Long-Term Stewardship

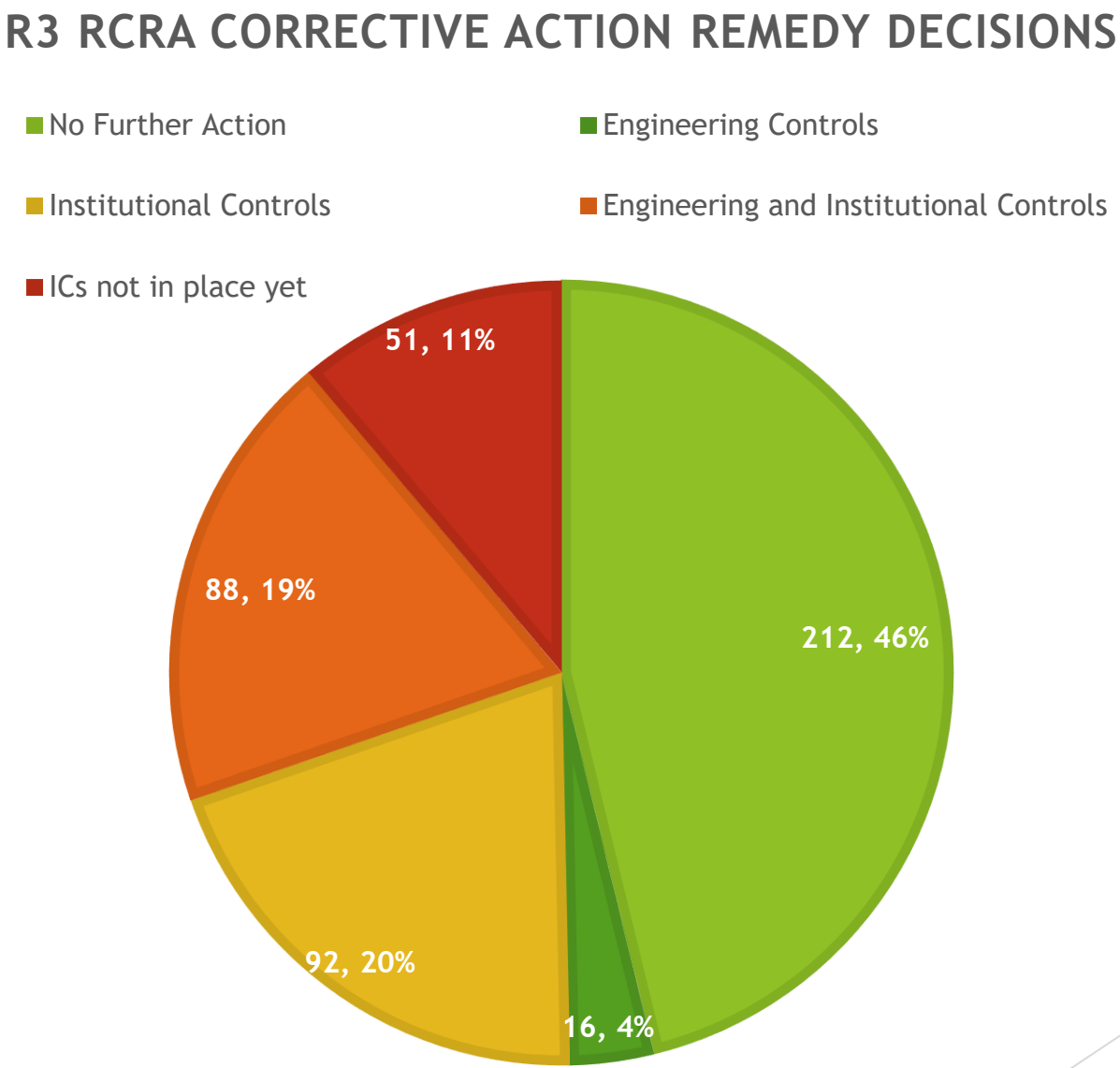
August 23, 2022
ASTSWMO Joint Training
John Hopkins
EPA Region 3

What is Long Term Stewardship?

"LTS generally includes the establishment and maintenance of **physical** and **non-physical controls**, **implementation entities**, **authorities**, **accountability mechanisms**, **information and data management systems** and resources that are necessary to ensure that **cleanup sites with residual contamination** that does not allow for unrestricted use or with ongoing waste management responsibilities after completion of response action **remain protective**."

