

TECHNICAL MEMORANDUM

Stevens County Landfill - Impact of GHG Reduction Measures for EPA CPRG Funding Application

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1.0 Introduction

Stevens County Landfill (SCLF) is preparing an application for the Environmental Protection Agency (EPA) Climate Pollution Reduction Grant (CPRG) Program. As part of the application (Section 2), reductions in Greenhouse Gas (GHG) emissions resulting from the proposed projects to be implemented with grant funds must be quantified. Additionally, the relative cost-effectiveness of the reductions must also be determined. This technical memorandum substantiates these needs and requirements for the grant application.

2.0 Background

2.1 Site Location and Information

Stevens County owns and operates the SCLF, a municipal solid waste landfill (MSWLF), located west of Highway 25 and approximately 2 miles southwest of Kettle Falls. The SCLF began accepting waste in the 1970s in the old landfill area. When the Subtitle D rules came into effect in the early 1990s, the County decided to close the old landfill area (now known as the "Closed Landfill Unit") and open the first modern landfill cell (Cell 1) for waste disposal in 1993.

The SCLF includes an administrative building, entrance facilities (scalehouse/scale, moderate risk waste (MRW) facility, a public MSW drop-off area, a maintenance shop building, the Closed Landfill Unit, the active landfill (Cells 1 and 2, and future Cell 3), two leachate ponds, and other supporting buildings and infrastructure. An overall site map of the SCLF is shown in **Exhibit 1**.



Exhibit 1 – SCLF Overall Site Map

3.0 GHG Reduction Measures

3.1 Description of Reduction Measures

The proposed GHG reduction measures include:

- Gas Collection and Control System (GCCS)** – the system includes installing a wellfield comprised of horizontal gas collectors and surface collectors in areas already filled with waste. Each landfill gas (LFG) well will be equipped with a QED wellhead to monitor and control each well. The wellfield will also include a gas conveyance system, consisting of header pipes, subheader pipes, manifold pipes condensate sumps and inspection risers. The GCCS layout is shown in **Attachment 1**.
- Microturbine System** – The GCCS will convey collected LFG to Capstone Green Energy Microturbine system. Gas will be cleaned via a gas conditioner before being combusted by the microturbine to produce energy.
- Composting System** – A full scale organics diversion program will be implemented and diverted waste, including wood, green and food wastes, will be composted on site. The new composting area will include an asphalt pad for collecting, grinding, and mixing organics, an aerated static pile (ASP) system for composting, and a windrow area for curing. Where available, electric versions of the heavy equipment required to operate the composting system will be used and powered by electricity produced by the microturbine system.

4.0 GHG Generation

4.1 Waste Decomposition

4.1.1 Landfill Tonnages

The SCLF has a full life cycle assessment, which projects incoming waste tonnages through the closure of the landfill (Cells 1 and 2 and future Cell 3). The closure is forecasted to occur in 2049. These projected tonnages were used in conjunction with the known waste in place to determine the baseline LFG and GHG emissions generation with none of the proposed improvement measures.

The projected tonnages were then reduced by 20% to account for organics being diverted from the landfill waste stream. This conservative 20% reduction factor is based on the most recent Washington State Waste Characterization Study (Cascadia Consulting Group, 2021), which determined that organics comprised 22.8% of the waste stream destined for landfills.

4.1.2 LandGEM

The EPA's LandGEM was used to model LFG emissions from decomposition of the landfilled waste mass. The model uses first order decomposition rates based on landfilled tonnages, the methane generation rate (k , year⁻¹) and the potential methane generation capacity (L_0 , m³/MG). The model was run twice varying the k and L_0 values for baseline and reduced organics conditions. These parameters are shown in **Table 1** below.

Table 1 – LandGEM Input Values (with and without organics diversion)

LandGEM Input	Baseline (No Diversion)	Organics Diversion
k (year ⁻¹)	0.05	0.05
L_0 (m ³ /MG)	170	100

4.2 Microturbine Emissions

Although very efficient and clean burning, the microturbine used to destroy the LFG creates small quantities of GHG emissions in the form of nitrous oxide, carbon monoxide, and methane (VOC) that is not captured / burned. The manufacturer provides emissions tables for the microturbine (Model C600). Refer to **Exhibit 2**.

