

**Item 18**

**Status Report on Future Pesticide Basin Plan  
Amendment and Aquatic Invasive Species**

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May 13, 2009



**Previous Board Direction  
on Pesticide WQ Objective**

- **2003 Triennial Review**
  - “Update regionwide narrative objective for pesticides in surface waters”
    - » RESOLUTION R6T-2003-0052
- **2006 Status Review of Basin Planning Items**
  - Delayed due to resource limitations
- **2009 Revisit Board Direction**
  - Begin development of Basin Plan amendment



## Existing Water Quality Objective

“Pesticide concentrations, individually or collectively, **shall not exceed the lowest detectable levels**, using the most recent detection procedures available. There shall not be an increase in pesticide concentrations found in bottom sediments. There shall be no detectable increase in bioaccumulation of pesticides in aquatic life.” (Basin Plan, p. 3-5)



## Possible Approaches

1. Replace Pesticide Water Quality Objective w/ Discharge Prohibition that allows exemptions under certain circumstances.
2. Conditional Variance to water quality objectives under certain circumstances.
3. Re-write Water Quality Objective
  - Use existing numerical targets (DTSC MCLs) coupled with updated narrative language protective of beneficial uses (e.g., R5)
4. No change



## Shortest Timeline for BPA

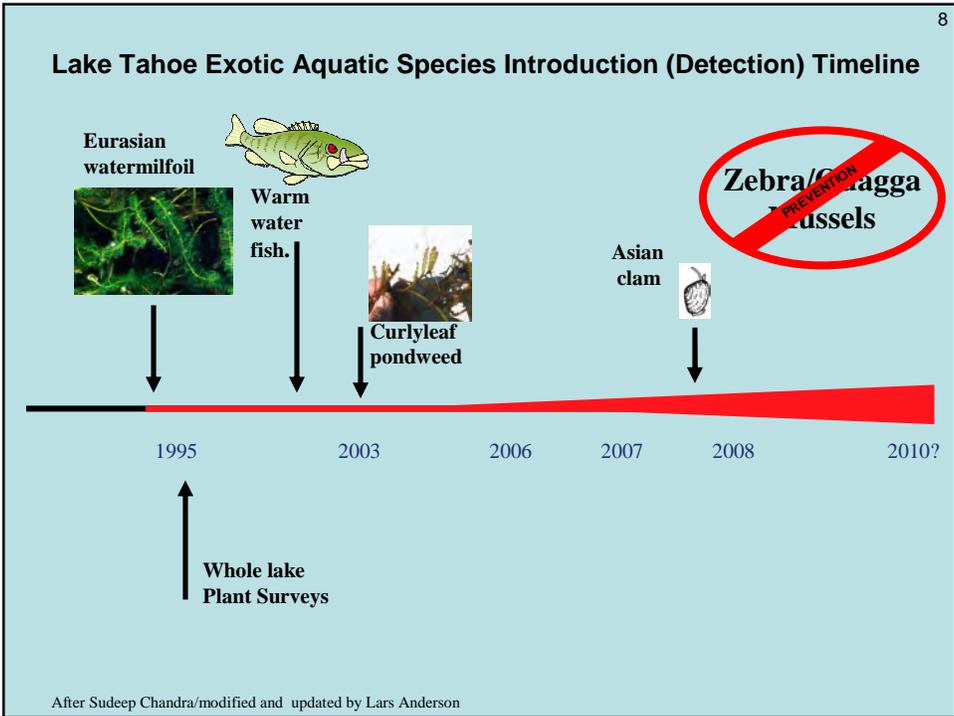
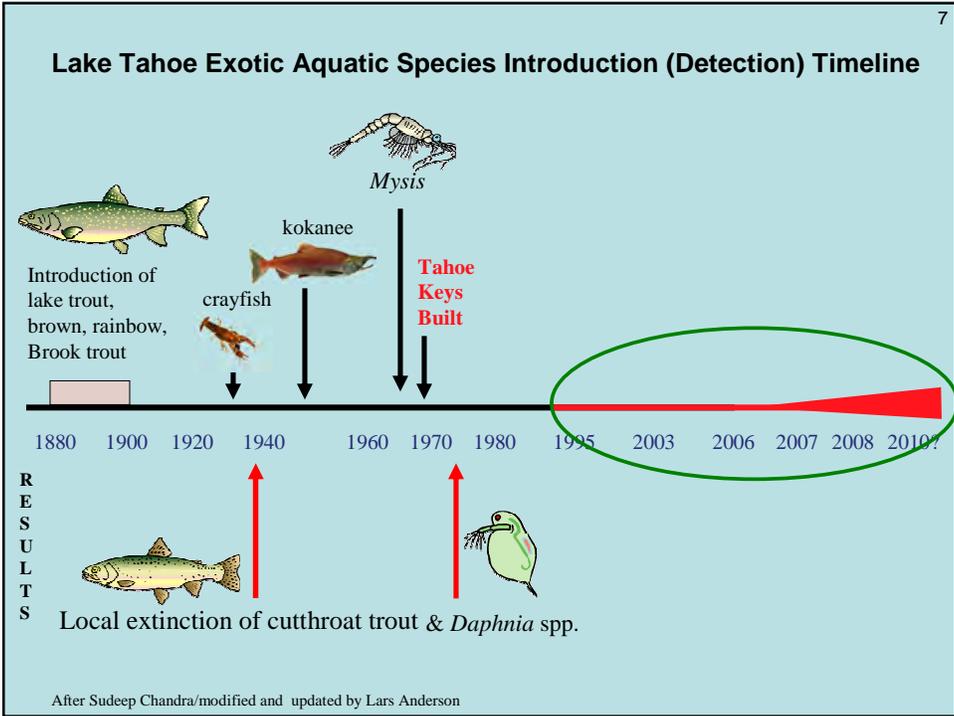
1. Draft proposal in-house (June 2009)
2. Scoping (July 2009)
3. Draft amendment (September 2009)
4. Peer Review (November 2009)
5. Public Review (December 2009 - January 2010)
6. BPA to Lahontan Board (March 2010)
7. State Board, OAL approval (September 2010)
8. USEPA approval (November 2010)



