closure and post-closure care will be submitted to the Executive Secretary at least 30 days prior to the initial receipt of waste. The Trust will be fully funded within five years of the permit approval.

Money deposited in the trust fund will be used exclusively for closure, post-closure care, and corrective action. Guidelines for reimbursement, found in UAC R315-309-2(iv), state:

> *The owner or operator, or other person authorized to conduct closure, post-closure, or corrective action may request reimbursement from the trustee for closure, post-closure, or corrective action costs.*
>
> 1. *the request for reimbursement may be granted by the trustee only if sufficient funds are remaining to cover the remaining costs and if justification and documentation of the costs are placed in the operating record*
>
> 2. *The owner or operator shall notify the Executive Secretary that documentation for the reimbursement has been placed in the operating record and that the reimbursement has been received.*

The fund will be evaluated annually and may be adjusted as needed.

PART III – TECHNICAL DATA

3.1 DESCRIPTION OF SITE VICINITY

A scanned copy of part of the most recent Chester, Utah, U.S. Geological Survey (USGS) topographical map of the site area is provided as Attachment 8. This map shows the facility boundary, the property boundary, the latitude and longitude coordinates of the front gate, the land use and zoning of the surrounding areas, any existing utilities and structure within one-fourth mile of the site, surface drainage channels, and the direction of the prevailing winds.

As shown on the USGS map, there are no home, one power line, and no culinary wells within one-fourth mile of the site boundaries. The landfill property is zoned PF (Public Facilities). Lands to the north, west, and south are Zoned A (Agricultural), while across Highway 89 to the east the lands are SL (Sensitive Lands). Prevailing winds are from the south southwest.

3.1.1 Location Standards

Regulations concerning all new Class IV landfills require that they conform to location standards as listed in UAC R315-305-4(1)(a)(i,ii, and iii).

3.1.1.1 Floodplains

The Landfill is not located in a floodplain.

3.1.1.2 Wetlands

The Landfill is not located in wetlands.

3.1.1.3 Water Levels

Regulations require that the lowest level of waste will be at least five feet above the historical high level of ground water. The requirement is met easily: the water levels in five test borings at the Landfill site encountered water at depts. Ranging from 35 to 46 feet below the ground. The deepest trench will be 20 feet. A test boring at the west end of the deepest proposed trench disclosed ground water 41 feet below ground level. The lowest level of waste will then be (41 less 20), or 21 feet above the shallowest known grown water level. Ground water is 46 feet below ground level at the east end of the same trench, or 26 feet below the deepest waste.

3.2 ENGINEERING CONSIDERATIONS

3.2.1 Foundation Design Underlying the Facility

The IVb Landfill will be constructed on natural soils, north and east of the closed Class II Municipal solid waste Landfill. Materials underlying the proposed Landfill consist of alluvial soils approximately 50 fee thick overlying weathered sandstone and shale bedrock of the Green River Formation.

The alluvial soils are sandy silts and clays, and poorly graded, silty and clayey sands with a little gravel. Engineering properties of the soils, as determined by Bingham Engineering and Tri-State Testing, are included in the Appendix. The soils are easily excavated and stand vertically in the existing trenches.

Five test borings constructed by Bingham Engineering in 1995 encountered ground water at depts. Ranging from 35 to 46 feet below the ground surface. Water bearing strata typically occur in unconsolidated soils five to 10 feet above the weathered bedrock surface.

3.2.2 Trench Design

Areas immediately to the east and north of the recently closed Municipal solid waste Landfill unit will receive Class IVb debris. The eastern area will be used after construction of at least one, twenty-foot deep trench, 300 feet long and 150 feet wide, for disposal of C/D waste. Sufficient Landfill space is available for three more similar trenches east of the closed Class II Municipal Landfill, and sixteen additional trenches north of the closed Class II Municipal Landfill, each 300 feet long and 150 feet wide. The design and locations of the proposed trenches are shown on Figures 1, 2, and 3.

3.2.3 Run-On/Run-Off Protection

3.2.3.1 Run-on Protection

The facility is protected from run-on in two ways:

1. The existing Municipal Landfill prism and the Class IVb Landfill are bounded on the north, east, and south by berms constructed to protect the Municipal Landfill prism. The berms were originally constructed as roads, and are nowhere less than 12 inches high and ten feet wide.

2. Run-on from the west side of the proposed Class IVb Landfill is impossible because the entire landfill area slopes down to the west northwest (bearing 280 degrees) at approximately four (4) percent. The design amount of the run-on is determined by the amount of precipitation that would occur after a 25year, 24hour storm event of 2.1 inches.

