ATTACHMENT 8 – REVISED ALTERNATIVE 1 - WESTERN EXPANSION

LEGEND

- APPROXIMATE PROPERTY LINE
- PAVED ROAD
- UNPAVED ROAD
- FENCE
- BUILDING
- 800 — 10' CONTOUR
- 2' CONTOUR
- TREES AND/OR BRUSH
- DELINEATED WETLAND
- W2 — WETLAND ID PER 2015 DELINEATION REPORT
- MANMADE SURFACE WATER BODY
- SURFACE WATER BODY
- WETLANDS NO LONGER IMPACTED (SEE NOTE 6)
- GRID INTERSECTION
- PERMITTED LIMITS OF WASTE
- OE — OVERHEAD ELECTRIC LINE
- DRAINAGE DITCH AND FLOW DIRECTION
- APPROXIMATE LIMITS OF FINAL COVER
- PROPOSED PERIMETER ROAD AND BERM
- LOC — PROPOSED LIMITS OF CONSTRUCTION
- 1140 — PROPOSED FINAL WASTE 10' CONTOUR
- PROPOSED FINAL WASTE 2' CONTOUR
- PROPOSED EXPANSION LIMITS
- PROPOSED HORIZONTAL EXPANSION AREA
- PROPOSED VERTICAL EXPANSION AREA

WESTERN EXPANSION VOLUME SUMMARY		
CUT (CY)	FILL (CY)	NET (CY)
0	7,178,000	7,178,000 (FILL)

NOTES:

1. WETLANDS ON THIS DRAWING ARE A COMBINATION OF 2015, 2009 AND EARLIER DELINEATIONS. SEE FIGURE NO. 2 FOR ADDITIONAL WETLAND INFORMATION.
2. PROPOSED CONTOURS ARE TOP OF WASTE
3. WASTE VOLUMES ARE APPROXIMATE AND SUBJECT TO CHANGE.
4. APPROXIMATELY 14.8 ACRES OF WETLANDS WILL BE DIRECTLY IMPACTED BY THE PROPOSED WESTERN EXPANSION, INCLUDING ALL OR PORTIONS OF W1, W2, W2A, W5/6 AND W8. APPROXIMATELY 1.3 ACRES OF WETLANDS WILL HAVE ALREADY BEEN DIRECTLY IMPACTED BY CONSTRUCTION OF THE CURRENTLY PERMITTED EPL AND LIMITS OF CONSTRUCTION, INCLUDING ALL OR PORTIONS OF W1, W2, W3, W4, W7 AND W12.
5. ADDITIONAL SURVEY AND SITE FEATURES INFORMATION PROVIDED ON FIGURE NO. 2.
6. THIS ALTERNATIVE WAS MODIFIED BY MOVING THE WESTERN LIMITS EAST. THIS RESULTED IN 1.6 ACRES REDUCTION IN WETLANDS BEING IMPACTED WITH PROPOSED LANDFILL CONSTRUCTION. THOSE AREAS NO LONGER TO BE IMPACTED BY CONSTRUCTION ARE SHOWN ON THIS DRAWING.

N

0 200 400

SCALE IN FEET

REV	DATE	DESCRIPTION	DWN BY	DES BY	CHK BY	APP BY
1	5/4/2	REVISED DESIGN	SRC	SRC	NSD	MJT

DATE OF ISSUE 12/22/2022
DRAWN BY SRC
DESIGNED BY SRC
CHECKED BY LRS
APPROVED BY MJT

TETRA TECH

ALL PROFESSIONAL ENGINEERING WORK IS PERFORMED BY DULY LICENSED PROFESSIONAL ENGINEERS UNDER THE APPROPRIATE STATE REGISTERED PROFESSIONAL ENTITY.

GFL ENVIRONMENTAL
EMERALD PARK LANDFILL
MUSKEGO, WISCONSIN
PRACTICAL ALTERNATIVES ANALYSIS
WESTERN EXPANSION
ALTERNATIVE 1 - WESTERN EXPANSION

FIGURE NO. **03**

PROJECT NO. 4221384

File: K:\PROJECTS\EMERALD PARK\4231235 - EPL FEASIBILITY_Plan Set\02-4231235-Western Expansion Modified2.dwg Layout: 03 User: SHAUN.CUMMINGS May 04, 2023 - 7:58pm

1" 1/2" 0" 1"

ATTACHMENT 9 – PAA ALTERNATIVE 1 AND ALTERNATIVE 3 COST BREAKDOWNS

Alternative No. 1 Cost Breakdown
Practicable Alternatives Analysis
Emerald Park Landfill