Model	Pounds per Megawatt Hour (lb/MWh)			Grams per Horsepower Hour (g/hp-hr)			Parts per Million (ppmvd) at 15% O ₂			Milligrams per Cubic Meter (mg/m ³) at 15% O ₂		
	NO _x	CO	VOC	NO _x	CO	VOC	NO _x	CO	VOC	NO _x	CO	VOC
High Pressure Natural Gas (HPNG)⁽³⁾⁽⁴⁾												
C30	0.64	1.7	0.22	0.22	0.58	0.074	9	40	9	18	50	6
C65	0.46	1.3	0.13	0.16	0.44	0.044	9	40	7	18	50	5
C65 LE ⁽⁵⁾	0.46	0.31	0.13	0.16	0.10	0.044	9	10	7	18	12	5
C200, C600, C800, C1000	0.41	1.1	0.11	0.14	0.37	0.037	9	40	7	18	50	5
LE ⁽⁵⁾ C200, C600, C800, C1000	0.41	0.28	0.11	0.14	0.09	0.037	9	10	7	18	12	5
Low Pressure Natural Gas (LPNG)⁽³⁾⁽⁴⁾												
C200, C600, C800, C1000	0.43	0.29	0.12	0.15	0.41	0.041	9	40	7	18	50	5
LE ⁽⁵⁾ C200, C600, C800, C1000	0.43	0.29	0.12	0.15	0.10	0.041	9	10	7	18	12	5
Medium Btu Gas: Type A												
C30	0.64	22.0	1.00	0.22	7.4	0.340	9	500	40	18	620	30
C65	0.46	4.0	0.10	0.16	1.4	0.034	9	130	7	18	160	5
C200, C600, C800, C1000	0.40	3.6	0.10	0.14	1.3	0.034	9	130	7	18	160	5
Medium Btu Gas: Type B												
C30	0.64	11.0	1.00	0.22	3.7	0.340	9	250	40	18	310	30
C65	0.46	4.0	0.10	0.16	1.4	0.034	9	130	7	18	160	5
C200, C600, C800, C1000	0.40	3.6	0.10	0.14	1.3	0.034	9	130	7	18	160	5

Exhibit 2 - Capstone Green Energy Microturbine Emissions Table

These emissions rates along with the quantity of LFG produced and the CO₂ Equivalents (EPA) for each emission compound (see **Table 2**) are used to calculate the total microturbine emissions for the period beginning in 2025 and ending in 2030 (see **Table 3**) and in 2050 (see **Table 4**).

Table 2 – EPA CO₂-Equivalents for Emission Compounds

Compound	CO ₂ Eq
Nitrous Oxide	265
Carbon Monoxide	1
Methane	25

Table 3 – Annual Estimated Microturbine System Emissions (2025-2030)

Year	LFG Flow (m ³ /yr)	Emissions (Metric Tons)			Emissions - Co ₂ Eq (Metric Tons)			
		Nitrous Oxide	Carbon Monoxide	VOC (Methane)	Nitrous Oxide	Carbon Monoxide	VOC (Methane)	Total
2025	4,663,228	0.08	0.75	0.02	22.24	0.75	0.58	23.6
2026	4,782,729	0.09	0.77	0.02	22.81	0.77	0.60	24.2
2027	4,900,372	0.09	0.78	0.02	23.37	0.78	0.61	24.8
2028	5,016,300	0.09	0.80	0.03	23.93	0.80	0.63	25.4
2029	5,130,647	0.09	0.82	0.03	24.47	0.82	0.64	25.9
2030	5,243,543	0.09	0.84	0.03	25.01	0.84	0.66	26.5
Total		0.54	4.76	0.15	141.84	4.76	3.72	150.3

Table 4 – Annual Estimated Microturbine Emissions (2025-2050)

