/2007	1000	2	L	1	2	L	1
MB5	6/26/2007	1050	2	L	1	2	L	1
MB5	7/23/2007	1045	2	L	1	2	L	1
MB5	8/6/2007	945	2	L	1	2	L	1
MB5	9/12/2007	950	2	L	1	2	L	1
MB-5	3/5/2008		6	J	6	2	L	1
MB-5	7/2/2008		2	L	1	2	L	1
MB-5	7/14/2008		2	L	1	2	L	1
MB-5	7/15/2008		2	L	1	2	L	1
MB-5	7/17/2008		2	L	1	2	L	1
MB-5	7/22/2008		2	L	1	2	L	1
MB-5	9/8/2008		2	L	1	2	L	1
MB-5	9/17/2008		2	L	1	2	L	1
MB-5	9/18/2008		2	L	1	2	L	1
MB-5	9/23/2008		2	L	1	2	L	1
MB-5	9/25/2008		2	L	1	2	L	1

Summer Entero criteria:	
SS<=104 cols/100 mLs	
Geomean<=35 cols/100 mLs	
Count=	17
SS Exceedances=	0
% Exceedances=	0.0
# Geomeans=	2
# Geomean Exceedances=	0
% Geomean Exceedances=	0.0

Winter Entero criteria:	
SS<=275 cols/100 mLs	
Count=	8
SS Exceedances=	0
% Exceedances=	0.0
Fecal Count=	22
Geomean=	1.0
Median=	1
# Samples>43=	0
% Samples>43=	0

Note: Summer (June-Sept) highlighted in green. Winter not highlighted.

Table 7-1: Mobile Bay ADEM 303(d) Data (Cont.)

Station_ID	Date	Time (24hr)	Fecal Coliform (col/100ml)	Fecal Coliform oor	Rev Fecal (cols/100 mLs)	Entero (cols/100 mLs)	Entero oor	Rev Entero (cols/100 mLs)
MB-9	4/20/2004	1120		---		2	L	1
MB-9	5/20/2004	1050		---		2	L	1
MB-9	6/17/2004	1135	6	---	6	1	L	0.5
MB-9	7/21/2004	1015	1	<MDL	0.5	1	L	0.5
MB-9	8/17/2004	1055	1	<MDL	0.5	1	L	0.5
MB-9	9/9/2004	1030	1	<MDL	0.5	1	L	0.5
MB-9	10/14/2004	1230	6	---	6	1	L	0.5
MB9	3/21/2007	1115	2	L	1	2	L	1
MB9	4/30/2007	945	2	L	1	2	L	1
MB9	5/16/2007	910	2	L	1	2	L	1
MB9	6/26/2007	1010	2	L	1	2	L	1
MB9	7/23/2007	1035	2	L	1	2	L	1
MB9	8/8/2007	1045	2	L	1	2	L	1
MB9	9/13/2007	910	2	L	1	2	L	1
MB-9	3/26/2008		2	L	1	2	L	1
MB-9	7/2/2008		2	L	1	2	L	1
MB-9	7/14/2008		2	L	1	2	L	1
MB-9	7/15/2008		2	L	1	2	L	1
MB-9	7/17/2008		2	L	1	2	L	1
MB-9	7/22/2008		2	L	1	2	L	1
MB-9	9/8/2008		2	L	1	2	L	1
MB-9	9/17/2008		2	L	1	2	L	1
MB-9	9/18/2008		2	L	1	2	L	1
MB-9	9/23/2008		2	L	1	2	L	1
MB-9	9/25/2008		2	L	1	2	L	1

Summer Entero criteria:	
SS<=104 cols/100 mLs	
Geomean<=35 cols/100 mLs	
Count=	18
SS Exceedances=	0
% Exceedances=	0.0
# Geomeans=	2
# Geomean Exceedances=	0
% Geomean Exceedances=	0.0

Winter Entero criteria:	
SS<=275 cols/100 mLs	
Count=	7
SS Exceedances=	0
% Exceedances=	0.0
Fecal Count=	23
Geomean=	1.1
Median=	1
# Samples>43=	0
% Samples>43=	0

Note: Summer (June-Sept) highlighted in green. Winter not highlighted.

Table 7-2: Mobile Bay 2004 Bay Study Data

Station_ID	Date	Time (24hr)	Duplicate Sample	Comments	Enterococci (cols/100 mLs)	Rev Enterococci (cols/100 mLs)	Fecal Coliform (col/100ml)	Fecal Coliform oor	Coliform (col/100ml)
8735180-BS	10/18/2004	945	FALSE	Enterococci: < 1 col/100mlIIIIUltimate CBOD: 1.77 mg/l	0.5	0.5	1	<MDL	0.5
8735180-BS	5/20/2004	910	FALSE	Enterococci: 2 col/100ml	2	2		—	
8735180-BS	6/21/2004	915	FALSE	Enterococci: < 1 col/100ml	0.5	0.5	2	—	2
8735180-BS	7/21/2004	850	FALSE	Enterococci: < 1 col/100ml	0.5	0.5	1200	—	1200
8735180-BS	4/20/2004	915	FALSE	Enterococci: 2 col/100ml	2	2		—	
8735180-BS	9/9/2004	1150	FALSE	Enterococci: < 1 col/100ml	0.5	0.5	1	<MDL	0.5
8735180-BS	8/17/2004	920	FALSE	Enterococci: < 1 col/100ml	0.5	0.5	1	<MDL	0.5
MB-4BS	7/21/2004	930	FALSE	Enterococci: < 1 col/100ml	0.5	0.5	1	<MDL	0.5
MB-4BS-DUP	7/21/2004	945	TRUE	Enterococci: < 1 col/100ml	0.5		1	<MDL	
MB-4BS	6/21/2004	1055	FALSE	Enterococci: < 1 col/100ml	0.5	0.5	1	<MDL	0.5
MB-4BS	5/25/2004	935	FALSE	Enterococci: <2col/100ml	1	1		—	
MB-4BS	8/17/2004	1205	FALSE	Enterococci: < 1 col/100ml	0.5	0.5	1	<MDL	0.5
MB-4BS	9/9/2004	1005	FALSE	Enterococci: < 1 col/100ml	0.5	0.5	1	<MDL	0.5
MB-4BS	10/14/2004	1110	FALSE	Enterococci: < 1 col/100mlIIIIUltimate CBOD: 2.75 mg/l	0.5	0.5	1	<MDL	0.5
MB-4BS	4/20/2004	1210	FALSE	Enterococci: <2 col/100ml	1	1		—	
MB-5BS	5/18/2004	945	FALSE	Enterococci: < 1 col/100ml	0.5	0.5		—	
MB-5BS-DUP	5/18/2004	1015	TRUE	Enterococci: < 1 col/100ml	0.5			—	
MB-5BS	10/14/2004	1150	FALSE	Enterococci: < 1 col/100mlIIIIUltimate CBOD: 2.88 mg/l	0.5	0.5	1	<MDL	0.5
MB-5BS	9/8/2004	1140	FALSE	Enterococci: <1 col/100ml	0.5	0.5	1	<MDL	0.5
MB-5BS	8/17/2004	1130	FALSE	Enterococci: <1 col/100ml	0.5	0.5	1	<MDL	0.5
MB-5BS	6/17/2004	1100	FALSE	Enterococci: <1 col/100ml	0.5	0.5	4	—	4
MB-5BS	4/15/2004	1220	FALSE	Enterococci: <2 col/100ml	1	1		—	
MB-5BS	7/19/2004	1010	FALSE	Enterococci: <1 col/100ml	0.5	0.5	1	<MDL	0.5
MB-9BS	4/20/2004	1120	FALSE	Enterococci: <2 col/100ml	1	1		—	
MB-9BS	8/17/2004	1055	FALSE	Enterococci: < 1col/100ml	0.5	0.5	1	<MDL	0.5
MB-9BS	9/9/2004	1030	FALSE	Enterococci: < 1 col/100ml	0.5	0.5	1	<MDL	0.5
MB-9BS	10/14/2004	1230	FALSE	Enterococci: < 1 col/100mlIIIIUltimate CBOD: 3.23 mg/l	0.5	0.5	6	—	6
MB-9BS	7/21/2004	1015	FALSE	Enterococci: < 1 col/100ml	0.5	0.5	1	<MDL	0.5
MB-9BS	5/20/2004	1050	FALSE	Enterococci: <2 col/100ml	1	1		—	
MB-9BS	6/17/2004	1135	FALSE	Enterococci: < 1 col/100ml	0.5	0.5	6	—	6

Note: Where duplicate samples were obtained, the result was reported as the average of the two values.
The average values are highlighted in yellow.

