



CA STATE PARKS DIVISION OF BOATING & WATERWAYS



INVASIVE AQUATIC PLANT CONTROL
November 17, 2016



PARKS-DBWV ROLE

- ▶ Parks is lead agency to cooperate with federal, state and local agencies to control:



Water hyacinth



Egeria densa



Curlyleaf pondweed



Spongeplant



Coontail



Eurasian water milfoil



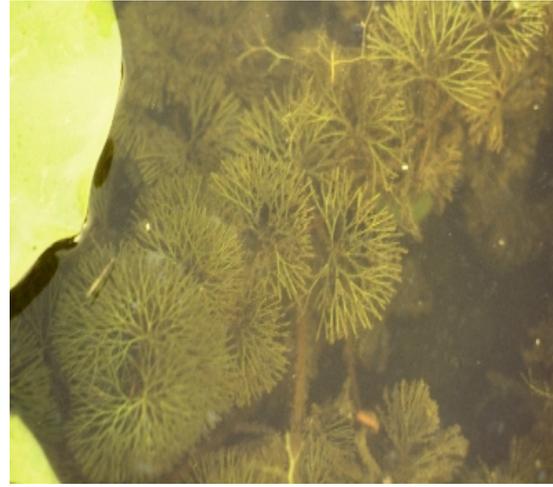
Waterprimrose



FUTURE CHALLENGES



Pennywort



Fanwort



ENVIRONMENTAL COMPLIANCE

- ▶ Clean Water Act
 - ▶ NPDES
- ▶ Endangered Species Act
 - ▶ Section 7 Consultation
 - ▶ USFWS Biological Opinion (Fish Passage Protocol)
 - ▶ NMFS Letter of Concurrence
- ▶ CEQA/NEPA
 - ▶ EIR/EIS
- ▶ Porter Cologne Act
 - ▶ Basin Plan Compliance
 - ▶ Water Quality Objectives
- ▶ Streambed Alteration Agreement (CDFW)
- ▶ Restricted Materials/Notification (CAC)



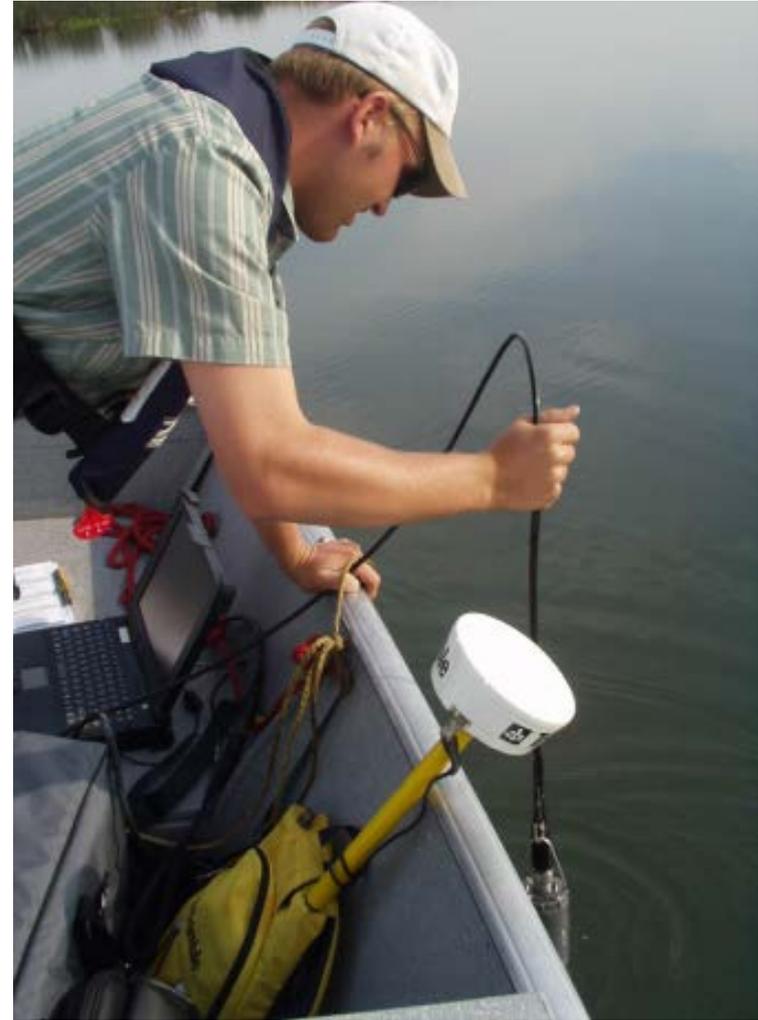
ENDANGERED/THREATENED SPECIES

- ▶ Giant Garter Snake
- ▶ Delta Smelt
- ▶ Central Valley Steelhead
- ▶ Green Sturgeon
- ▶ Chinook Salmon
- ▶ VELB



WATER QUALITY MONITORING

- ▶ Herbicide residues
- ▶ Temperature
- ▶ Conductivity
- ▶ Salinity
- ▶ pH
- ▶ Dissolved Oxygen
- ▶ Turbidity