## Potential Circumstances

- **Public Health & Safety**
  - Vector Control (ex: West Nile Virus – Mosquito)
  - Municipal Supply (ex: nuisance – Algae)
- **Preservation of Ecological Integrity**
  - Aquatic Invasive Species control
  - Endangered species recovery



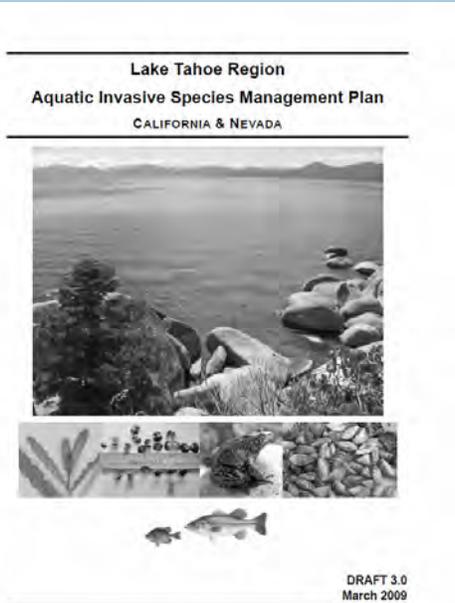


## AIS Management at Lake Tahoe

- Lake Tahoe AIS Coordinating Committee
  - Full time AIS Coordinator from US FWS
  - LT AIS Working Group
  - Asian clam working group



## Lake Tahoe AIS Management Plan



- Non-regulatory document
- Agreement by NV and CA governors and TRPA to sign Aug. 1
- Formal Aquatic Nuisance Species Task Force approval est. Sept.
- Funding eligibility



