SEWAGE SLUDGE:

NOW WHAT DO WE DO WITH IT?



ADEC Solid Waste Program *Lori Aldrich*

Regional Program Manager State Biosolids Coordinator

Sewage Sludge Options

- Closure in Place
- Disposal in the MSWLF
- Sewage Sludge Monofill
- Treatment
- Land Application

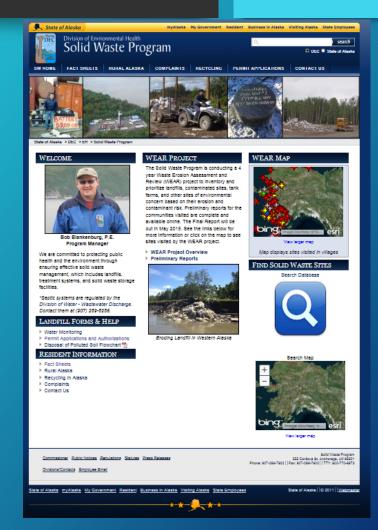
General Requirements

- Solid Waste Program approval or permit
- Dewatered to ≥ 10% solids
- Sampled for metals [Arsenic, Chromium, & Nickel]
- Location requirements for landfills
- Vector attraction reduction requirements [40 CFR 503.32]
- Pathogen reduction requirements [40 CFR 503.33]

Closing a Sewage Lagoon in Place

- For less than 1000 cy
 One-Time Authorization
- Any volumePlan Approval

dec.alaska.gov/EH/SW



Closing a Sewage Lagoon in Place

One-Time Authorization

- Remote locations only
- Less than 1000 cubic yards
- Sampling of sludge for metals
- I year to complete closure
- \$1000 one time fee
- Closure report

LANDFILL FORMS & HELP

- Water Monitoring
- Permit Applications and Authorizations
- Disposal of Polluted Soil Flowchart

RESIDENT INFORMATION

- Fact Sheets
- Rural Alaska
- Recycling in Alaska
- Complaints
- Contact Us

ONE-TIME DISPOSAL AUTHORIZATIONS:

- One-Time Disposal of Asbestos Waste
- One-Time Disposal of Construction and Demolition (Inert) Debris
- One-Time Disposal of Sewage Solids

Application Online

Closing a Sewage Lagoon in Place

Plan Approval

- Submit Plan to ADEC 6 months out
- Lagoon Design
- Operations
- Closure
- 5 years post-closure monitoring
- \$490 Fee
- Closure report

LANDFILL FORMS & HELP

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Other Fact Sheets:

- Burial Plots on Private Property
- Exempt Solid Wastes
- Marine Debris in Alaska
- Mercury in Alaska
- Sewage Lagoon Closure Guidance

Fact Sheet Online

MSW Landfill Co-Disposal

- Must be a PERMITTED landfill
 - This can be an opportunity to get the local landfill permitted
 - If not included as a permit condition, requires separate approval
- Must be managed to minimize human exposure
 - Separate section of the landfill
 - During landfill closed days
- Must be covered daily with 6" of soil

(or other method to reduce pathogens and vector attraction)



Sewage Sludge Monofill

- >1000 cy or regular sludge disposal
- Renewable Permit
- More complex application
- Annual fee currently \$842
- Monitoring
 - Sludge sampling
 - Monthly visual inspection
 - Possible groundwater monitoring
 - Possible gas monitoring
- Minimum of 5 years of post closure monitoring



Treatment

- Goals:
 - Pathogen Reduction
 - Vector Attraction Reduction
- 40 CFR 503
- Consider use options
 - Class A vs. Class B Biosolids
- Treatment options:
 - Composting
 - Lime Stabilization
 - Digestion
 - Incineration



Land Application

- Class A permit exemption
- Fertilization
- Requires testing and application rate calculation
- Access limitations
- Grazing/use limitations



Considerations

- Options for closure/cleaning lagoon should be included in O&M manuals and considered in the design of the facility.
- Planning and ADEC contact should begin well in advance
- Community involvement in the choice of options is important.
- Consider cost and ability of community to perform post-closure requirements.

Solid Waste Village Contacts



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SEWAGE SLUDGE DISPOSAL

QUESTIONS?



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