

# *The Mobile Bay Audubon Society*



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July 26, 2010

Mr. Emery E. Baya, P.E., Sr. Vice President  
Thompson Engineering, Inc.  
2970 Cottage Hill Road, Suite 190  
Mobile, AL 36606

**RE: Watershed Management Plan for the D'Olive Creek,  
Tiawasee Creek, and Joe's Branch Watersheds - Draft**

Dear Mr. Baya:

The Mobile Bay Audubon Society has reviewed the referenced *draft* watershed management plan (WMP) and we have explored much of the watershed. We offer our views and suggestions in hopes that a constructive, intelligent plan will evolve. First we compliment all who recognized the serious need for a watershed management plan and those who made the decision to develop a plan.

The leadership provided by the Mobile Bay National Estuary Program is especially noteworthy. And the special efforts made by the D'Olive Watershed Working Group (DWWG) are well-known. Second, we appreciate all who collected watershed data and those who prepared the draft plan. And last, but not least, we are grateful for those who must review public comments and consider their merit in developing the final plan.

Mobile Bay Audubon Society clearly recognizes the myriad, complex problems in the watershed. The WMP clearly describes the problems and the need to solve them. We will support a forthright, effective WMP that will, not only describe the watershed setting and problems, but also include much improved specific guidance and detailed plans to solve the serious problems in the watershed. At this stage, the draft WMP does not include any specific plans that describe what will be done and where specific projects will be done. For example we propose for the WMP to include design(s) of grade control structures and retrofit stormwater retention facilities with maps showing where these would be installed?

Our review of the WMP finds many positive elements but also some serious omissions. We believe that the problems and omissions can, and must be corrected for the plan to be successful. We will identify our concerns throughout this letter.

Section 2 of the WMP provides a detailed description of the 7,700 acre watershed and how intensive, largely unregulated development since the 1970's has created numerous problems. The watershed topography is steep and rugged and soils are highly erosive. Much of the native vegetative cover has been removed and replaced with large amounts of impervious cover. These measures have allowed larger volumes of stormwater runoff to flow more rapidly into the 477 acres of wetlands, the 23 miles of watershed streams, Lake Forest Lake and finally into Mobile Bay. The excessive runoff rushing through the streams has resulted in serious headcutting and massive stream bank failures. Some roads and buildings may soon face serious damages unless the stream problems are solved. Massive amounts of eroded soils now flow downstream with large quantities settling out in the 40 acre Lake Forest Lake and in Mobile Bay. Both the lake and Mobile Bay water quality are being degraded as well as the life forms living there.

A careful examination of the topographic map on page 2-15 (Figure 2-5) helps one to understand the watershed problems. The terrain is so steep in some locations that some areas should be zoned to prevent any development. Such environmentally sensitive areas could be zoned as "green space" to maintain them in their natural condition. It would be absurd if development were to be allowed on such steep, erosive areas when there is a serious objective to correct past abuses on similar areas. Any such additional development could be deemed as "spinning ones wheels" or "taking one step forward and two backwards". For the WMP to be successful, all concerned must recognize that intensive residential and industrial development would be entirely reckless on some locations.

Rainfall in the area averages about 67 inches per year. The resulting storm water flows through developed areas collecting a large variety and amount of polluted materials including oil, gas, pesticides, animal feces, etc. As the polluted waters mix with eroded soils the result is even more serious pollution. Concerns over water quality impacts and aquatic habitat degradation resulting from the land use changes in the watershed and their effects on Mobile Bay led to the decision to prepare the WMP.

In addition to surface water impacts, there is concern that the shallow unconfined Miocene-Pliocene aquifer beneath the watershed is considered to be highly vulnerable to contamination. There are six public drinking water wells within the watershed and seven additional public wells within 2,000 feet of the watershed boundary. All of the public's drinking is pumped from wells and careful monitoring of these sources should be a major part of the WMP. Contaminated aquifers are very difficult and expensive to decontaminate.