Year	LFG Flow (m ³ /yr)	Emissions (Metric Tons)			Emissions - Co ₂ Eq (Metric Tons)			
		Nitrous Oxide	Carbon Monoxide	VOC (Methane)	Nitrous Oxide	Carbon Monoxide	VOC (Methane)	Total
2025	4,663,228	0.08	0.75	0.02	22.24	0.75	0.58	23.6
2026	4,782,729	0.09	0.77	0.02	22.81	0.77	0.60	24.2
2027	4,900,372	0.09	0.78	0.02	23.37	0.78	0.61	24.8
2028	5,016,300	0.09	0.80	0.03	23.93	0.80	0.63	25.4
2029	5,130,647	0.09	0.82	0.03	24.47	0.82	0.64	25.9
2030	5,243,543	0.09	0.84	0.03	25.01	0.84	0.66	26.5
2031	5,355,108	0.10	0.86	0.03	25.54	0.86	0.67	27.1
2032	5,465,463	0.10	0.87	0.03	26.07	0.87	0.68	27.6
2033	5,574,721	0.10	0.89	0.03	26.59	0.89	0.70	28.2
2034	5,682,991	0.10	0.91	0.03	27.11	0.91	0.71	28.7
2035	5,790,377	0.10	0.93	0.03	27.62	0.93	0.72	29.3
2036	5,896,978	0.11	0.94	0.03	28.13	0.94	0.74	29.8
2037	6,002,889	0.11	0.96	0.03	28.63	0.96	0.75	30.3
2038	6,108,200	0.11	0.98	0.03	29.14	0.98	0.76	30.9
2039	6,212,998	0.11	0.99	0.03	29.64	0.99	0.78	31.4
2040	6,317,366	0.11	1.01	0.03	30.13	1.01	0.79	31.9
2041	6,421,387	0.12	1.03	0.03	30.63	1.03	0.80	32.5
2042	6,525,137	0.12	1.04	0.03	31.12	1.04	0.82	33.0
2043	6,628,691	0.12	1.06	0.03	31.62	1.06	0.83	33.5
2044	6,732,119	0.12	1.08	0.03	32.11	1.08	0.84	34.0
2045	6,835,492	0.12	1.09	0.03	32.61	1.09	0.85	34.6
2046	6,938,875	0.12	1.11	0.03	33.10	1.11	0.87	35.1
2047	7,042,335	0.13	1.13	0.04	33.59	1.13	0.88	35.6
2048	7,145,932	0.13	1.14	0.04	34.09	1.14	0.89	36.1
2049	7,249,726	0.13	1.16	0.04	34.58	1.16	0.91	36.6
2050	7,216,906	0.13	1.15	0.04	34.42	1.15	0.90	36.5
Total		2.82	25.1	0.784	748.3	25.1	19.6	793.0

4.3 Total Landfill GHG Generation from 2025 through 2030

As described in Section 4.1.1, LandGEM was used to model the baseline landfill emissions and emissions with a 20% reduction (by tonnage) resulting from the removal and diversion of organics from the landfill. **Table 5** shows the calculated GHG emissions in CO₂ Equivalents from landfilled waste decomposition for the period beginning in 2025 and ending in 2030.

Table 5 – Annual GHG Landfill Emissions (2025-2030) – With No Organics Diversion

Year	Landfilled Waste In Place (US Tons)	Generation (Metric Tons)			
		Methane	Methane as CO ₂ Eq	Carbon Dioxide	Total CO ₂ Eq
2025	1,049,083	2,644	66,110	7,256	73,366
2026	1,088,556	2,712	67,804	7,442	75,246
2027	1,128,482	2,779	69,472	7,625	77,097
2028	1,168,866	2,845	71,116	7,805	78,921
2029	1,209,714	2,909	72,737	7,983	80,720
2030	1,251,031	2,973	74,337	8,159	82,496
Total	1,251,031	16,863	421,576	46,268	467,844

Table 6 shows the calculated GHG emissions in CO₂ Equivalents from landfilled waste decomposition with organics being diverted from the landfill for the period beginning in 2025 and ending in 2030.

Table 6 – Annual Landfill GHG Emissions (2025-2030) – With 20% Organics Diversion

Reduced Landfilled Waste In Place (US Tons)	Reduced Generation (Metric Tons)			
	Methane	Methane as CO ₂ Eq	Carbon Dioxide	Total CO ₂ Eq
1,041,278	1,556	38,888	4,268	43,156
1,072,856	1,572	39,306	4,314	43,620
1,104,797	1,589	39,730	4,360	44,091
1,137,104	1,606	40,160	4,408	44,568
1,169,782	1,624	40,597	4,456	45,052
1,202,836	1,642	41,039	4,504	45,544
1,202,836	9,589	239,722	26,310	266,031

4.4 Total Landfill GHG Generation from 2025 through 2050

Table 7 shows the calculated GHG emissions in CO₂ Equivalents from landfilled waste decomposition for the period beginning in 2025 and ending in 2050.