Table 7-3: Mobile Bay Beach Monitoring Data

ADEM/ADPH Beach Monitoring Program
Microbiological Analyses
Volanta Ave., Fairhope, Mobile Bay

Latitude: 30.54154° N
Longitude: 87.90411° W
most recent advisory status: 05/10/10
see advisory key below

Date Collected		Enterococcus Count/100 ml	Rev Enterococcus Count/100 ml	Enterococcus Geomean	Comments
09/28/09		14	14		
09/21/09		2	2		
09/15/09 resample		88	88		
09/14/09		193	193		rain
09/08/09		4	4		
08/31/09		6	6		
08/24/09		2	2		
08/17/09		18	18		
08/10/09		2	2		
08/03/09	<	2	1		
07/27/09		4	4		
07/20/09	<	2	1		
07/13/09		4	4		
07/07/09 resample		4	4		
07/06/09		73	73		
06/29/09		2	2		
06/22/09	<	2	1		
06/15/09		22	22		
06/08/09	<	2	1		
06/02/09		6	6		
09/22/08		2	2		
09/15/08		2	2		
09/08/08	<	2	1		
09/04/08 resample		7	7		
9/3/08 resample		273	273	6	
09/02/08		1130	1130	14	rain
08/27/08 resample	<	7	3.5		
08/26/08		380	380	18	
08/18/08		6	6		
08/11/08		2	2		rain
08/04/08		2	2		
07/28/08		4	4		
07/21/08		2	2		
07/14/08		86	86		
07/07/08		2	2		
07/01/08 resample		96	96		
06/30/08		127	127	16	
06/23/08		2	2		
06/16/08		6	6		
06/09/08	<	2	1		
06/03/08		32	32		
09/24/07		6	6		
09/17/07		1	1		
09/10/07		2	2		
09/04/07	<	1	0.5		
08/27/07		14	14		
08/20/07		2	2		
08/13/07	<	1	0.5		
08/06/07		3	3		
07/30/07		1	1		
07/23/07	<	1	0.5		
07/16/07		2	2		
07/10/07 resample		16	16		
07/09/07		163	163	4	rain past 24 hrs
07/02/07		3	3		
06/25/07		15	15		
06/18/07		32	32		
06/11/07		3	3		
06/05/07	<	1	0.5		
09/25/06		9	9		
9/19/2006 resample		67	67		
09/18/06		128	128		rain
09/11/06		7	7		
09/05/06		2	2		

Summer entero criteria:
SS<=104 cols/100 mLs
Geomean<=35 cols/100 mLs

Count=	111
SS Exceedances=	11
% Exceedances=	9.9
# Geomeans=	8
# Geomean Exceedances=	1
% Geomean Exceedances=	12.5

SS Max=	1130
Geomean Max=	38

Table 7-3: Mobile Bay Beach Monitoring Data (Cont.)

08/28/06		3	3		
08/21/06		45	45		
08/14/06		8	8		
08/07/06		12	12		
07/31/06		5	5		
07/24/06		2	2		rain
07/17/06		15	15		
07/10/06		10	10		
07/05/06	<	1	0.5		
06/26/06	<	1	0.5		
06/19/06	<	1	0.5		
06/12/06	<	1	0.5		
06/06/06		4	4		
09/27/05 resample		33	33		
09/26/05		181	181		
09/20/05		1	1		
09/12/05		1	1		
08/22/05		2	2		
08/15/05		11	11		
08/08/05		10	10		
08/01/05		7	7		
07/25/05		1	1		
07/18/05		5	5		
07/05/05		3	3		
06/27/05		3	3		
06/20/05		14	14		
06/13/05		64	64		
06/08/05 resample		16	16		
06/07/05		200	200	17	
09/09/04		1	1		
09/02/04		1	1		
08/25/04		1	1		
08/18/04		19	19		
08/11/04		103	103		
08/04/04		2	2		
07/28/04		9	9		
07/21/04		15	15		
07/16/04 resample		20	20		
7/15/2004 resample		153	153	21	
07/14/04		98	98		
07/06/04		1	1		
06/30/04		46	46		
06/23/04		84	84		
06/16/04		62	62		
06/10/04		9	9		
06/04/04 resample		10	10		
06/03/04		150	150	38	rain

Table 7-3: Mobile Bay Beach Monitoring Data (Cont.)

Note: Geometric mean is calculated from no fewer than 5 samples collected at a given station over not more than a 30 day period at intervals not less than 24 hrs.
ADEM coastal whole body water contact standard for fecal coliform = 100col/100ml (geo. mean).
ADPH and EPA whole body water contact guidelines for enterococci = 104 col/100ml (single sample max)
All fecal coliform analyses performed by ADEM Mobile Branch Lab using EPA standard method 9222D.
All enterococci analyses performed by ADPH Mobile Laboratory using EPA standard method 1600

nd: no data

Advisory Key

	The most recent testing of water from this site revealed enterococci levels within the recommended EPA standards. Water quality is acceptable.
	The most recent testing of water from this site revealed Enterococci levels over the EPA recommended threshold. There may be an increased risk of illness associated with swimming at this site. Because elevated bacteria levels are often transient and usually fall quickly, this site is now being retested. The status will be revised to red or green based on the results of the retest.
	Repeat testing of this site has again revealed Enterococci levels over the EPA recommended threshold. There may be an increased risk of illness associated with swimming at this site. Because elevated bacteria levels have persisted, a public health advisory will be issued. This site will be retested.

Table 7-3: Mobile Bay Beach Monitoring Data (Cont.)

ADEM/ADPH Beach Monitoring Program
Microbiological Analyses
Volanta Ave., Fairhope, Mobile Bay

Latitude: 30.54154° N
Longitude: 87.90411° W

most recent advis 05/10/10

Date Collected		Enterococcus Count/100 ml	Rev Enterococcus Count/100 ml	Comments
05/10/10		2	2	
05/03/10		62	62	
04/27/10		4	4	
03/05/10 resample		7	7	
03/04/10 resample		367	367	
03/03/10		853	853	
02/02/10		76	76	
01/04/10		20	20	
12/01/09	<	2	1	
11/02/09	<	2	1	
10/06/09 resample		26	26	
10/05/09		106	106	
05/28/09 resample		2	2	
05/27/09 resample		108	108	
05/26/09		140	140	
05/18/09		20	20	
05/11/09		10	10	
05/04/09		42	42	rain
04/28/09		2	2	
04/22/09 resample		2	2	
04/20/09		140	140	
03/04/09 resample	<	2	1	
03/02/09		113	113	
02/02/09	<	2	1	
01/05/09		8	8	
12/01/08		48	48	
11/03/08	<	2	1	
10/06/08	<	2	1	
05/27/08	<	2	1	
05/19/08		28	28	
05/12/08		12	12	
05/05/08		84	84	
04/29/08		12	12	
04/21/08		2	2	
03/03/08		4	4	
02/11/08		6	6	
01/07/08		2	2	
12/03/07		9	9	
11/05/07		1	1	
10/16/07		1	1	
05/29/07		1	1	
05/21/07	<	1	0.5	
05/14/07		6	6	
05/07/07		3	3	
04/30/07		1	1	
04/09/07		4	4	
03/12/07		1	1	
02/12/07		1	1	
01/08/07		20	20	rain past 24 hrs
12/11/06	<	1	0.5	
11/06/06	<	1	0.5	rain
10/18/06		40	40	
05/30/06		2	2	

Winter entero criteria:
SS<=275 cols/100 mLs

Count=	**92**
SS Exceedances=	**4**
% Exceedances=	**4.3**
SS Max=	**853**

Table 7-3: Mobile Bay Beach Monitoring Data (Cont.)

