



## DEQ POLICY STATEMENT PS20-11

### GROUND WATER MONITORING FOR SMALL EXEMPT MUNICIPAL SOLID WASTE LANDFILLS

#### PURPOSE

To create a statewide policy for determining if monitoring of ground water at small exempt municipal solid waste landfills (MSWLFs) is necessary in order to protect ground water resources and source water supplies. This policy supersedes PS15-14.

#### SCOPE

This policy applies to all small exempt MSWLFs in Idaho. Small exempt MSWLFs are those that receive less than 20 tons of municipal solid waste daily, based on an annual average, with no evidence of ground water contamination from the municipal solid waste landfill unit or expansion. The small exempt MSWLF must either serve a community that experiences an annual interruption of at least three consecutive months of surface transportation that prevents access to a regional waste management facility or must have no practicable waste management alternative and the landfill unit must be located in an area that annually receives less than or equal to 25 inches of precipitation.

#### STATEMENT OF POLICY

The Idaho Department of Environmental Quality (DEQ) is authorized to administer and enforce certain provisions of the Idaho Solid Waste Facilities Act pursuant to Idaho Code §39-105(3)(g). The Idaho Solid Waste Facilities Act, Idaho Code §39-7410 as amended in 1997, requires ground water monitoring to be included within the design of all MSWLFs, except as follows:

- (a) When the MSWLF unit meets the conditions for exemption in 40 CFR 258.1(f) [the conditions for small exempt MSWLFs]; provided however, that the *director may*, at his discretion, *require monitoring* of a MSWLF unit which meets the conditions for exemption in 40 CFR 258.1(f), if necessary to protect ground water resources. If the director does require ground water monitoring of such MSWLF unit, a method other than the ground water monitoring wells required in this section and in 40 CFR 258.51 through 258.55 may be used to detect a release of contamination from the unit; or
- (b) When suspended upon demonstration in accordance with 40 CFR 258.50 that there is no potential for migration of hazardous constituents from the MSWLF unit to the uppermost aquifer during the active life of the unit and the post-closure care periods when certified by a qualified professional and approved by the director. [emphasis added]

Idaho Code §39-7410 allows for an exemption from ground water monitoring for small exempt MSWLFs under certain conditions. However, some small exempt MSWLFs have been constructed and are accepting waste in locations that have a high probability of impacting ground water from release of contaminants in leachate. Locations such as gravel pits and other porous geologic formations and shallow depth to fractured bedrock are locations where small exempt MSWLFs will be required to monitor ground water. The policy section outlines the conditions that may require ground water monitoring.

### **PROCESS FOR REQUIRING GROUND WATER MONITORING AT SMALL EXEMPT MUNICIPAL LANDFILLS**

To comply with Idaho Code §39-7410, DEQ shall evaluate small exempt MSWLFs on a case-by-case basis to ensure that ground water shall be protected. Each small exempt MSWLF shall be evaluated for such characteristics as waste type, type of containment, depth to ground water, geology, proximity of domestic wells, and history of MSWLF operating problems. These site-specific categories will be recorded on the Small Exempt Municipal Solid Waste Landfill Ground Water Evaluation Work Sheet (Appendix A). Small exempt MSWLFs scoring over 700 points and unable to comply with Idaho Code §39-7410(1)(b) shall be required to monitor ground water through use of monitoring wells. MSWLFs scoring between 500 and 700 points and unable to comply with Idaho Code §39-7410(1)(b) may be required to assess ground water by conducting ground water monitoring through use of monitoring wells or implement other monitoring method(s) approved by the director, which will effectively determine if ground water is being impacted.

### **RESPONSIBILITY**

DEQ's solid waste program manager is responsible for maintaining this policy.

### **IMPLEMENTATION**

This policy is effective immediately and will remain in effect for 5 years unless amended, replaced, or rescinded prior to expiration.

Dated this 25<sup>th</sup> day of March, 2020

  
John H. Tippet  
Director

## Appendix A. State of Idaho Small Exempt Municipal Solid Waste Landfill Ground Water Evaluation Worksheet

This worksheet is to be used by DEQ staff to determine whether a small exempt municipal landfill should provide for ground water monitoring.

|                  |                |              |
|------------------|----------------|--------------|
| Facility Name:   | County:        | Region:      |
| Location:        | Lat./Long.:    | Date:        |
| Contact Person:  | Facility Size: | DEQ Staff:   |
| Contact Address: | Date Opened:   | Total Score: |

**Instructions:**

1. Fill out the above site information and enter the score after computed.
2. Where information is not supplied or available to the reporter, assume the highest value assigned to that category.
3. Circle all applicable value(s) for each category, multiply by a factor if necessary, and place the total in the score column below. Add all the values in the score column and enter the total in the score box above. Please take thorough notes and add comments about the site where appropriate.
4. Keep the original for your file and send a copy of the completed form and any attached notes to your regional administrator and to the solid waste program manager, DEQ State Office, 1410 N. Hilton, Boise, ID, 83706.
5. If the small exempt MSWLF has the potential to affect a Sensitive Resource Aquifer, then ground water monitoring shall be required.

