

Egeria and Water hyacinth Control Program in the Sacramento-San Joaquin Delta

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Egeria densa (Brazilian *Egeria*) is a fast growing submerged aquatic plant that is having a significant impact on shallow-water habitat in the Sacramento/San Joaquin Delta ecosystem. In the 40 years since *E. densa* was introduced into the Delta, it has grown to infest approximately 6500 surface acres or 13% of the 50,000 surface acres of the Delta. *E. densa* influences the Delta's biological diversity, recreation, and agriculture. It crowds out native plants, slows water flows, entraps sediments, obstructs waterways, impedes anadromous fish migration patterns and clogs water intakes.

Water hyacinth (*Eichhornia crassipes*) is a non-native, invasive, free-floating aquatic plant belonging to the South American pickerelweed family (Pontederiaceae). It grows in wetlands, marshes, shallow water bodies, slow moving waterways, lakes, reservoirs, and rivers. Under warm weather conditions this plant is the second fastest growing plant on the planet. It is able to double in individual size and total number of plants within five to ten days during the peak growing season. The plant often forms large, thick mats that crowd out native plants, slow water flows, entrap sediments, concentrate heavy metals, encumber agricultural uses, obstruct waterways, and impede anadromous fish habitats.

As a result of these aquatic invasions into the Sacramento-San Joaquin Delta, the California Legislature amended the California Harbors and Navigation Code (1982 for Water Hyacinth and 1997 for *Egeria densa*) to designate the Department of Boating and Waterways as the lead agency responsible for controlling these aquatic weeds.

Due to the potential threat to water quality and endangered species from the use of aquatic pesticides both programs operate under National Pollutant Discharge Elimination System permits issued by the Central Valley Regional Water Quality Control Boards and biological opinions issued by the US Fish and Wildlife Service and the National Marine Fisheries Service.