Run-on is further limited by the roadbed of U>S> Highway 89 and a parallel, abandoned railroad grade. The railroad grade is an intact barrier to run-on from a point 1.05 miles northeast of the northeast corner of the Landfill property, to the south side of the Landfill gate. The railroad grade has been breached south of the Landfill access road and gate in order to allow storm water to flow to the west, away from U.S. Highway 89.

North of the Landfill access road and gate, at least four, and perhaps five, 24 inch diameter culverts convey precipitation from the east side of Highway 89 through the railroad grade into pasture lands west of Highway 89. Each culvert is capable of conveying 31.4 cubic feet of water per second at a velocity of 10 feet per second.

The total amount of run-on that could be produced by a design storm east of Highway 89 that might be directed toward the Landfill is much less. The maximum area between the easterly Landfill berms and the drainage divide east of the Class IVb Landfill is 530 acres. The amount of run-on from that area during a 25 year, 25 hour storm would be 11.62 cubic feet per second. In the unlikely event that the road bed and the railroad grade were breached by erosion, the entire run-on would be directed toward the Landfill.

Flow velocity in the vegetated ditch is approximately ten (10) feet per second. The cross-sectional area of a ditch required to transport 11.62 cubic feet per second is therefore only 1.162 square feet. However, it is likely that the velocity of the run-on would be reduced by ponding along Highway 89 and the abandoned railroad right of way.

Assuming a flow velocity of only five (5) feet per second, the cross-sectional area of the ditches impounded by the uphill side of the Landfill berms would have to be at least 2.324 square feet to divert water around the Landfill, or 2.789 square feet to obtain a safety factor of (20) percent.

The existing berms are 12" (one foot) high. The natural slope down from east to west is four percent. Therefore, the width of the ditch formed by the uphill toe of the north-south trending berms and the natural slope is 1:1, horizontal to vertical. These dimensions provide a ditch cross-sectional area of 13 square feet, for a safety factor of 4.59 percent if flow velocity is five (5) feet per second.

In the unlikely event that the velocity of flow in the ditch were reduced to two feet per second, the required cross-sectional area would be 5.81 square feet. The available cross-sectional area is 13 square feet, providing a safety factor of 124 percent.

3.2.3.2 Run-Off Protection

Since no water will be able to "run on" to the Landfill, the run-off system preventing water from leaving the Landfill needs only address precipitation that falls within the Class IVb facility.

Water that could run off to the west will be retained by a three-foot high berm. The berm is constructed parallel to the western property line. The berm is designed to retain more than .22 cfs, the amount of run-off that could occur after a 25 year, 24 hour storm event of 2.1 inches of precipitation on 25 acres.

A 25 year, 24 hour storm event could produce localized ponding or erosion on the closed Municipal solid waste Landfill. If this occurs, the closed Landfill will be regarded so that water cannot accumulate there or percolate through the cover material.

The demonstration that the run-on control berms are adequate is presented in paragraph 3.3.2.1. The volumes of run-off for a 25 year, 24 hour storm were calculated with the USDA TR-55 formulas for estimating run-off. Figure 4 is a map showing Landfill slopes as measured with a hand level and compass, and the location of run-on control berms. Figure 5 is a map showing the drainage area, culverts through Highway 89 and the railroad grade, and breaches in the railroad grade south of the Landfill gate.

3.2.3.3 Contingency Plan for Failure of Run-Off Containment System

In the event that the run-off containment system fails due to a storm or accidental breach, the operator shall immediately transport additional cover soils to the breached area of the berm to repair the breach. Soils placed into the breach shall be compacted by the wheels or tracks of the loader used to transport the soils. Solid waste that may have been transported beyond the containment berms shall be collected and placed in the open disposal area.

3.2.4 Fugitive Dust Control

Fugitive dust will be controlled by minimizing excavation of natural vegetation. Filled depressions and units requiring closure will be regarded and re-vegetated as soon as practicable.

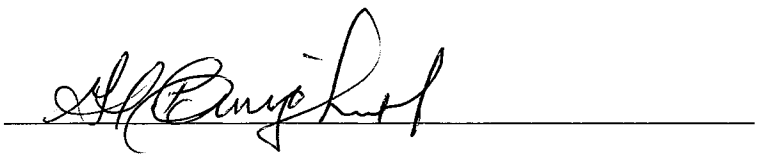
If the above measures do not control the dust and it becomes a problem, the Landfill Operator will request the use of, either a county, city, or private water truck in order to lightly moisten the ground with water.