TETRA TECH

Alternative No. 1 - Western Expansion

Total Alternative No. 1 Air Space = 7,178,000 CY

Landfill Size: 26.7 AC

Clay Liner Area: 1,163,052 SF

Facility Development Costs

A. Permitting

Item No.	Item Description	Quantity	Unit	Unit Cost	Total Cost	Comments
1	WDNR Initial Site Inspection (FEE)	1	LS	$ 550	$ 600	Fee Schedule (NR 520.15) - Table 3, July 2022
2	Initial Site Inspection (ISI) and Initial Site Report (ISR)	1	LS	$ 52,000	$ 52,000	
3	WDNR Review Fee for ISR & AGIP	1	LS	$ 4,950	$ 5,000	Fee Schedule (NR 520.15) - Table 3, July 2022
4	Feasibility Report (FR)	1	LS	$ 386,400	$ 386,400	
5	WDNR Review Fee for FR (Assume 6 exemptions, $2k per exempt	1	LS	$ 32,000	$ 32,000	Fee Schedule (NR 520.15) - Table 3, July 2022
6	Plan of Operation (PO)	1	LS	$ 288,000	$ 288,000	
7	WDNR Review Fee for PO	1	LS	$ 7,700	$ 7,700	Fee Schedule (NR 520.15) - Table 3, July 2022
8	Legal and Administation Fees	1	LS	$ 114,000	$ 114,000	
9	Local Negotiations	1	LS	$ 114,000	$ 114,000	
10	USEPA Permitting / Coordination	1	LS	$ 50,000	$ 50,000	
11	Wetlands	1	LS	$ 1,000,000	$ 1,000,000	
	Subtotal A				**$ 2,049,700**	

B. Liner Construction

Item No.	Item Description	Quantity	Unit	Unit Cost	Total Cost	Comments
1	Pre-con (2 Construction Projects)	1	LS	$ 218,300	$ 218,300	
2	Survey	26.7	AC	$ 2,200	$ 58,700	
3	Mob/Demob	26.7	AC	$ 21,700	$ 579,400	
4	Erosion & Sediment Control	26.7	AC	$ 17,400	$ 464,600	
5	Access Road	6,100	LF	$ 50	$ 305,000	
6	StormWater Basin	26.7	AC	$ 68,237	$ 1,821,900	
7	Site Prep Excavation	1,145,940	CY	$ 4.2	$ 4,812,900	
8	Waste Hauling	-	CY	$ 7.5	$ -	
9	Gradient Control Layer	26.7	AC	$ 16,400	$ 437,900	
10	Clay Layer	172,304	CY	$ 5.3	$ 915,500	
11	Geosynthetics	1,163,052	SF	$ 1.5	$ 1,746,700	
12	Geosynthetics Tie-in and Rain Flaps	1,720	LF	$ 12	$ 20,200	
13	Leachate Collection System	2,820	LF	$ 37	$ 104,300	
14	Leachate Collection Headwells	4	EA	$ 4,000	$ 16,000	
15	Granular Drainage Blanket	1,163,052	SF	$ 1.7	$ 1,919,000	
16	Quality Assurance Testing	26.7	AC	$ 32,343	$ 863,600	
17	Leachate Collection Sump	2	EA	$ 90,000	$ 180,000	
18	Leachate Collection Sump Pump (Active Life (5 years))	10	EA	$ 8,000	$ 80,000	
19	Leachate Holding Tank	1	LS	$ -	$ -	
20	Forcemain and Electical Utility Extension	1	LS	$ 190,600	$ 190,600	
21	Temp Perimeter Berm	860	LF	$ 43	$ 36,800	
22	Site Restoration	3.34	AC	$ 8,183	$ 27,300	
23	WDNR Construction inspection (4 per event)	8	EA	$ 550	$ 4,400	Fee Schedule (NR 520.15) - Table 3, July 2022
24	WDNR Construction Doc Review	2	EA	$ 1,100	$ 2,200	Fee Schedule (NR 520.15) - Table 3, July 2022
	Subtotal B	26.7	AC	$ 554,506	**$ 14,805,300**	

Alternative No. 1 Cost Breakdown
Practicable Alternatives Analysis
Emerald Park Landfill

TETRA TECH

C. Cover Construction

Item No.	Item Description	Quantity	Unit	Unit Cost	Total Cost	Comments
1	Pre-con (3 Construction project)	1	LS	$ 245,900	$ 245,900	
2	CQA	26.7	AC	$ 13,700	$ 365,800	
3	Survey	26.7	AC	$ 1,100	$ 29,400	
4	Mob/Demob	26.7	AC	$ 9,800	$ 261,700	
5	Erosion & Sediment Control (3 Construction events)	2	EA	$ 25,000	$ 50,000	
6	Surface Prep & Leachate Management	26.7	AC	$ 9,300	$ 248,300	
7	Final Cover Surface Water Management	26.7	AC	$ 7,400	$ 197,600	
8	Site Restoration	30	AC	$ 8,400	$ 252,300	
9	Grading Layer	21,538	CY	$ 17.6	$ 378,100	
10	Barrier Soil Layer	86,152	CY	$ 4.8	$ 415,700	
11	Geomembrane and GCL	1,163,052	SF	$ 1.6	$ 1,915,200	
12	Cover Soil	107,690	CY	$ 4.8	$ 519,600	
13	Topsoil	21,538	CY	$ 57	$ 1,221,200	
14	Tie-in Welding	2,700	LF	$ 6.1	$ 16,500	
15	Gas Boots	38	EA	$ 357	$ 13,600	
16	Perimeter Toe Drain	3,360	LF	$ 15.9	$ 53,400	
17	Diversion Berms	7,108	LF	$ 5.3	$ 37,700	
18	WDNR Construction inspection (4 per event)	8	EA	$ 550	$ 4,400	Fee Schedule (NR 520.15) - Table 3, July 2022
19	WDNR Construction Doc Review	2	EA	$ 1,100	$ 2,200	Fee Schedule (NR 520.15) - Table 3, July 2022
	Subtotal C	26.7	AC	$ 233,300	**$ 6,228,600**	

