

Fremont County Solid Waste Disposal District announces that the Sand Draw Landfill, near Riverton, Wyoming, will be closed on [insert date]. After this date, solid waste may be deposited at [insert new facility name and location].

7.4 FINAL COVER SYSTEM

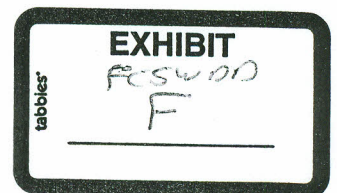
The following information is provided to describe the final cover system that will be used to cap areas used for the disposal of solid waste in the Original Area. The future development of the Expansion Area is currently limited to conceptual design plans. Final cover system plans specific to the Expansion Area will be provided in conjunction with the preparation of site-specific design plans for the Expansion Area.

7.4.1 FINAL COVER SYSTEM – MUNICIPAL SOLID WASTE DISPOSAL UNITS

Areas used for the disposal of MSW will be capped with the prescriptive cover system described in Chapter 2, Section 7(d)(ii) of the WSWRR. The prescriptive cover system will be constructed over any routine or intermediate cover already in place, and include (from top to bottom):

- 6 inches of uncompacted native topsoil
- 48 inches of lightly-compacted unclassified fill (native soil)
- 24 inches of compacted soils that form a barrier layer with a permeability of 1×10^{-7} cm/sec or less

The estimate of the maximum depth of frost penetration in the vicinity of the Sand Draw Landfill is approximately 54 inches (NOAA 1978). The combined thickness of the uncompacted native topsoil and the lightly compacted unclassified fill is approximately 54 inches to prevent frost damage to the underlying compacted barrier layer. A typical cross section of the prescriptive cover system is provided on Figure 5-9. Details regarding the characterization, construction, and testing of the prescriptive cover system are provided in Appendix FF.



7.4.2 FINAL COVER SYSTEM – INDUSTRIAL SOLID WASTES AND CONSTRUCTION/DEMOLITION WASTES

IDW and CDW will be co-disposed with MSW in the Original Area. Therefore, areas within the Original Area that are used for the disposal of IDW and CDW will be capped with the final cover system described in Section 7.4.1 of this document. In the event that designated disposal areas are developed in the Expansion Area, CDW and IDW-specific final cover systems may be proposed.

7.4.3 FINAL COVER SYSTEM - FRIABLE AND NON-FRIABLE ASBESTOS-CONTAINING WASTE DISPOSAL UNITS

Areas used for the disposal of FAW and NFAW will be located within the footprint of the areas used for the disposal of MSW (Figure 5-1). Therefore, areas used for the disposal of FAW will be capped with the final cover system described in Section 7.4.1 of this document.

7.4.4 GRADES

The final cover system will be graded to slopes ranging from approximately 4% to approximately 17% (6H:1V) to promote run-off and prevent ponding and erosion. The grades of the final cover system for the Original Area are shown on Figure 5-4. The soil loss rate for the facility in the first year after planting initial vegetation (i.e., worst case scenario) was estimated to be 0.56 tons per acre per year using the Revised Universal Soil Loss Equation (RUSLE). The assumptions and calculations associated with the RUSLE evaluation are provided in Appendix CC.

7.4.5 VEGETATION

All disturbed areas that receive a final cover system will be seeded as soon as soil moisture and precipitation conditions are favorable, or within 1 year, whichever comes first. The seed mixture described below has been selected because it contains native species, is diverse, drought-tolerant, and requires little maintenance. The proposed seed mixture includes the following species:

- Western Wheatgrass (*Pascopyrum smithii*) is a native, cool-season, highly drought-tolerant, low-maintenance, sod-forming grass that has a very strong rhizomatous root systems with a few deep roots. It provides good early spring growth, fair summer growth, and good late fall growth if adequate moisture is available (Brown and Wiesner 1991; Stubbendieck et al 1994). Minimum root depths of 20 inches are reported (USDA 2002B). Maximum root depths of 4 to 8 feet are reported (Weaver 1926; Weaver 1956; Coupland and Johnson 1965; Risser et al 1981).

