Performance Based Contracting

CH2M HILL Case Studies

Federal Remediation Technologies Roundtable

May 25, 2005

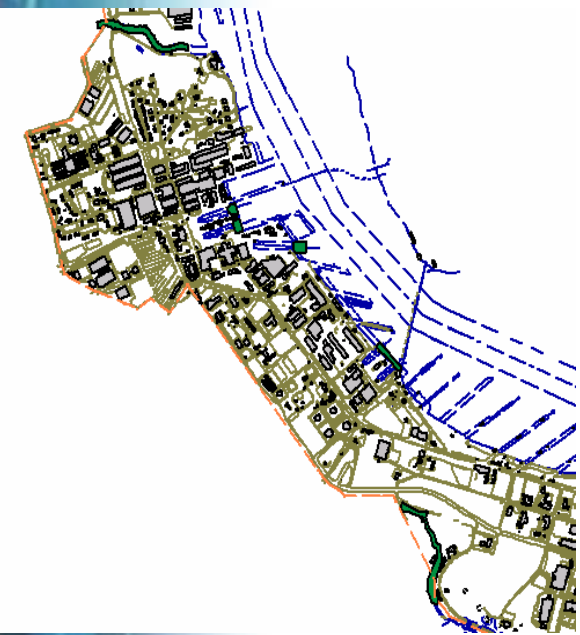
CH2MHILL

Three PBC Models

- Fixed Price with Insurance
  - USN Charleston Naval Complex
- BRAC Early Transfer – Fixed Price with Insurance
  - Mare Island Naval Shipyard
- PBC without Insurance
  - DOE Rocky Flats
- Overall Lessons Learned

Charleston Naval Complex

First DOD Insured Environmental Cleanup



- > 2000 acres of under-utilized infrastructure
  - offices, warehouses and industrial facilities
  - railroads, piers, highway access & utilities
  - family housing & dormitories
- > 15,000 jobs lost due to base closure

CH2MHILL

4

CNC Stakeholders' Priorities

- For City:
  - Accelerate redevelopment
  - Increase job base
  - Increase tax revenue
- For Navy:
  - Reduce and cap costs
  - Divest property as quickly as possible

CNC Fixed Price Insured Environmental Contract

- $28.8 MM vs. a $35 MM Government Estimate (18% Savings)
- CH2M HILL responsibility
  - Investigations, remedial planning, and remedial action to close RCRA & UST sites
  - Regulatory approvals & release of RCRA permit
  - Property transfer documentation (FOST/FOSL)
  - O&M of remedial systems for 20 years
  - Liability for newly discovered sites
  - No differing site conditions clause

CNC Results

- Navy's environmental liabilities are being executed within budget
  - *88 of 155 BRAC sites are over budget by an average of 45%*
- Navy costs are capped and their liabilities covered through with a 20 Year "Environmental Liability and Stop Loss Insurance Policy"
- Property is cleaned and is being transferred
  - *Early transfer agreement (FOSET) signed by SC Governor*
  - *Almost all remedies have been implemented*
  - *A few remedies have been submitted to the regulators and are waiting on approval*
  - *Only one site remains where remedy has yet to be submitted*

CNC Contract and Policy Exclusions

- Unexploded ordnance
- Wastes associated with the nuclear propulsion program
- Biological and chemical warfare agents
- Sediments below mean low tide
- Changes to the reuse plan