Table 7 – Total Annual Emissions (2025-2050) – With No Organics Diversion

Year	Landfilled Waste In Place (US Tons)	Generation (Metric Tons)			
		Methane	Methane as CO ₂ Eq	Carbon Dioxide	Total CO ₂ Eq
2025	1,049,083	2,644	66,110	7,256	73,366
2026	1,088,556	2,712	67,804	7,442	75,246
2027	1,128,482	2,779	69,472	7,625	77,097
2028	1,168,866	2,845	71,116	7,805	78,921
2029	1,209,714	2,909	72,737	7,983	80,720
2030	1,251,031	2,973	74,337	8,159	82,496
2031	1,292,825	3,037	75,919	8,332	84,251
2032	1,335,100	3,099	77,483	8,504	85,987
2033	1,377,864	3,161	79,032	8,674	87,706
2034	1,421,123	3,223	80,567	8,842	89,410
2035	1,464,882	3,284	82,090	9,009	91,099
2036	1,509,148	3,344	83,601	9,175	92,776
2037	1,553,929	3,404	85,102	9,340	94,442
2038	1,599,229	3,464	86,595	9,504	96,099
2039	1,645,055	3,523	88,081	9,667	97,748
2040	1,691,416	3,582	89,561	9,829	99,390
2041	1,738,316	3,641	91,035	9,991	101,027
2042	1,785,764	3,700	92,506	10,153	102,659
2043	1,833,765	3,759	93,974	10,314	104,288
2044	1,882,328	3,818	95,441	10,475	105,915
2045	1,931,459	3,876	96,906	10,636	107,542
2046	1,981,166	3,935	98,372	10,796	109,168
2047	2,031,456	3,994	99,839	10,957	110,796
2048	2,082,337	4,052	101,307	11,119	112,426
2049	2,118,419	4,111	102,779	11,280	114,059
2050	2,118,419	4,093	102,313	11,229	113,542
Total	2,118,419	88,963	2,224,080	244,094	2,468,174

Table 8 shows the calculated GHG emissions in CO₂ Equivalents from landfilled waste decomposition with 20% of the organics being diverted from the landfill for the period beginning in 2025 and ending in 2050.

Table 8 – Total Annual Emissions (2025-2050) – With 20% Organics Diversion

Year	Reduced Landfilled Waste In Place (US Tons)	Reduced Generation (Metric Tons)			
		Methane	Methane as CO ₂ Eq	Carbon Dioxide	Total CO ₂ Eq
2025	1,041,278	1,556	38,888	4,268	43,156
2026	1,072,856	1,572	39,306	4,314	43,620
2027	1,104,797	1,589	39,730	4,360	44,091
2028	1,137,104	1,606	40,160	4,408	44,568
2029	1,169,782	1,624	40,597	4,456	45,052
2030	1,202,836	1,642	41,039	4,504	45,544
2031	1,236,271	1,660	41,488	4,553	46,042
2032	1,270,092	1,678	41,944	4,603	46,547
2033	1,304,303	1,696	42,405	4,654	47,059
2034	1,338,909	1,715	42,873	4,705	47,579
2035	1,373,917	1,734	43,348	4,757	48,105
2036	1,409,330	1,753	43,829	4,810	48,639
2037	1,445,154	1,773	44,317	4,864	49,180
2038	1,481,394	1,792	44,811	4,918	49,729
2039	1,518,056	1,812	45,312	4,973	50,285
2040	1,555,144	1,833	45,820	5,029	50,849
2041	1,592,664	1,853	46,335	5,085	51,420
2042	1,630,622	1,874	46,857	5,143	51,999
2043	1,669,024	1,895	47,385	5,201	52,586
2044	1,707,874	1,917	47,921	5,259	53,181
2045	1,747,179	1,939	48,464	5,319	53,783
2046	1,786,944	1,961	49,014	5,379	54,394
2047	1,827,176	1,983	49,572	5,441	55,012
2048	1,867,881	2,005	50,137	5,503	55,639
2049	1,896,746	2,028	50,709	5,565	56,274
2050	1,896,746	2,015	50,376	5,529	55,905
Total	1,896,746	46,506	1,162,638	127,600	1,290,239

