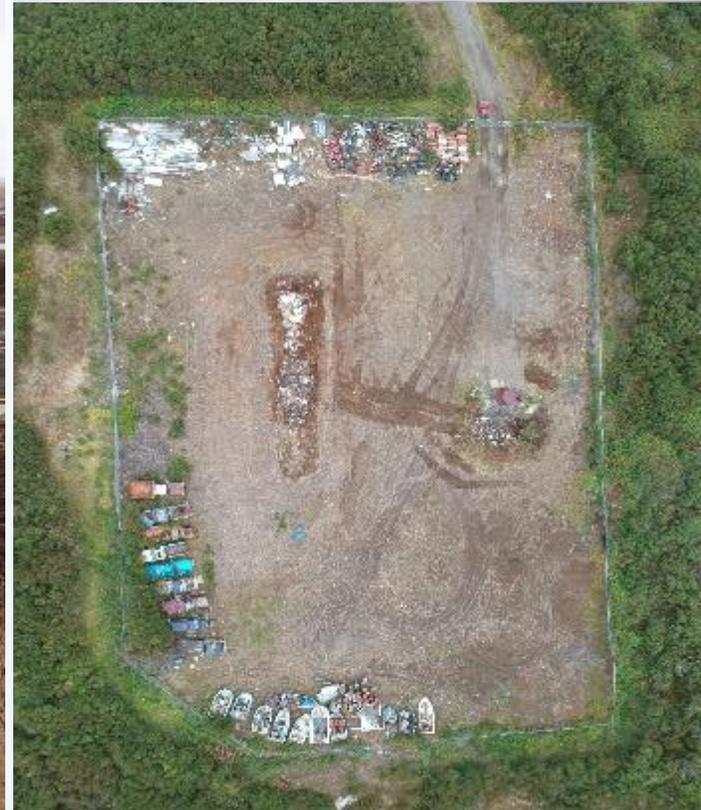




Dealing with Construction and Demolition Waste in Rural Alaska

ADEC Solid Waste Program



Issues with C & D Debris Disposal in Rural Alaska

- Large Quantity-valuable space in landfill
- Bulky
- Harder to Compact
- Backhaul costs
- No permitted landfill
- Require proper planning ahead of projects
 - Coordination
 - Demolition procedures to reduce waste/allow for reuse
- Lack of clear procedures/policies
 - Community can resolve this part



Who is Responsible for C&D Waste?

The Generator of Waste is Responsible for Legal Disposal!

- The community is **NOT** responsible for improper planning by an entity
- Overlooking Disposal (Costly or Illegal disposal)
- **Importance of ordinances to avoid huge impacts to the landfill**
 - Limited space, huge costs of landfills, operations and resources
 - Liability



How to protect the community

Ordinances/Clear Procedures for Accepting C&D

Evaluation by the community:

- What is required
- Costs
- What must be done to ensure regulatory compliance
- Other measures needed
- Access restrictions, fines

Ordinance Template (ADEC website)
- Can be used for your community



Preliminary Planning by Community

Results in preliminary planning by contractors/other entities!

- Otherwise, very costly

Ordinances/Clear Procedures for C&D

- Costs incurred for accepting & managing waste
- Screening requirements
- Size and design of landfill
- Equipment availability
- Cover availability
- Personnel
- Future expansion & current life stage of landfill
- In Kind Services?



Considerations

If you are going to take C&D debris, what are the costs you should consider:

- Monetary
- Costs for handling the debris
- Operator time/equipment time
- Costs associated with taking up valuable space in the landfill
- New landfills or expansions cost a lot of money
- Make it worth while to take any waste
- Shortens the life of a landfill (if accepting C & D)
- It costs a lot for contractors to ship out waste
 - So, they should expect costs if it goes to the landfill



Considerations cont.

Design Considerations

- Is the landfill designed to accept C&D waste?
- Trench and Fill, Area Fill, Cover Design

Equipment Considerations

- Is equipment even available to handle the waste?
- Will equipment hold up?