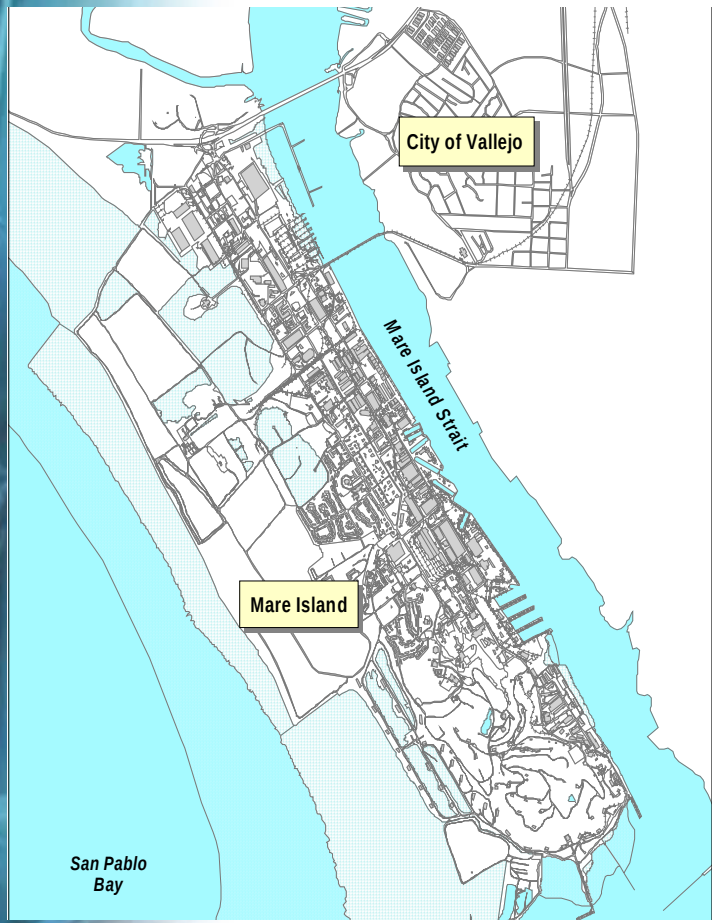
CNC Lessons Learned

- Requires totally integrated design/build remediation and insurance team
- Learning curve for first time buyers
  - Requires understanding of insurance issues
  - Performance standard is achievement of regulatory end points
  - Owner enforces performance standards, *not* the process
- Early integration of regulators into the process
- Bidder discussions with regulators are very important

CNC Lessons Learned (continued)

- Best value source selection was key to success
  - Details of insurance/indemnification
  - History of success with regulatory relations
  - Proposed remedies and price
- Partnering relationship between client, contractor & regulators is a key to execution
- Based on CNC experience, we use a “Tiger Team” approach to:
  - Identify PBC projects
  - Identify critical uncertainties and close gaps

Mare Island Naval Shipyard



- One of World's largest WWII Shipyards was closed in 1996
- Lennar selected as Master Developer for Residential, Commercial/Industrial Use
- Navy site closure process was delaying development
- Goals:
  - **Lennar & City of Vallejo:**
    - ***Expedite Development***
    - ***"No" Environmental Risks***
    - ***Enhance Land Value***
  - **Navy:**
    - ***Divest Property and Cap Liabilities within Budget***

Mare Island "Early Transfer"

- Land and environmental responsibility transferred to Lennar through City of Vallejo
- CH2M HILL accepted responsibility for closure of >550 Sites
- Navy, City, Lennar and CH2M HILL negotiated agreements to document the revised responsibilities
  - Environmental Services Cooperative Agreement (ESCA)
  - DTSC Consent Agreement
  - Regional Water Quality Control Board Order
  - EPA Consent Agreement on PCBs
  - Integrate Remediation, Infrastructure and Development