## Asian Clam (*Corbicula*) Potential Environmental Impacts

### Water Quality

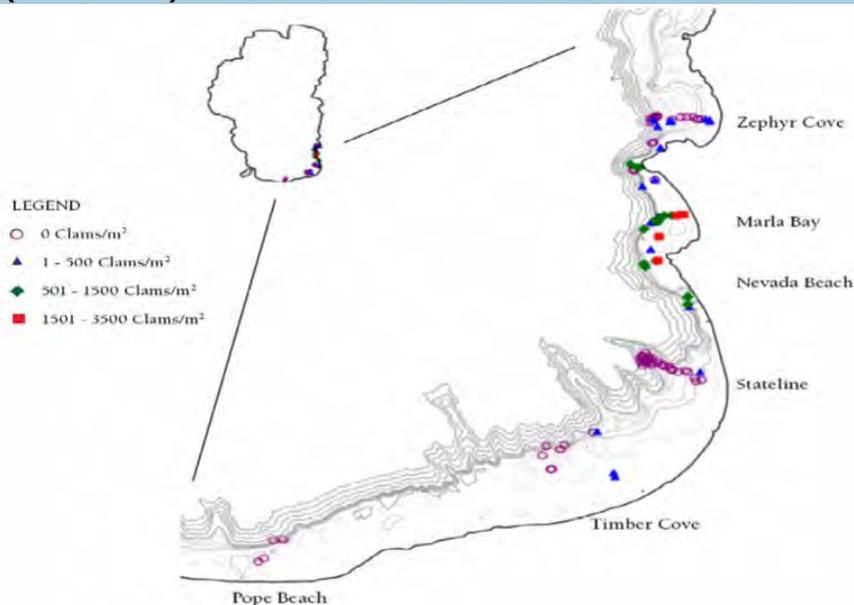
- Concentrates N and P in water column and sediment
- Correlation with summer blooms of algae in shorezone

### Ecosystem

- Increased consumption of phytoplankton and zooplankton
- Competition with native species
- Increased calcium levels may improve habitat for Quagga/  
Zebra mussels

Marla Bay, 2m depth

Locations and densities of Asian clam populations based on grab sample transects.  
(Wittman 2008)