The combination of environmental problems in the Watershed has already had an adverse effect on fish and wildlife resources and could result in human health problems if left unchecked. Yet, weakly regulated and insufficiently planned development has, and continues to take place, in the watershed. All the factors causing the headcutting of stream beds and massive stream bank failures continue virtually unabated. On page 2-34 of the WMP it is acknowledge that despite some improvements, "*...ongoing urbanization has accelerated post construction surface runoff (i.e., volumes, velocities, and timing). The added runoff is contributing to channel instability and erosion problems.*"

Section 2.12 describes historic and potential human population increases in the watershed. A “conservative estimate” was made that the population within the watershed would increase by 8,432 people and that there would be a need for 3,543 additional housing units to accommodate this population growth through 2025. According to the WMP, the actual acreage needed to satisfy the demands for new homes could range from a low of 590 acres if a lot size was one-quarter acre; and as much as 2,360 acres would be required during the next 10 years if lot sizes were one acre in size. Section 2.13.4 explains that: *“By the end of the 10-year period (i.e., 2020) addressed in the WMP, all suitable Watershed areas that are not now developed are expected to be converted to urban uses. This will produce a condition that will closely approximate 100% ‘build-out’ of available land.”*

Assuming that the one acre lot size is used for future homes and subtracting the 71 acres of water areas and the 478 acres of wetlands from the watershed land base, approximately 700 acres will remain undeveloped. Further, if the 3,543 additional homes needed by 2025 are considered, there would be virtually 100% development of all remaining land in the watershed. Mobile Bay Audubon Society recommends development of strong, effective regulations and strict enforcement to assure that Watershed conditions do not deteriorate further.

The information describing population increases and intensive development of all available land in the watershed is alarming. Figures 2-27 and 2-28 show zoned land uses for the watershed and virtually all acreage is zoned for intensive development. The WMP describes in great detail the existing fragile nature of the watershed. Then when one considers that most of the more geologically stable locations have already been developed, any additional development will be on the most unstable locations. We are very apprehensive that appropriate safeguards will not be implemented to compensate for the complex problems that are certain to occur under the projections for growth.

Mobile Bay Audubon Society urges planners to revisit the zoning plan. We recommend that much of the land on steep grades should be established as “green spaces”. First, such “green spaces” could prevent the serious erosion and excessive storm water runoff that is certain to occur if these lands are developed. Secondly, the quality of life for humans would be improved by “green spaces” which could be converted into low impact natural parks. And, thirdly, we believe that natural habitats should be protected in urban settings to benefit wildlife and to enhance human experiences. The “green space” discussion on page 12-3 is excellent and we recommend using the 2,000 acres of upland forest land as a “green space” goal.

The discussion about roads in Section 2.13.1 almost evolves into a road promotion statement. Is that one purpose for the WMP? Of course well developed and properly maintained roads are a necessity but they are an expensive waste where they are not needed. A prime example is described on page 2-43. The last sentence on the page explains: *“Construction of a new service road paralleling the northern side of I-10 is proposed to connect the large commercial centers located on U.S. 98 and State Road 181. Construction of the road could serve as a catalyst to facilitate further economic development along that potential roadway.”* Several items come to mind. First, the “service road” has been

eliminated by the Baldwin County Commission and the Daphne Commission. Secondly, there are currently three parallel roads within a mile stretch that connect U.S. 98 and State Road 181. These are U.S. 90, I-10 and U.S. 31. A fourth road to connect the “commercial centers” is not needed and would be a waste of taxpayer dollars. And another road is certainly not needed in a severely burdened watershed.

On page 2-57, there is a discussion about areas zoned for business. Some of these locations are adjacent to residential subdivisions which were developed during the past 30 years. Citizens adjacent to the business zoned areas are highly concerned about their communities and are attempting to maintain their quality of life. One example is described on page 2-57. It is described that: *“A large area located immediately north of I-10 between U.S. 98 to the west and State Highway 181 to the east is also targeted for business development. However, the development of this last area will depend on the construction of a proposed service road connecting the two highway corridors. A recent decision to postpone construction of the service road raises questions as to when development of the lands in this area will occur. All zoned new business growth is expected to occur through the conversion of forest land.”*

We view the description of the “service road” on page 2-57 to be in serious error. The road was not postponed, it was eliminated as a road project by the Baldwin County Commission and the Daphne City Commission. Residents in the adjacent Timber Creek subdivision are vehemently opposed to the road. Their strong concerns should ring a bell with elected and appointed officials that quality of life is of utmost importance.

Additional road construction in the watershed is likely the worst development that could take place when considering stormwater runoff, stream restoration and soil erosion. The numerous adverse consequences associated with roads in general have been well documented. If you need more information on this subject, we will supply it. The formerly proposed “service road” would have had serious effects on the watershed. The excessive amounts of erosion and additional storm water runoff into D’Olive Creek would have occurred at the most severe stream headcut in the watershed. If there were a way to measure, the cumulative adverse impacts from the formerly proposed “service road” may have cancelled out most of the beneficial effects from the positive proposals for the watershed. In addition, we view it as foolish for citizen tax payers to pay to construct another road that would serve no purpose except for business development.