05/17/06	<	1	0.5	
05/15/06	<	1	0.5	
05/10/06		2	2	
05/08/06		40	40	
05/01/06		5	5	
04/10/06		1	1	
03/27/06	<	1	0.5	
02/06/06		37	37	
01/09/06		20	20	
12/12/05		1	1	
11/15/05		1	1	
10/11/05		1	1	
05/23/05		2	2	
05/18/05		1	1	
05/11/05		1	1	
05/09/05		16	16	
05/05/05		2	2	
05/03/05		15	15	
04/18/05		4	4	
03/21/05		1	1	
02/14/05		1	1	
01/11/05		4	4	
12/13/04		26	26	
11/08/04 resample		30	30	
11/05/04 resample		130	130	
11/04/04 resample		198	198	
11/03/04 resample		580	580	
11/02/04		400	400	
10/12/04		22	22	
05/26/04		35	35	
05/20/04		1	1	
05/12/04		1	1	
05/10/04		5	5	
05/05/04		4	4	
05/03/04		6	6	
04/06/04		2	2	
03/01/04		8	8	
02/02/04		1	1	
01/05/04		10	10	

Table 7-3: Mobile Bay Beach Monitoring Data (Cont.)

ADEM/ADPH Beach Monitoring Program
Microbiological Analyses
Fairhope Beach, Mobile Bay

Latitude:30.52807 ° N
Longitude:87.90956 ° W

most recent advisory status: 05/10/10
see advisory key below

Date Collected		Enterococcus Count/100 ml	Rev Enterococcus Count/100 ml	Enterococcus Geo. Mean	Comments
09/30/09		3	3		
09/28/09		2	2		
09/23/09		14	14		
09/21/09		12	12		
09/16/09		10	10		
09/15/09 resample		46	46		
09/14/09		407	407	15	rain
09/10/09		6	6		
09/08/09		40	40		
09/02/09		16	16		
08/31/09	<	2	1		
08/26/09		2	2		
08/24/09		8	8		
08/19/09 resample		46	46		
08/18/09 resample		140	140	18	
08/17/09		140	140	22	
08/12/09		18	18		
08/10/09		14	14		
08/05/09		4	4		
08/03/09	<	2	1		
07/29/09		2	2		
07/27/09		28	28		
07/22/09		4	4		
07/20/09		28	28		
07/15/09		4	4		
07/13/09		8	8		
07/08/09	<	2	1		
07/06/09		36	36		
07/01/09		2	2		
06/29/09		14	14		
06/24/09		2	2		
06/22/09		4	4		
06/17/09		16	16		
06/15/09		32	32		
06/10/09		72	72		
06/08/09 resample	<	2	1		
06/05/09 resample	>	400	400	11	
06/04/09	>	400	400	16	
06/03/09 resample		30	30		
06/02/09		240	240	21	
09/24/08		2	2		
09/22/08		56	56		
09/17/08		2	2		
09/15/08		4	4		
09/10/08		12	12		
09/08/08		2	2		
09/04/08		6	6		
09/03/08 resample		53	53		
09/02/08		700	700	12	rain
08/28/08	<	2	1		
08/26/08		67	67		
08/20/08		6	6		
08/18/08		14	14		
08/14/08 resample		40	40		
08/13/08		634	634	23	rain
08/12/08 resample		24	24		rain
08/11/08		640	640	29	rain

Summer entero criteria:	
SS<=104 cols/100 mLs	
Geomean<=35 cols/100 mLs	
Count=	231
SS Exceedances=	43
% Exceedances=	18.6
# Geomeans=	43
# Geomean Exceedances=	17
% Geomean Exceedances=	39.5

SS Max=	3670
Geomean Max=	58

Table 7-3: Mobile Bay Beach Monitoring Data (Cont.)

08/06/08		6	6		
08/04/08		4	4		
07/31/08 resample		8	8		
07/30/08		280	280	26	
07/28/08		16	16		
07/23/08		8	8		
07/21/08	<	2	1		
07/16/08		2	2		
07/15/08 resample		4	4		
07/14/08		180	180	20	
07/09/08		18	18		
07/07/08	<	2	1		
07/02/08		2	2		
06/30/08		86	86		
06/25/08		6	6		
06/24/08 resample		24	24		
06/23/08		213	213	10	
06/18/08	<	2	1		
06/16/08		4	4		
06/11/08		8	8		
06/09/08		6	6		
06/05/08		4	4		
06/03/08		14	14		
09/26/07		12	12		
09/24/07		70	70		
09/19/07		8	8		
09/17/07		9	9		
09/12/07 resample		8	8		
09/11/07 resample	>	667	667	26	
09/10/07	>	200	200	35	
09/06/07		49	49		rain
09/05/07 resample		18	18		
09/04/07	>	200	200	40	
08/30/07		8	8		
08/29/07	>	200	200	40	rain past 24 hrs.
08/27/07		21	21		
08/22/07		7	7		
08/20/07		65	65		
08/15/07		21	21		
08/13/07		6	6		
08/08/07		47	47		
08/06/07		21	21		
08/01/07		2	2		
07/30/07		2	2		
07/25/07		87	87		
07/23/07		54	54		
07/18/07		51	51		
07/16/07		31	31		
07/11/07		92	92		
07/09/07		90	90		rain past 24
07/05/07		8	8		rain
07/02/07		16	16		
06/27/07		52	52		
06/26/07 resample		42	42		
06/25/07	>	200	200	46	
06/21/2007		100	100		
06/20/07		330	330	58	rain past 24

Table 7-3: Mobile Bay Beach Monitoring Data (Cont.)

06/18/07		5	5		
06/13/07		33	33		
06/12/07 resample		140	140	52	
06/11/07	>	200	200	55	
06/07/07		6	6		rain
06/05/07		8	8		
09/27/06		1	1		
09/25/06		6	6		
09/20/06 resample		6	6		
9/19/2006 resample		187	187		
09/18/06	>	200	200	17	rain
09/13/06 resample		50	50		
09/12/06 resample		110	110	26	
9/11/2006 resample		136	136	32	
09/08/06		320	320	41	
09/07/06		82	82		
09/05/06		3	3		
08/30/06		20	20		
08/28/06		6	6		
08/24/06resample		21	21		
8/2306 resample		117	117	46	
08/22/06 resample		327	327	53	
08/21/06	>	200	200	58	
08/16/06		42	42		
08/14/06		4	4		
08/09/06		5	5		
08/07/06		4	4		
08/02/06		10	10		
07/31/06		10	10		
07/26/06 resample		8	8		
07/24/06	>	200	200	26	rain
07/19/06		18	18		
07/17/06		17	17		
07/12/06		6	6		
07/10/06		77	77		
7/6/2006 resample		180	180	25	
07/05/06		147	147	30	
06/28/06		28	28		
06/26/06		12	12		
06/21/06		1	1		
06/19/06		1	1		
06/14/06		8	8		
06/12/06		23	23		
06/08/06		12	12		
06/06/06		1	1		
06/01/06		2	2		
09/28/05		8	8		
09/27/05		33	33		
09/26/05		92	92		
09/22/05		51	51		
09/20/05		7	7		
09/15/05 resample		11	11		
09/14/05		187	187	29	
09/12/05		12	12		
08/24/05		30	30		
08/22/05		10	10		
08/17/05		73	73		
08/16/05 resample		257	257	39	

Table 7-3: Mobile Bay Beach Monitoring Data (Cont.)

