

Aquatic Weed Town Hall

Hosted by:
Supervisor Mary Nejedly Piepho
Department of Boating and Waterways
Discovery Bay Community Services District
Reclamation District 800

Saturday, April 9, 2011



What are *Egeria densa* and Water Hyacinth?

◆ *Egeria densa*

- ◆ *Egeria densa* is a shallow-water, submerged aquatic plant, that is a popular aquarium accessory.
- ◆ It was introduced into the Delta roughly 40 years ago, possibly from use in home aquariums.



◆ Water Hyacinth

- ◆ Water Hyacinth is an attractive floating aquatic plant with shiny leaves and delicate lavender flowers.
- ◆ The plant grows faster than any other known plants, and can double in size every 10 days in hot weather.



Egeria densa in the Delta Waterways

- ◆ Only the male plants exist in the Delta, propagating not by seed, but by cuttings. Cutting the weeds back only exacerbates the problem, as fragments of the plant float away and re-propagate.

Local Impacts

- ◆ Most of its impact occurs in the shallow waterways. The plant forms thick mats that:
 - ◆ obstruct boat passage,
 - ◆ clog water intakes and aqueducts,
 - ◆ trap sediments,
 - ◆ crowd out native vegetation,
 - ◆ impede the migration of anadromous fish, and
 - ◆ foul propellers and make navigation difficult for watercraft.
- ◆ The waterways are choked by the weeds.
- ◆ Farmers, public safety and the Department of Water Resources that draw water from the Delta find that their diversion equipment is fouled by the weeds.

Treatment Method

◆ Fluridone

- ◆ Department of Boating and Waterways (DBW) treats *Egeria densa* and Water Hyacinth with a systemic herbicide called Fluridone.
- ◆ Because *Egeria densa* is rooted and grows underwater, the chemical must be placed in the water near the bottom where the plant can absorb it.

Treatment Method (cont.)

- ◆ Continuous contact with the herbicide for 8-12 weeks is necessary for treatment to be effective on *Egeria densa*.
- ◆ Water flow and tidal changes are accounted for during planning to help maintain proper chemical concentrations.
- ◆ DBW has assessed the effects of Delta tidal flows on herbicide movement by using dyes.
- ◆ Application timing and frequency will be adjusted accordingly for treatment.

Potential Side Effects of Treatment

💧 Humans

- 💧 There have been no reported side effects by the use of Fluridone.
- 💧 Recreational water sports and swimming can continue in water, even as it is being treated.

💧 Fish and Wildlife

- 💧 Results in extensive toxicity testing indicate Fluridone does not harm fish and wildlife.

💧 Crops and Nurseries

- 💧 Treatment will be closely monitored.

