Managing Biofouling on Vessels Operating in California

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CSLC Marine Invasive Species Program

Prevention First 2012
October 24, 2012 – Long Beach, CA
California’s Marine Invasive Species Program

Ballast Water Management

Biofouling Management
California’s Role in Regional NIS Introductions
California’s Role in Regional NIS Introductions

- 81% of CA marine introductions are attributed to shipping activities
- 89% of west coast NIS occur in CA
- 79% of west coast NIS first recorded in CA
California Biofouling Timeline

**Marine Invasive Species Act (2003)**
- Required CSLC to evaluate “non-ballast water” vessel vectors
Fouling Technical Advisory Group

California Biofouling Timeline


MISA

Information Sharing

- Workshop
  - May 11, 2005

- Meeting #2
  - August 3

- Meeting #3
  - October 13

- Meeting #4
  - December 19

Recommendation Development

- Discussion:
  - Focus on commercial vessels
  - Fouling risk factors
  - Commercial vessel maintenance frameworks

- Potential management frameworks for CA:
  - Research?
  - Regulations?
  - Best Management Practices?

- Potential Management Frameworks
  - Pros?
  - Cons?
  - Areas of Agreement

Presentations/Discussion

- Information sharing inclusive of recreational fouling
California Biofouling Timeline

- 2006 Legislative Report
- Lack of data, especially for U.S. Pacific coast
- Limited information on hull husbandry practices
- Requested authority to fill information gaps
California Biofouling Timeline

Assembly Bill 740 (2007)

- Fill information gaps
  - Collect hull husbandry data
  - Fund targeted research
- Develop and adopt regulations by 2012
  - In consultation with TAG
California Biofouling Timeline

Hull Husbandry Reporting Form

- Developed in consultation with Tech Advisory Group (Dec 2007)
- Distributed to industry Jan 2008
- Mandatory annual submission

Mandatory annual submission
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<th>TAG</th>
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Aquatic Bioinvasions Research and Policy Institute – Research
Biofouling Rulemaking Process

• Technical Advisory Group (TAG) process initiated August 2010
  – Intent was to bring industry, technical, scientific, and regulatory experts into the discussion to inform the group on:
    • Current status of biofouling and bioinvasion science
    • Current regulatory requirements/guidelines in place or in development
    • Current capabilities of antifouling technologies
    • Current vessel practices and schedules of routine maintenance
Overall Intent of Proposed Biofouling Management Regulations

1. Maintain international and inter-jurisdictional consistency, when possible

   - Building upon the IMO biofouling guidelines
   - Continue working and consulting with international and regional partners
Overall Intent of Proposed Biofouling Management Regulations

1. Maintain international and inter-jurisdictional consistency, when possible

2. Encourage better management of niche areas
Overall Intent of Proposed Biofouling Management Regulations

1. Maintain international and inter-jurisdictional consistency, when possible
2. Encourage better management of niche areas
3. Encourage better management of vessels experiencing extended residency periods

Floerl and Coutts (2009)

Port of Singapore, September 2011
Goals of Rulemaking Action

• Encourage a coherent biofouling management strategy to maintain consistently clean ships
   – To reduce likelihood of introducing NIS to CA and every other port a vessel may visit

• To be enforceable, quantifiable, and encourage effective planning for holistic biofouling management
Next Steps

• Continue public rulemaking process under provisions of CA Administrative Procedures Act
  – Ensures active public participation by all stakeholders
  – Ensures open, transparent rulemaking actions

• Continue to collect data on biofouling management and effectiveness of current practices

• Continue to collaborate with regional and international partners
Thank You

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