LAERF The Lewisville Aquatic Ecosystem Research Facility (LAERF, pronounced Lay’ erf) is an experimental aquatic plant facility located within the Lewisville Lake Environmental Learning Area (LLELA) on Jones Street in Lewisville, Texas. It was established in 1990 by the Corps of Engineers' Aquatic Plant Control Research Program.

LAERF supports studies on the management of aquatic plants, including:

• Control of aquatic plants by microbial pathogens and host-specific insects

• Efficacy of aquatic plant herbicides

• Effects of aquatic plants on fisheries, water quality, macroinvertebrates, and native vegetation

• Impacts of introduced aquatic weeds, such as water hyacinth, Eurasian water milfoil, hydrilla, and giant salvinia, on native aquatic environments

• Methods for establishing native aquatic plants to prevent further spread of introduced weeds

LAERF’s facilities, a former Texas fish hatchery, consist of:

• Fifty-three earthen and twenty-one lined ponds

• Eighteen flowing water raceways

• Three outdoor mesocosm tank facilities

• A research greenhouse

• An analytical laboratory

• A chemical laboratory

• Other laboratories supporting aquatic plant studies

These facilities are available to support research by other agencies, such as the Texas Parks and Wildlife Department Aquatic Habitat Establishment Initiative; state, city, and river authorities; and the South Florida Water Management District on the spread of torpedo grass in Lake Okeechobee; as well as the activities at LLELA for environmental preservation, education, and research.

In addition, LAERF hires high school and university undergraduate and graduate students as support staff for research projects, providing them with hands-on experience for their theses and dissertations, and post-graduate resumes.