

Community Dialogue on the Management of Contaminated Soil

Oakland
December 2, 2017



Department of
Toxic Substances
Control

Co-hosts: Greenaction for Health and
Environmental Justice &
West Oakland Environmental
Indicators Project

Community Feedback from Meeting #1 and #2

- Transparency/Accessibility
- Consistency
- Community Engagement/Outreach
- Modification to Process or Language
- Communication
- Decision-making and management
- Company/Facility Operations
- Costs & Resources

Objectives for Meeting # 3

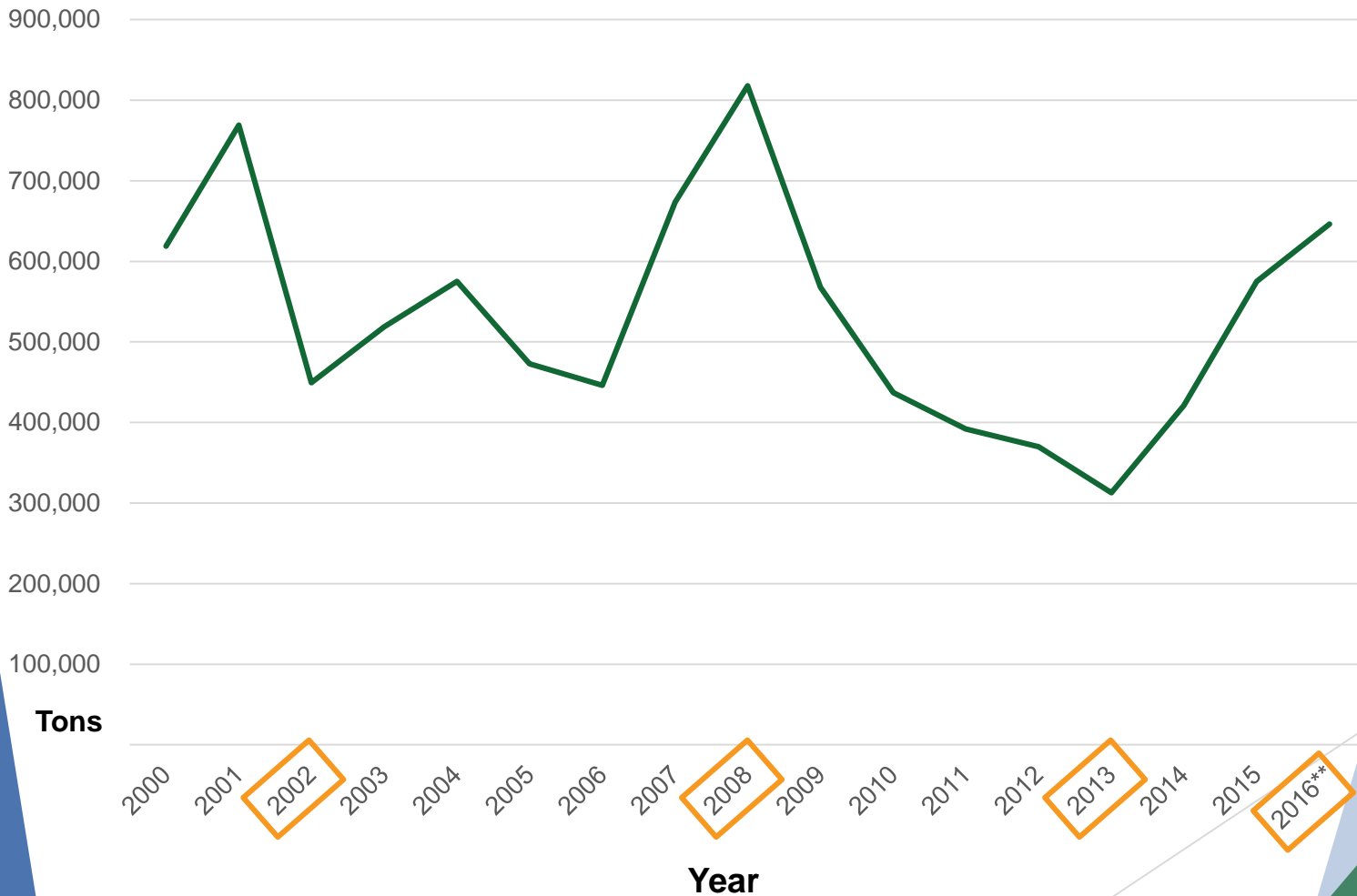
- Identify a set of shared principles developed by community participants that will help inform DTSC decision-making concerning the disposal and/or treatment of contaminated soils
- Develop proposed guidelines for factoring and weighting community input in remediation decisions with an understanding of available remediation technologies.