We noted (page 2-61) that, unfortunately, *“present zoning in the watershed does not include areas specifically designated for green space preservation or large stormwater detention/retention facilities.”* This is unfortunate indeed. The use of green spaces and stormwater detention/retention facilities are two major tools used in many watershed plans. We trust that the DWWG will work for needed changes for such land uses needed to improve the WMP.

The discussion about impervious cover (Section 2.13.5) is excellent. This section explains how additional development will increase impervious cover and the problems that will result.

Section 3.0, Watershed Conditions. This section contains an outstanding description of the current conditions in the watershed. The section is well written and contains sound data. Unfortunately the current conditions are a very sad story. We learned that major streams and several tributaries in the watershed are on the Alabama Section 303(d) list of impaired streams which indicates they are seriously polluted. Unfortunately the watershed is already approaching the 25% level of Impervious Cover (IC). According to the WMP, if the 25% level is reached the streams in the watershed would be designated as “non-supporting” as defined by hydrology, channel stability, habitat, water quality, and biological indicators. The writer clearly points out that, *“If land use controls, development criteria and design standards are not modified and strengthened, the percent IC in the D’Olive Watershed will increase”* (page 3-5). Mobile Bay Audubon Society believes strongly that if not done, the WMP will result in failure. There is a limit to how much development can take place in the watershed if we are to maintain a reasonable quality of life.

According to the WMP, stream channel instability is so great in some streams with steep slopes that homes and infrastructure are seriously threatened (page 3-14). Further, *“The cause of the gulling and rapid head-cut advancement is attributed to increases in stormwater runoff (i.e., both discharge velocities and volume) due to past and recent land use changes.”* (page 3-15). Hopefully the DWWG, elected and appointed officials and watershed citizens will understand this clear message. **After designing strong regulations and enforcement measures, the next most important effort in the WMP should be to reduce stormwater runoff.** Courageous leadership will be needed at every level to improve our laws and regulations and to demand strong, effective enforcement. Elected and appointed officials and citizen’s support will be needed to accomplish this.

Wetlands are among our most valuable natural resources and provide numerous free services and benefit for humans and other life forms. The draft WMP plainly describes the degraded condition of the vast majority of wetlands in the watershed. We urge the DWWG planners to take strong measures to protect and improve all existing wetlands. Here again, it is pointed out that stormwater runoff in the intensively developed watershed caused erosion and pollution to degrade and destroy wetlands. The draft WMP clearly spells out the causes on page 3-16: *“Primary adverse impacts to all wetlands within the D’Olive Watershed are related to sedimentation and/or hydrologic modifications that have altered stream channel characteristics. The individual subwatersheds have been heavily developed, with much of the development having taken place on steep slopes that serve as the upland buffers surrounding wetlands occurring in the watershed.”* Unfortunately, development on steep slopes continues unabated today. The “required” BMP’s to help control the erosion are either not adequate or are not being enforced.

Section 4.0, Identification of Critical Areas and Issues does an outstanding job of describing the “critical areas” within the watershed that have already been impacted by stream channel degradation and excessive sedimentation and those areas that are anticipated to be impacted in the next 10 years. The WMP also discusses critical resource needs influencing surface runoff. The photos clearly depict the problems. The WMP (page 4-1) explains that since the 1990s regulatory controls and improved construction practices have

combined to significantly reduce sediment loads from overland sources. However, it is admitted that stream channel instabilities and instream erosion have intensified primarily due to increased stormwater runoff. We believe that the real reason that sediment loads have been reduced is that the construction in Lake Forest and Timber Creek residential areas have been completed. Based on what we have observed in the watershed, we are not convinced that improved regulatory controls and construction practices have had much effect. According to the WMP (page 4-1), “...*current sediment loads still significantly exceed natural loading rates.*”

The discussion concerning head-cutting and channel erosion in WMP streams describes very serious problems. Without **proper** corrective action, homes and infrastructure could be seriously damaged or destroyed. The proper corrective action we recommend is a well planned, comprehensive approach. No single approach, such as installation of grade control structures, will solve the serious problems in the watershed. Our experience is that many grade control structures fail over time. Failures are especially prevalent in steep gradient streams located in highly erosive soils such as D’Olive Creek Watershed. Stormwater flows provide the power to feed headcuts and controlling these flows provides the solution.

