

Attachment 2

2.0 – CLOSURE PLAN

2.1 CLOSURE SCHEDULE

The Landfill will be closed incrementally as portions of the landfill reach final grade. Currently, six acres of the landfill have been closed while 51 acres are currently being operated for C&D waste disposal. Based on facility life calculations using a one- and one-half percent growth rate, final closure of the facility is expected to be more than 50 years in the future.

2.2 DESIGN OF FINAL COVER

As discussed previously, the final cover will consist of a minimum of two feet of soil six inches of which will consist of a topsoil material. The future side slopes of the final cover will be no steeper than a 3:1 (horizontal to vertical) with no portion of the final cover less than a 5% slope. The cover soil will be seeded with indigenous grasses.

2.3 CAPACITY OF SITE IN VOLUME AND TONNAGE

The Landfill capacity and projected life are presented in the following summary table:

YEAR	ESTIMATED DAILY C&D WASTE (Tons)*	DAYS OF OPERATION	ESTIMATED YEARLY C&D WASTE (Tons)	ESTIMATED YEARLY C&D WASTE (Cu. Yds.)	CUMULATIVE WASTE (Cubic Yards)	REMAINING LANDFILL CAPACITY (Cu. Yds.)
						23,625,000
2020	558	260	145,145	290,290	290,290	23,048,710
2025	601	260	156,362	312,725	312,725	21,530,624
2030	648	260	168,447	336,893	336,893	19,895,214
2035	698	260	181,465	362,930	362,930	18,133,412
2040	752	260	195,489	390,979	390,979	16,235,452
2045	810	260	210,597	421,195	421,195	14,190,810
2050	873	260	226,873	453,747	453,747	11,988,150
2055	940	260	244,407	488,814	488,814	9,615,259
2060	1013	260	263,296	526,591	526,591	7,058,982
2065	1091	260	283,644	567,288	567,288	4,305,145
2070	1175	260	305,565	611,131	611,131	1,338,481
Approximate Initial Waste Disposal Capacity (Cubic Yards) =					27,000,000	
Soil Usage is Approximately 12.5 Percent (Cubic Yards) =					3,375,000	
Net Airspace (Cubic Yards) =					23,625,000	
* Annual Growth Rate of 1.5%.						
**Conversion of Tons of Waste to Cubic Yards of Waste is Based Upon an Estimated Conversion Rate of 1,000 Pounds per One Cubic Yard						

2.4 FINAL INSPECTION

A final inspection will be performed at the Landfill site at the termination of landfilling activities. The final inspection will determine if the Landfill meets all the closure requirements as outlined in the permit and closure plans. The final inspection will be performed by both NPSWSSD and State of Utah DWMRC personnel.

3.0 – POST-CLOSURE CARE PLAN

3.1 SITE MONITORING

There are no post-closure monitoring requirements for ground water, leachate, or landfill gas at the Landfill since there are no ground water, leachate or gas collection systems at the facility. However; the landfill cover and other physical aspects of the Landfill will be monitored on a quarterly basis during the post-closure care period.

Landfill topography shall be visually checked for depressions that could result in ponding or rapid erosion. Irregularities in the surface of the final cover will be regraded and revegetated as needed to protect the surface from erosion and to eliminate ponding.

Side slopes will be maintained or regraded to original slopes and the top slopes will be maintained or regraded to prevent ponding. The frequency of monitoring may be reduced only after a successful demonstration to the DWMRC Director that the closed Landfill has stabilized.

During the post-closure care period, run-off from the covered Landfill will be directed toward ditches constructed to collect and transport runoff to natural drainages east and southeast of the site. The ditches will be inspected quarterly through the post-closure period. Repairs to the ditches will be completed as part of the maintenance activities.

3.2 CHANGES TO RECORD OF TITLE, LAND USE AND ZONING

The Utah County Recorder will be provided plats and a statement of fact concerning the location of any disposal site no later than 60-days after certification of closure. If necessary, the closed Landfill will be rezoned to conform to the existing Utah County zoning regulations after final closure. A description of the Landfill history and filled areas will be permanently appended to the record of title. Land use restrictions will be assigned to the site in compliance with existing regulations for closed landfills at the time of closure.

3.3 MAINTENANCE

Post-closure maintenance activities will be designed and implemented under the direction of a licensed professional engineer in response to results of inspections. Results of post-closure

maintenance shall be reported to the DWMRC Director by a professional engineer licensed in the state of Utah.

Because of the arid climate in Utah County, maintenance of final covers and run-on/run-off systems should be minimal. Final cover and control structures will be inspected quarterly as indicated previously.

Run-on/run-off control structures and final covers could be damaged by an unusually intense storm. Consequently, an unscheduled inspection may be required after any occurrence of an unusual storm event within a five-mile radius of the site. If the post-storm inspection discloses damage, it will be appraised by a licensed engineer. NPSWSSD staff will solicit bids if necessary and supervise repair construction as necessary. Funds for payment for the repair work will be disbursed from the Financial Assurance Funds after approval by the DWMRC Director.

3.4 POST-CLOSURE CONTACTS

North Pointe SWSSD (801) 225-8538

4.0 – FINANCIAL ASSURANCE

4.1 CLOSURE COSTS

The North Pointe Construction and Demolition (C&D) Landfill will be closed as portions of the Landfill reach final grade. The typical size of each closure is anticipated to be no larger than 10–acres. The closure cost estimates are based on the cost to close the largest area open which is the existing 51 acres. Closure cost estimates include the cost of obtaining, moving and placing the cover material, final grading, placing topsoil, fertilizing and seeding.

4.2 POST CLOSURE CARE COSTS

The post-closure estimate must be the cost for completing care reasonably expected during the 30-year post-closure period. These tasks include site inspections, maintenance, and record keeping.

4.3 FINANCIAL ASSURANCE MECHANISM

Financial assurance cost estimates and PTIF fund paperwork are presented in Appendix E.

2020 Closure/Post Closure

North Pointe Cedar Valley Landfill

57 Acres

Financial Assurance Plan

Item	Quantity	Unit	Unit Cost	Total Cost
CLOSURE COSTS				
Active Cell				
Final Cover	27	Acres		
Soil (located on site)				
Load & Haul	43560	Cu Yd	\$ 1.89	\$ 82,479.99
Spread & Grade	43560	Cu Yd	\$ 0.56	\$ 24,517.87
Intermediate Covered Cell	6			
Load & Haul	9680		\$ 1.89	\$ 18,295.20
Spread & Grade	9680		\$ 0.56	\$ 5,392.53
Landscape	51	Acres	\$ 1,161.56	\$ 59,239.63
Closed Area	6	Acres		
POST CLOSURE CARE	30	Years	\$ 2,147.18	\$ 64,415.38
				\$ 254,340.60

Total Financial Assurance Amount

Price includes 1.018 Inflation factor