Alternative Strategies for Environmental Remediation

NWCCC

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**Risk Sharing/Transfer Mechanisms**

- Incentivized contracting
  - Award Fee
  - Incentive Fee
- Guaranteed Fixed Price Contracts
- “Early Transfer” with Liability Transfer
- Insurance
Mare Island Naval Shipyard

- 1854: Ship building operations began
- WWII: one of worlds largest ship building & maintenance facility
- 1993: Identified for closure under BRAC
- 1996: Operational closure
Traditional Transfer

Owner

Title

LRA pass through

Title

Developer

Owner responsible for cleanup through traditional contract

“Title passes after cleanup is complete (consistent with Reuse Plan)”

“Potential for additional cleanup beyond reuse plan”
RCRA Corrective Action Under Traditional Approach

- Characterization
- Remedy Selection
- Conceptual Design
- Cost Estimation
- Remedial Construction Plan
- Stakeholder's Buy-in
- Regulatory Buy-in
- Procurement
- Implementation
- Close-Out
- Transfer
Mare Island: The Challenge

- **US Navy’s Goals**
  - Divest Property & Avoid Asset Mgm’t Costs
  - Cap & Fund Liabilities with Current Funds

- **Communities Goals**
  - Accelerate Development & Avoid Liabilities
  - Selected Lennar as Master Developer

- **Lennar’s Goals**
  - Accelerate Development & Avoid Liabilities
  - Control Over Timing & Nature of Clean Up
  - Reduce Costs through Integration of Remediation with Construction
“Title passes before cleanup is complete”

“Handles development cleanup, and infrastructure”
Abbreviated RCRA Corrective Action Under Fixed Price Insured Contract

Characterization

Cost Estimation

Remedial Construction Plan

Remedy Selection

Stakeholder’s Buy-in

Conceptual Design

Regulatory Buy-in

Implementation

Close-Out

Transfer

Insurance Caps Risk

Liability Transfers
Co-Pay

Risk Transfer

SIR = Projected clean-up cost

Remediation Stop Loss Insurance
Examples of Cost Overruns Who Pays?

- More Extensive Contamination Than Anticipated
- Contractor Errors & Omissions
- Schedule Delays
- Regulatory Reopeners/Change in Regulations
- Remedy Failure

Stop Loss Insurance

* Performance Risk of Contractor Aggregates into Surety (Performance Bond) Remedy Failure Examples of Cost Overruns Who Pays?
Environmental Liability Insurance

Co-Pay

Risk Transfer

Deductible
Environmental Liability Claims - Who Pays?

- Third party BI/PD caused by Ops on site and off site
- Action Over BI Claims
- Tenant suffers Business Interruption Loss as a result of Contractor remediation efforts
- Natural Resource Damage - direct damage caused by Contractor
- Clean-up of On-site unknown contamination during remediation
- Clean-up costs for Discovery of new known contaminants after transfer to RDA or developer
- Contingent Transportation
- Contingent Non-Owned Off-Site Disposal
- Asbestos Abatement Liability

Environmental liability
Goals Accomplished

- US Navy’s Goals - Prop. Trans. w/ $ Cap
  - Divest Property & Avoid Asset Mgmt Costs
  - Cap & Fund Liabilities with Current Funds
- Community’s Goals - Accelerated 2 yrs.
  - Accelerate Development & Avoid Liabilities
  - Selected Lennar as Master Developer
- Lennar’s Goals - Has Control at Less $$
  - Accelerate Development & Avoid Liabilities
  - Control Over Timing & Nature of Clean Up
  - Reduce Costs through Integration of Remediation with Construction
Discussion