Personnel Considerations

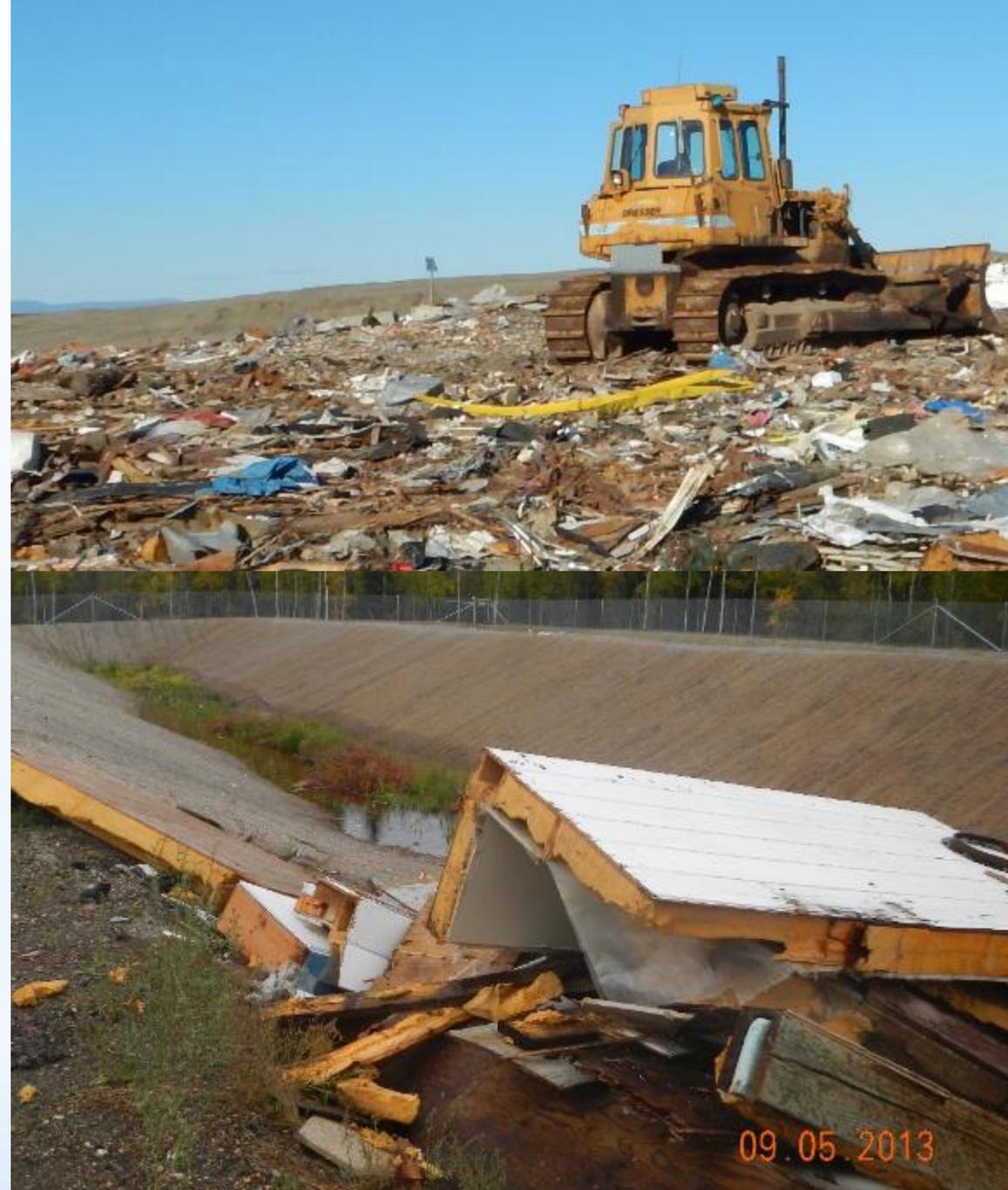
- Is an operator available to handle the waste?
- Time allocation?

Current Life Stage of Landfill

- Current Capacity
- Planning Process Stage

In Kind Services

- Cover, Repairs, Equipment, Backhaul, Structures
- Trade these services to account for the costs



Construction and Demolition Debris Disposal Cost Examples

To dispose of a 10 cubic yard dump truck full of C&D debris at 600lbs per cubic yard it would cost;

Fairbanks North Star Borough Landfill- \$690

Anchorage Regional Landfill- \$197.25

Juneau Capitol Landfill - \$388

Nome Inert Waste Monofill- \$155

Central Peninsula Landfill in Soldotna- \$135

- How much does it cost your landfill?
- You will need to determine the current/future costs associated with this type of waste at the landfill before deciding to accept it



