



Figure 2.3b: Surface Water Resources of the Pensacola Bay Basin

Highlands (Thorpe et al., 1997). The topography is well developed, with elevations over 300 feet in the northern reaches of the basin (Figure 2.4). Under the highlands are the Citronelle formations, ancient delta deposits of clays, clayey sands, and gravels. The area west of the Blackwater River is underlain largely by gravel and coarse sands, and from the Blackwater River east, by sandy clay and clay.

Basin soil can be characterized into three distinct groups (Collins, 1997). Soils in the northern half of the basin, as far south as 30 miles from Alabama, are largely ultisols, characterized as level to sloping, well-drained loamy soils and sandy soils that have a great potential to erode. Entisols, which are present in the middle of the basin south to the boundary of Pensacola Bay, are characterized as deep, excessively drained sands. Along the coast are poorly drained, sandy soils called spodosols.

Hydrology

Much of the stream flow in the basin is generated by rainfall. On average the Pensacola Bay Basin receives 65.8 inches of rain per year. A large part of the rainfall moves quickly from land and ends up as runoff to streams. Rumenik (1988) estimated that at a regional scale, surface