

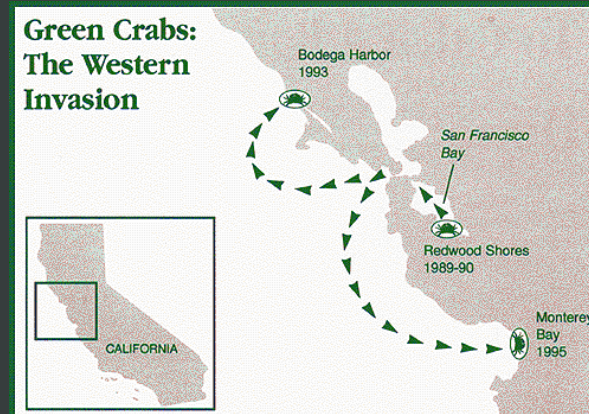


# The Need for a Multi-State Biofouling Management Plan

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# Many Invasive Species Management Plans





# Reality





# Research Needs

- Successful eradication methods
- Prioritization of vectors
- Monitoring procedure efficacy
- Basic biological and ecological information
- Ecological and economic impacts
- Natural barriers to spread

# Goals

- Overview of current knowledge and policies addressing biofouling
- Assessment of vector operations
- Identify research gaps
- Develop a management framework
- Identify outreach options





# Example of Regional AIS Management

- *Spartina* Eradication Action Coordination Team Work Plan
  - Developed communication lines, support network
  - Many localities have had success controlling *Spartina*
  - Reduced propagule pressure to areas without *Spartina*



# Examples of Multi-Species Management

- National Firewood Task Force has provided recommendations for preventing interstate spread of forest pests
- Biosecurity plan in the Shetland Islands addresses ballast water and hull fouling
- WA ANS Plan establishes networks in Washington to address aquatic invaders





## Prevention- Early Detection- Rapid Response- Control

- Issue: A region-wide monitoring and mapping effort is needed to document the extent and invasion risks from non-indigenous fouling species.
- Recommendation: In partnership with agencies and academic researchers, develop and execute a region-wide monitoring and mapping program.





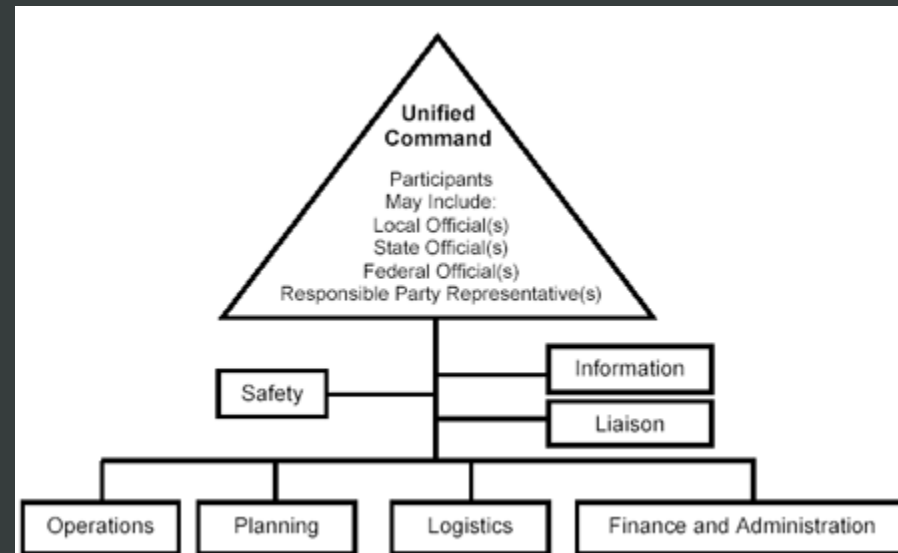
## Prevention- Early Detection- Rapid Response- Control

- Issue: Fouling communities are not static due to high influx from shipping and other aquatic activities.
- Recommendation: Regularly monitor areas of high risk using dive surveys and public questionnaires.



## Prevention- Early Detection- Rapid Response- Control

- Issue: Rapid response is often limited by a lack of coordination and a misunderstanding of jurisdictions.
- Recommendation: Utilize Incident Command System (ICS) to compose hierarchy of responsibility for incursion response.





## Prevention- Early Detection- Rapid Response- **Control**

- Issue: No protocol to decide when to eradicate, control, or do nothing to address established populations.
- Recommendation: Develop standardized protocols for determining action options.





# Benefits of Regional Approach

- Increase coordination, develop contacts and a support system
- Address threats posed by vectors without set checkpoints
  - May provide structure to address temporary pathways
- Reduce gaps in policy, response activities, and funding
- Intercept stepping stone invasions that may lead to coast wide spread





# Benefits of Multi-Species Approach

- Address over 60 key invaders found within the fouling community on this coast
- Allows for management focus on vectors, reducing spread of multiple organisms
- Greater flexibility for responding to future invasions
- Timely as recession amplifies fouling risk



## Next Steps

- Tunicates are being used to populate plan
  - Flexible management
  - Momentum behind managing these species
  - Identify gaps between small-scale to region-wide management
- Receive input from Pacific Ballast Water Group membership
- Hoping to work with WRP-CC to broaden scope and further input



# Comments or Suggestions?

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