# Quagga/ Zebra Mussels

## Impact

- Fishery
- Beaches and Boating
- Water intake lines

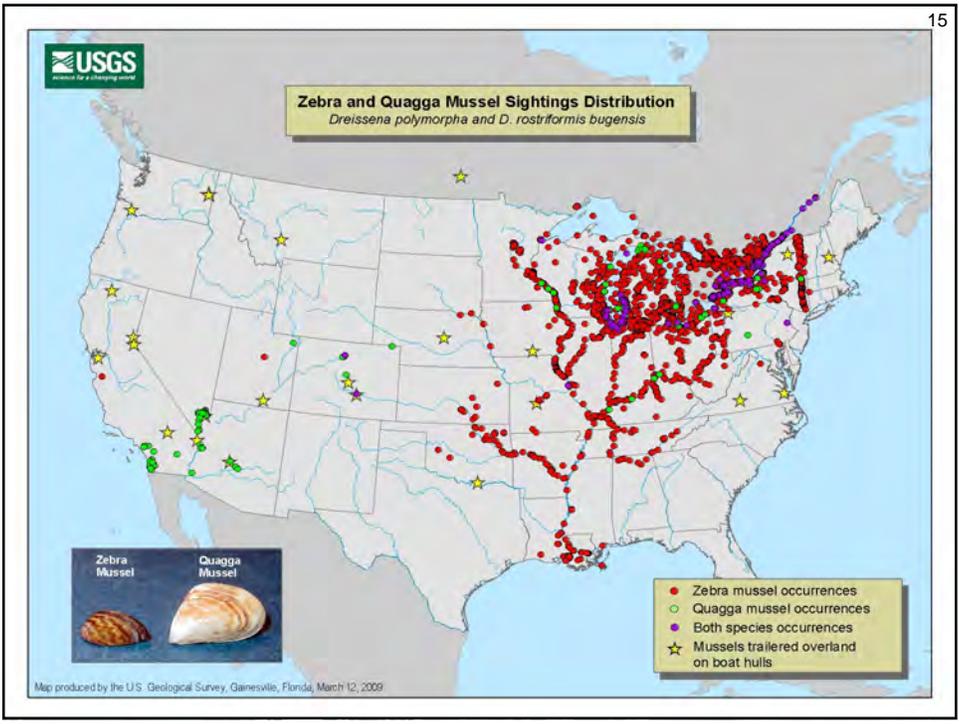


Photo: NOAA



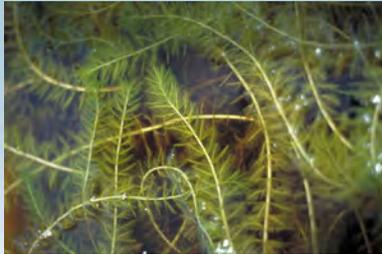
Photo: Utah DOW





## Aquatic Invasive Plants

Eurasian watermilfoil



Curlyleaf pondweed



## Aquatic Invasive Plants

### Impacts

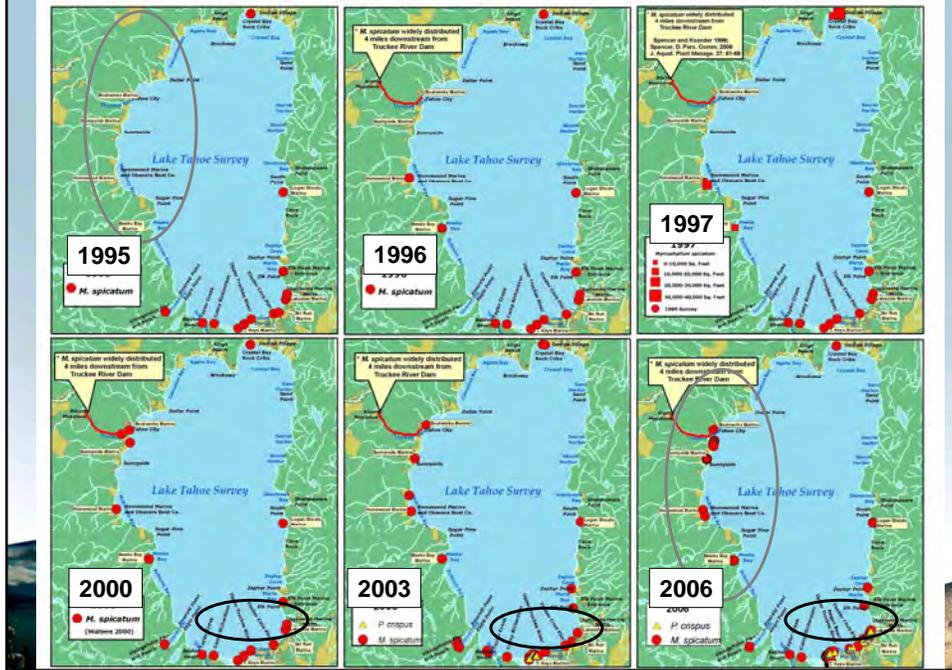
- Out-compete natives
- Creates own habitat
- Decreasing water quality
- Recreational impairment

### Control Efforts

- Inspections
- Suction removal
- Bottom barriers
- Mechanical removal



Expanding Distribution of Invasive Aquatic Plants in Lake Tahoe - 1995 to 2006 (Anderson 2007) 19



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## Region/ Statewide

- California State AIS Management Plan
- California Agencies AIS Team
- Crowley Lake, Boat inspections (BLM)
- Owens River, New Zealand mud snails



## Summary

- No Board action needed. Direction accepted.
- Basin Plan amendment to the Water Quality Objective for pesticides. (Prohibition with exemption criteria)
- Ongoing participation in AIS issues



Questions?