CURRENT STATUS

Floating Aquatic Vegetation

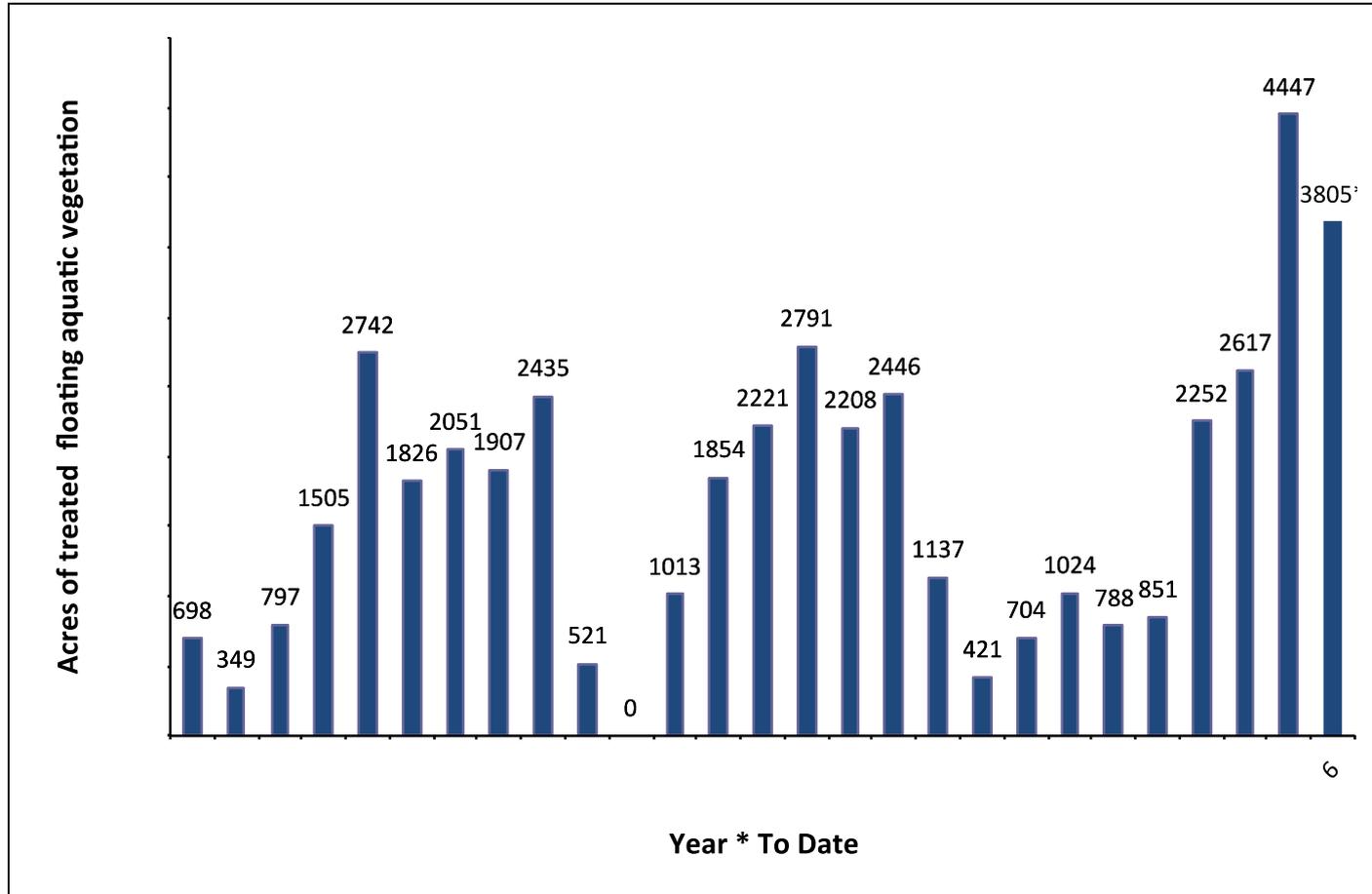
- ▶ Water Hyacinth, Spongeplant & Water Primrose
 - ▶ Began Treatments March 10 across Delta
 - ▶ 204 sites, 881 applications (~3,805 acres)
 - ▶ Efficacy - moderate to high

Submerged Aquatic Vegetation (12-17 weeks)

- ▶ Egeria Densa & Curly Leaf Pondweed
 - ▶ Began Treatments March 9 across Delta
 - ▶ 22 sites (2,494 acres)
 - ▶ Efficacy - moderate to high