- Green Needlegrass (*Nassella viridula*) is a native, cool-season, moderately drought tolerant, perennial bunchgrass that grows to a height of 18 to 36 inches (USDA 2002B). This is an important grass of the Intermountain West and Northern Great Plains and is often planted with a mix of other native grasses. Growth begins in the early spring and continues until fall depending on available moisture. Green needlegrass has deep, fibrous roots that may extend to 10 feet or more under favorable conditions (MSU 2010).
- Thickspike Wheatgrass (*Elymus lanceolatus*) is a native, cool-season, highly drought-tolerant bunchgrass that has an extensive creeping rhizome root system with a few deep roots. In extreme drought conditions, it will become dormant but recover quickly when moisture becomes available. It provides growth in mid-spring and continues into late fall (Brown and Wiesner 1991). The majority of the root mass is developed within 8 inches, and the average maximum root depth is approximately 15 inches. Thickspike wheatgrass is recommended for underground disposal sites due to its abilities to control soil infiltration and to extract water from the soil profile (USDA 2002A).
- Indian Ricegrass (*Achnatherum hymenoides*) is a native, cool-season, highly drought-tolerant bunchgrass. It provides growth in early spring, summer and late fall (Brown and Wiesner 1991). Minimum root depths of 18 inches are reported (USDA 2002B). Maximum root depths of 5 feet are reported (Cory 2000).

All disturbed areas that have been reclaimed to final grade will be seeded with the following mixture and application rates:

Western Wheatgrass	4 lbs PLS/acre
Thickspike Wheatgrass	3 lbs PLS/acre
Indian Rice Grass	5 lbs PLS/acre
<u>Green Needlegrass</u>	<u>3 lbs PLS/acre</u>
Total	15 lbs PLS/acre

Seeding will occur in the fall or spring, although the fall is recommended. Seed will be applied by either broadcasting or drilling, although drilling is recommended. If the seed is applied by drilling, seed should be drilled on contour to a depth of 0.25 to 0.75 inches. Depth bands, an agitator, and/or a special seeding attachment are recommended for exceptionally hairy and small seeds. If the seed is broadcast, the application rates noted above will be doubled and seeded areas will be raked, harrowed or dragged to cover the seed. After seeding, fertilizer will be applied at the rate of 35 pounds of available nitrogen per acre, and have a 2:1:1 ratio of nitrogen/phosphorous/potassium.

Seeded areas will be mulched with native hay, grass hay, straw, or live mulch. Hay or straw will be free of weeds. Mulch will be applied at a maximum rate of 1.5 to 2.0 tons per acre. Mulch will be anchored by discing with the disc set straight and minimum depth of 3 inches. The distance between coulter discs shall be no more than 12 inches.

7.5 SURFACE WATER DIVERSION

Permanent surface water diversion structures associated with the final reclamation plans will be maintained throughout the closure and post-closure periods. Information regarding the design of the permanent surface water features for the Original Area is provided in Appendix S, and the locations of permanent surface water features for the Original Area are shown on Figure 5-1.

The future development of the Expansion Area is currently limited to conceptual design plans. Surface water diversion plans specific to the Expansion Area will be provided in conjunction with the preparation of site-specific design plans for the Expansion Area.

7.6 INSPECTION AND MAINTENANCE

The facility will be inspected and maintained throughout the closure and post-closure period. Inspections will be completed at least two times per year (May and November) during the closure period and the first two years of the post-closure period. Beginning in the third year of the post-closure period, inspections will be completed at least once per year (May). Additional inspections will be performed after major precipitation events.

Inspections will focus on the condition of surface water diversion structures, the final soil cover system, and access control structures. In the event that the inspections identify conditions that warrant maintenance or repairs, the necessary maintenance or repairs will be completed as soon as possible. The Closure & Post Closure Inspection Form provided in Appendix I will be used to track relevant information regarding closure and post closure inspection and maintenance activities.

7.7 ENVIRONMENTAL MONITORING PROGRAM

The environmental monitoring systems and programs described in Section 6.0 and Appendix GG of this document will be maintained throughout the closure and post-closure periods, or until the WDEQ/SHWD determines that they may be discontinued, whichever comes first.