D. GCCS

Item No.	Item Description	Quantity	Unit	Unit Cost	Total Cost	Comments
1	Gas Wells	30	EA	$ 57,800	$ 1,734,000	
2	12" LFG Pipe	4,035	LF	$ 105	$ 423,700	
3	24" LFG Pipe	1,275	LF	$ 250	$ 318,800	
4	Condesate Knockout	1	EA	$ 4,100	$ 4,100	
5	Blowers (Active Life replacements)	2	EA	$ 52,500	$ 105,000	
6	Electrical (2 Construction Events)	2	EA	$ 55,000	$ 110,000	
7	Condesate Force Main & Air line	5,216	LF	$ 50	$ 260,800	
8	Flare (1 site life replacement)	2	EA	$ 462,000	$ 924,000	
9	WDNR Construction inspection (4 per event)	8	EA	$ 550	$ 4,400	Fee Schedule (NR 520.15) - Table 3, July 2022
10	WDNR Construction Doc Review	2	EA	$ 1,100	$ 2,200	Fee Schedule (NR 520.15) - Table 3, July 2022
	Subtotal D	26.7	AC	$ 145,600	**$ 3,887,000**	

Subtotal A -D	**$**	**26,970,600**	Dollars
Contingency (10%)	$	2,697,060	Dollars
Total Alternative 2 Cost Estimate	**$**	**29,667,660**	Dollars
	$	**29,667,660**	Dollars
		7,178,000	CY
	$	**4.13**	Dollars/CY

Assumptions:

No permitting or determination for soil borrow material

Assume 2022 LST work accounts for proposed expansion leachate generation

Assume LFG system is capable for expansion

No additional GW Wells install

Performed by MGL 05/03/2023

Checked by ND 05/03/2023

Alternative No. 3 Cost Breakdown
Practicable Alternatives Analysis
Emerald Park Landfill

TETRA TECH

Alternative No. 3 - Northern Expansion

Total Alternative No. 3 Air Space =	4,265,000 CY	Landfill Size:	33.2 AC
Existing Future Parkland Landfill Airspace Consumption =	265,000 CY	Clay Liner Area:	1,446,192 SF

Facility Development Costs

A. Permitting

Item No.	Item Description	Quantity	Unit	Unit Cost	Total Cost	Comments
1	WDNR Initial Site Inspection (FEE)	1	LS	$ 550	$ 550	Fee Schedule (NR 520.15) - Table 3, July 2022
2	Initial Site Inspection (ISI) and Initial Site Report (ISR)	1	LS	$ 52,000	$ 52,000	
3	WDNR Review Fee for ISR & AGIP	1	LS	$ 4,950	$ 4,950	Fee Schedule (NR 520.15) - Table 3, July 2022
4	Feasibility Report (FR)	1	LS	$ 386,400	$ 386,400	
5	WDNR Review Fee for FR (Assume 6 exemptions, $2k per ex	1	LS	$ 32,000	$ 32,000	Fee Schedule (NR 520.15) - Table 3, July 2022
6	Plan of Operation (PO)	1	LS	$ 288,000	$ 288,000	
7	WDNR Review Fee for PO	1	LS	$ 7,700	$ 7,700	Fee Schedule (NR 520.15) - Table 3, July 2022
8	Legal and Administation Fees	1	LS	$ 114,000	$ 114,000	
9	Local Negotiations	1	LS	$ 114,000	$ 114,000	
10	USEPA Permitting / Coordination	1	LS	$ 50,000	$ 50,000	
11	Wetlands	1	LS	$ 1,000,000	$ 1,000,000	
12	Compost Center Relocation	1	LS	$ 1,000,000	$ 1,000,000	
	Subtotal A	33.2	AC	$ 91,855	**$ 3,049,600**	

B. Liner Construction

Item No.	Item Description	Quantity	Unit	Unit Cost	Total Cost	Comments
1	Pre-con (3 Construction project)	1	LS	$ 327,420	$ 327,420	
2	Survey	33.2	AC	$ 2,240	$ 74,366	
3	Mob/Demob	33.2	AC	$ 21,667	$ 719,333	
4	Erosion & Sediment Control	33.2	AC	$ 17,435	$ 578,842	
5	Access Road	5,300	LF	$ 50	$ 265,000	
6	StormWater Basin	33.2	AC	$ 68,237	$ 2,265,464	
7	Site Prep Excavation	808,166	CY	$ 4.2	$ 3,394,297	
8	Waste Hauling	265,000	CY	$ 7.5	$ 1,974,250	
9	Gradient Control Layer	33.2	AC	$ 16,397	$ 544,375	
10	Clay Layer	218,136	CY	$ 5.3	$ 1,158,957	
11	Geosynthetics	1,472,418	SF	$ 1.5	$ 2,211,326	
12	Geosynthetics Tie-in and Rain Flaps	4,000	LF	$ 12	$ 46,920	
13	Leachate Collection System	2,875	LF	$ 37	$ 106,375	
14	Leachate Collection Headwells	6	EA	$ 4,000	$ 24,000	
15	Granular Drainage Blanket	1,472,418	SF	$ 1.7	$ 2,429,490	
16	Quality Assurance Testing	33.2	AC	$ 32,343	$ 1,073,784	
17	Leachate Collection Sump	3	EA	$ 90,000	$ 270,000	
18	Leachate Collection Sump Pump (Active Life (5 years))	15	EA	$ 8,000	$ 120,000	
19	Leachate Holding Tank	1	LS	$ -	$ -	
20	Forcemain and Electical Utility Extension	1	LS	$ 354,600	$ 354,600	
21	Temp Perimeter Berm	2,000	LF	$ 43	$ 85,500	
22	Site Restoration	4.2	AC	$ 8,183	$ 33,961	
23	WDNR Construction inspection (4 per event)	12	EA	$ 550	$ 6,600	Fee Schedule (NR 520.15) - Table 3, July 2022
24	WDNR Construction Doc Review	3	EA	$ 1,100	$ 3,300	Fee Schedule (NR 520.15) - Table 3, July 2022
	Subtotal B	33.2	AC	$ 544,222	**$ 18,068,160**	