This also aids in the contractors bidding process

Promotes proper planning by contractor

- No surprises
- Identifies accurate disposal costs and requirements
- Initial bid documents
- Final Contract (Disposal)

Promotes evaluation of alternative options

May help contractor to realize:

- How costly other options can be
- That disposal requirements at the landfill may be a much better deal than what they think



Overall promotes legal disposal of C&D debris in rural Alaska





1/2 Acre

Importance of Identifying Screening Criteria in Ordinance/Procedures

Clear ordinances with waste screening procedures protect the community

- Hazardous (lead based, some bulbs, mercury, liquid paint wastes, solvent based paints, PCBs, RACM, Non-Hazardous, Exempt)

Federal regulations require the removal of all asbestos-containing materials and all hazardous or toxic materials before demolition or renovation of a building begins

- Building Survey to Identify Everything
- Certified Contractor for Removal
- Testing
- The community must require all documentation from the contractor to ensure wastes are acceptable
- Planning on the communities behalf is just as crucial as the contractor's









Waste Minimization Procedures

Ordinances/Procedures can help direct projects prior to demolition

Waste minimization requirements as part of the policy for accepting C&D

- Volume Reduction
 - Salvage/Reuse (within community, backhaul)
 - Wood Debris?
 - Can exempt waste be separated out and used elsewhere?

Might not always be possible but allows community to have a say



No Ordinance/Policy

- Community stuck with large piles of C&D Debris
- Fill up the landfill much quicker
 - Huge Costs to the Community
 - Not compensated for actual costs incurred by the community
- Inability to process waste
 - Equipment
 - Cover
 - Impede regular operations
- Environmental Concerns

Having Ordinance/Policy

- No Surprises
- Protective of human health and the environment
- Future Working Relationships
- Knows what has been agreed upon
- Compensated appropriately for accepting the waste
- Ability for Proper Management of Landfill

VS.

Clear Ordinances Benefit Everyone!

Things to Think About Before Accepting C&D Debris at the Landfill

1. Is there space in the landfill to properly dispose of the waste?
2. Does the landfill have equipment and cover material available to properly dispose of the waste?
3. Is there a reuse for some of the materials in the community? You can ask the contractor to demolish in a way that allows for reuse and recycling.
4. Has there been a building survey that reports any asbestos containing materials or lead based paint and proof this has been removed? – Don't accept otherwise
5. Is our landfill permitted? Can we legally accept it? Is there an ordinance written for our landfill
6. Do we have a disposal fee set for the landfill? Unless you are independently wealthy there should be a fee charged to accept the waste.
7. Have all the hazardous materials been removed from the waste such as mercury thermostats, exit signs, smoke detectors, and fluorescent light tubes?

It's your right to say no thank you. Other options to dispose of the waste include backhaul or a One Time C&D Monofill. It is the waste generator's responsibility to properly dispose of the waste

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And Remember, Other Disposal Options are Available

Regardless of what an entity says, other options are available

- However, many are more expensive which provides incentive for the contractor to abide by the established criteria
- One-Time Authorization for C & D Disposal
- Inert Waste Monofill
- Backhaul to Permitted Disposal Site



One-Time Disposal of Inert Waste

Requirements:

Location

- Remote area, no reasonable access to permitted landfill, the landfill refuses waste (proof)
- Disposal Site Considerations
 - Slope, Unstable Soils, Flooding, Washout
- Landowner Consent

Waste

- Generated locally
- Consist solely of inert waste, including building debris, non-RACM, scrap metal, other C&D waste
- Generated from a single project < 1,000 cubic yards

Duration

- May not exceed one year



One-Time Disposal of Inert Waste

Closure Requirements

Closure Plan

- Cover, Graded, Revegetated

Closure Report

- Site map
- Volume of Waste
- Photographs
- Evidence of required deed notation

Be aware of what has to be done



Inert Waste Monofill

Only realistic with large scale C&D projects

- Multiple Projects
- Outside of 25 Mile Range
- Large Quantities > 1000 Cubic Yards
- Multiple Years

Contact ADEC!!!

