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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.