5.0 Landfill GHG Capture

The presence and type of landfill cover material influences the effectiveness of the GCCS. As the SCLF is filled with waste, intermediate cover consisting of 2 feet of silty (low permeability) soil will be installed. The final cap consisting of a geosynthetic cover will be placed after the planning timeline of this technical memorandum. Based on the EPA's calculations for collection efficiency, in areas of the landfill with active gas collection and intermediate soil cover, a collection efficiency of 75% should be used.

To determine the quantity of emissions captured by the GCCS system, the modeled emissions generation for the reduced (organics diverted) landfilled tonnages were reduced by 75% and converted to CO₂ Equivalents.

5.1 GHG Capture from 2025 through 2030

Table 9 shows the calculated capture of GHG emissions in CO₂ Equivalents for the period beginning in 2025 and ending in 2030.

Table 9 – GHG Emission Capture (2025-2030) – 75% Gas Collection Efficiency

Year	Capture (Metric Tons)			
	Methane	Methane as CO ₂ Eq	Carbon Dioxide	Total CO ₂ Eq
2025	1,167	29,166	3,201	32,367
2026	1,179	29,480	3,235	32,715
2027	1,192	29,798	3,270	33,068
2028	1,205	30,120	3,306	33,426
2029	1,218	30,448	3,342	33,789
2030	1,231	30,780	3,378	34,158
Total	7,192	179,791	19,732	199,523

5.2 GHG Capture from 2025 through 2050

Table 10 shows the calculated capture of GHG emissions in CO₂ Equivalents for the period beginning in 2025 and ending in 2050.

Table 10 – GHG Emission Capture (2025-2050) – 75% Gas Collection Efficiency

Year	Capture (Metric Tons)			
	Methane	Methane as CO ₂ Eq	Carbon Dioxide	Total CO ₂ Eq
2025	1,167	29,166	3,201	32,367
2026	1,179	29,480	3,235	32,715
2027	1,192	29,798	3,270	33,068
2028	1,205	30,120	3,306	33,426
2029	1,218	30,448	3,342	33,789
2030	1,231	30,780	3,378	34,158
2031	1,245	31,116	3,415	34,531
2032	1,258	31,458	3,452	34,910
2033	1,272	31,804	3,490	35,294
2034	1,286	32,155	3,529	35,684
2035	1,300	32,511	3,568	36,079
2036	1,315	32,872	3,608	36,479
2037	1,329	33,237	3,648	36,885
2038	1,344	33,608	3,689	37,297
2039	1,359	33,984	3,730	37,714
2040	1,375	34,365	3,772	38,137
2041	1,390	34,751	3,814	38,565

Year	Capture (Metric Tons)			
	Methane	Methane as CO ₂ Eq	Carbon Dioxide	Total CO ₂ Eq
2042	1,406	35,142	3,857	38,999
2043	1,422	35,539	3,900	39,439
2044	1,438	35,941	3,945	39,885
2045	1,454	36,348	3,989	40,337
2046	1,470	36,761	4,035	40,795
2047	1,487	37,179	4,080	41,259
2048	1,504	37,602	4,127	41,729
2049	1,521	38,032	4,174	42,206
2050	1,511	37,782	4,147	41,928
Total	34,879	871,979	95,700	967,679

6.0 Magnitude of GHG Reductions

6.1 GHG Reductions from 2025 through 2030

Table 11 shows the total emissions with no improvements, along with the emissions resulting from the implementation of the proposed grant funded projects. The net (total) reduction in GHG emissions is also shown. All emissions are given in CO₂ Equivalents for the period beginning in 2025 and ending in 2030.

