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EXECUTIVE SUMMARY

Apalachicola Bay is responsible for approximately 90% of Florida's oyster harvest and a significant portion of the blue crab and shrimp harvests. It also provides nursery areas for finfish, crabs, and shrimp. The bay has been designated an Outstanding Florida Water, a State Aquatic Preserve, and an International Biosphere Reserve. Nonpoint source pollution from urban areas and increasing development represents one of the water quality concerns in Apalachicola Bay, and potentially may be more devastating than more distant or regional sources of pollution originating upstream in the riverine watershed. An unprecedented, local-state-interstate-federal effort is now underway to protect and restore the resources of the Apalachicola Bay. Missing in this effort, however, is a detailed nonpoint source control strategy for the urbanized communities, including the cities of Apalachicola and Carabelle and the unincorporated communities of Eastpoint, St. George Island, and Lanark Village.

As part of an overall management strategy for Apalachicola Bay, the Northwest Florida Water Management District has examined the impacts of urban stormwater runoff on the bay by monitoring and characterizing the quality and quantity of runoff from the communities, and has applied a computer simulation model to evaluate the stormwater status of the City of Apalachicola. Central to this project was the incorporation of improved stormwater management practices as an integral component of the ongoing comprehensive effort to protect and restore the environmental and economic resources associated with Apalachicola Bay. The study provides guidance and information necessary to develop and implement an integrated nonpoint source management plan for the City of Apalachicola, as well as other municipal areas along the bay.

This study has identified several stormwater-related problem areas. Coliform contamination throughout the bay, originating from the Apalachicola River and from the communities located on the bay appears to be a real and dangerous threat to the seafood industry and local economy of the area. Sources appear to be both human and nonhuman in origin. The bay is closed to oyster harvesting during periods of high coliform counts, resulting in loss of income to the local seafood industry. This concern deserves immediate attention. With the exceptions of coliforms and of discharges from economically depressed urban areas, most of the municipal areas sampled indicated that pollutant levels were generally low. However, increased levels of typical stormwater contaminants such as turbidity, total suspended solids, coliforms, nutrients, and some metals including copper, zinc and lead, are indicated with increased levels of development. The cumulative impacts of these increases are a primary concern. Serious flooding problems within the City of Apalachicola are due to clogged, undersized, and deteriorating conveyance systems and a lack of rate controls. While cleaning and repair of existing pipes could offer some level of immediate relief, even under ideal conditions the system remains undersized to carry anticipated flows. The study also suggests a number of solutions, which, if properly focused, could have an immediate improvement in water quality. Both structural and nonstructural solutions should be considered to address these problems, including urban renewal programs, comprehensive stormwater management plans, drainage basin investigations and retrofits, and stringent use of best management practices, including those used during construction activities.