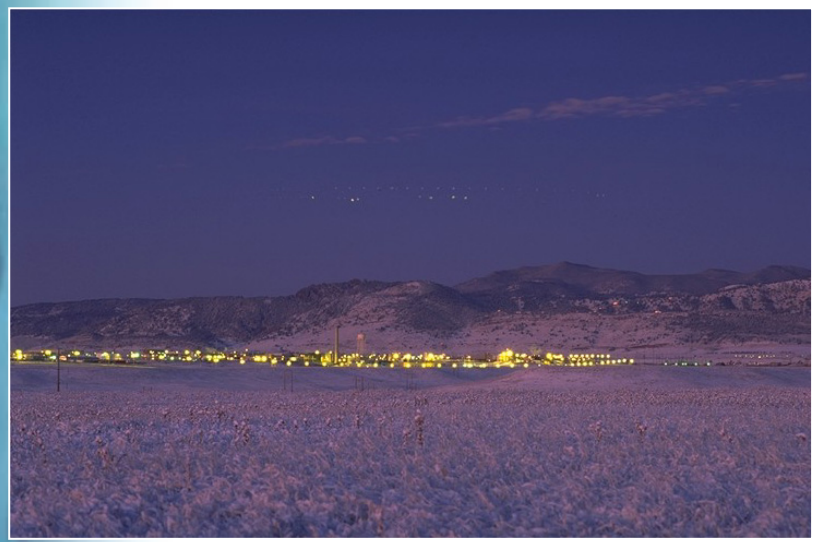
Mare Island Results

- Results
  - **Navy transferred environmental liabilities within $80M budget**
  - **Land transfer and development accelerated by 5 years**
  - **Navy costs capped with stop loss insurance equal to 100% of the clean up cost**
  - **Liability and unknown contamination backed with environmental liability insurance**
  - **Homes are being sold within 3 years of transfer**

Mare Island Lessons Learned

- Early Transfer Requires:
  - *Site suitable for economic development or natural resource conservation*