Table 11 – Emissions Comparison with and without Project Improvements (2025-2030)

Year	LFG System Generation (Metric Tons)	LFG System Generation (Reduced) (Metric Tons)	Turbine Generation (Metric Tons)	LFG System Capture (Metric Tons)	Net Emissions (Metric Tons)	Net Reduction (Metric Tons)
	CO ₂ Eq	CO ₂ Eq	CO ₂ Eq	CO ₂ Eq	CO ₂ Eq	CO ₂ Eq
2025	73,366	43,156	24	32,367	10,813	62,553
2026	75,246	43,620	24	32,715	10,929	64,317
2027	77,097	44,091	25	33,068	11,047	66,049
2028	78,921	44,568	25	33,426	11,167	67,753
2029	80,720	45,052	26	33,789	11,289	69,431
2030	82,496	45,544	27	34,158	11,412	71,083
Total	467,844	266,031	150	199,523	66,658	401,186

6.2 GHG Reductions from 2025 through 2050

Table 12 shows the total emissions with no project improvements, along with the emissions resulting from the implementation of the proposed grant funded projects. The net (total) reduction in GHG emissions is also shown. All emissions are given in CO₂ Equivalents for the period beginning in 2025 and ending in 2050.

Table 12 – Emissions Comparison with and without Project Improvements (2025-2050)

Year	LFG System Generation (Metric Tons)	LFG System Generation (Reduced) (Metric Tons)	Turbine Generation (Metric Tons)	LFG System Capture (Metric Tons)	Net Emissions (Metric Tons)	Net Reduction (Metric Tons)
	Co ₂ Eq	Co ₂ Eq	Co ₂ Eq	Co ₂ Eq	Co ₂ Eq	Co ₂ Eq
2025	73,366	43,156	26	32,367	10,815	62,550
2026	75,246	43,620	27	32,715	10,932	64,314
2027	77,097	44,091	28	33,068	11,050	66,046
2028	78,921	44,568	28	33,426	11,170	67,750
2029	80,720	45,052	29	33,789	11,292	69,428
2030	82,496	45,544	30	34,158	11,416	71,080
2031	84,251	46,042	30	34,531	11,541	72,710
2032	85,987	46,547	31	34,910	11,668	74,320
2033	87,706	47,059	31	35,294	11,796	75,910
2034	89,410	47,579	32	35,684	11,927	77,483
2035	91,099	48,105	33	36,079	12,059	79,040
2036	92,776	48,639	33	36,479	12,193	80,583
2037	94,442	49,180	34	36,885	12,329	82,113
2038	96,099	49,729	35	37,297	12,467	83,632
2039	97,748	50,285	35	37,714	12,606	85,142
2040	99,390	50,849	36	38,137	12,748	86,642
2041	101,027	51,420	36	38,565	12,891	88,135
2042	102,659	51,999	37	38,999	13,037	89,622
2043	104,288	52,586	37	39,439	13,184	91,104
2044	105,915	53,181	38	39,885	13,333	92,582
2045	107,542	53,783	39	40,337	13,484	94,057
2046	109,168	54,394	39	40,795	13,638	95,531
2047	110,796	55,012	40	41,259	13,793	97,003
2048	112,426	55,639	40	41,729	13,950	98,476
2049	114,059	56,274	41	42,206	14,110	99,949
2050	113,542	55,905	41	41,928	14,017	99,525
Total	2,468,174	1,290,239	886	967,679	323,446	2,144,728

7.0 Cost Effectiveness of GHG Reductions

The cost effectiveness of the proposed emissions reduction projects is shown in **Table 13**.

Table 13 – Cost Effectiveness Comparison of the Proposed Reduction Projects (2025-2050)

Ending Year	Net Emissions Reduction (Metric Tons of CO ₂ Eq)	Cost	Cost Effectiveness (\$/Metric Ton)
2030	401,168	\$7,717,694	\$19.24
2050	2,144,728	\$9,461,718	\$4.41

Overall, GHG emissions will be reduced by an estimated 86% for the 2025 to 2030 timeframe and an estimated 87% for the 2025 to 2050 timeframe. Additionally, the projects implemented will continue to function and minimize GHG emissions for years into the future as the landfill continues to expand to meet the disposal needs of the community.