Treatment Plan

- ◆ Treatment Dates

- ◆ Begin April 12th, and may continue for up to 12 weeks in designated areas

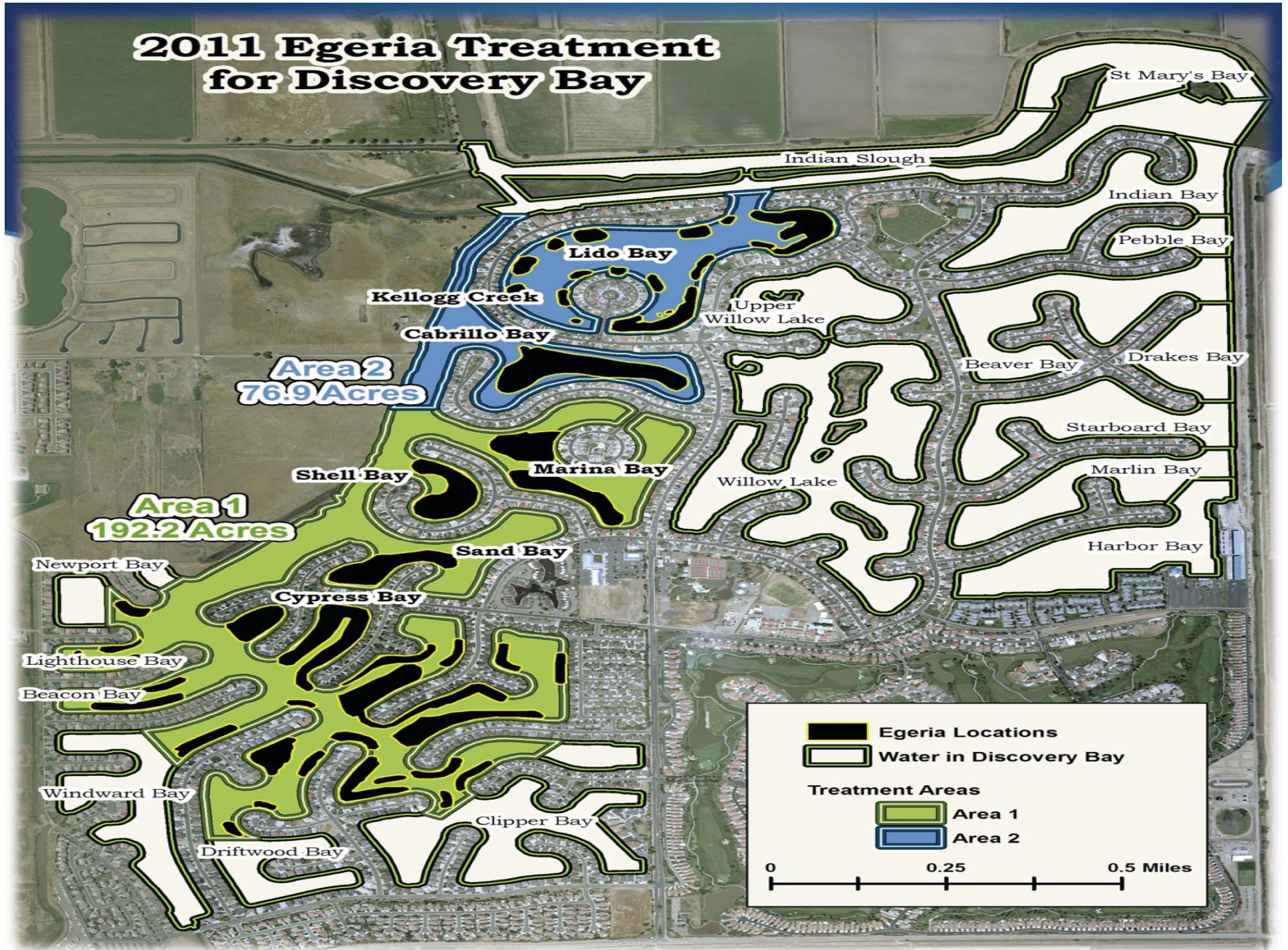
- ◆ Treatment Locations

- ◆ Sacramento-San Joaquin Delta: Discovery Bay, Bethel Island (Taylor and Piper Sloughs) and Franks Tract