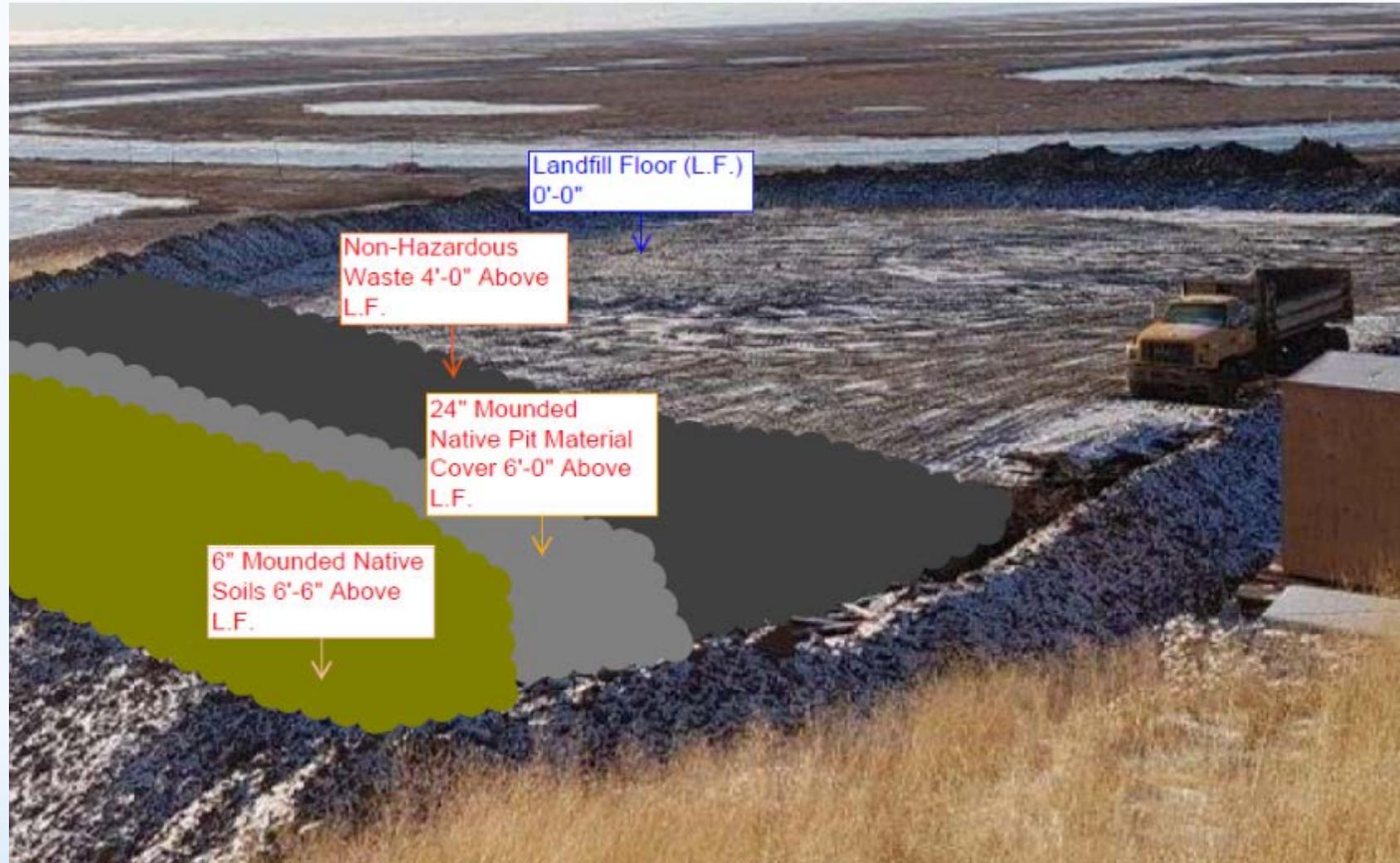


Inert Waste Monofill

More in Depth

- Potential Monitoring
- Post Closure Monitoring (5 Years)
 - On site inspections
- Annual Fees
- Public Notice
- Design Drawings

Contact ADEC!!!