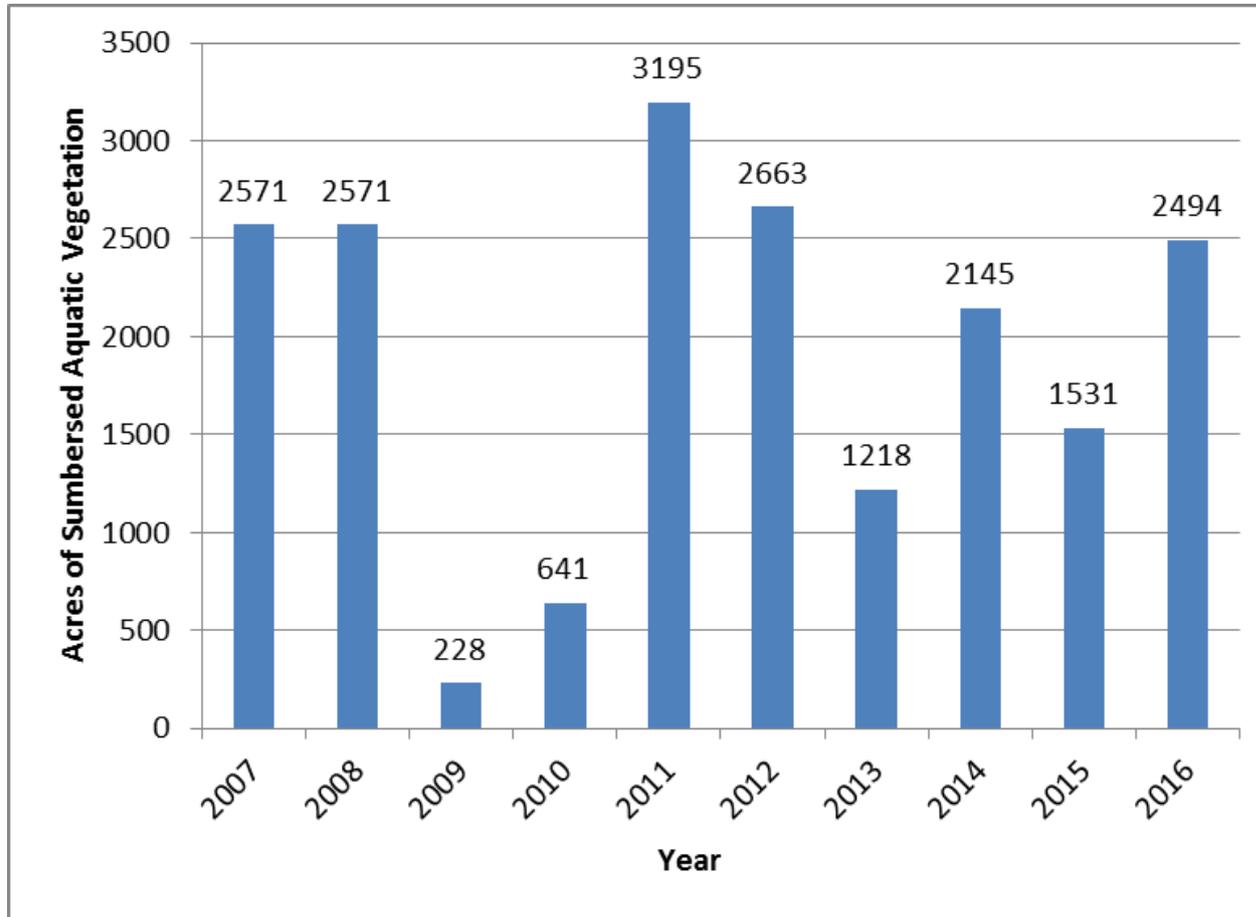
FAV PROGRAM ACREAGE THROUGH 2016



*preliminary data as of 11/14/16



SAV PROGRAM ACREAGE THROUGH 2016



TIMELINE FOR PROGRAMMATIC

- ▶ Fall 2016 – Outreach and Planning
- ▶ Jan to Sep 2017 – Document Preparation
 - ▶ Programmatic Biological Assessment (ESA)
 - ▶ CEQA/NEPA Documents (EIR/EIS) (CESA)
 - ▶ Delta AIS Management Plan
 - ▶ Section 10 Rivers and Harbors Act Permit
- ▶ July to Nov 2017 – Reviews and Approvals



FACTORS SHAPING THE PROGRAM

Regulatory Agencies	Key Drivers	Influence Treatment	Shape Program Implementation
USFWS	C/ESA Species	Methods	Compliance
NMFS	Habitats	Acres	Permits
CDFW	Water quality	Location	Resources
SWRCB	Irrigation/crops	Timing	Boats/crews
Army Corps	Levees	Buffer zones	Monitoring
Coast Guard	Navigation	- VELB	Plant species
DPR/CACs	Weather	- Fish Passage	
Reclamation Dist.	Herbicides	- GGS	
Irrigation Districts		- Water intakes	

* CACs = County Agricultural Commissioners



GUIDING PRINCIPLES – CONCEPTS TO GUIDE PROGRAM DESIGN

- ▶ Collaborative approach
- ▶ Science based control
- ▶ Adopt an adaptive management approach
- ▶ Strive for the widest range of tools & flexibility
- ▶ Include mapping, monitoring, and performance metrics



YOUR INPUT MATTERS

- ▶ Presentations and public meetings – Fall 2016
- ▶ CEQA process – scoping and comments on draft
- ▶ Delta Aquatic Invasive Species Management Plan – public participation
 - ▶ Complementary and in coordination with update of CA AIS Management Plan by CDFW



QUESTIONS AND COMMENTS