Alternative No. 3 Cost Breakdown
Practicable Alternatives Analysis
Emerald Park Landfill

TETRA TECH

C. Cover Construction

Item No.	Item Description	Quantity	Unit	Unit Cost	Total Cost	Comments
1	Pre-con (3 Construction project)	1	LS	$ 368,831	$ 368,831	
2	CQA	33.2	AC	$ 13,658	$ 453,431	
3	Survey	33.2	AC	$ 1,129	$ 37,475	
4	Mob/Demob	33.2	AC	$ 9,816	$ 325,895	
5	Erosion & Sediment Control (3 Construction events)	3	EA	$ 25,000	$ 75,000	
6	Surface Prep & Leachate Management	33.2	AC	$ 9,316	$ 309,295	
7	Final Cover Surface Water Management	33.2	AC	$ 7,350	$ 244,020	
8	Site Restoration	37.4	AC	$ 8,400	$ 313,740	
9	Grading Layer	27,610	CY	$ 17.6	$ 484,721	
10	Barrier Soil Layer	110,439	CY	$ 4.8	$ 532,869	
11	Geomembrane and GCL	1,490,922	SF	$ 1.6	$ 2,455,097	
12	Cover Soil	138,048	CY	$ 4.8	$ 666,083	
13	Topsoil	27,610	CY	$ 56.7	$ 1,565,487	
14	Tie-in Welding	2,400	LF	$ 6.1	$ 14,688	
15	Gas Boots	47	EA	$ 357	$ 16,779	
16	Perimeter Toe Drain	4,800	LF	$ 15.9	$ 76,224	
17	Diversion Berms	4,823	LF	$ 5.3	$ 25,606	
18	WDNR Construction inspection (4 per event)	12	EA	$ 550	$ 6,600	Fee Schedule (NR 520.15) - Table 3, July 2022
19	WDNR Construction Doc Review	3	EA	$ 1,100	$ 3,300	Fee Schedule (NR 520.15) - Table 3, July 2022
	Subtotal C	33.2	AC	$ 240,215	**$ 7,975,142**	

D. GCCS

Item No.	Item Description	Quantity	Unit	Unit Cost	Total Cost	Comments
1	Gas Wells	31	EA	$ 57,750	$ 1,790,250	
2	12" LFG Pipe	4,625	LF	$ 105	$ 485,625	
3	Condesate Knockout	2	EA	$ 4,129	$ 8,259	
4	Blowers (Active Life replacements)	4	EA	$ 52,500	$ 210,000	
5	Electrical (2 Construction Events)	2	EA	$ 55,000	$ 110,000	
6	Condesate Force Main & Air line	5,653	LF	$ 50.00	$ 282,650	
7	Flare (1 site life replacement)	2	EA	$ 462,000	$ 924,000	
8	WDNR Construction inspection (4 per event)	12	EA	$ 550	$ 6,600	Fee Schedule (NR 520.15) - Table 3, July 2022
9	WDNR Construction Doc Review	3	EA	$ 1,100	$ 3,300	Fee Schedule (NR 520.15) - Table 3, July 2022
	Subtotal D	33.2	AC	$ 115,081	**$ 3,820,684**	

Subtotal A -D	**$**	**32,913,585**	Dollars
Contingency (10%)	$	3,291,359	Dollars
Total Alternative 3 Cost	**$**	**36,204,944**	Dollars
	$	**36,204,944**	Dollars
		4,000,000	CY Airspace
	$	**9.05**	Dollars/CY

Assumptions:

No permitting or determination for soil borrow material

Assume 2022 LST work accounts for proposed expansion leachate generation

Assume LFG system is capable for expansion

No additional GW Wells install

Parkland Landfill volume estimated 261,333 CY. Documentation of proposed three phase 448,000 CY landfill inidcates completion of Phase 1 and 70% completion of Phase 2

Performed by MGL 04/27/2023

Checked by ND 04/27/2023

ATTACHMENT 10 – TABLE 1 - LONG TERM SOLID WASTE PLANNING - PRACTICABLE ALTERNATIVES ANALYSIS (MAY 2023)

Emerald Park Landfill
Long Term Solid Waste Planning - Practicable Alternatives Analysis
January 3, 2022 - Revised May 2023