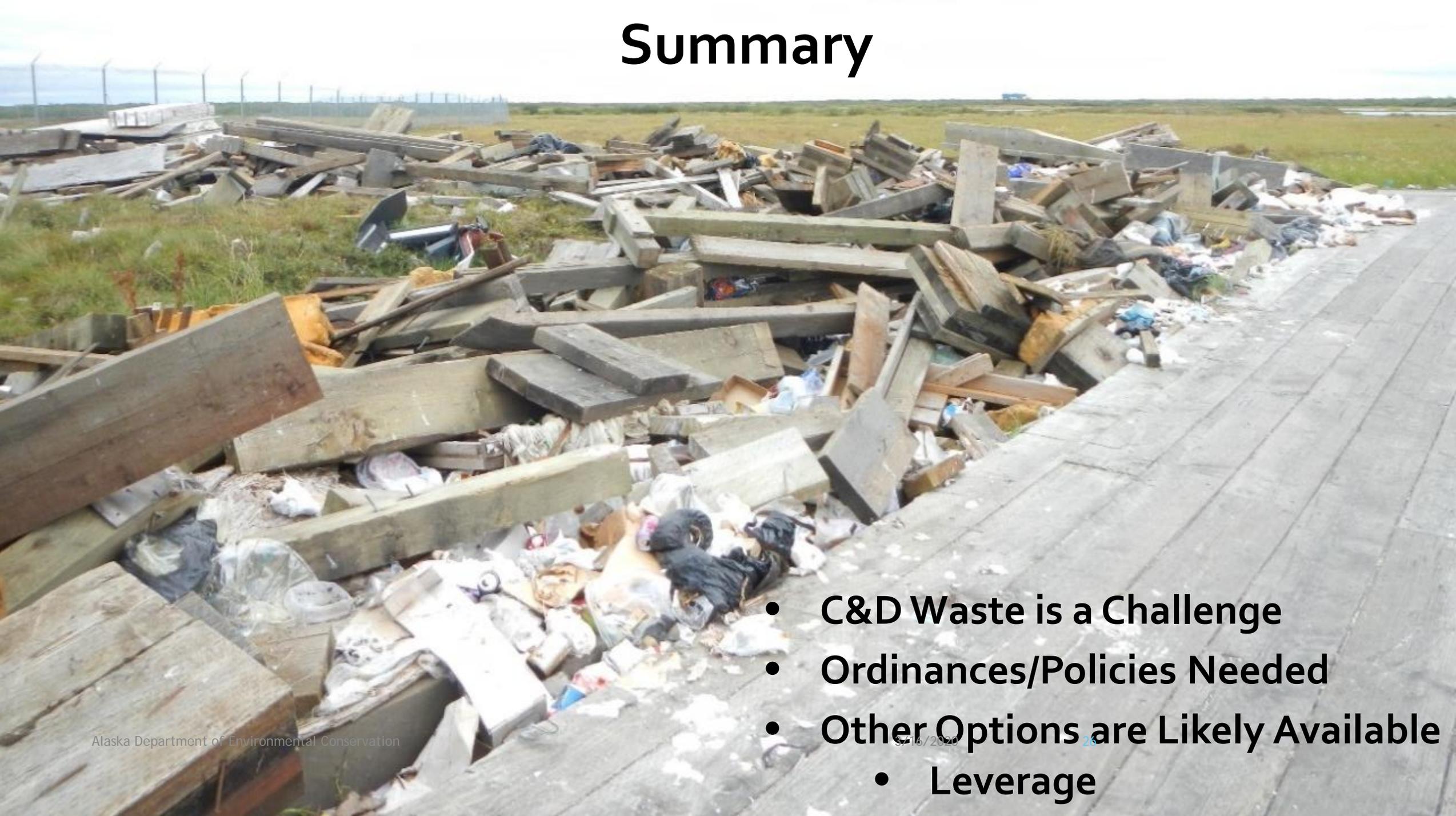


Backhaul to Permitted Facility

- Waste Generator should be aware of Backhaul Options
 - Expensive
 - Not always realistic for everything
 - Some permitted facilities will only accept local waste



Summary



- **C&D Waste is a Challenge**
- **Ordinances/Policies Needed**
- **Other Options are Likely Available**
 - **Leverage**