  - *Champions within Navy, LRA, and regulators are needed for Early Transfer Approach*
  - *Available Funding for ESCA grant*
- Insurance needed for financial security to obtain Governor's approval
- Unknowns: on 150 year old industrial base, unknowns exceeded expectations
- Regulatory involvement: order of magnitude increase in volume (velocity) of documents
  - AB 1700 shielded DTSC from hiring freeze

Rocky Flats Environmental Technology Site



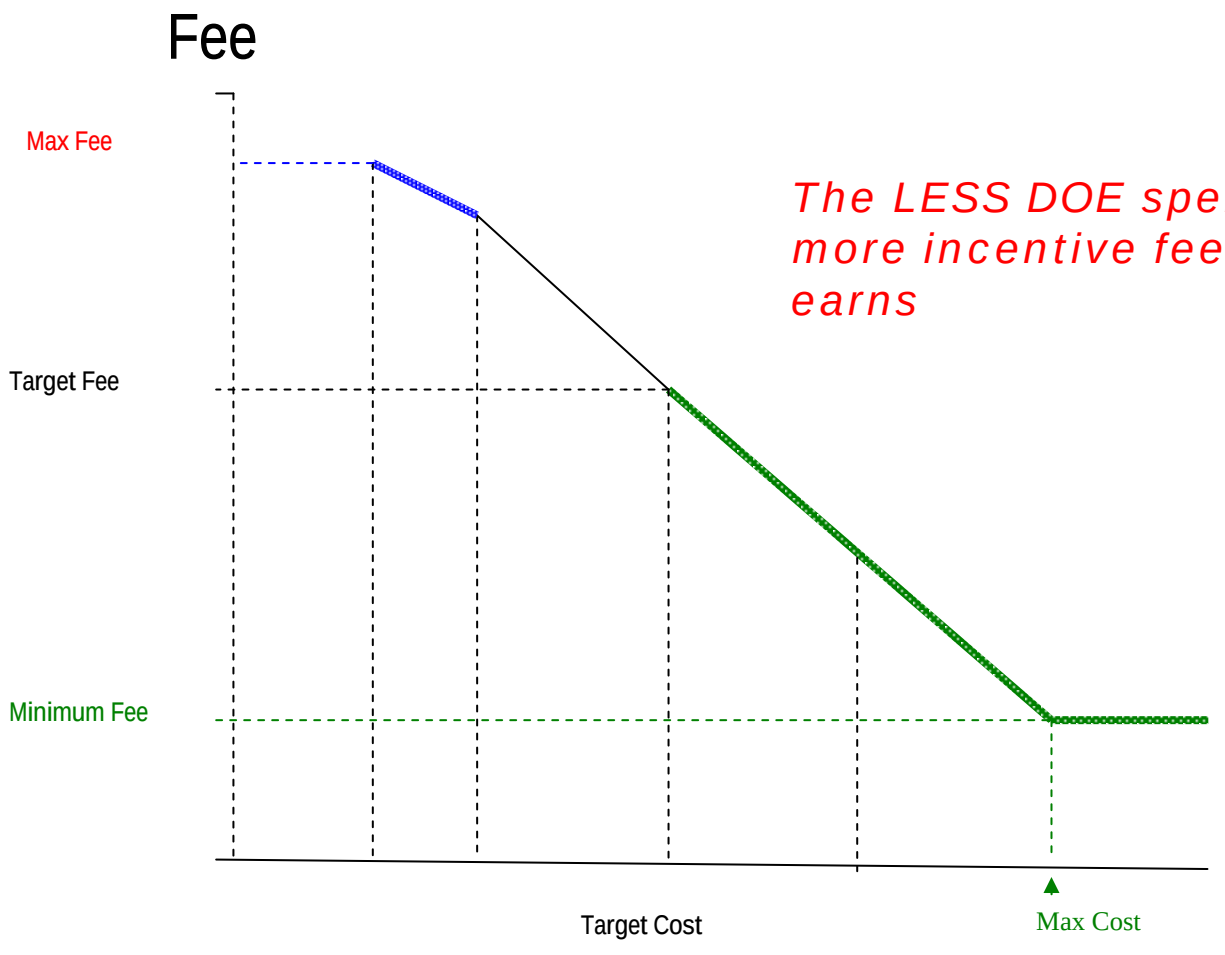
"No contractor, government agency or military unit has ever completed the total and safe deconstruction of a nuclear facility this size"