- Memorandum of Understanding on Long-Term Stewardship - April 9, 2003

Region 3 2020 Universe – Selected Remedies (459 out of 577 total facilities)



Types of Controls

Institutional Controls (ICs)

Non-physical controls:

- Governmental / Local Ordinance
- Information devices
- Proprietary
- Orders/Permits

Engineered Controls (ECs)

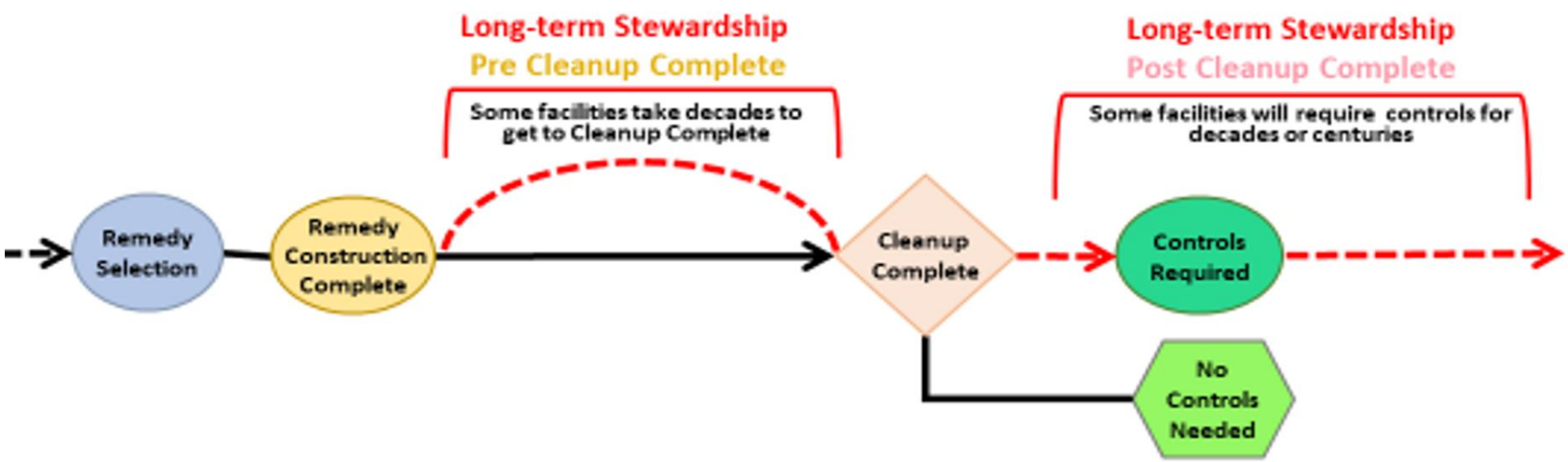
Physical controls:

- Landfill Cap
- Fence
- Asphalt Cover
- Permeable Reactive Barrier
- Slurry Wall, etc.

Why is LTS important?

- Ensure controls are in place, maintained and operated in the manner envisioned selecting the remedy
- Identify and correct Institutional (non-physical) / Engineering (physical) Control deficiencies
- Provides the ability to reuse sites in a safe and protective manner
- Keep local community aware of the remedy in place with status update

When does LTS begin?



Start

LTS starts once the final remedy is chosen
Ends after cleanup is complete AND no controls are required