08/15/05		166	166	58	
08/10/05		85	85		
08/08/05		7	7		
08/03/05 resample		59	59		
08/02/05 resample		87	87	52	
08/01/05		132	132	57	
07/27/05		1	1		
07/25/05		10	10		
07/20/05		27	27		
07/18/05		6	6		
07/13/05		1	1		
07/07/05		16	16		
07/05/05		38	38		
06/29/05		2	2		rain
06/27/05		2	2		
06/22/05		3	3		
06/20/05		50	50		
06/15/05		2	2		
06/13/05		15	15		
06/09/05	>	1	1		
06/07/05		4	4		
06/02/05	<	1	0.5		
09/13/04		4	4		
09/09/04		6	6		birds
09/07/04		26	26		
09/02/04		1	1		birds
08/31/04		8	8		birds
08/25/04		12	12		birds
08/23/04		18	18		birds
08/18/04		4	4		birds
08/16/04		2	2		birds
08/12/04 resample		93	93		birds
08/11/04		133	133	11	birds
08/09/04		31	31		birds
08/04/04		18	18		birds
08/02/04		44	44		birds
07/28/04		14	14		birds
07/26/04		88	88		birds
07/21/04	<	1	0.5		birds
07/19/04		33	33		birds
07/15/04 resample		5	5		birds
07/14/04	>	200	200	29	birds
07/12/04		22	22		birds
07/07/04		1	1		birds
07/06/04	<	1	0.5		birds
06/30/04		70	70		birds
06/28/04		2	2		birds
06/23/04		16	16		birds
06/21/04	<	1	0.5		birds
06/17/04 resample		5	5		birds
06/16/04		195	195	9	birds
06/15/04 resample		515	515	14	rain
06/14/04		1310	1310	17	rain/birds
06/10/04		11	11		birds
06/08/04		20	20		birds
6/4/2004 resample		16	16		birds
06/03/04 resample		540	540	34	rain
06/02/04 resample		3670	3670	49	rain
06/01/04		170	170	54	birds/rain

Table 7-3: Mobile Bay Beach Monitoring Data (Cont.)

ADEM/ADPH Beach Monitoring Program
Microbiological Analyses
Fairhope Beach, Mobile Bay

Latitude: 30.52807 ° N
Longitude: 87.90956 ° W

most recent advisory status: 05/10/10
see advisory key below

Date Collected		Enterococcus Count/100 ml	Rev Enterococcus Count/100 ml	Comments
05/10/10	<	2	1	
05/05/10	<	7	3.5	
05/04/10 resample		87	87	
05/03/10		1100	1100	
04/29/10		2	2	
04/27/10	<	2	1	
03/08/10 resample	<	7	3.5	
03/04/10 resample		147	147	
03/03/10		933	933	
02/02/10		92	92	
01/04/10		12	12	
12/01/09		44	44	
11/02/09		36	36	
10/06/09 resample		84	84	
10/05/09	>	400	400	
05/28/09		2	2	
05/26/09		56	56	
05/20/09		2	2	
05/18/09		50	50	
05/13/09		6	6	
05/11/09		2	2	
5/7/09 resample		16	16	
05/06/09		118	118	
05/04/09		44	44	rain
04/30/09		6	6	
04/29/09 resample		64	64	
04/28/09		120	120	
04/22/09		14	14	
04/21/09 resample		46	46	
04/20/09		273	273	
03/02/09		44	44	
02/02/09		20	20	
01/05/09	<	2	1	
12/01/08		48	48	
11/03/08		12	12	
10/07/08 resample		58	58	
10/06/08		112	112	
05/29/08		6	6	
05/27/08		2	2	
05/21/08		6	6	
05/19/08		26	26	
05/14/08		2	2	
05/12/08		8	8	
05/07/08		14	14	
05/06/08 resample		24	24	
05/05/08		233	233	

Winter entero criteria:
SS<=275 cols/100 mLs

Count=	116
SS Exceedances=	5
% Exceedances=	4.3

SS Max=	1100

Table 7-3: Mobile Bay Beach Monitoring Data (Cont.)

05/01/08		20	20	
04/29/08		54	54	
04/23/08		36	36	
04/21/08		2	2	
03/03/08		24	24	
02/11/08		48	48	
01/07/08		1	1	
12/03/07		35	35	
11/05/07		3	3	
10/16/07		60	60	
05/31/07		21	21	
05/30/07 resample	>	670	670	
05/29/07		142	142	
05/23/07		15	15	
05/21/07	<	1	0.5	
05/16/07		32	32	rain
05/14/07		7	7	
05/09/07		10	10	
05/07/07		23	23	
05/02/07		15	15	
04/30/07		6	6	
04/09/07		32	32	
03/12/07		33	33	
02/12/07		1	1	
01/08/07		71	71	rain past 24 hrs.
12/11/06		2	2	
11/06/06		3	3	rain
10/23/06 resample		32	32	
10/20/06 resample		213	213	
10/19/06 resample		330	330	
10/18/06		87	87	
05/30/06		10	10	
05/15/06		24	24	
05/10/06		15	15	
05/08/06		10	10	
05/03/06		6	6	
05/01/06		12	12	
04/10/06		13	13	
03/27/06	<	1	0.5	
02/06/06		17	17	
01/09/06		28	28	
12/12/05		3	3	
11/16/05		30	30	
11/15/05		33	33	
10/11/05		1	1	
05/23/05		5	5	
05/18/05		7	7	

Table 7-3: Mobile Bay Beach Monitoring Data (Cont.)

05/11/05		9	9	
05/09/05		18	18	
05/05/05		1	1	birds
05/03/05		103	103	birds
04/18/05		43	43	birds
03/21/05		15	15	birds
02/14/05		19	19	
01/11/05		9	9	
12/13/04		51	51	
11/03/04 resample		73	73	
11/02/04	>	200	200	birds/rain
10/12/04		71	71	
05/26/04		18	18	birds
05/20/04		11	11	birds
05/12/04		5	5	birds
05/10/04		10	10	birds
05/05/04		70	70	birds
05/04/04 resample		8	8	birds
05/03/04		168	168	birds
04/06/04		70	70	birds
03/01/04		9	9	birds
02/02/04		7	7	birds
01/05/04		18	18	birds

Table 7-3: Mobile Bay Beach Monitoring Data (Cont.)

ADEM/ADPH Beach Monitoring Program
Microbiological Analyses
Orange Street Pier/Beach, Fairhope, Mobile Bay

Latitude: 30.51584° N
Longitude: 87.91740° W

most recent advisory status: 05/10/10
see advisory key below

Date Collected		Enterococcus Count/100 ml	Rev Enterococcus Count/100 ml	Enterococcus Geo. Mean	Comments
09/28/09		2	2		
09/21/09		6	6		
09/15/09		24	24		
09/14/09		102	102		rain
09/08/09		10	10		
08/31/09		14	14		
08/24/09	<	2	1		
08/18/09 resample		46	46		
08/17/09		540	540	26	
08/10/09		8	8		
08/03/09	<	2	1		
07/27/09		20	20		
07/20/09		2	2		
07/13/09		18	18		
07/06/09		46	46		
06/29/09		32	32		
06/22/09		20	20		
06/15/09		42	42		
06/08/09		8	8		
06/02/09		26	26		
09/22/08		4	4		
09/15/08		4	4		
09/08/08		2	2		
09/03/08 resample		7	7		
09/02/08		533	533	10	
08/26/08		60	60		
08/18/08		2	2		
08/12/08 resample		18	18		rain
08/11/08		300	300	24	rain
08/04/08		2	2		
07/28/08		18	18		
07/21/08	<	2	1		
07/15/08 resample		16	16		
07/14/08		94	94		
07/07/08	<	2	1		
07/01/08 resample		6	6		
06/30/08		293	293	12	
06/23/08		16	16		
06/16/08		4	4		
06/09/08	<	2	1		
06/03/08		36	36		
09/24/07		42	42		
09/17/07	<	1	0.5		
09/10/07		12	12		
09/04/07		2	2		
08/27/07		1	1		
08/20/07		12	12		
08/13/07		62	62		
08/06/07		20	20		
07/30/07		2	2		
07/23/07		2	2		
07/16/07		10	10		
07/09/07		17	17		rain past 24 hrs.
07/02/07		3	3		
06/25/07		9	9		
06/21/007 resample		2	2		

Summer entero criteria:
SS<=104 cols/100 mLs
Geomean<=35 cols/100 mLs

Count=	**115**
SS Exceedances=	**13**
% Exceedances=	**11.3**
# Geomeans=	**12**
# Geomean Exceedances=	**0**
% Geomean Exceedances=	**0.0**

SS Max=	**667**
Geomean Max=	**26**

Table 7-3: Mobile Bay Beach Monitoring Data (Cont.)