- Site Contains
  - **Over 14 tons of plutonium**
  - **50,000 containers of radioactive wastes**
  - **170 areas with soil contamination**
  - **Groundwater and surface water contamination**
- DOE Goals
  - **Exemplary Safety Program**
  - **Accelerate Closure**
  - **Reduce Costs**

Rocky Flats Overview

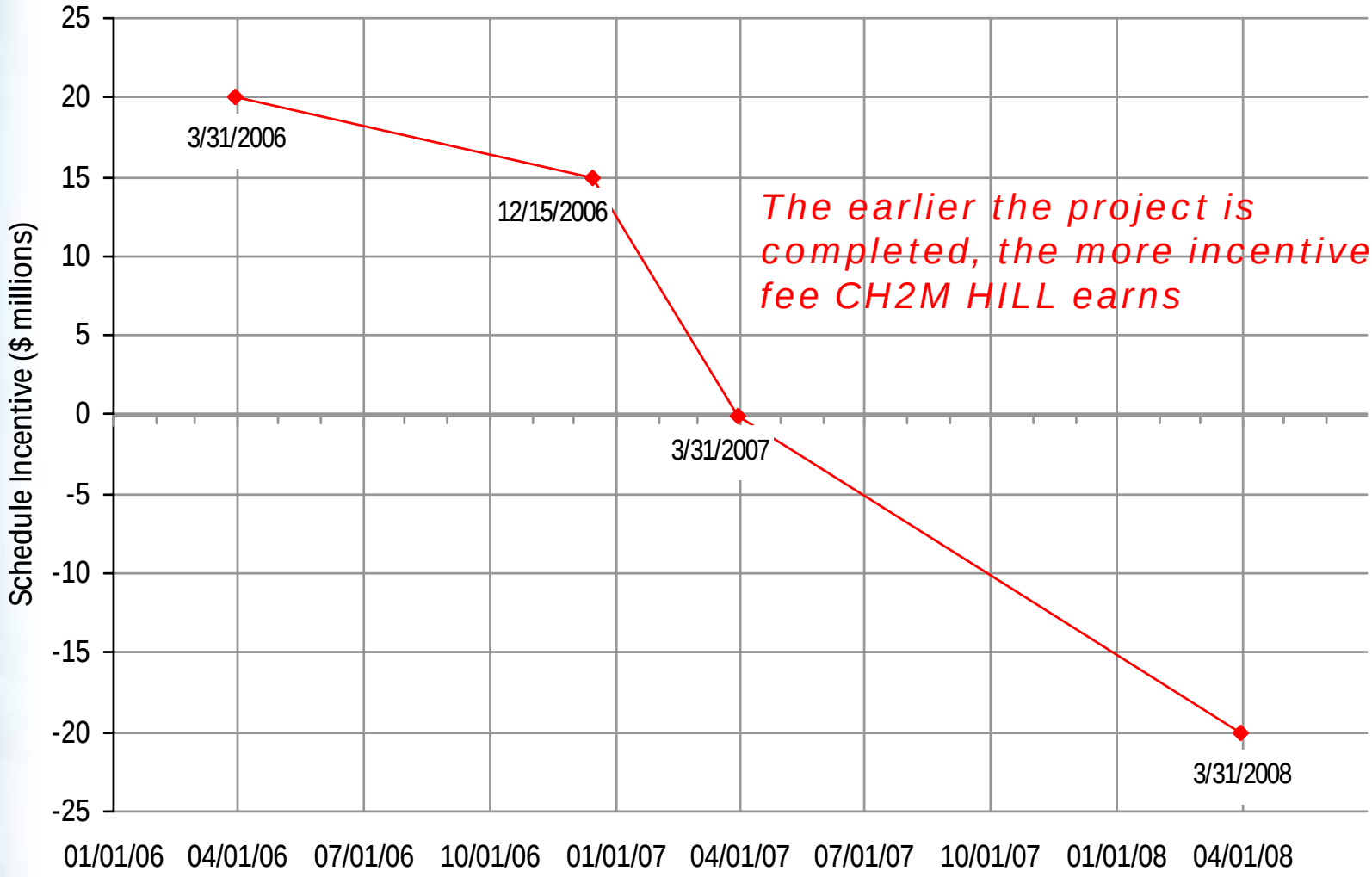
- Similarities to BRAC Sites:
  - **Focus on expediting land transfer and minimizing costs**
  - **Uncertainties and scope beyond GFPC**
- Scope Includes:
  - **Operation of the site(Caretaker)**
  - **Environmental remediation and site closure**
  - **Nuclear material handling and waste disposal**
  - **Property transfer**
  - **Community and regulatory affairs**
- Results
  - **Reduced costs by over 10%**
  - **Cleanup is one year ahead of a seven year schedule**
  - **Reduced OSHA case rate by 26%**
  - **DOE using this model at three additional sites**

Cost Incentive
CH2M HILL and DOE Share Savings or Overruns on a 30/70 Split



The LESS DOE spends, the more incentive fee CH2M HILL earns

Schedule Incentive



Rocky Flats Lessons Learned

- **TCIF is a major departure from traditional “cost plus”**
- **Aligns client and contractor goals to expedite cleanup and land transfer**
- **Partnered solutions - more client control than on a GFPC**
- **Allows PBC for large complex sites where higher degree of uncertainty would defer GFPC approach**
- **Avoids cost of insurance**
- **DOE is using this contract approach at three additional sites**

Overall PBC Lessons Learned

- **PBC Revised Roles: Environmental consultant is now in role of contractor with financial stake in outcomes**
  - **Concern: Contractor cost cutting focus will compromise quality**
  - **Solution: Make contractor's success working with regulators a key factor in source selection criteria**
- **Regulatory staffing to respond to accelerated pace of decision documents**
  - **EPA support of SC DEHC**
  - **California AB 1700**
- **PBC's are more than GFPC**
  - **Firm Fixed Price (FFP) w or w/o insurance**
  - **Privatization or Early Transfer**
  - **Incentive Fee (TCIF)**

QUESTIONS??