A) Facility daily volume. Enter the estimated volume of waste received per day.

| <u>Category</u>   | <u>Points</u> | <u>Value</u> | <u>Score</u> |
|-------------------|---------------|--------------|--------------|
| > 10 tons per day | 30            | _____        |              |
| < 10 tons per day | 10            | _____        | _____        |

B) Waste type. With local health district assistance, estimate percent of known waste types. Also, enter 100 if you know or suspect that hazardous waste is present such as conditionally exempt small quantity generated (CESQG) hazardous waste. If subtitle C hazardous waste is present, the facility must be referred to the Hazardous Waste Program at the DEQ State Office.

| <u>Category</u>                               | <u>Points</u> | <u>Value</u> | <u>Score</u> |
|---|---------------|--------------|--------------|
| Known/observed CESQG hazardous waste disposal | 100           | 100          |              |
| Municipal solid waste                         | % × 40 =      | _____        |              |
| Agriculture waste                             | % × 20 =      | _____        |              |
| Petroleum contaminated soil                   | % × 20 =      | _____        |              |
| Sewage sludge                                 | % × 20 =      | _____        |              |
| Paper mill ash                                | % × 20 =      | _____        |              |
| Construction & demolition waste               | % × 20 =      | _____        | _____        |

C) Waste containment. With local health district assistance, enter any that apply.

| <u>Category</u>                     | <u>Points</u>     | <u>Value</u>   | <u>Score</u> |
|-------------------------------------|-------------------|----------------|--------------|
| No synthetic liner                  | 100               | _____          |              |
| Waste exposed (closed portion)      | 75                | _____          |              |
| Soil or clay cover (closed portion) | poor 50<br>good 0 | _____<br>_____ |              |
| Vegetative cover (closed portion)   | poor 50<br>good 0 | _____<br>_____ |              |
|                                     |                   |                | _____        |

D) Depth to groundwater from bottom of landfill. Enter one.

| <u>Category</u>       | <u>Points</u> | <u>Value</u> | <u>Score</u> |
|-----------------------|---------------|--------------|--------------|
| 0 feet to 5 feet      | 100           | _____        |              |
| > 5 feet to 50 feet   | 75            | _____        |              |
| > 50 feet to 100 feet | 50            | _____        |              |
| > 100 feet            | 25            | _____        |              |
|                       |               |              | _____        |

E) Geology and hydrologic conductivity (K) above aquifer. Enter one.

| <u>Category</u>   | <u>Points</u> | <u>Value</u> | <u>Score</u> |
|---|---------------|--------------|--------------|
| Gravel, clean sand, fractured igneous or metamorphic rock, cavernous limestone or dolomite                        | 100           | _____        |              |
| Sands, sandy silts, high K till, moderate K limestone, dolomite, sandstone, fractured igneous or metamorphic rock | 75            | _____        |              |
| Silt, loess, or till, limestone, dolomite, sandstone, or fractured igneous or metamorphic rock with medium K      | 50            | _____        |              |
| Clay, till, shale, unfractured igneous or metamorphic rock with low K   | 10            | _____        |              |
|   |               |              | _____        |

F) Domestic water wells potentially at risk (enter one).

| <u>Category</u>                           | <u>Points</u> | <u>Value</u> | <u>Score</u> |
|---|---------------|--------------|--------------|
| Wells exist within 1,200 feet             | 100           | _____        |              |
| Wells exist > 1,200 feet up to 2,500 feet | 75            | _____        |              |
| Wells exist > 2,500 feet up to 5,000 feet | 50            | _____        |              |
| Wells exist greater than 5,000 feet       | 25            | _____        |              |
|   |               |              | _____        |

G) History of Operating Problems. With local health district assistance, enter any that apply.

| <u>Category</u>   | <u>Points</u> | <u>Value</u> | <u>Score</u> |
|---|---------------|--------------|--------------|
| Waste has been placed below the high seasonal water level | 100           | _____        |              |
| Documented contamination of surface water                 | 100           | _____        |              |
| Storm water run-on/run-off control problems               | 100           | _____        |              |
| Repeated, uncorrected problems noted in past visits       | 50            | _____        |              |
| Documented leachate seeps                                 | 50            | _____        |              |
|   |               |              | _____        |

H) Evidence of Contamination.

| <u>Category</u>   | <u>Points</u> | <u>Value</u> | <u>Score</u> |
|---|---------------|--------------|--------------|
| Lab documentation that ground water has been impacted by leachate?  | 100           | _____        |              |
| Are there site conditions present such as stressed vegetation that suggest it is likely ground water has been impacted by leachate? | 75            | _____        |              |
|   |               |              | _____        |

I) Any Other Characteristics (plus or minus value scores accordingly).

| <u>Category</u> | <u>Points</u> | <u>Value</u> | <u>Score</u> |
|-----------------|---------------|--------------|--------------|
|                 |               | _____        |              |
|                 |               | _____        |              |
|                 |               |              | _____        |

Please add the scores for categories A through I here and enter the total at the top of page 1.

| Category | Score |
|----------|-------|
| A        |       |
| B        |       |
| C        |       |
| D        |       |
| E        |       |
| F        |       |
| G        |       |
| H        |       |
| I        |       |

TOTAL SCORE OF ALL CATEGORIES \_\_\_\_\_