Next Steps After Today

1. Summary Report and Draft Action Plan
(February 2018)
2. Share Outcomes with Communities
(Spring 2018)
3. Hold Workshops with DTSC and Communities to
Share Information and Program Changes
(Winter 2018)

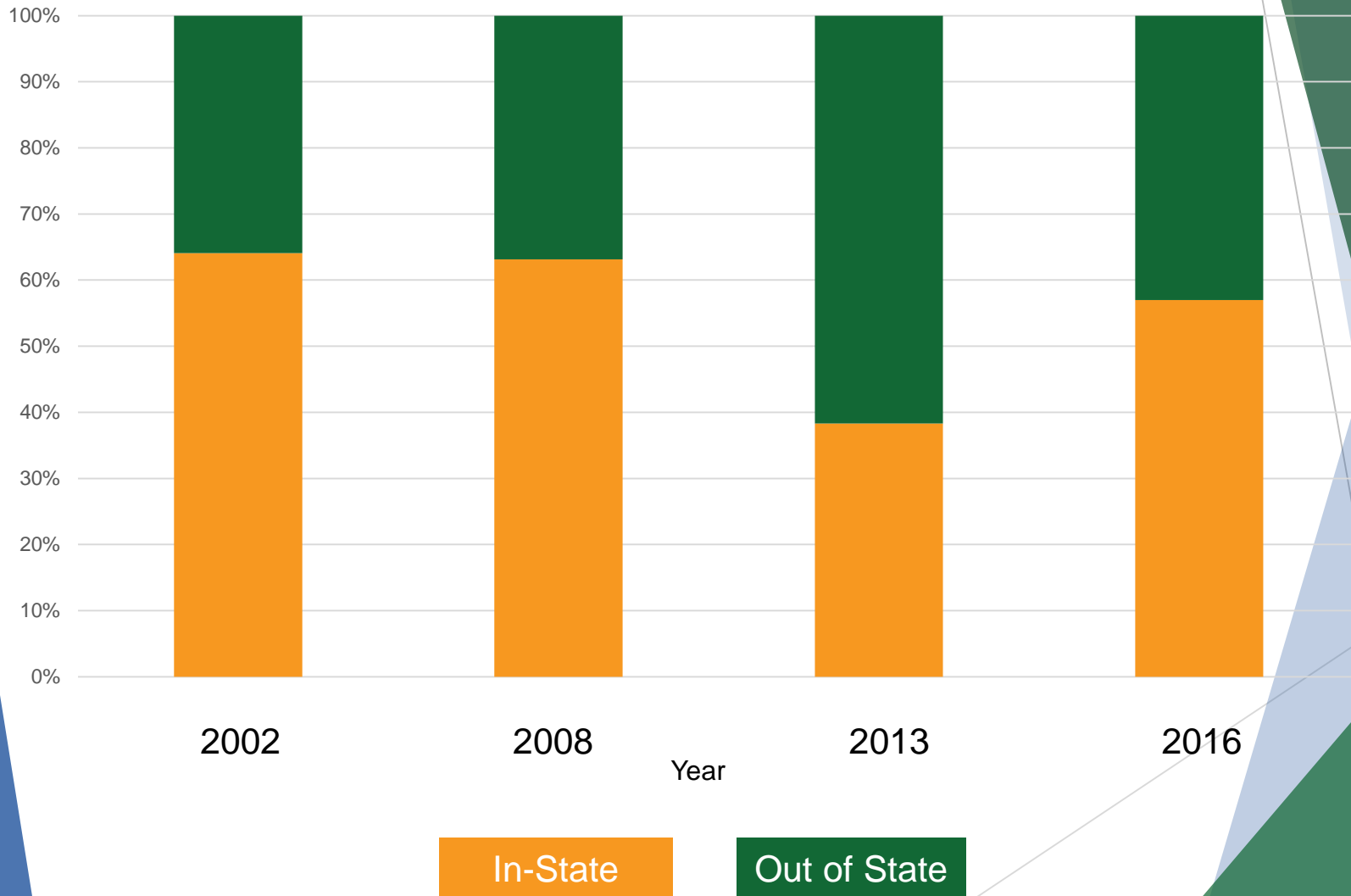
How Much Contaminated Soil is Generated from Site Cleanups?

