

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 $\geq 10\%$ 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 volume
Plan Approval

dec.alaska.gov/EH/SW


The screenshot shows the official website of the State of Alaska's Division of Environmental Health, specifically the Solid Waste Program. The header includes the state logo and navigation links for myAlaska, My Government, Resident, Business in Alaska, Visiting Alaska, and State Employees. A search bar is located in the top right corner. Below the header, a navigation menu lists various services: SW HOME, FACT SHEETS, RURAL ALASKA, COMPLAINTS, RECYCLING, PERMIT APPLICATIONS, and CONTACT US. The main content area is divided into several sections: a 'WELCOME' section featuring a photo of Bob Blankenburg, P.E., Program Manager, and a commitment to protecting public health; a 'WEAR PROJECT' section detailing the Waste Erosion Assessment and Review project; a 'WEAR MAP' section with a map of Alaska showing project sites; a 'FIND SOLID WASTE SITES' section with a search database; and a 'LANDFILL FORMS & HELP' section with links to water monitoring, permit applications, and disposal of polluted soil. The footer contains contact information for the division, including the address, phone, fax, and TTY numbers, as well as links to the division's contact page and employee email.

Closing a Sewage Lagoon in Place

One-Time Authorization

- Remote locations only
- Less than 1000 cubic yards
- Sampling of sludge for metals
- 1 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

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

RESIDENT INFORMATION

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

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



Trisha Bower
Northern
Interior
451-2174



Sarah Durand
Interior
Upper Yukon
451-2761



Sandi Woods
Southeast
NW Arctic
465-5318



Doug Huntman
Kuskokwim
Aleutians East
269-7642



Stephen Price
Bristol, Lake/Penn
Kodiak, L. Yukon
269-7467



Kym Bronson
Aleutians West
Kenai
269-7626

SEWAGE SLUDGE DISPOSAL

QUESTIONS ?



Lori Aldrich
Solid Waste Regional Program Manager

ADEC
555 Cordova St., Anchorage 99501
lori.aldrich@alaska.gov
269-7622 / 269-7802