	ALTERNATIVES											
	Greenfield Landfill		NO ACTION OR LONG TERM		LONG TERM PLANNING							
Parameter	EPL Closed		PLANNING/DEVELOPMENT		Proposed Western Exp. "Revised"		Proposed W. Exp. w/ POO		North Expansion "Revised"		South Expansion		Northwestern Expansion	
Wetland Impact (acres/quality)	Unknown with greenfield landfill development or other existing landfill expansions.	*3*	Wetland impacts determined with each expansion & avoided for the short term only; no long term plan to minimize wetland impacts.	*3*	14.8 acres/low to medium functional value wetlands impacted.	*2*	16.4 acres/low to medium functional value wetlands impacted.	*2*	5.0 acres of medium to high functional value wetlands impacted.	*4*	15.9 Acres of high functional value wetland impacted.	*1*	19.5 Acres of high functional value wetlands impacted.	*1*
Wetland Mitigation Potential	Unknown with greenfield landfill development or other existing landfill expansions.	*3*	no impact, no wetland banking.	*3*	Wetland Mitigation Bank is set up to permanently replace impacted acreage with higher quality wetlands.	*5*	Wetland Mitigation Bank is set up to permanently replace impacted acreage with higher quality wetlands.	*5*	Wetland Mitigation Bank is set up to permanently replace impacted acreage with higher quality wetlands.	*5*	Wetland Mitigation Bank is set up to permanently replace impacted acreage, however more credits will be required to replace high functional value wetlands.	*2*	Wetland Mitigation Bank is set up to permanently replace impacted acreage, however more credits will be required to replace high functional value wetlands.	*1*
Waste Disposal Capacity (acres/volume/years)	80 to 200 acres of greenfield 25 year minimum	*2*	0 acres / o cubic yards/ 0 years; Other landfill expansions or greenfield sites needed for the disposal capacity.	*1*	7.2 million cubic yards of disposal capacity added.	*5*	6.3 million cubic yards of disposal capacity added.	*3*	4.0 million cubic yards of disposal capacity added.	*3*	8.95 million cubic yards of disposal capacity added.	*5*	8.16 million cubic yards of disposal capacity added.	*5*
Cost of Disposal Capacity	No cost to EPL, higher costs to economy for siting greenfield landfill capacity.	*1*	Difficult to control costs for land acquisition & construction without a long term plan.	*2*	Adjacent to existing landfill and phasing includes an overlay. No obstructions or design issues in the expansion area.	*5*	Less capacity than the selected option of the same footprint and more complex to construct and may not meet NR 500 codes for leachate management. Technical and operational impractibilities.	*1*	Adjacent to existing landfill. Less capacity then selected option. Requires relocation of closed future parklands landfill, stockpile relocation and compost area relocation which further reduces overall disposal capacity.	*1*	Adjacent to existing landfill and phasing includes an overlay on a closed potion of the landfill, more capacity then selected option, requires three acres of stormwater basin and biofilter relocation, overall stormwater redesign and reconfiguration of gas collection system.	*3*	Adjacent to existing landfill and phasing includes an overlay on a closed potion of the landfill, more capacity then selected option, requires stormwater basin and biofilter relocation, overall stormwater redesign and reconfiguration of leachate collection system.	*3*
Permitting - DNR	Difficult - greenfield site likely very expensive and time consuming to permit.	*1*	Difficult - wetland & stream impacts.	*3*	Wetland & stream impact permits nearly complete.	*4*	Wetland & stream impact permits nearly complete, but may expire due to delays in construction and permitting.	*2*	Difficult - wetland & stream impacts. Waste relocation will require complicated permitting over an extensive period of time.	*1*	Difficult - wetland & stream impacts, extensive time needed to restart permit process.	*2*	Difficult - wetland & stream impacts. Collection sump may require WDNR variance.	*1*
Permitting - Local	Difficult - greenfield site likely very expensive and time consuming to permit.	*1*	Difficult to obtain permits & zoning changes without a long term plan.	*3*	Parcel owned by EPL; zoning in place; favored by local siting committee.	*5*	Parcel owned by EPL; zoning in place; favored by local siting committee.	*5*	Parcel owned by EPL; deed restriction in place stating "In any event, materials such as garbage, municipal solid waste and putrescible waste, as defined in Wisconsin Administrative Code Section NR 180.04(26), (35), and (47), shall never be dumped at the site."	*1*	Parcel owned by EPL; zoning in place; favored by local siting committee.	*5*	Parcel owned by EPL; zoning in place; favored by local siting committee.	*5*
Social Impacts	New landfill development will cause new social concerns and impacts.	*1*	Neighbors and affected communities have a greater sense of uncertainty without a long term plan.	*2*	Overlays and is adjacent to current landfill active area; this option does not require removing or working around any perimeter berms and is the logical next area for expansion. Easiest to construct and results on the lowest carbon footprint.	*5*	Overlays and is adjacent to current landfill active area; this option would be constructed over a perimeter berm and involve working around a non rectangular shape. Harder and longer construction for less capacity, therefore higher carbon footprint.	*1*	Option is adjacent to current landfill and would require waste relocation, relocation of one of the largest clay stockpiles on-site, and the removal and reconstruction of the current compost facility required as part of the host agreement. Much higher carbon footprint due to double handling material for construction and reconstruction of the compost facility.	*1*	Overlays and is adjacent to current landfill active area; this option would be constructed over a perimeter berm and involve waste relocation and destruction of high functional value wetlands.	*3*	Overlays and is adjacent to current landfill active area; this option would be constructed over a perimeter berm and involve waste relocation and destruction of high functional value wetlands.	*3*
Economic Impacts	Short-term loss of landfill capacity results in higher disposal costs, loss of fees paid to host municipality & loss of jobs; new landfill development likely very expensive & will result in higher disposal fees.	*1*	Incremental expansions, unknown affect on disposal costs.	*2*	Contiguous expansion, lower construction & hauling costs keep waste disposal costs in control.	*5*	Contiguous expansion, low hauling costs, more expensive to construct; may increase waste disposal costs.	*3*	Non-contiguous expansion, low hauling costs, much more expensive to construct on per cubic yard disposal volume basis; may increase waste disposal costs.	*3*	Contiguous expansion, low hauling costs, more expensive to construct; may increase waste disposal costs.	*3*	Contiguous expansion, low hauling costs, more expensive to construct; may increase waste disposal costs.	*3*
Carbon Footprint	Greenfield site development results in loss of vegetation & increased construction activity; New landfills are likely to be located further away from production centers which would have an adverse effect on transportation logistics.	*1*	Incremental expansions result in a disconnected facility, causing increased construction activity and adverse effects on transportation logistics.	*2*	Adjacent expansion; least amount of construction activity and no effect on transportation logistics.	*5*	Adjacent expansion; more construction activity than selected option and no effect on transportation logistics.	*4*	Non-contiguous expansion; much more construction activity than selected option, potential for contamination during Future Parkland Landfill waste relocation and no effect on transportation logistics.	*1*	Adjacent expansion; more of construction activity than selected option and no effect on transportation logistics. Impacts more high quality wetlands lowering carbon sequestration in the area.	*3*	Adjacent expansion; more of construction activity than selected option and no effect on transportation logistics. Impacts more high quality wetlands lowering carbon sequestration in the area.	*3*
Practicability / Score	Not Practicable	*14*	Not Practicable	*21*	Practicable	*41*	Not Practicable	*26*	Not Practicable	*20*	Not Practicable	*27*	Not Practicable	*25*