Mobile Bay Audubon Society concurs with the following statements found in the WMP:

- *“The power to feed a head-cut is derived from the volume of stream flow while the energy is provided by the drop from the higher elevation upstream reach to the lower elevation downstream reach.”* (page 4-11)
- *“Increased stormwater runoff is the major factor contributing to stream channel degradation in D’Olive Watershed.”* (page 4-19)
- *“The rate of head-cutting described above is a direct result of excessive volumes of high velocity stormwater runoff being received by the streams throughout the Watershed.”* ((page 4-19)
- *“Stormwater issues are pervasive throughout the entire D’Olive Watershed. Given the historic development patterns that have occurred to date and the projected land uses for the Watershed, stormwater runoff reduction measures must be considered for the entire watershed.”* (page 4-19)
- *“Control of stormwater runoff is a Watershed-wide issue of critical importance that must be addressed in a holistic fashion if the stream degradation and sediment transport problems are to be resolved.”* (page 4-19)
- *“Stormwater runoff problems can be solved by: (1) reducing the overall amount of Impervious Cover within the Watershed; and (2) implementing retrofits that promote retention/infiltration of rainfall where it falls in lieu of the current practice of short term detention. Impervious Cover is the single most critical parameter that must be controlled*

*within the Watershed to have a measurable impact in reducing stormwater runoff.” (page 4-19)*

- Storm runoff management options: *“The measures in this group target the root cause of the increased stormwater runoff problem which will contribute to the long term success of the restoration efforts outlined in the WMP.” (page 6-1)*

*“The runoff volumes and velocities that exceed natural levels by a considerable margin are at the root cause of the on-going head-cutting and channel erosion problems affecting the Watershed.” (page 6-23)*

Based on the several direct quotes listed above, it seems crystal clear that stormwater runoff is the major problem in the watershed. This runoff causes the erosion of upland soils and the headcutting and bank failures in streams. And it transports polluted materials from uplands into wetlands, streams and eventually into Mobile Bay. The erosion, headcutting and bank failures are all symptoms of storm water runoff. Because all of this is factual, it appears logical to us that the initial efforts should be to develop and implement a plan to reduce and manage stormwater runoff. If various stream restoration (head cut projects) and Lake Forest Lake projects are done first, there is risk that these projects may be overwhelmed and destroyed by unchecked stormwater runoff. The following statement on page 6-101 of the WMP registers our sentiments: ***“It would not make sense to invest significant resources in an attempt to restore/stabilize the streams without also implementing measures that are aimed at restoring a hydrologic regime that allows stable stream conditions to be maintained in the future.”***

It appears that the DWWG fully understands the relationship of stormwater runoff and stream restoration. On page 6.2 it is explained that, *“Although opportunities still exist for stream restoration, if Watershed development is allowed to progress without pursuing more effective stormwater runoff management, the scope of the opportunities will diminish over time.”* While reading the WMP, we get the impression that some members of the DWWG have a desire to focus on stream restoration/headcuts as the first priority. We have some concerns about this approach and believe more careful analysis may be needed. Have some formerly heavily degraded channels become stabilized over time? Should stormwater runoff projects upstream of these areas be first priority? Should the DWWG focus first on protecting areas with no problems to prevent these from escalating into trouble areas (strong regulations/enforcement)?

Mobile Bay Audubon Society **supports** the WMP goals listed in Section 5.1. They are worthy goals and should be completely understood by those responsible for carrying out the WMP.

Mobile Bay Audubon Society **does not support** the decision in Section 5.6 that management measures will be developed to the “conceptual level only” (page 5-6). Section 6 Management Measures describes a number of management measures that may possibly be used to help solve the problems in the watershed. While we agree that these measures may help solve the problems, nothing in the WMP explains (1) specifically where these

management measures may be applied; (2) how many of each specific measure would be applied; (3) how the various measures will be coordinated; and (4) the degree of effectiveness of the measures. As we understand the conceptual approach, it is little more than “a wish list”. While we do have confidence that some worthwhile actions would be taken, there are no assurances contained in the WMP. A number of individual projects developed around the Watershed in an uncoordinated manner may result in only minimal usefulness.

