

Appendix 1: Description of Subject Area

The Pensacola Bay System

The Pensacola Bay estuarine system is 144 square miles, and it is the fourth largest estuarine system in Florida. It comprises five interconnected sub-systems, including Escambia Bay, Pensacola Bay, Blackwater Bay, East Bay, and Santa Rosa Sound, and four rivers -- the Escambia,¹ **Blackwater**,² **Yellow**³ and East rivers. The system is subdivided into six hydrologic (drainage) basins, designated by hydrologic unit code ("HUC") -- the Pensacola HUC Basin, Escambia River HUC Basin, Escambia Bay HUC Basin, Blackwater River HUC Basin, and the Yellow River HUC Basin.

The Pensacola Bay estuarine system covers the majority of Escambia, Santa Rosa and Okaloosa Counties, the northwest quadrant of Walton County and a substantial portion of southern Alabama, as shown in Figure 4. The system drains almost 7,000 square miles -- one third of which is in Florida, and two thirds of which is in Alabama. It has seven major river flood plains, those of the Blackwater, Yellow, East and Escambia Rivers, and those of Coldwater, Juniper and Pond Creeks, which are sources of groundwater and provide diverse plant and animal life. The system discharges into the Gulf of Mexico through a narrow pass at the mouth of Pensacola Bay.

The Perdido Bay Estuarine System

The Perdido Bay estuarine system covers approximately 1250 square miles, located in Escambia County in Florida and two counties in Alabama. The **Alabama-Florida** state line is coincident with the Perdido which divides the system

¹The Escambia River is the **fifth** longest river in Florida and reaches 240 miles **from** the north end of Escambia Bay through Alabama to Bullock County, where it is **known** as the Conecuh River. Its drainage basin covers over 4,200 square miles, 90% of which is in Alabama.

²**The Blackwater** River reaches 60 miles from north of Bradley, Alabama to the northern end of **Blackwater** Bay. Its drainage basin covers approximately 860 square miles, 81% of which is in Santa Rosa and **Okaloosa** Counties. Its major tributaries are Juniper Creek, Big Coldwater Creek, and Pond Creek.

³**The Yellow** River reaches 110 miles from east side of **Blackwater** Bay to a point northeast of Andalusia, Alabama. Its drainage basin covers over 1,365 square miles, 64% of which is located in northwest Florida. The Shoal River is its major tributary. Because its basin is the highest in Florida, it flows faster than other rivers. Its extensive wetlands provide a habitat for several endangered plant and fish species, and it is designated a State Aquatic Preserve.

approximately in half. The system includes Perdido Bay (upper and lower), the Perdido River⁴ and several smaller tributary streams, as shown in Figure 4. The system is subdivided into two HUC basins -- the Perdido Bay HUC Basin and the Perdido River HUC Basin. The Perdido Bay system discharges into the Gulf of Mexico through a narrow pass at Alabama Point.

The estuarine systems are bounded by two barrier islands, Perdido Key and Santa Rosa Island, which have been designated for protection as COBRA Islands.⁵ Santa Rosa Island is about 50 miles long, containing the longest unbroken stretch of beach in the eastern Gulf. The islands protect the mainland from storms and provide habitat for wildlife. Behind the islands lie saltwater sounds and associated marshes -- Santa Rosa Sound and Big Lagoon:

The area's land and waters set aside for conservation include forests, seashores, wildlife sanctuaries, aquatic preserves, and marshes, which are managed by the Northwest Florida Water Management District,⁶ the Department of Agriculture (Division of Forestry), the Department of Environmental Protection (Division of Recreation and Parks),⁷ the U. S. Department of Interior (Gulf Islands National Seashore), and the U.S. Department of Defense.*

The state designates some waters (and wetlands) as "Outstanding Florida Waters," ("OFW"), entitled to special protection, based on their uniqueness, importance, or location. The waters designated "Outstanding Florida Waters"

⁴The Perdido River forms the western boundary of the state. It reaches 220 miles from the **confluence** of Fletcher and Perdido Creeks near Bay Minette, Alabama to the mouth of Perdido Bay, about **fifteen** miles west of Pensacola, Florida. Only 25% of river miles are in Florida. Its upper portion runs through forest with hardwoods, several rare fish species and endangered botanical species and birds, together with threatened animals.

⁵The Coastal Barrier Resource Act of 1982, designates 186 barrier islands along 670 miles of Atlantic and Gulf coastlines for protection as COBRA Islands.

⁶The Northwest Florida Water Management District manages more than 44,000 acres in two Water Management Areas ("WMAs")-- the Escambia River WMA and the Yellow River WMA. It also manages the Garcon Point Ecosystem

⁷The Department of Environmental Protection ("**DEP**") manages state aquatic preserves -- Yellow River March and Fort **Pickens** State Park Aquatic Preserves, which are submerged lands set aside as preserves under Chapter 258, Florida Statutes.

⁸The Department of Defense **manages** more than 500,000 acres on Eglin Reservation, some of which are in the Pensacola Bay system watershed.

(OFW), are those either within parks and recreation areas, aquatic **preserves**,⁹ national seashores, forests, endangered lands, or other similar areas designated “special waters” of the state.

The Perdido and Blackwater Rivers, and the waters within Big Lagoon State Recreation Area, Perdido Key State Recreation Area, Blackwater River State Park, Yellow River Marsh State Aquatic Preserve, Fort **Pickens** State Park Aquatic Preserve, and the Gulf Island National Seashore, are designated Outstanding Florida Waters. The Escambia River is not, however, designated as an Outstanding Florida Water.

⁹The Aquatic Preserve Act of 1975, section 258.35, Florida Statutes, establishes thirty-one preserves in coastal waters; four other preserves are established under separate acts. One of the most significant is the **preserve** off Fort **Pickens**. It consists of 34,000 submerged acres on both sides of the Perdido Pass and envelops **Perdido** Key and Santa Rosa Island. The Ft. **Pickens** preserve contains salt marshes and the area’s **last remaining seagrass beds**.