= Practicability Rating (1 = Least Practicable/5 = Most Practicable)

"Practicable Alternatives" defined as: available and capable of being implemented after taking into consideration cost, available technology and logistics in light of overall project purposes (NR 103.07).

ATTACHMENT 11 – FUTURE PARKLANDS LANDFILL DEED RESTRICTION

2CUG 2 (1967) LAND COVENANT 1357922 Relates to Grant No.

DOCUMENT NO. 96

THIS SPACE RESERVED FOR RECORDING DATA

REGISTER'S OFFICE WAUKESHA COUNTY, WIS. } SS RECORDED ON

1986 JUL 11 PM 12: 10

REEL 0780 IMAGE 1177

REGISTER OF DEEDS

TAX KEY NO. 1357922

RETURN TO: City of Muskego

Acceptance of Conditions of Conditional Use Grant.

THIS COVENANT, Made this 1st day of July, 1986, by Future Parkland Development, Inc., a Wisconsin corporation, Grantors,

for the use and benefit of all persons from time to time resident or owning property within the boundaries of the City of Muskego (City, Village, Town, County) Waukesha County, Wisconsin, and for the use and benefit of the said City of Muskego (City, Village, Town, County) in its own right and as agent for the purpose of enforcing these presents on behalf of the above described class of persons, **Grantees.**

The premises affected by these presents (hereinafter called the Premises) are the following described lands in Township 5 North, Range 20 East, in the County of Waukesha and State of Wisconsin, to-wit:

The North 1/2 of the Northeast 1/4 and the Northeast 1/4 of the Northwest 1/4 of Section 36, Township 5 North, Range 20 East, City of Muskego, Waukesha County, Wisconsin.

JUL 11 1986

Mail address of the Premises is ....

Grantors warrant and covenant that at the time of the ensealing and delivery of these presents they are all of the owners of the Premises and that no other person has any estate or interest therein except by reason of easements for public utilities, building restrictions, dedications to the public or public bodies, instruments not of record, and mortgages to banks, savings and loan associations or insurance companies.

Grantors represent that petition on their behalf was made to the City of Muskego (City, Village, Town, County) pursuant to the Zoning Code of the said City for grant of permission to erect and/or conduct on the Premises a use there permissible not by right but only by Conditional Use Grant; that in connection therewith Grantors made certain representations and agreements as to site, building and operation plans which were incorporated into the Conditional Use Grant; that based thereon Conditional Use Grant No. 96 was issued under date of June 17, 1986, and that a true copy thereof is on file with the Plan Commission of the City of Muskego (City, Village, Town, County)

NOW, THEREFORE, Grantors hereby accept the said Conditional Use Grant and covenant strictly to comply with all of the terms and conditions thereof. This covenant shall run with the land and shall be binding on the Grantors and on all persons claiming any estate or interest in the Premises by, through or under the Grantors, as long as the said Premises are used as described in the Conditional Use Grant for the operation of: foundry waste disposal site.