We are in complete agreement with the following statements found on pages 6.2 and 6-23: *“A programmatic approach for prioritizing, funding, planning, design, construction, and maintenance of stream restoration/stabilization measures is needed. Such a program should be developed in concert with overall Watershed restoration planning, including riparian (stream corridor) management and Watershed runoff reduction (6-2)”*. Concerning the restoration of watershed hydrology the WMP explains that : *“In fact, it would be desirable and more effective to develop a holistic management approach for the entire Watershed that incorporates as many of these measures as possible”* (6-23). We agree.

The subject of “grade control structures” is discussed on pages 6-3 through 6-10. Those who wrote about this subject appear to be very knowledgeable. Grade control structures will be a necessary component of the overall Watershed project but, importantly, the sighting, design, determining the anticipated drop at the structures, spacing and other factors must all be determined by competent, trained professionals. Grade control structures can be very expensive and they can easily be destroyed if not designed, sited and installed properly. The WMP estimated costs for the stream restoration/stabilization, including grade control structures, on 20,000 linear feet of stream reaches ranged from \$8 million to \$14 million. Mobile Bay Audubon strongly agrees with the statement on page 6-7 as follows: *“To meet the stream restoration goals of the community, stream restoration/stabilization should be performed as part of broader, comprehensive planning that includes other stream corridors and upland watershed management practices. A systematic approach to stream restoration is preferable to selecting projects based on targets of opportunity or in response to ‘emergency’ situations.”*

Mobile Bay Audubon Society agrees that the restoration of Lake Forest Lake (Section 6.2.2) is an essential component of the overall WMP. It is the key to trapping heavy sediment and stopping much of it from flowing into Mobile Bay. This section is well written and describes essential needs for additional data and investigations of lake conditions prior to making a conceptual project design to restore the lake (pages 6-12 and 6-15). The total preliminary cost range for lake restoration is \$3.85 million to \$7.4 million (excluding maintenance) (pages 6-18). We believe that it is crucial to first solve the stormwater runoff, erosion and stream restoration elements of the WMP prior to lake restoration. Upstream construction efforts will, for a time, increase migration of eroded soils to downstream areas. No one should want a restored lake to have to capture heavy loads of sediments soon after restoration.

We wholeheartedly support efforts to restore the four wetland areas in the Watershed (Section 6.2.3). Even though the restoration efforts will be difficult and costly, the

benefits of healthy wetlands will pay high dividends over time. So much of the fish and wildlife wetland habitat in the area has been destroyed that special efforts are needed. Likewise the water quality restoration and water storage capacities of wetlands will be partially restored. We noted that the cost estimates for total restoration of the four wetland areas ranged from \$715,000 to \$1,312,400. Yet, we agree with the statement on page 6-19 as follows: *“However if upstream sources of sediment are not controlled, the actions detailed below will have little longterm benefit to the overall health and stability of wetlands within the Watershed.”* Here again, we believe it is essential to control the runoff, erosion and sediment before attempting restoration of wetlands located in downstream areas.

Section 6.3, Restore Watershed Hydrology, causes us a great deal of concern. The section contains many interesting ideas and methods described under “Stormwater Retrofits” and “Smart Growth Concepts...”. Without question all the concepts discussed could aid in restoring the watershed hydrology if implemented on a large scale throughout the watershed. The general rule of “capturing rainfall close to where it falls to earth” is certainly the ideal approach. Regrettably, we reiterate, there is not a single specific project or project design in this section of the WMP. Nothing explains specifically where, or if, any individual project or projects may be installed. The good concepts described are little more than a wish list. We urge the DWWG to go back to the drawing board and develop specific plans that describe what will be done and where it will be done and what effect it will have.

Section 6.5, Strengthen Regulatory Controls is a **most important** part of the WMP. The absence of adequate, strong laws and regulations and the lack of tough enforcement is what has allowed the mess we are in today. Developers and planners have known for many years about the problems with stormwater runoff on steep terrain with erosive soils. They did nothing about it because they were not forced to. Now it is up to citizen taxpayers to correct the irresponsibility and negligence of past developments.

The WMP explains that (page 6-93): *“Effective pursuit of ‘smart growth’ development utilizing GI/LID to reduce stormwater runoff begins out of necessity with a strong regulatory foundation to guide land use planning, design, construction, and post-construction management of stormwater runoff”*. **And we add emphatically that strong, effective enforcement of regulations is essential.** If elected and appointed officials are not willing to adopt strong regulations and mandate tough enforcement, then the WMP will be a waste of time. It appears that Watershed planners have made an excellent start in improving draft regulations as described in this section.

