California Regulatory Considerations for Land Use Controls at Munitions Response Sites

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Introduction

• Discuss California Department of Toxic Substances Control (DTSC) role in implementation of Land Use Controls (LUCs).

• Provide some general examples of challenges to long-term maintenance of LUCs.

• Takeaways.
Land Use Controls

• Designed to protect human health, the environment, and the integrity of an engineering remedy by limiting the activities that may occur at a site.
• Include legal mechanisms (i.e., land use covenants), administrative mechanisms (i.e., education/awareness programs, ordnance ordinances), and engineering mechanisms (i.e., signs, fences, caps, rip rap).
• Employ a layering strategy or a system of mutually reinforcing controls.
• Must define the responsibilities of all parties.
California Code of Regulations (CCR) - Land Use Covenant Requirements

• CCR Title 22 Division 4.5, Chapter 39 requires land use covenants or similar mechanisms to be implemented when removal actions do not achieve cleanup levels suitable for unlimited use/unrestricted exposure (UU/UE).

• Prohibited land uses can include residential dwellings, hospitals, schools for persons under 18 years of age, day care facilities, and other restrictions as appropriate.

• Land use covenants can include other provisions, i.e., dig restrictions; construction permitting; soil management plans; and UXO construction support.
California Land Use Covenant Regulations

• Run with the land in perpetuity unless modified or terminated in accordance with applicable law.

• When a land use covenant can not be recorded (i.e., transfers between federal agencies), CCR requires other institutional controls to ensure compatible future land uses, i.e.,:
  ➢ Amendments to a federal government facility master plan
  ➢ Agreements between the federal agency and DTSC

• DTSC will not consider a federal property eligible for transfer unless:
  ➢ The property is suitable for UU/UE; or
  ➢ A land use covenant or other appropriate mechanism is properly signed and recorded.
DTSC’s Role in LUC Development and Implementation

• Engage with project teams and stakeholders.
• Provide technical input on LUC designs and implementation.
• Evaluate if LUC instruments remain in place, operate in the manner envisioned during response action selection, and continue to be effective.
• DTSC sometimes observes diminished LUC functionality:
  ➢ Typically caused by external factors and unforeseen conditions
  ➢ Usually affect administrative and engineering controls
Administrative Mechanism Issues

• Some stakeholders are not on board with LUCS
  ➢ Property owners who may believe land use covenants/deed restrictions devalue their property
  ➢ May have issues with signage:
    ▪ Believe signage devalues their property
    ▪ Don’t like aesthetics of signage
    ▪ Believe warning signs encourage trespassing and prospecting
  ➢ Don’t want to accept financial burden:
    ▪ Legal costs to develop land use covenants
    ▪ Costs to implement and maintain LUCs
    ▪ Regulatory oversight costs
Administrative Mechanism Issues

• Education and awareness issues
  ➢ Outreach not received by all of target audience:
    ▪ Older RODs may have outdated communication modes
    ▪ Local residents may not be well-informed about proximity to MRSs
    ▪ Local residents may not be well-informed about dig restrictions
    ▪ Schools may not have resources to regularly present 3Rs information
    ▪ Local agencies may not have resources to access needed information
    ▪ Local agency staff may not receive timely MEC awareness trainings
    ▪ Dig contractors may not receive adequate MEC awareness training.
  ➢ MEC encounters may not be reported to the entire project team.
Administrative Mechanism Issues

• Trespassing and intrusive activities
  ➢ Trespassing/digging by recreationalists, prospectors, internet “influencers”
  ➢ Hikers creating new trails/shortcuts into restricted areas
  ➢ Residents who may ignore dig restrictions
  ➢ Erosion by trespassers with off-road vehicles, horses, and bikes
  ➢ Homeless encampments

• Environmental/climate related changes in areas with potential subsurface MEC
  ➢ Shoreline retreat due to drought/water diversions and shoreline erosion
  ➢ Sand dune migration
  ➢ Flooding
Engineering Mechanism Issues

• LUC enforcement and monitoring
  ➢ Can’t be there on a 24-7 basis to monitor LUCs
  ➢ Physical site conditions may change over time
  ➢ Conditions of ECs may change over time

• Vandalism
  ➢ Breaking into gates, cutting locks, removing and/or damaging warning signs
  ➢ Persistent, ongoing vandalism often occurs over many years
  ➢ Periods between inspections may have limited protectiveness due to compromised ECs
Takeaways

• Stakeholder participation during LUC development is critical.
• Challenges for long-term LUC implementation need to be identified during FS.
• Process improvement opportunities should be identified whenever possible.
• Need to continually evaluate education and awareness programs to make sure they are still effective.