6/20/2007 resample		270	270	12	rain past 24 hrs.
06/19/07 resample		197	197	17	rain
06/18/07	>	200	200	24	
06/11/07		3	3		
06/05/07		1	1		
09/25/06		71	71		
09/18/06		25	25		rain
09/11/06		11	11		
09/05/06		1	1		
08/28/06		5	5		
08/21/06		13	13		
08/14/06		5	5		
08/07/06		3	3		
07/31/06		12	12		
07/24/06		2	2		rain
07/17/06		7	7		
07/10/06		1	1		
07/05/06	<	1	0.5		
06/26/06	<	1	0.5		
06/19/06		2	2		
06/12/06	<	1	0.5		
06/06/06	<	1	0.5		
09/27/05 resample		38	38		
09/26/05	>	200	200		
09/20/05	<	1	0.5		
09/12/05		1	1		
08/22/05		22	22		
08/15/05		2	2		
08/08/05		26	26		
08/01/05	<	1	0.5		
07/25/05		4	4		
07/18/05		2	2		
07/05/05		5	5		
07/01/05 resample		3	3		
6/30/2005 resample	>	667	667	10	
06/29/05		121	121	15	rain
06/27/05		2	2		
06/20/05		11	11		
06/13/05		15	15		
06/07/05		88	88		
09/09/04		2	2		
09/02/04		7	7		
08//25/04		1	1		
08/18/04	<	1	0.5		
08/11/04		15	15		
08/04/04		1	1		
07/28/04		8	8		
07/26/04		4	4		
07/16/04 resample		53	53		
07/15/04 resample		164	164	13	
07/14/04		81	81		
07/06/04	<	1	0.5		
06/30/04		1	1		
06/23/04		32	32		
06/16/04		15	15		
06/10/04		10	10		
06/08/04 resample		5	5		
06/04/04 resample		210	210	13	
06/03/04	>	200	200	19	

Table 7-3: Mobile Bay Beach Monitoring Data (Cont.)

ADEM/ADPH Beach Monitoring Program
Microbiological Analyses
Orange Street Pier/Beach, Fairhope, Mobile Bay

Latitude: 30.51584° N
Longitude: 87.91740° W

most recent advisory status: 05/10/10
see advisory key below

Date Collected		Enterococcus Count/100 ml	Rev Enterococcus Count/100 ml	Comments
05/10/10		2	2	
05/04/10 resample		73	73	
05/03/10		1330	1330	
04/27/10		10	10	
03/04/10 resample		102	102	
03/03/10		933	933	
02/02/10		90	90	
01/04/10		18	18	
12/01/09		88	88	
11/02/09		12	12	
10/06/09 resample		56	56	
10/05/09	>	400	400	
05/26/09		42	42	
05/18/09		14	14	
05/11/09		4	4	
05/04/09		84	84	rain
04/28/09		24	24	
04/22/09 resample	<	2	1	
04/20/09		136	136	
03/03/09 resample		2	2	
03/02/09		124	124	
02/02/09		2	2	
01/05/09		2	2	
12/01/08		26	26	
11/03/08		2	2	
10/06/08		6	6	
05/27/08		4	4	
05/19/08		22	22	
05/12/08		10	10	
05/06/08 resample		34	34	
05/05/08		126	126	
04/29/08		8	8	
04/21/08	<	2	1	
03/03/08		4	4	
02/11/08		12	12	
01/07/08		1	1	
12/03/07		33	33	
11/05/07	<	1	0.5	
10/16/07		3	3	
05/29/07		4	4	rain
05/21/07		9	9	
05/14/07		7	7	
05/07/07		4	4	
04/30/07		1	1	
04/09/07		1	1	
03/12/07		6	6	
02/12/07		1	1	
01/09/07 resample		36	36	
01/08/07		110	110	rain past 24 hrs.
12/11/06		23	23	
11/06/06		5	5	rain
10/18/06		17	17	
05/30/06	<	1	0.5	

Winter entero criteria:
SS<=275 cols/100 mLs

Count=	**91**
SS Exceedances=	**4**
% Exceedances=	**4.4**

SS Max= 1330

Table 7-3: Mobile Bay Beach Monitoring Data (Cont.)

5/16/06 resample		38	38
05/15/06		132	132
05/10/06		51	51
05/09/06 resample		157	157
05/08/06	>	200	200
05/01/06		5	5
04/10/06		3	3
03/27/06	<	1	0.5
02/06/06		11	11
01/09/06		1	1
12/12/05		1	1
11/15/05		2	2
10/11/05		2	2
05/23/05		43	43
05/18/05		1	1
05/11/05		26	26
05/09/05		3	3
05/05/05		27	27
05/04/05 resample		25	25
05/03/05		353	353
04/18/05		27	27
03/21/05		1	1
02/14/05		6	6
01/11/05	<	1	0.5
12/13/04		38	38
11/3/2004 resample		70	70
11/02/04	>	200	200
10/12/04		14	14
05/26/04		21	21
05/20/04	<	1	0.5
05/12/04	<	1	0.5
05/10/04		12	12
05/04/04	<	1	0.5
05/03/04		38	38
04/06/04		3	3
03/01/04		6	6
02/02/04	<	1	0.5
01/05/04		5	5

Table 7-4: Mobile Bay Seafood Branch Data

Area I - Combined Fecal Data Station 126			
Date	Fecal Conc. (mpn)		
1/4/2005	4.0		
1/26/2005	4.5		
3/29/2005	1.8		
5/18/2005	1.8	Count=	47
7/26/2005	1.8	Geomean=	3.0
9/13/2005	1.8	Median=	1.8
10/17/2005	1.8	# Samples>43=	1
1/19/2006	1.8	% Samples>43=	2.1
2/3/2006	33.0		
2/18/2006	13.0		
3/30/2006	1.8		
5/23/2006	1.8		
7/25/2006	1.8		
11/1/2006	1.8		
12/18/2006	1.8		
1/15/2007	7.8		
4/17/2007	1.8		
6/11/2007	1.8		
7/10/2007	1.8		
8/29/2007	1.8		
10/25/2007	1.8		
5/6/2008	1.8		
6/24/2008	1.8		
11/24/2008	1.8		
12/8/2008	4.5		
12/15/2008	7.8		
1/22/2009	6.8		
3/12/2009	7.8		
4/14/2009	6.1		
4/22/2009	7.8		
5/26/2009	2.0		
6/24/2009	2.0		
6/30/2009	2.0		
7/13/2009	1.8		
7/15/2009	1.8		
8/10/2009	1.8		
8/25/2009	1.8		
10/6/2009	79.0		
10/13/2009	1.8		
10/28/2009	1.8		
11/24/2009	4.5		
1/6/2010	7.8		
2/23/2010	7.8		
3/30/2010	1.8		
4/6/2010	1.8		
4/16/2010	1.8		
4/20/2010	1.8		

Table 7-4: Mobile Bay Seafood Branch Data (Cont.)