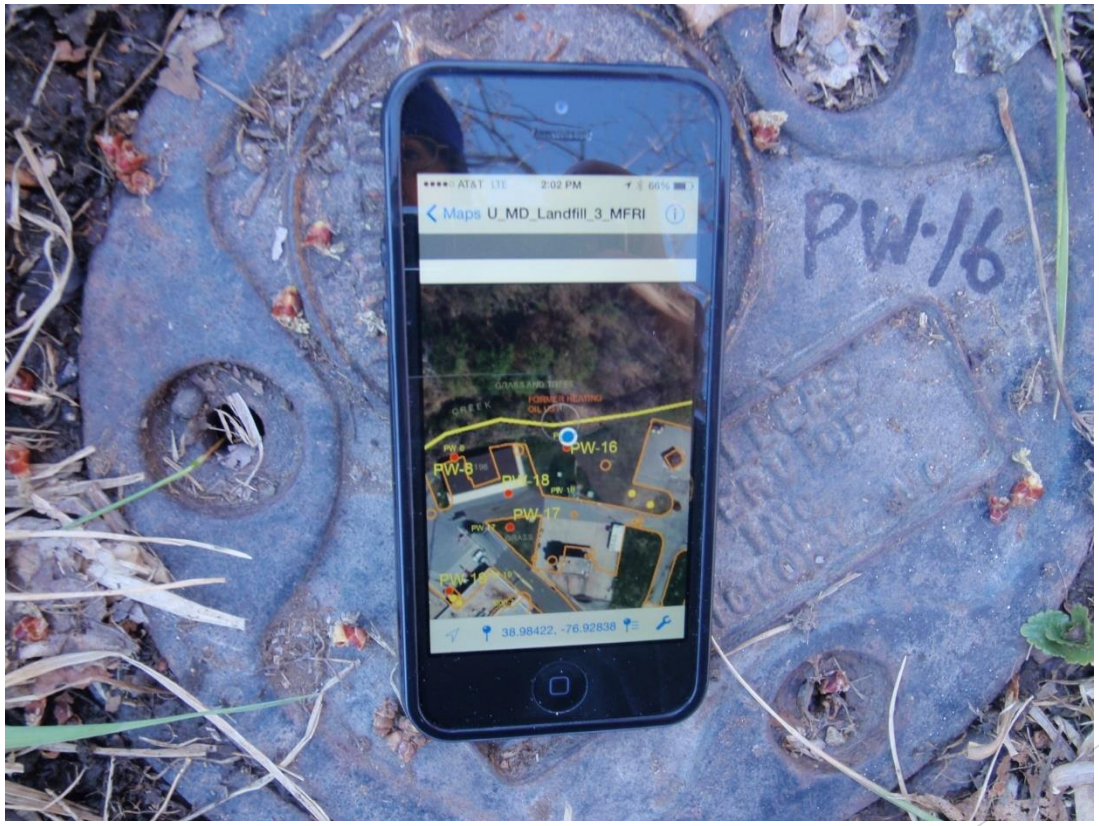
Preparation

- Review remedy background
  - RCRA Remedy Decision Document
  - Post Closure Permit or Plan
  - Environmental Covenant or Deed Restriction
  - Consent Order
  - Master Installation Plan
- Review Engineering Control implementation/reporting
  - Corrective Measures Implementation Plan
  - Operation and Maintenance (O&M) Plans
  - One Year Assessment; Five Years Reviews
  - Google Earth
- Review Institutional Control implementation/reporting
  - Check online State registry to verify covenant or deed restriction
  - Institutional Control Implementation and Assurance Plans (ICIAP)
- Financial Assurance
- Community Relations Plan

Comparing Historic Imagery

LTS Visit

- General Agenda
  - Brief meeting
  - Field tour – visit everything on checklist (using geospatial PDF)
  - Photo documentation of current conditions (geotagged)