Contaminated Soil generated from Site Cleanup in CA (tons)



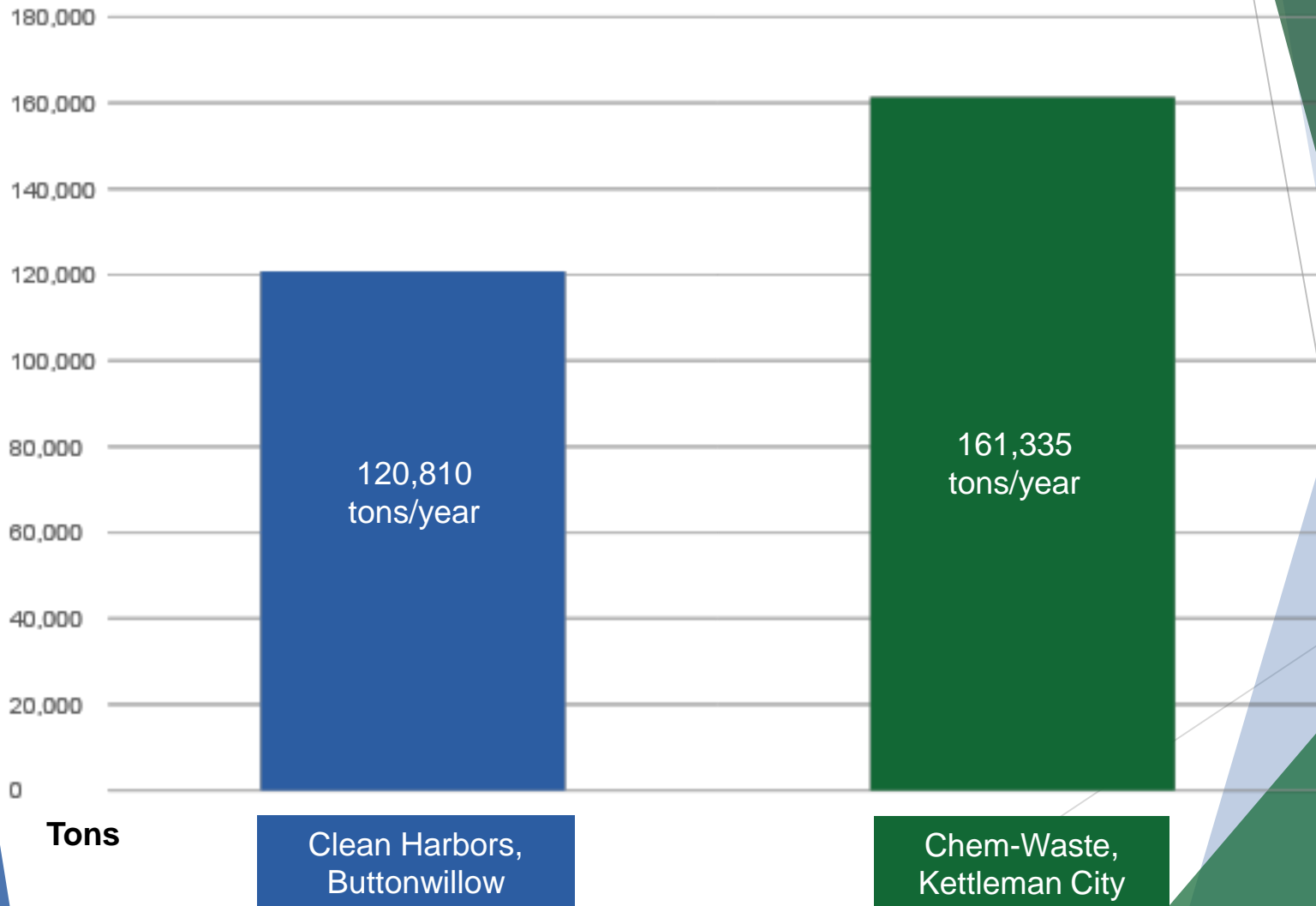
Where is the Soil Going?