Area I - Combined Fecal Data Station 125			
Date	Fecal Conc. (mpn)		
2/26/2004	17.0		
3/5/2004	7.8		
5/25/2004	1.8		
7/28/2004	1.8	**Count=**	**55**
10/5/2004	1.8	**Geomean=**	**2.8**
12/26/2004	6.8	**Median=**	**1.8**
1/4/2005	13.0	**# Samples>43=**	**0**
3/29/2005	2.0	**% Samples>43=**	**0.0**
4/22/2005	4.5		
5/18/2005	1.8		
7/26/2005	1.8		
9/13/2005	1.8		
10/17/2005	1.8		
1/19/2006	1.8		
2/3/2006	11.0		
2/18/2006	7.8		
3/8/2006	6.8		
3/30/2006	1.8		
5/23/2006	1.8		
6/27/2006	1.8		
7/25/2006	1.8		
8/15/2006	1.8		
11/1/2006	1.8		
12/18/2006	1.8		
1/15/2007	7.8		
4/17/2007	1.8		
6/11/2007	1.8		
7/10/2007	1.8		
8/29/2007	1.8		
10/25/2007	2.0		
5/6/2008	1.8		
6/24/2008	1.8		
9/4/2008	1.8		
12/8/2008	1.8		
12/15/2008	13.0		
1/22/2009	2.0		
3/12/2009	17.0		
4/14/2009	7.8		
4/22/2009	2.0		
5/26/2009	1.8		
6/24/2009	1.8		
6/30/2009	1.8		
7/13/2009	1.8		
7/15/2009	1.8		
8/10/2009	2.0		
8/25/2009	1.8		
10/6/2009	1.8		
10/28/2009	2.0		
11/24/2009	6.8		
1/6/2010	13.0		
2/23/2010	2.0		
3/30/2010	1.8		
4/6/2010	1.8		
4/16/2010	1.8		
4/20/2010	2.0		

Table 7-4: Mobile Bay Seafood Branch Data (Cont.)

Area I - Combined Fecal Data Station 120	
Date	Fecal Conc. (mpn)
1/14/2004	2.0
2/26/2004	7.8
3/5/2004	7.8
5/25/2004	1.8
7/28/2004	1.8
10/5/2004	1.8
12/26/2004	6.8
1/4/2005	1.8
3/29/2005	1.8
4/22/2005	1.8
5/18/2005	1.8
7/26/2005	1.8
9/13/2005	1.8
10/17/2005	1.8
1/19/2006	1.8
2/3/2006	4.5
2/18/2006	17.0
3/8/2006	1.8
3/30/2006	1.8
5/23/2006	1.8
6/27/2006	1.8
7/25/2006	1.8
8/15/2006	1.8
11/1/2006	1.8
12/18/2006	1.8
1/15/2007	13.0
4/17/2007	1.8
6/11/2007	1.8
7/10/2007	1.8
8/29/2007	1.8
10/25/2007	1.8
5/6/2008	1.8
6/24/2008	1.8
9/4/2008	1.8
12/8/2008	1.8
12/15/2008	2.0
1/22/2009	4.0
3/12/2009	1.8
4/14/2009	23.0
4/22/2009	2.0
5/26/2009	1.8
6/24/2009	1.8
6/30/2009	2.0
7/13/2009	1.8
7/15/2009	1.8
8/10/2009	4.5
8/25/2009	1.8
10/6/2009	1.8
10/28/2009	1.8
11/24/2009	2.0
1/6/2010	7.8
2/23/2010	4.5
3/30/2010	1.8
4/6/2010	1.8
4/16/2010	4.0
4/20/2010	1.8

Count=	56
Geomean=	2.5
Median=	1.8
# Samples>43=	0
% Samples>43=	0.0

Table 7-5: Fairhope SSO Data

OverflowDate	OverflowTime	DischLocation	DischVolume	DischDestination	DischLength
2/26/2004		419 Valley St	500 gal		1 hr
4/11/2004	1/0/1900	Twin Beach LS/ South Fairhope	350 gal		
5/3/2004		460 S. Section St.	400 gal	Big Head Gulley and ?? Gulley	30 min
5/5/2004	1/0/1900	402 South Mobile Street	approximately 200 ga	Mobile Bay	< 5 min
7/13/2004	1/0/1900	6335 Twin Beach Road	2000 gallon	Lift station	45 min
7/26/2004		Rivermill LS, Fairhope AL	8000 gal	No Receiving Stream threatened	
8/21/2004		127 Stream Lake Road	500/1000 gallons	unknown	15 min
8/22/2004	1/0/1900	372 Stream Lake	1000 gallons	unknown	unknown
9/18/2004		710 Sdouth Mobile St (Magnolia Apartments	2,000 gallons	Property around the area, possible Mobile Bay	
9/18/2004		6358 Beaver Greek Dr(Azalea Ridge)	1,000 gallons	property around the area, possible Mobile Bay	
9/18/2004		Lake Wood Lift Station South Quail Run Drive	1,000 gallons	Property around the area, possible Mobile Bay	
9/18/2004		19513 Quail Creek Drive	5,000 gallons	Property around the area, possible Mobile Bay	
9/18/2004		303 Creek Drive	2,000 gallons	Property around the area, possible Mobile Bay	
9/18/2004		202 Rock Creek Parkway (#1)	100,000 gallons	Property around the area, possible Mobile Bay	
9/18/2004		12998 Baldwin Hwy one	200 gallons	Property around the area, possible Mobile Bay	
9/18/2004		601 N Section St (North Section Lift Station)	20,000 gallons	Property araound the area, possible Mobile Bay	
9/18/2004		Rock Creek #2 Presbyterian Drive (South Drive)	100,000 gallons	property around the area, possible Mobile Bay	
9/18/2004		419 Valley St (Valley Street Lift Station)	20,000 gallons	Property around the area, possible Mobile Bay.	
9/18/2004		56 Greeno Rd (Dog House lift station)	1,000 gallons	Property around the area, possible Mobile Bay	
9/18/2004		402 South Mobile St	50,000 gallons	Property around the area, possible Mobile Bay	
9/18/2004		Covered Bridge lift station 562 Southern Run	250 gallons	Property around the area, possible Mobile Bay	
9/18/2004		Agrand Hotel Lift Station 17876 Scenic Hwy 98	200 gallons	Property around the area, possible Mobile Bay	
9/18/2004		Twin Beach Lift Station 6335 Twin Beach Rd	1,000 gallons	Prperty around the area, possible Mobile Bay.	
9/18/2004		372 Sring Lake	1,000 gallons	Property around the area, possible Mobile Bay	
9/18/2004		187 Baldwin Square Shopping Center	1,000 gallons	Property around the area, possible Mobile Bay	
9/21/2004		South Section Lift Station 552 South Section St.	1000 gallons	Property around the area, possible Mobile Bay	
11/25/2004		Baldwin Hwy; 12998 Baldwind County Hwy One	100 to 200 gallons	Property around the area, possible Mobile Bay	1 hour
4/1/2005		Fire Station #2 Thompson Hall	250 gal	Property around area, possibly Mobile Bay	2 hrs
4/1/2005		Grand Hotel LS 17876 Scenic 98	1,000 gal	Property around area, possibly Mobile Bay	1 hr
4/1/2005		Valley Street LS 419 Valley St.	21,000 gal	Property around area, possibly Mobile Bay	10 hrs
4/1/2005		North Section LS 601 North Section	10,500 gal	Property around area, possibly Mobile Bay	3 hrs
4/1/2005		East of Sun LS 200 Autumn Dr & 372 Spring Lake	7,250 gal	Property around area, possibly Mobile Bay	8 hrs
4/1/2005		300 North Church Street	100,000 gal	Property around area, possibly Mobile Bay	3 hrs
4/1/2005		Fels Street LS 198 South Mobile Street	8,000 gal	Property around area, possibly Mobile Bay	2 hrs
4/1/2005		Fairwood & Fairhope Ave.	12,000 gal	Property around area, possibly Mobile Bay	2 hrs
4/7/2005		552 South Section St	2500 gal	Property around area	1.5 hr
4/8/2005					
4/16/2005		15799 Ferry Rd	300	Property in area	4 hr
4/20/2005			300 gallons		
4/30/2005		manhole grand hotel	2000 gal	area if lift station	1 hr
4/30/2005		372 spring lake	1000 gal	area if lift station	1 hr
4/30/2005		manhole at fire station tompson hall road	750 gal	area if fire station	1 hr
4/30/2005		valley st lift staton	3000 gal	area if lift station	2 hr
4/30/2005		grand hotel lift station	500 gal	area if lift station	1 hr
4/30/2005		129 d'esterhan	1000 gal	area if lift station	1 hr
4/30/2005		twin beech lift station	500 gal	area if lift station	1 hr
5/2/2005			1000 gallons each		
5/11/2005		6358 beaver creek dr	500 -1000 gal	Point clear creek	2 hr
7/10/2005		327 spring lake	1,000 gal	area of lift station	1 hr

Table 7-5: Fairhope SSO Data (Cont.)

