Derelict Creosote Piles and Structures: Problem or Opportunity?

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• Opportunities and Problems
• Types of Structures
• Removal Methods and Costs
• Project Specific Mitigation
• Advance Mitigation
### Piles: Opportunity or Problem?

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What Do You See?
Whatcom County –
“The number one source of rogue creosote-treated wood on beaches of the bay is derelict dock structures.”
Quotes from Scuba Diver website about pile fields:

“Beautiful”  “Fantastic”  “Lots of life”  “Adjacent areas are barren”
Toxicity

• Piles leach creosote
• Creosote can damage marine organisms:
  • Pile density is high
  • Backwater areas
• Long-term impact:
  • Substantial impact if pile fully deteriorates

Average pile holds 60 gallons of creosote (500 lbs)
Types of Structures
Inventory

- **San Francisco Bay – Comprehensive inventory**
  - 30,546 derelict pile in 630 “pile complexes”

- **Puget Sound – No comprehensive inventory**
  - 2,000+ pile along Ruston Way, Tacoma
  - 15,000 pile in Bellingham
  - 425 pile in San Juan County
  - 800 pile on Bainbridge Island

- **Columbia River**
  - 550 “pile complexes” with 100’s to 1,000’s of pile each
Removal Methods

- Removal Methods
  - Direct-pull w/ crane
  - Break off
  - Shear
- Capping with sand
  - None
  - Spot application, fill holes
  - 6-inch thick for natural recovery
  - 3-foot-thick cap
Pile Removal Cost

- Mobilization:
  - $50,000 to $80,000

- Cost per pile:
  - $500 to $700 each

- Ruston Way, Tacoma
  - 2,000 pile
  - Preliminary Cost Estimate: $1.2 million
Washington DNR’s Removal Program

- Funded $7 million since 2004
- Removed 13,000+ piles
- Partner with local agencies and groups
- Programmatic permits, approvals
- Programmatic methods
- Public support & opposition with every project
- DNR’s primary goal is toxics removal
- No mitigation credit
- Document historic structures
  - Sign or plaque if 50+ years old
Existing Use of Pile Removal for Mitigation

• Project-specific mitigation
  • Common
  • No quantity guidance
  • Encourages retaining pile
  • Local Agency quote:
    
    “We don’t want to take action now... ...there is interest in including pile removal in a larger strategy of mitigation.”

• Mitigation banking only applicable to wetlands
New Opportunity – Advanced Mitigation

- New Guidance December 2012
- Pile removal as alternative to shoreline/wetland mitigation
  - Simpler, cheaper
  - More environmental benefit
  - No monitoring, maintenance or reporting
- Credit use only by Owner
- Credit value increases over time
- Document before removal
- Port of Longview example
Derelict Piles Are Re-Development Assets

• **Use Them or Lose Them!**

• **Existing derelict structures are deteriorating**

• **Collapsed piles/structures:**
  • No longer available for mitigation
  • May create contaminated site

• **Inaction is a missed opportunity**