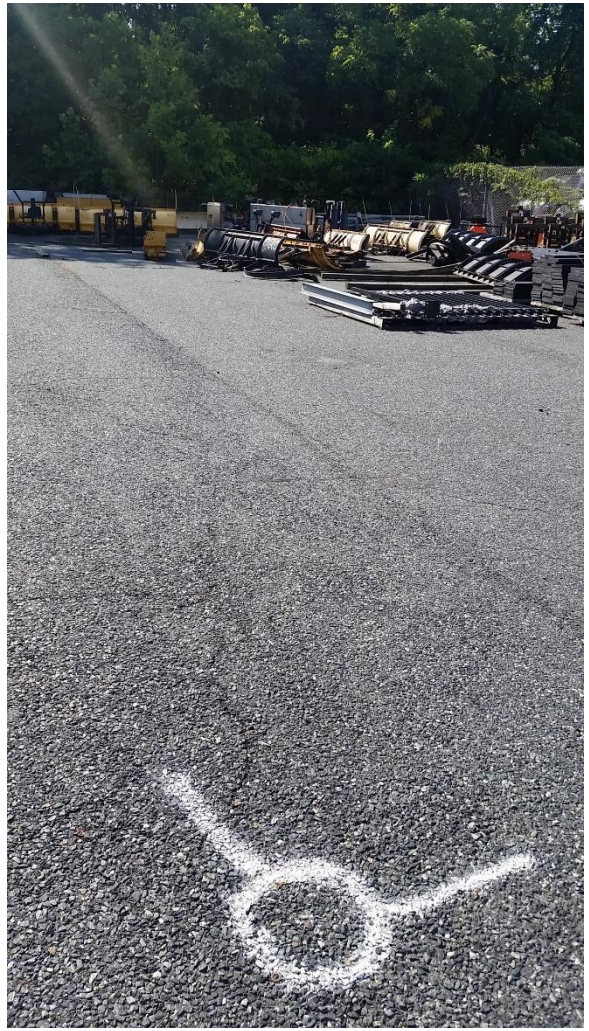


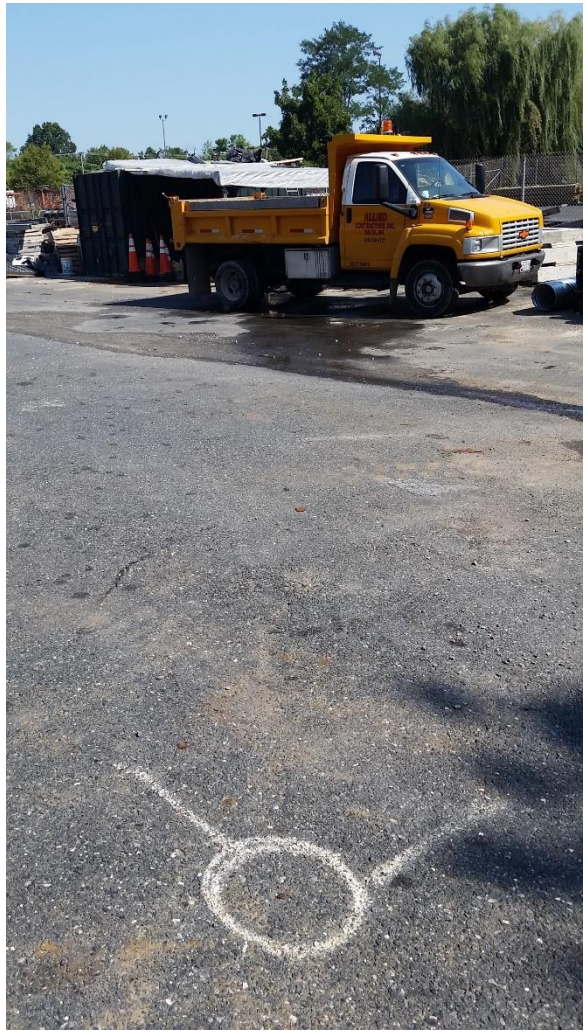
LTS Report Outline

- Introduction - Summary
- Site Background
- Current Site Status
- LTS Visit (Date and Participants)
- Institutional Control Status
- Engineering Control Status
- Financial Assurance
- Mapping
- Follow-up Activities
- Attachments (Checklist, Photos)

Asphalt Cap

Asphalt Cap





Monitoring Wells

Monitoring Wells

Landfill Cover

Landfill Cover

Fencing

Fencing / Information device

Lesson Learned

- New facility managers may not be aware of institutional controls in place
- Engineering controls such as asphalt caps/covers may become distressed and need maintenance
- Restricted area boundaries may not be clearly defined
- Active groundwater remedies may take decades to reach goals; During LTS consider groundwater evaluations to maximize efficiency
- Consider changes in site conditions or new science that may alter risk exposure and cleanup standards
- Brings awareness to stakeholders specific LTS roles / responsibilities

LTS Assessment Determination

CAS88P(X): LT Stewardship – Pass

- LTS assessment completed, all Institutional Controls and/or Engineering controls (IC/ECs) are in place, maintained and operated in the manner, and with current policies and practices

CAS88N(X): LT Stewardship – Minor Maintenance

- Additional information or changes in operation, maintenance of the IC/EC are needed to make a Pass determination

CAS88F(X): LT Stewardship – Further Evaluation Needed

- Selected IC/ECs are not in place, operated or maintained, or other issues are identified that suggest the selected remedy is no longer appropriate for the current conditions at the facility, therefore a comprehensive remedy compliance assessment is required

What's Next? Future reporting

Five (5) Reporting Categories

- Groundwater
- Engineered Control inspection
- Operation and Maintenance
- Compliance (i.e. as required by Environmental Covenant)
- Progress (i.e. as required by Order or Permit)

Goal is to assist Project Managers in tracking when upcoming reports are due.

Questions?

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