Disposal In-State Versus Out of State (% of total)



California Hazardous Waste Landfills

Contaminated Soil from Site Cleanup to in state landfills
(Yearly average 2002-2016, in tons)



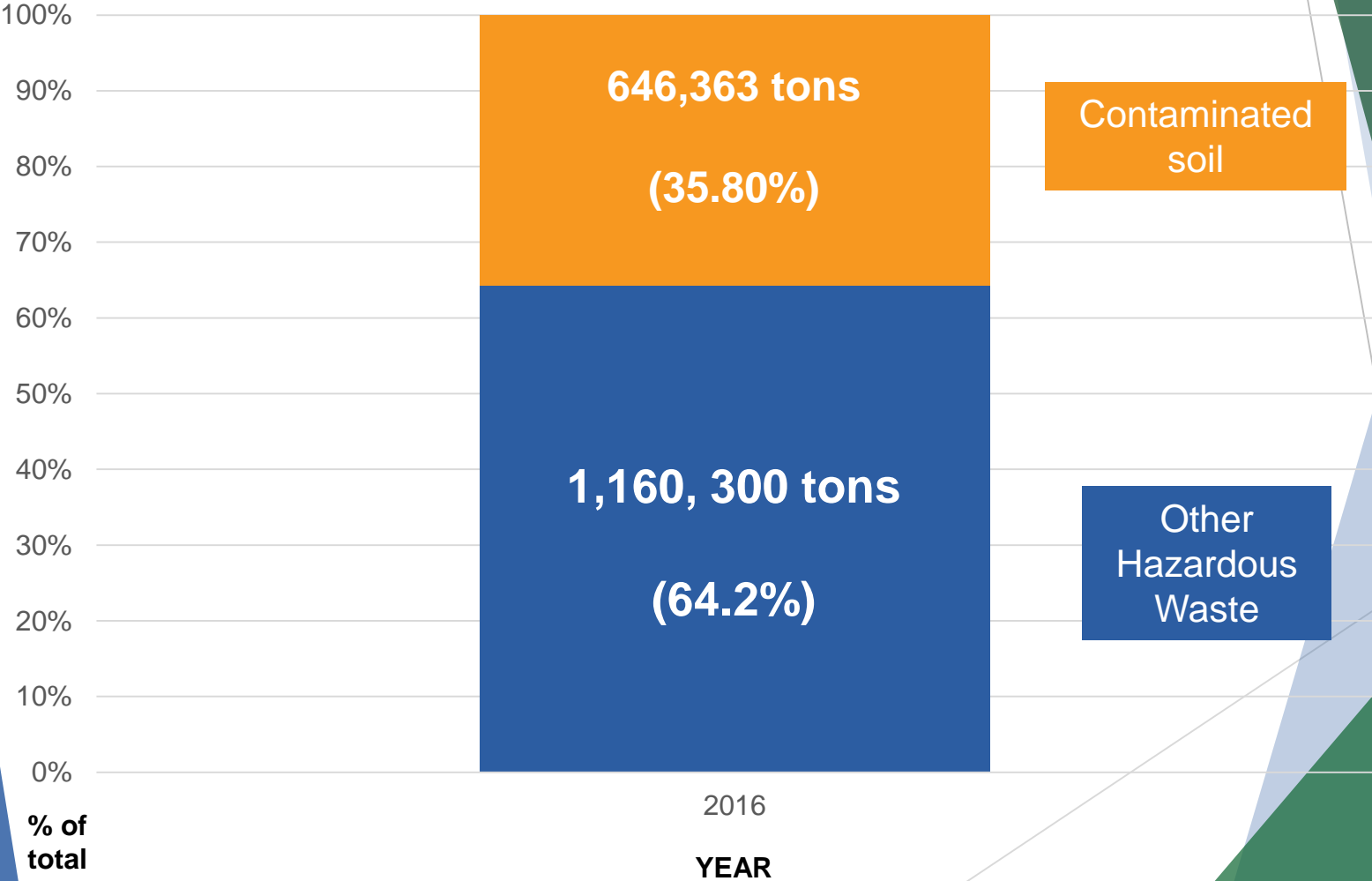
Out-of-State Landfills Receiving the Most Hazardous Waste from CA (Includes Non-Soil) in 2016

- US Ecology, Nevada (530,100 tons),
- East Carbon Development Corp, Utah (480,400 tons),
- La Paz County – Community Development Agency, Arizona (66,100 tons).