In Witness Whereof, Grantors have hereunto set their hands and seals this 1st day of July, 1986.

SIGNED AND SEALED IN PRESENCE OF

.... (SEAL)

.... (SEAL)

IF A CORPORATION, TYPE NAME HERE: FUTURE PARKLAND DEVELOPMENT, INC.

Thomas J. Rutkowski (SEAL)
Thomas J. Rutkowski, TITLE President

Kasandra K. Preston (SEAL)
Kasandra K. Preston, TITLE Secretary

ACKNOWLEDGMENT

CORPORATION

STATE OF WISCONSIN, } ss.
MILWAUKEE County.

Personally came before me this 1st day of July, 1986 Thomas J. Rutkowski, President and Kasandra K. Preston, Secretary of the above named corporation, to me known to be such persons and officers who executed the foregoing instrument and acknowledged that they executed the same as such officers, by its authority, for the purposes therein contained.

THIS INSTRUMENT WAS DRAFTED BY

Attorney Donald S. Molter, Jr. (SEAL)

INDIVIDUAL

STATE OF WISCONSIN, } ss.
.... County.

Personally came before me this .... day of ...., 19...., the above named .... to me known to be the persons who executed the foregoing instrument and acknowledged the same.

Frances R. Remshak
Frances R. Remshak
Notary Public, State of Wisconsin
My Commission expires September 20, 1987

(Section 59.51 (1) of the Wisconsin Statutes provides that all instruments to be recorded shall have plainly printed or typewritten thereon the names of the grantors, grantees, witnesses and notary. Section 59.51 similarly requires that the name of the person who, or governmental agency which, drafted such instrument, shall be printed, typewritten, stamped or written thereon in a legible manner.)

1357922

No. Z CUG 1 (1987) CONDITIONAL USE GRANT

REEL 0780 IMAGE 1178
Grant Number 9.0

Secs. 62.23, 61.35, 60.74 and 59.97 Wis. Stats.

Before the Plan Commission of the City of Muskego
(Acting Body) (City, Village, Town, County)

Waukesha County, Wisconsin, in regard to Premises at

in Township 5 North, Range 20 East, Waukesha County, State of Wisconsin, further described as follows:

The North 1/2 of the Northeast 1/4 and the Northeast 1/4 of the Northwest 1/4 of Section 36, Township 5 North, Range 20 East, City of Muskego, Waukesha County, Wisconsin.

WHEREAS the Zoning Code and Zoning District Map of the above named municipality, pursuant to State Statute, provide that the premises may not be used of right for the purpose hereinafter described but that upon petition such use may be approved by the municipality as a Conditional Use Grant in particular circumstances as defined by the standards in the Zoning Ordinance; and

Petition therefore having been made, and public hearing held thereon, and the Plan Commission (Acting Body) of the City of Muskego (City, Village, Town, County) having determined that by reason of the particular nature, character and circumstances of the proposed use, and of the specific and contemporary conditions, grant of such use upon the terms and conditions hereinafter prescribed would be consistent with the requirements of the Zoning Ordinance:

Now, therefore, **IT IS GRANTED,** subject to compliance with the terms and conditions hereinafter stated, that the Premises may be used for the purpose of Foundry Waste Disposal Site

GRANTED by action of the Plan Commission of the City of Muskego (City, Village, Town, County) the 17th day of June, 19 86

Attest:

Charlotte L. Stewart

Charlotte L. Stewart

Title City Clerk
(City, Village, Town, County) Clerk

Wayne G. Salentine (Seal)

Wayne G. Salentine

Title Mayor
(Mayor, President, Chairman)

Original filed in the office of the Plan Commission of the City of Muskego (City, Village, Town, County)

Signed: Wayne G. Salentine

The **CONDITIONS** of this Grant are:

1. This Grant shall become effective upon the execution and recording by the Owners of the Premises of an acceptance hereof in such form as to constitute an effective covenant running with the land.

2. This Grant shall be void unless proper application, pursuant to the building and zoning codes of the municipality, for appropriate Building, and Zoning Use and Occupancy Permits in conformity to this Grant, is made within 18 months of the date hereof June 1, 1986

3. This Grant is subject to amendment and termination in accordance with the provisions of the Zoning Code of this municipality.

4. Construction and operation of the use granted shall be in strict conformity to the approved site, building and operation plans filed in connection with the Petition for this Grant, and annexed hereto.

5. Any of the conditions of this Grant which would normally be the responsibility of tenants of the premises shall be made a part of their lease by the Owner, which lease shall contain provisions for posting of the pertinent conditions to notify employees thereof.

(OVER)

6. **Conditions on the Operations**

a. Hours of operation: 7:00 A.M. to 6:00 P.M. - Monday thru Friday; 9:00 A.M. to 2:00 P.M. - Occasional Saturday not to include removal of clay soils.

b. Performance standards relating to noise, vibration, odor, smoke or dust: See Number 9.

c. Water supply requirements: On site well.

d. Provisions for sewage disposal: System approved by all necessary governmental agencies.

e. Other: See Number 9.

7. **Conditions on the Buildings**

a. Facade material of each building side: New Buildings must be approved by Plan Commission.

b. Entrances, Design and Location: As in Site Plan

c. Signs attached to the Building, Location, Size, Design (including lighting): Any signs proposed must have Plan Commission approval.

d. Exterior Lighting of the Building: Any exterior lighting proposed must have Plan Commission approval.

e. Other: All existing buildings be issued an Occupancy Certificate prior to occupancy.