7/10/2005		552 south section st	500 gal	area of lift station	30 min
7/10/2005		419 valley st	3,000 gal	area of lift station	1 hr
7/10/2005		198 south mobile street	3,000 gal	area of lift station	1 hr
7/15/2005			500 gallons		
7/22/2005			100 gallons		
8/4/2005		19791 thompson hall rd	1500 gal	stayed in area	2 hr
8/13/2005		12669 hwy 1 point clear	250 gal	stayed in area of lift station	30 min
8/13/2005		17876 scenic hwy 98	500 gal	stayed in area of lift station	30 min
8/15/2005		552 south section st	250-500 gal	tatumville gully	10 min
8/29/2005		419 valley st	2000 gal	tatumville gully	2-4 days
8/29/2005		202 rock creek	10,000 gal	rock creek	2 days
8/29/2005		131 augusta court	400 gal	rock creek	2 days
8/29/2005		parker rd	500 gal	area of lift station	2 days
8/29/2005		552 south section st	1500 gal	tatumville gully	1 days
8/29/2005		meodows rd	2000 gal	fish river	1 days
8/29/2005		6335 twin beech rd	500 gal	twin branch	3 days
8/29/2005		south quali run	1000 gal	point clear creek	3 days
8/29/2005		baldwin 1 lift station	300 gal	mobile bay	3 days
8/29/2005		17876 scenic 98	1000 gal	mobile bay	3 days
8/29/2005		1 woodlans dr	1000 gal	fly creek	3 days
9/2/2005		6335 twin beech rd	3000 gal	tatumville gully	2 hr
9/9/2005		17876 scenic hwy 98	1000 gal	mobile bay	.5 hr
10/1/2005		29 quail loop manhole in back yard and gully area	1000 gal	bon secour gully	1 HR
10/24/2005		Twin Beach Road	5000 gallons		
11/23/2005		12998 baldwin hwy 1 lftt station	150 to 500 gal	contained in area	20 min
1/4/2006	1/0/1900	10200 Gayfer Road extension # 17	1000 gallons	contained in the area	15 minutes
2/6/2006		205 Rocky Creek Parkway	10,000 gallons	Rock Creek	1 hour
3/8/2006		9 Viale Trentio Drive	500 to 700 gallons	Most contain in area,some in drain to Rock Creek	30 minutes
3/29/2006		Oak Street & Bancroft	2,000 gallons	Most contained in a low spot of the gully.	3 hours
5/7/2006		Upstream of 200 Autumn Drive	5,000 gallons	Most contained in the area	2 hours
5/10/2006		17997 Scenic 98	8,000 gallons	contained in area	1 hour
5/22/2006		Meadows Drive & Kenney Drive	Less than 100 gals.	contained in area	30 minutes
5/25/2006		Meadows Road and Kennedy Drive	less then 100 gals.	Contained in the area	30 minutes
6/15/2006	1/0/1900	Eddington Place Blvd.	1500 gallons	Contained in area	30 minutes
7/26/2006		Hwy 104 west of Country Woods Subdivision	100 gallons	Contained in area	45 minutes
12/18/2006		Mobile Bay Pier/pump line conn between land & pier	200 gallons	Mobile Bay	45 min
12/27/2006	1/0/1900	lift station, 200 Autumn Drive	1,000 gallons	Fly Creek	30 min
1/2/2007	1/0/1900	lift station	850 gal	Mobile Bay	30 minutes
1/31/2007		Right of way @ 13871 Scenic Hwy 98	1500 gallons	Mobile Bay	3 hours
3/18/2007		Fels & South Mobile St LS	1000 gallons	Mobile Bay	1 hour from the call
4/7/2007	1/0/1900	552 S. Section St/Lift Station, Fairhope	1,000 gallons	Tatumville Gully	30 min
4/16/2007	1/0/1900	Woodlands Lift Station	500 - 3,000 gal	Fly Creek	
7/3/2007	1/0/1900	Meadowbrook LS/between Garden Cir & Meadowbrook Dr	500 gallons	storm drain/Fly Creek	2 hrs
7/13/2007	1/0/1900	Manhole behind 231 Spring Lake Drive, Fairhope	1000 gallons	Ditch behind house, soaked into ground.	30 minutes
10/17/2007	1/0/1900	Twin Beech Rd. and Cedar Lane	less than 1000	Point Clear Creek but did not reach	1 hr
11/3/2007			1000 gal	Mobile Bay	4 hr
4/14/2008		corner of Bankhead Blvd.	500 gallons	stormwater catch basin	20 minutes
4/15/2008		Bankhead Blvd.	?	Did not reacha water of the State	
8/12/2008	1/0/1900	110 Echo Lane West	300 gal		
8/13/2008		Quail Creek Drive	500 gallons	drainage ditch	25 minutes

Table 7-5: Fairhope SSO Data (Cont.)

8/25/2008	1/0/1900	213 Spring Lake manhole	2,000 gal	drainage ditch	20 min
9/1/2008	1/0/1900	231 Spring Lake Dr	2,000 gal		2 hrs
9/2/2008	1/0/1900	Fairwood & Ashley	500 gal		
11/7/2008	1/0/1900	manhole south of Volanta St, Bon Secour	500 gal	possibly Mobile Bay	
12/20/2008	1/0/1900	Autumn Trailer Park, approx @ Lot #24	5,400 gal	Fish River	2 hrs
1/6/2009	1/0/1900	15928 Inny (?) Drive	unknown	absorbed	10 min
2/13/2009	1/0/1900	Winter Haven Trailer Park Lot#7, Ettie St	200 gal	drainage ditch	10 min
3/27/2009	1/0/1900	710 S Mobile St, Magnolia Beach Apts	3,000 gal	Mobile Bay	2 hrs 15 min
3/28/2009	1/0/1900	601 N Section St	5,000 gal	No Name Gully	2 hrs 15 min
3/28/2009	1/0/1900	419 Valley St	20-25,000 gal	Tatumville Gully	6 hrs
3/29/2009	1/0/1900	North side of Fly Creek across from 1 Woodlands Dr	<100 gal	Fly Creek	30 min
4/2/2009	1/0/1900	198 South Mobile St	undetermined	Possibly Mobile Bay	1 hr 15 min
8/8/2009	1/0/1900	300 North Church St Fairhhope	300,000 gal	Mobile Bay	30 min
8/25/2009	1/0/1900	Volanta Ave/Bon Secour St down to Forester Ave	25 gal	storm drain	20 min
9/1/2009	1/0/1900	lift station @ 8697 CR 44	300 gal	Cowpen Creek	20 min
9/21/2009	1/0/1900	19526 Greeno Rd/ Fairhope Tire	100 gal	drainage ditch	2 1/2 hrs
11/29/2009	1/0/1900	131 Augusta Court , Fairhope, Is#3	500 gal	absorbed	30 min
11/30/2009	1/0/1900	Augusta Court	<1,000 gal		
12/15/2009	1/0/1900	Corner of Fairland and Valley St	1,000 gal	Storm drain to Tatumville Gulley	1 hr 15 min
12/21/2009	1/0/1900	1 Woodlands Dr Fairhope	3,500 gal	Fly Creek	45 min
4/28/2010	1/0/1900	807 Gayfer Street	100 galons	ground asborbed	
5/24/2010	1/0/1900	231 Spring Lake Drive	1,500	Cowpen Creek	unknown