(Hazardous Waste Tracking System)

Contaminated Soil Compared to Other Hazardous Waste

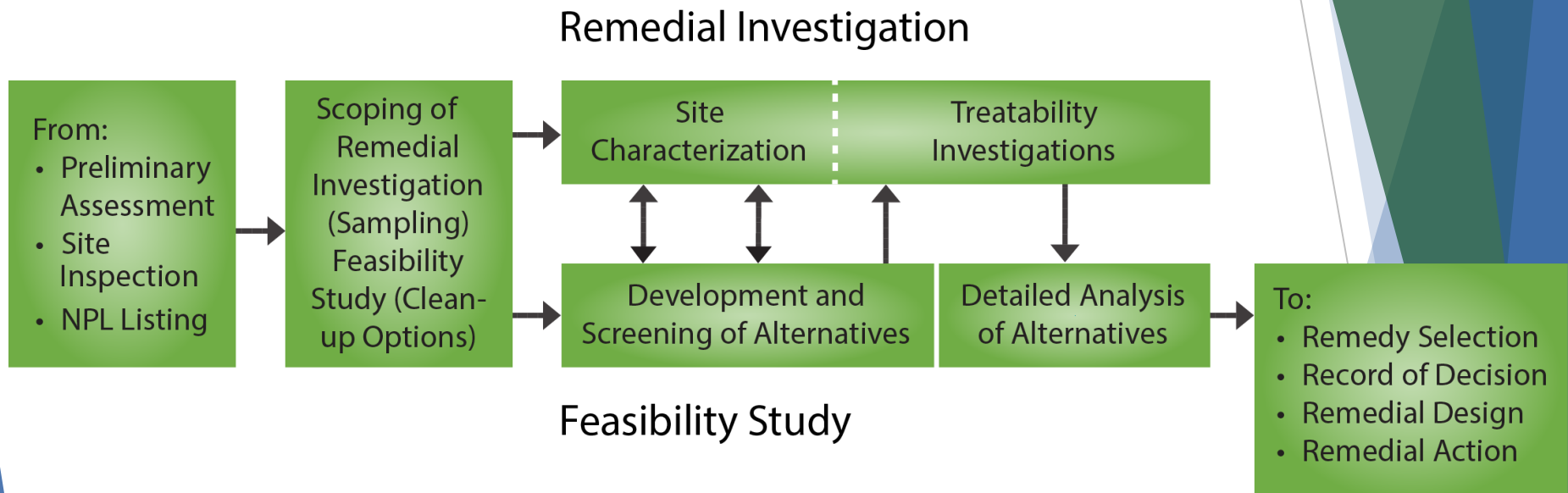
Contaminated soil from site clean up compared to other hazardous wastes (% of total and tonnage)



Contaminated Soil from Site Cleanups

- Over 600,000 tons in 2016
- Approximately 850 generators
- Metals
 - lead
- Semi-volatile organics
 - polychlorinated biphenyls (PCBs),
 - pesticides

Remedy Selections Process



Decision Making for Cleanup Projects: National Contingency Plan Criteria

- **Threshold Criteria** - the criteria each alternative must satisfy to be eligible for selection as a potential cleanup option.
- **Balancing Criteria** - technical criteria that form the basis for the detailed analysis of alternatives.
- **Modifying Criteria** - criteria that are assessed during the public comment period.

National Contingency Plan Nine Evaluation Criteria

Threshold criteria

Overall protection of human health and the environment

Compliance with Applicable or Relevant and Appropriate Requirements (ARARs)
(development of cleanup goals)

Balancing criteria

Long-term effectiveness and permanence (assessment of residual risk/reliability)

Reduction of toxicity, mobility or volume (technical evaluation of expected reduction in these parameters)

Short-term effectiveness
(protection of community and workers)

Implementability (ability to implement and reliability of technology)

Cost (cost of implementation and maintenance)

Modifying criteria

State acceptance
(state's evaluation of draft cleanup plan)

Community acceptance (interested community's evaluation and support, opposition, or questions on draft cleanup plan)

Options for Cleanup

- **Immobilization**
 - Solidification and stabilization
 - Containment (landfill, capping)
- **Extraction**
 - Soil vapor extraction (vacuum)
 - Thermal desorption (heating)
 - Soil flushing / washing (separation)
- **Destruction or alteration**
 - Thermal (oxidation)
 - Biological (bioremediation)
 - Chemical (in situ chemical oxidation)

Handouts and Resources

- Technology Screening Matrix (handout)
- Citizen's Guides to Cleanup Technologies
- “CLU-IN” <https://clu-in.org/>
- Federal Remediation Technologies Roundtable <https://frtr.gov/>
- DTSC Technologies & Remedies Documents
 - <http://www.dtsc.ca.gov/SiteCleanup/PTandR.cfm>