Discovery Bay Treatment Sites



2011 Egeria Treatment for Discovery Bay

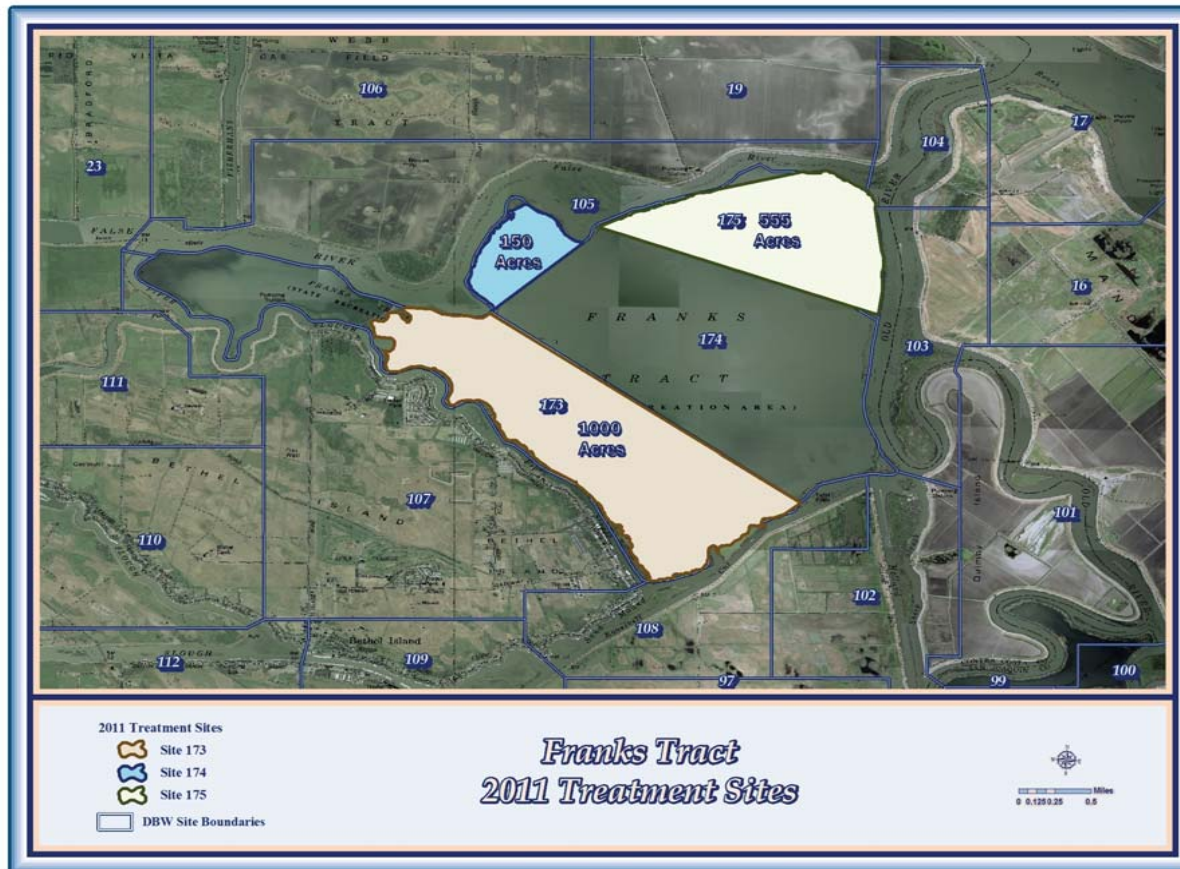


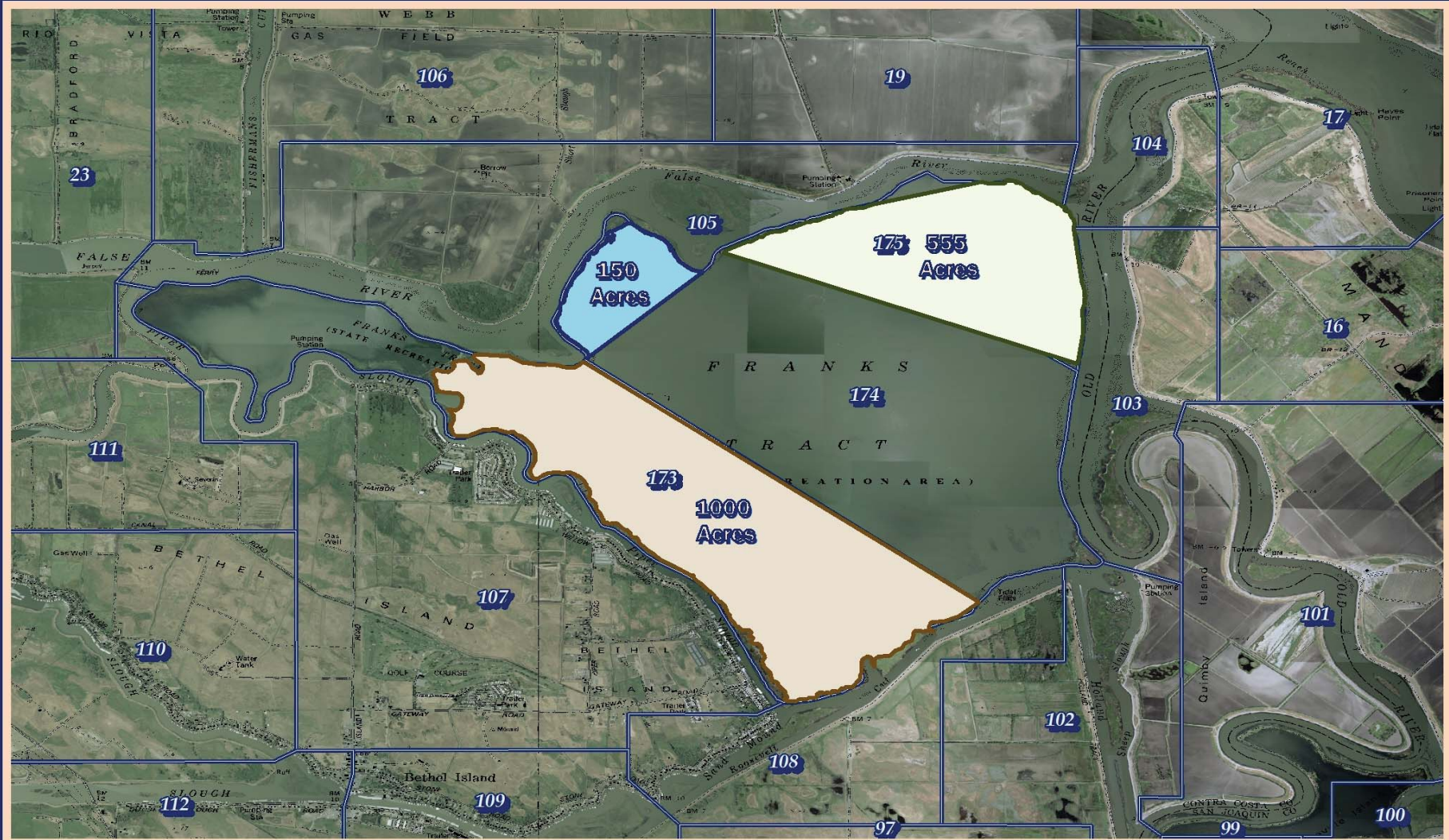
Bethel Island Treatment Sites








Franks Tract Treatment Sites






2011 Treatment Sites

-  Site 173
-  Site 174
-  Site 175

 DBW Site Boundaries

Franks Tract 2011 Treatment Sites



 Miles
 0 0.125 0.25 0.5

Where Do We Go From Here?

- ◆ Advocate for ongoing funding for treatment application
- ◆ Complete the Contra Costa County Invasive Aquatic Weed Management (IAWM) Plan
- ◆ Establish a IAWM Committee to provide oversight of the IAWM Program and Procedures and present feedback to local and state agencies
- ◆ Review the local and statewide sale of aquatic weeds
- ◆ Review local, state and federal regulations regarding invasive species and advocate for appropriate levels of funding