Section 6.6, Estimate of Sediment Load Reductions is difficult to comprehend. The last sentence on page 6-101 explains: *“Overall, the implementation of the D’Olive WMP in a comprehensive, integrated manner can be expected to achieve sediment load reductions in the range of 40 to 60% compared to those reported by the GSA studies.”* We would like to know how these percentages were determined because there are no specific plan details in the WMP? Again, nothing in the WMP explains specifically where, or if, any individual project or projects may be installed.

Section 7.0, Cost Estimates once again describes the speculative nature of the WMP. The various management measures are again summarized and it is explained that: *“Some of the measures discussed can be implemented by individual property owners; neighborhoods and property owner associations; future developers; or governmental institutions having jurisdictional responsibility within the watershed.”* (page 7-1). Regrettably, we do not have confidence that many of the watershed needs will be accomplished by simply hoping that some individual property owners or neighborhood groups will implement the management measures. Our experience with watershed projects is that some government entity must be responsible for carrying out a well designed plan. The government controlled entity may perform some of the projects and may contract with individual landowners or communities to do other projects. But there needs to be a detailed plan and funds to pay for all the work.

The WMP (page 7-1) explains that: *“Preparation of detailed cost estimates were not possible due to the conceptual level of planning that guided development of this WMP.”* However, the cost *“...will be substantial and are anticipated to range between \$22 and \$44 million.”* Due to the conceptual nature of the WMP, we have no way to visualize the cost involved.

Mobile Bay Audubon agrees with several of the items in Section 8, Implementation Strategies, and has problems with some. We strongly agree that a Watershed Restoration Task Force should be established. The Task Force leader should be a salaried employee. To be effective this Task Force should have broad, effective powers to set priorities without regard to city or county boundaries. They must have the firm support of elected and appointed officials. The Task Force should then be responsible for establishing priorities, final designs of projects and contracting to accomplish the task. Their priorities may differ from those listed in Section 8.2.1. Their first priority should be to develop strong regulations and enforcement mechanisms concerning issues currently adversely affecting the watershed and for all future development. Next the Task Force should determine funding to carry out all functions of the WMP. And, importantly, we believe that the Task Force should establish the priorities without political interference.

Mobile Bay Audubon Society explained on the first page of this letter that we will strongly support a forthright, effective WMP that will not only describe the watershed setting and problems, but include much improved specific guidance and detailed plans to solve the serious problems in the watershed. The current draft of the WMP is deficient in our view because it is simply a conceptual plan with no specific. We urge that a revised draft be prepared that describes specifically what will be done and where specific projects will be constructed.

Section 9.0 Financing Alternatives, describes a number of WMP funding options. At this stage, we have no preference for funding options. We are apprehensive that the public may not support funding until they know for certain what they are supporting.

Community Outreach and Public Education, Section 10, is an essential part of the WMP effort. We believe a revised plan, as we have recommended, will greatly aid in public education and support.

Monitoring as discussed in Section 11 is a very important of the WMP. It is necessary to determine what elements are successful and which are not. It is also important to be able to keep the community informed.

The numerous recommendations in Section 12 are mostly a repeat of what has already been covered in the plan. However several items are especially important. It appears that some believe there may be full development in the Watershed – ... *“an approximate 100% ‘build-out’ condition by 2020”* (page 12-1). Hopefully this does not mean that every acre will be developed. If so, there will be much irresponsible development. Except for existing agricultural lands most of the suitable land has been developed for residential and business uses. There are many undeveloped acres that are too steep and erosive for intelligent development. Such areas should be established as “green space”. A good discussion of the “green space” concept is on page 12-3. If such fragile undeveloped areas are developed, they should be compelled by strict regulations to retain stormwater runoff that occurs in the maximum 48 hour rainfall event. While this may appear tough on developers, the WMP is dealing with some unusually tough stormwater runoff problems. In addition, taxpayers are being asked to pay for problems caused by developers in past years.

Appendices A, B, C and D were exceptionally well prepared and provide excellent information for all concerned.

We appreciate the opportunity to provide our views and recommendations.

Sincerely,

Chester A. McConnell

cc: Mobile Bay National Estuary Program  
U.S. Environmental Protection Agency  
Alabama Department of Environmental Management  
Baldwin County Commission  
Mayor, City of Daphne  
Mayor, City of Spanish Fort

