ADEC DIVISION OF SPILL PREVENTION AND RESPONSE May 2018



WRANGELL JUNKYARD CLEANUP PROJECT Monofill Disposal Option – Fact Sheet

MONOFILL DISPOSAL

This fact sheet provides information about the option for disposing of the 18, 500 cubic yards of treated lead contaminated soil currently stored at the Wrangell Junkyard in a monofill at the DNR Rock Pit #2 on Pats Creek Road (Pit #2). The monofill is designed to be a permanent disposal cell and withstand significant seismic events and severe weather. This option involves the following steps:

- Loading the treated soil into lined and covered dump trucks at the Byford Junkyard site;
- Transporting the soil to Pit #2 via the Zimovia Highway and Pats Creek Road;
- Depositing the soil in the monofill and performing compaction;
- covering the material daily at both sites;
- Constructing a permanent cap after hauling is complete; and
- Monthly inspections and periodic environmental monitoring for 5 years or more after cap construction is complete.



Wrangell Junkyard Stockpile- 18,500 cubic yards

SCHEDULE AND DURATION

Hauling would occur up to 7 days per week, but not on days with heavy precipitation. Dump truck traffic would occur from approximately 8:00 am till approximately 6:00 pm daily. Hauling will not occur on holiday weekends or Community Fishing Day. If hauling were to commence by May 11, 2018, the project could be largely completed by fall 2018 except for the final vegetative cover. If weather delays are frequent, the project would be completed in late spring, early summer 2019.

TRANSPORTATION ROUTES

Dump trucks would transport the material from the Byford site to DNR Rock Pit #2 via the Zimovia Highway and Pats Creek Road, using the route identified in the picture below.

Dump truck route from the Byford site to Pit #2



Approximately 20 truckloads of treated material would be transported each day, or roughly two per hour. Measures including covering the truckloads and conducting inspections will be taken to prevent any contamination along the route. All trucks will also carry a spill kit to respond to unlikely petroleum leaks or spills from vehicles. Road use authorization has been granted by the U.S. Forest Service for a 1.7-mile section of the route.



DNR Rock Pit #2 Prepared for Monofill



MONITORING AND SAMPLING

Cross Section of the Proposed Monofill

The state would maintain permanent responsibility of the site and will enact institutional controls prohibiting future activities such as excavation that could damage the monofill. Monthly inspections would occur for 5 years or longer until the cap is stabilized and then at a reduced rate to inspect for damage by wildlife or vandalism. Although not required, the state would also conduct periodic surface and groundwater monitoring to verify no leaching has occurred.

4:1 (H:V) SLOPE TO NORTH

MONOFILL AND CAP DESIGN

The material would be compacted to 95% as it is placed into the repository and then capped with six layers of materials, as shown at right and described below.

- 1. 24 inches of cover soil (top 6 inches to be able to sustain vegetative growth)
- 2. 12 inches of D-1 crushed rock
- 3. 4 inches of 3/8-inch minus sand, no fines
- 4. Geocomposite liner nonwoven geotextile heat bonded to both sides of a geonet
- 5. 60-mil HDPE liner, textured
- 6. 4 inches of 3/8-inch minus sand
- 7. 480 inches (40 feet) of contaminated, treated waste soil
- 8. Non-woven geotextile fabric
- 9. 24 inches of underlying gravel

The engineered liner-cover is designed to last 1000 years of exposure to ultraviolet light, but will last much longer. Modeling limitations only allow modeling out to 1000 years. Additionally, modeling results of the cap design show 29.85 gallons of water per acre per year are expected to infiltrate all the way through the monofill. This is a very minimal rate and would not allow leaching into the groundwater, Pats Creek, or Pats Lake.

COST To dat

*NOTE: ON-SITE SHOT ROCK MAY BE USED FOR 2' BASE LAYER. VOID SPACE MUST BE FILLED WITH 1" MINUS OR OTHER ADEQUATE MATERIAL TO CREATE A SMOOTH BASE SUITABLE FOR NON-WOVEN GEOTEXTILE FABRIC AND WASTE MATERIAL PLACEMENT.

TOPSOIL -

D-1, 1" MINUS DRAIN ROCK

To date, approximately \$2.0 million has been spent preparing Pit #2. An additional \$3.5 million is anticipated to be required to finish hauling and monofill cap construction. The project total is estimated at \$5.5 million.

FOR MORE INFORMATION, CONTACT:

Division of Spill Prevention and Response, Contaminated Sites Program Sally Schlichting, Environmental Program Manager (907) 465-5076 -- sally.schlichting@alaska.gov <u>http://dec.alaska.gov/spar/csp/sites/wrangell-junkyard</u>