Attachment 1

LFG Master Plan Figures

\\SharePoint\Projects\4-18167-Stevens County Solid Waste\CAD 4-18167-FP-2023\Exhibits\Closure Grade and Cross Section\4-18167-GHG Grant Final Closure Grading.dwg

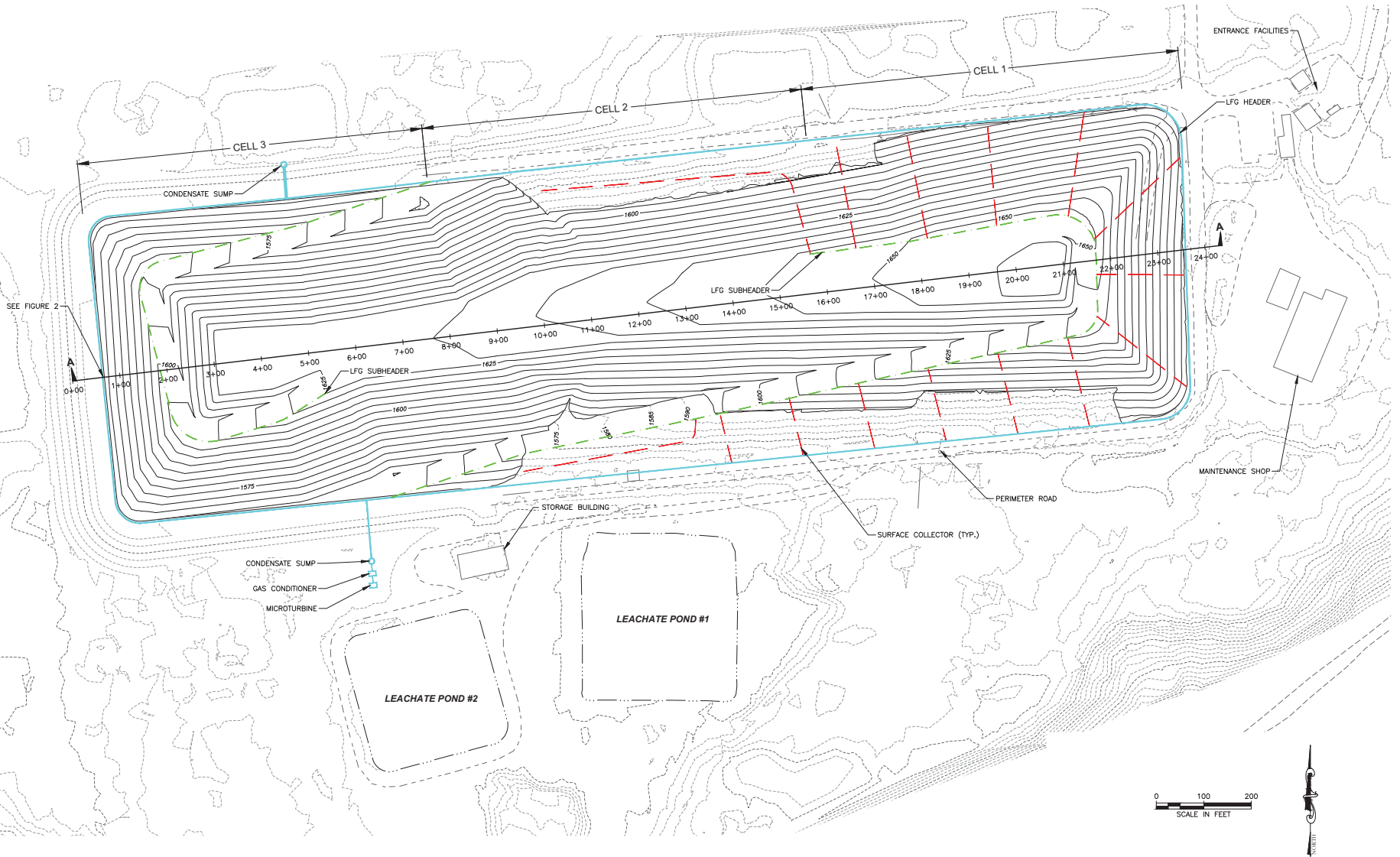


Figure 1
Cells 1-3 Gas System Layout

STEVENS COUNTY LANDFILL
2024 LFG MASTER PLAN

Y:\Shared\Bose Projects\4-18167-Stevens County Solid Waste\400 4-18167-PP-2023\Exhibit\Closure Grade and Cross Section\4-18167-DWG Front Cells 1-3 Cross Section.dwg