Links to Applications and Information

DEC Solid Waste Program Website

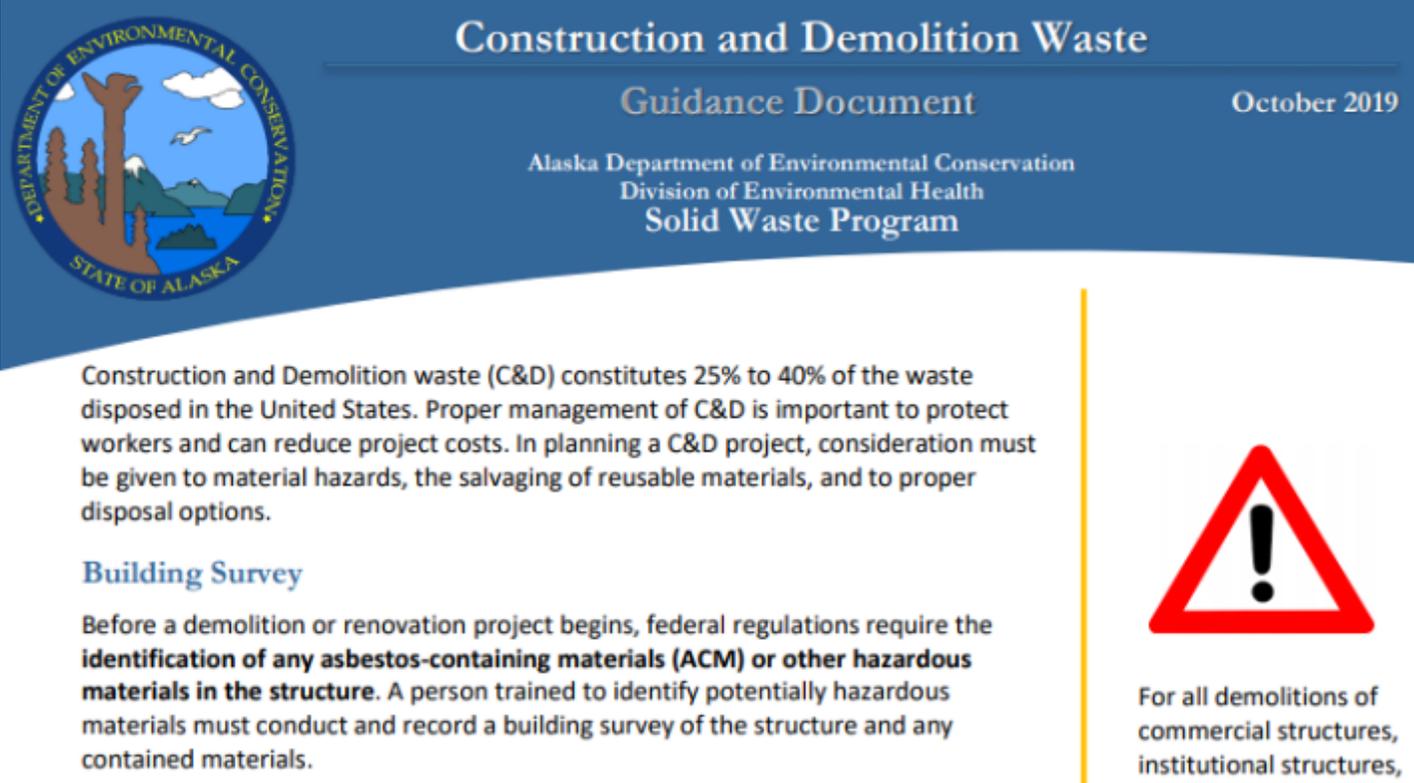
- Guidance Documents
- Ordinance Template
- Letter to Contractors
- Applications
- Forms

LINKS

<http://dnr.alaska.gov/ssd/recoff>

<http://www.epa.gov/asbestos>

<https://dec.alaska.gov/eh/solid-waste/construction-and-demolition-in-rural-ak/>



Construction and Demolition Waste
Guidance Document
October 2019

Alaska Department of Environmental Conservation
Division of Environmental Health
Solid Waste Program

Construction and Demolition waste (C&D) constitutes 25% to 40% of the waste disposed in the United States. Proper management of C&D is important to protect workers and can reduce project costs. In planning a C&D project, consideration must be given to material hazards, the salvaging of reusable materials, and to proper disposal options.

Building Survey

Before a demolition or renovation project begins, federal regulations require the **identification of any asbestos-containing materials (ACM) or other hazardous materials in the structure**. A person trained to identify potentially hazardous materials must conduct and record a building survey of the structure and any contained materials.

For all demolitions of commercial structures, institutional structures,

Questions on
C&D

Success
Stories

Challenges