Table 7-6: Fairhope WWTP Effluent DMR Data (June 2004)

Form Approved. OMB No. 2040-0004

PERMITTEE NAME/ADDRESS (Include Facility Name/ Location (If Different)
NAME FAIRHOPE CITY OF
ADDRESS FAIRHOPE STP
161 NORTH SECTION STREET
FAIRHOPE AL 36532
FACILITY FAIRHOPE STP
LOCATION FAIRHOPE AL 36532
ATTN: DAN MCCRORY SUPERINTENDENT

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

AL0020842 — PERMIT NUMBER
001 1 — DISCHARGE NUMBER
MONITORING PERIOD: FROM YEAR 04 MO 06 DAY 01 TO YEAR 04 MO 06 DAY 30

MAJOR
(SUBR M5)
F - FINAL
1999 PERMIT

*** NO DISCHARGE ! ___ ***
NOTE: Read instructions before completing this form.

PARAMETER		QUANTITY OR LOADING AVERAGE	QUANTITY OR LOADING MAXIMUM	QUANTITY OR LOADING UNITS	QUALITY OR CONCENTRATION MINIMUM	QUALITY OR CONCENTRATION AVERAGE	QUALITY OR CONCENTRATION MAXIMUM	QUALITY OR CONCENTRATION UNITS	NO. EX.	FREQUENCY OF ANALYSIS	SAMPLE TYPE
OXYGEN, DISSOLVED (DO) 00300 1 0 0 EFFLUENT GROSS VALUE	SAMPLE MEASUREMENT	******	******		7.72	******	******	(19)	Ø	3/7	GRAB
	PERMIT REQUIREMENT	******	****** ****	****	2.0 DAILY MN	******	******	MG/L		THREE/WEEK	GRAB
BOD, 5-DAY (20 DEG. C) 00310 G 0 0 RAW SEW/INFLUENT	SAMPLE MEASUREMENT	4258.23	5866.43	(26)	******	296.69	383.00	(19)	Ø	3/7	COMP 24
	PERMIT REQUIREMENT	REPORT MO AVG	REPORT WKLY AVG	LBS/DY	******	REPORT MO AVG	REPORT WKLY AVG	MG/L		THREE/WEEK	COMP 24
BOD, 5-DAY (20 DEG. C) 00310 1 0 0 EFFLUENT GROSS VALUE	SAMPLE MEASUREMENT	53.91	81.59	(26)	******	3.73	5.33	(19)	Ø	3/7	COMP 24
	PERMIT REQUIREMENT	500 MO AVG	750 WKLY AVG	LBS/DY	******	15.0 MO AVG	22.5 WKLY AVG	MG/L		THREE/WEEK	COMP 24
PH 00400 1 0 0 EFFLUENT GROSS VALUE	SAMPLE MEASUREMENT	******	******		7.00	******	8.40	(12)	Ø	3/7	GRAB
	PERMIT REQUIREMENT	******	****** ****	****	6.0 DAILY MN	******	9.0 DAILY MX	SU		THREE/WEEK	GRAB
SOLIDS, TOTAL SUSPENDED 00530 G 0 0 RAW SEW/INFLUENT	SAMPLE MEASUREMENT	4731.08	6488.16	(26)	******	296.69	383.00	(19)	Ø	3/7	COMP 24
	PERMIT REQUIREMENT	REPORT MO AVG	REPORT WKLY AVG	LBS/DY	******	REPORT MO AVG	REPORT WKLY AVG	MG/L		THREE/WEEK	COMP 24
SOLIDS, TOTAL SUSPENDED 00530 1 0 0 EFFLUENT GROSS VALUE	SAMPLE MEASUREMENT	76.82	158.80	(26)	******	5.38	11.00	(19)	Ø	3/7	COMP 24
	PERMIT REQUIREMENT	1000 MO AVG	1501 WKLY AVG	LBS/DY	******	30.0 MO AVG	45.0 WKLY AVG	MG/L		THREE/WEEK	COMP 24
NITROGEN, AMMONIA TOTAL (AS N) 00610 1 0 0 EFFLUENT GROSS VALUE	SAMPLE MEASUREMENT	4.04	6.93	(26)	******	.28	.48	(19)	Ø	3/7	COMP 24
	PERMIT REQUIREMENT	333 MO AVG	500 WKLY AVG	LBS/DY	******	10.0 MO AVG	15.0 WKLY AVG	MG/L		THREE/WEEK	COMP 24

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER
Dan McCrory
Superintendent
TYPED OR PRINTED

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE: AREA CODE 251 NUMBER 928-8003
DATE: YEAR 04 MO 07 DAY

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

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Table 7-6: Fairhope WWTP Effluent DMR Data (June 2004) (Cont.)

Form Approved. OMB No. 2040-0004

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

PERMITTEE NAME/ADDRESS (Include Facility Name/ Location if Different)
NAME FAIRHOPE CITY OF
ADDRESS FAIRHOPE STP
161 NORTH SECTION STREET
FAIRHOPE AL 36532
FACILITY FAIRHOPE STP
LOCATION FAIRHOPE AL 36532
ATTN: DAN MCCRORY SUPERINTENDENT

PERMIT NUMBER: AL0020842
DISCHARGE NUMBER: 001 1
MONITORING PERIOD: FROM YEAR 04 MO 06 DAY 01 TO YEAR 04 MO 06 DAY 30

MAJOR
(SUBR M5)
F - FINAL
1999 PERMIT

*** NO DISCHARGE ! ! ! ***
NOTE: Read instructions before completing this form.

PARAMETER		QUANTITY OR LOADING AVERAGE	QUANTITY OR LOADING MAXIMUM	QUANTITY OR LOADING UNITS	QUALITY OR CONCENTRATION MINIMUM	QUALITY OR CONCENTRATION AVERAGE	QUALITY OR CONCENTRATION MAXIMUM	QUALITY OR CONCENTRATION UNITS	NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
FLOW, IN CONDUIT OR THRU TREATMENT PLANT 50050 1 0 0 EFFLUENT GROSS VALUE	SAMPLE MEASUREMENT	1.7022	1.7755	(03)	******	******	******		Ø	DAILY	CONT
	PERMIT REQUIREMENT	REPORT MO AVG	REPORT WKLY AVG	MGD	******	******	******	*** ****		DAILY	CONTIN
COLIFORM, FECAL GENERAL 74055 1 0 0 EFFLUENT GROSS VALUE	SAMPLE MEASUREMENT	******	******		******	.65	3.50	(13)	Ø	3/7	GRAB
	PERMIT REQUIREMENT	******	****** **** ****		******	100 MO AVG	1000 DAILY MX	#/ 100ML		THREE/ WEEK	GRAB
BOD, 5-DAY PERCENT REMOVAL 81010 K 0 0 PERCENT REMOVAL	SAMPLE MEASUREMENT	******	******		98.74	******	******	(23)	Ø	1/MTH	CALCU
	PERMIT REQUIREMENT	******	****** **** ****		85 MO AVG	******	******	PER- CENT		ONCE/ MONTH	CALCTD
SOLIDS, SUSPENDED PERCENT REMOVAL 81011 K 0 0 PERCENT REMOVAL	SAMPLE MEASUREMENT	******	******		98.37	******	******	(23)	Ø	1/MTH	CALCU
	PERMIT REQUIREMENT	******	****** **** ****		85 MO AVG	******	******	PER- CENT		ONCE/ MONTH	CALCTD
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

RECEIVED JUL 2004 ADEM AWP-DATA-SECT

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER: Dan McCrory Superintendent (TYPED OR PRINTED)

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE: AREA CODE 251 NUMBER 9288003
DATE: YEAR 04 MO 07 DAY

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

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