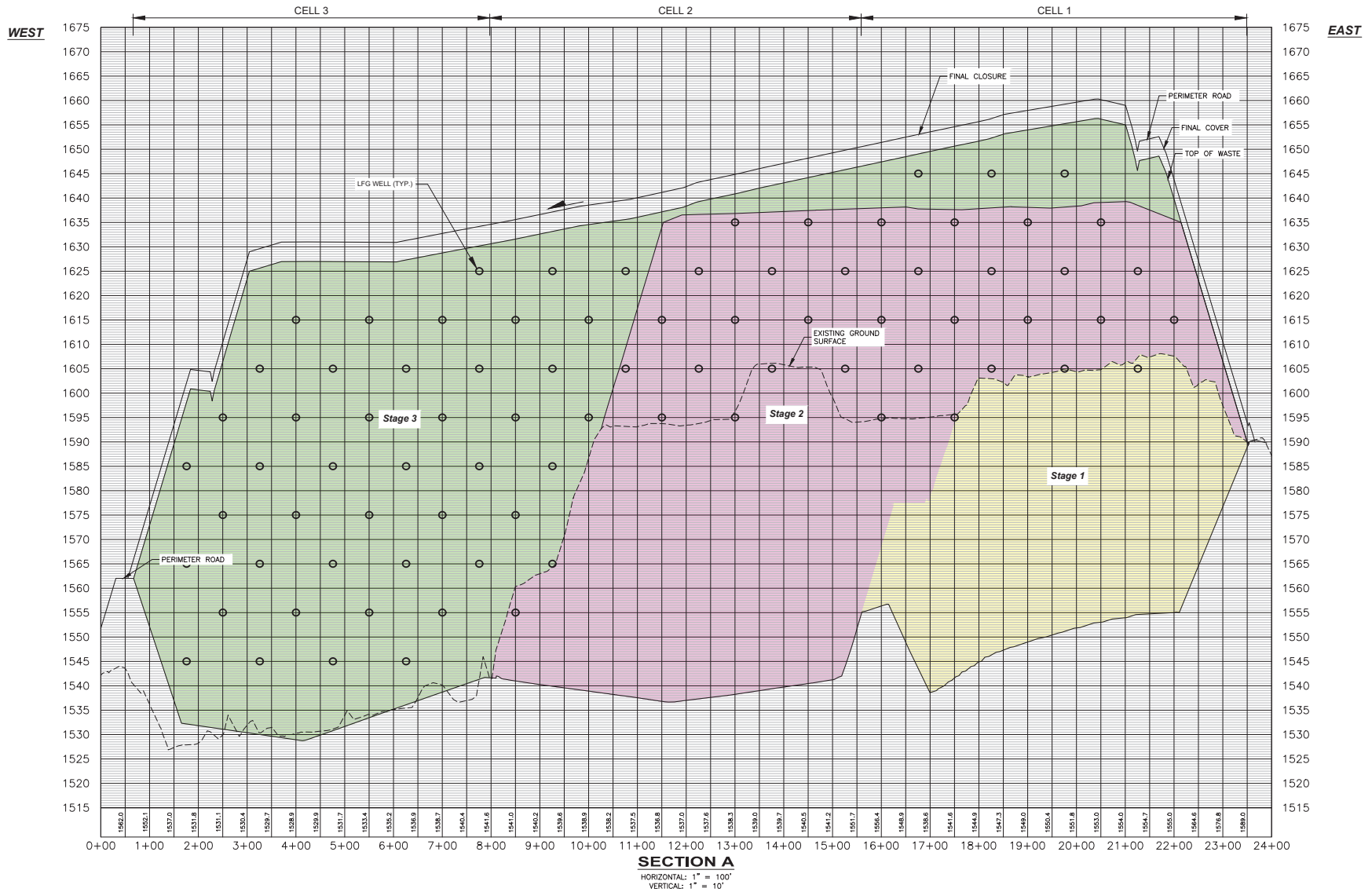


Figure 2
Cells 1-3 Cross Section
STEVENS COUNTY LANDFILL
2024 LFG MASTER PLAN

