
CONCLUSIONS

1. Armand Bayou is influenced by activity and events anywhere within its 60 square mile watershed. In the future it may be affected by activity beyond its watershed, as sewage generated elsewhere is brought to the Metro Central regional wastewater treatment plant. This will introduce additional nutrient enriched wastewater effluent into the Armand Bayou ecosystem.
2. The coastal preserve watershed has experienced 5 to 9 feet of land surface subsidence since 1906; the rate of subsidence has declined substantially and future subsidence should be negligible.
3. Subsidence has extended the zone of tidal influence, changed the lower reach of the bayou from a freshwater to a brackish water environment, increased the size of Mud Lake from 100 acres to more than 325 acres, and decreased wetlands from 275 acres in 1956 to 24 acres in 1979, a 91 percent loss.
4. Flood control improvements continue to move water downstream faster, limiting infiltration time and pollutant removal.
5. The quality of bayou water is poor, and in clear contrast to its designated uses - high quality habitat and contact recreation. The current sampling station does not reflect the input of pollutants from Horsepen Bayou. Quarterly or semi-annual monitoring is inadequate to determine stream conditions. The bayou is eutrophic all year in regards to phosphorus, and seasonally, in winter, with nitrogen. High chlorophyll and dissolved oxygen levels are persistent indicators of enrichment. No information on toxicants exists.
6. The number of point source discharges has declined from 6 to 3, but the rate of treated wastewater discharge has increased 35 percent over the past decade, to 6.2 MGD in 1989. An additional 1.8 MGD of stormwater is released from point sources into the bayou. The rate of discharge from sewage treatment plants will continue to increase.