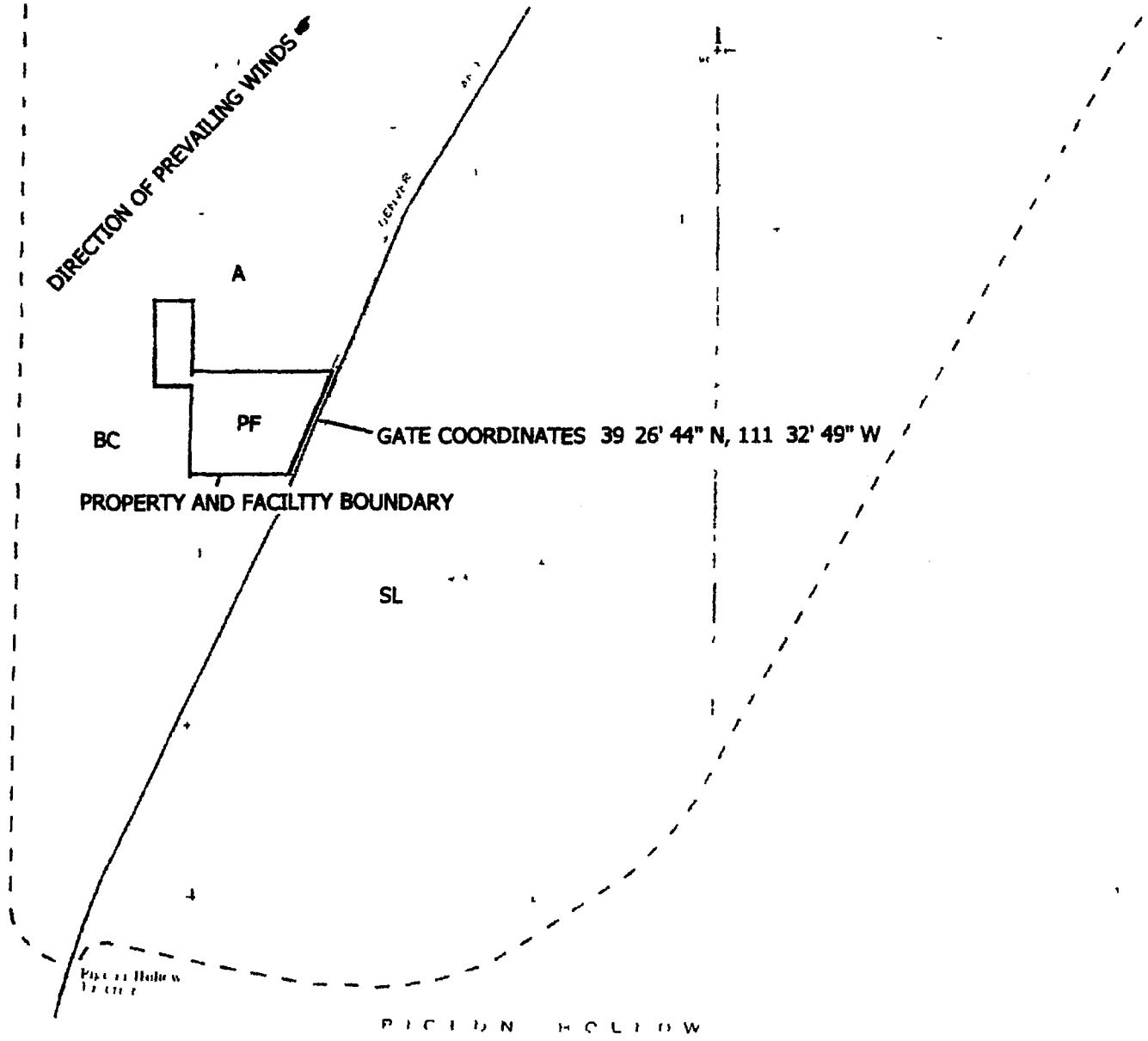
3.2.5 Closure Requirements

Closure design, construction, maintenance, and land use are discussed in Section 2.6, Closure Plan.

Respectfully Submitted for Sanpete Sanitary Landfill Cooperative by:

Garry Bringhurst – Landfill Administrator





Attachment 8.

Chester, Utah, U S Geological Survey (USGS) topographic map (scanned) .This map shows the facility boundary, the latitude and longitude coordinates of the front gate, the land use and zoning of the surrounding areas, and the direction of the prevailing winds

.There are no homes, one power line, and no culinary wells withm one-fourth mile of the site boundaries The Landfill property is zoned PF (Public Facilitities) Most lands to the north, west, and south are A Zone (Agricultural) One parcel formerly used for landfilling by others is zoned BC (business and commercial) Across Highway 89 to the east the lands are SL (Sensitive Lands) Prevailing winds are from the southwest

SCALE 1" = 2450' (approximate)