8. **Conditions on the Site**

a. Street Access (number, location, design): Provide street address.

b. Off-Street Parking (location and design including screening thereof): As provided in Plan of Operation.

c. Loading and Service Areas (location and design): As provided in Plan of Operation

d. Outside Storage of Materials, Products or Refuse (location and screening thereof): As provided in Plan of Operation

e. Finished topography and building grades, retaining walls, storm water run-off: As provided in Plan of Operation

f. Landscaping of the Site and Buildings (including plant types, size, spacing): Landscaping must be submitted to the Plan Commission for approval.

g. Pedestrian walkways, terraces, malls (location and design): n/a

h. Signs (free standing) location, size, design (including lighting): See Number 7 (c)

i. Exterior Lighting of the Site, location design and power: As approved by Plan Commission

j. Other: Any proposed change in the creek which transverses the property must have engineering plans submitted to the Public Works Department and the City Engineer for approval.

9. See Exhibit "A" which is attached hereto and made a part hereof which are additional conditions of this grant.

Receipt of a True Copy of this instrument on behalf of the petitioner acknowledged the 1st day of July, 1986

Thomas J. Rutkowski

Note: Where the conditions are shown on maps, drawings, photographs, or similar attachments, Enter: "See Exhibit....."

EXHIBIT "A"

SUPPLEMENTAL CONDITIONS OF GRANT OF CONDITIONAL USE

1. Prior to commencement of operations, the Plan of Operations as submitted to the DNR shall also be submitted to the City for review. The site shall be developed as presented by Future Parkland Development and its agents with the additional precautions as noted below. All DNR permits and its recommendations are included in the Conditional Use Permit by reference.

2. The access road to the site shall be constructed in a location compatible with the future ultimate development of the site as set forth in the DNR-approved Plan of Operations.

3. The entire access road to the site shall be paved with asphalt to the leachate loading area to minimize dust and noise to the surrounding area.

4. Drainage structures shall be constructed under all access roads so that there is no interference with existing drainage patterns, as set forth in the DNR-approved Plan of Operations.

5. In order to insure that excess run-off from the site will not damage or pollute downstream facilities, the following precautions shall be taken: A sedimentation pond shall be constructed as proposed by Future Parkland Development and approved by DNR. During the active phase of the landfill, site run-off shall be directed to the basin with diversion berms and swales on the perimeter of the filled area. Diversion berms on the south side of the landfill shall be constructed to divert off-site water away from the landfill and the sedimentation basin. The sedimentation pond shall remain in use on site until after the entire site is filled and restored. Only upon the approval of the City may the sedimentation pond be removed or altered. During operations, any precipitation which comes in contact with landfill wastes shall be directed to the leachate collection system.

6. Should any materials from the project site such as wastes or sediments enter a waterway excluding the sedimentation basin, such materials shall be removed immediately at Future Parkland Development's expense. Sediments shall be removed from the sedimentation basin as needed to eliminate discharge of sediments to the waterway and placed back into the landfill or taken off site. The City shall be allowed to inspect and enforce this provision.

7. If additional measures are required to control erosion, silt and sedimentation run-off, such measures shall be

instituted immediately by Future Parkland Development at their expense.

8. In order to insure that run-off from the finished site does not exceed the amount of run-off currently existing on the site, a "B" type soil cover with grass growing in good condition shall be installed to achieve a run-off curve number of 61 as per the Soil Conservation Service Technical Release No. 55.

9. Final plans showing cell construction, final grades and the leachate collection system shall be submitted to and approved by the City prior to any construction commencing at the site.

10. The clay liner shall be constructed as stated in the proposal and in accordance with NR 180. Should the City of Muskego at any time during construction, desire to have independent spot inspection, of the City's choice, of the liner or leachate collection system, three (3) such inspections during each cell construction phase shall be allowed at the expense of Future Parkland Development. The construction of 2' clay cap shall also meet the above conditions.

11. The height and area of each cell constructed shall not exceed those as shown on the approved Plan of Operations.

12. Reproductible as-builts of each cell construction, grading and leachate collection system shall be provided to the City.

13. The maximum sub-surface flow distance to the leachate collection system shall be 100 feet.

14. All excavations on the site relative to the fill operation shall not be below elevation 768.5 MSL unless otherwise required by the DNR.

15. A copy of all test results submitted to the DNR with regard to groundwater monitoring, liner construction, leachate system construction and compaction of liner or cap fill material shall also be given to the City of Muskego.

16. Should the City of Muskego feel that additional groundwater monitoring is required due to possible groundwater contamination from the landfill, investigation and corrective measures shall be taken by Future Parkland Development at their expense.

17. If it appears that the leachate from the site has contaminated the groundwater supply beyond the landfill property line, Future Parkland Development shall immediately commence actions to contain and correct such contamination. All costs for such containment or correction shall be borne by Future Parkland Development. As part of the final plan submittal, Future Parkland Development shall submit a preliminary contamination correction plan outlining the plan of action it will follow for correction of possible contamination problems. Actual

implementation of contamination correction plans will depend upon the nature and extent of individual contamination problems. The Landfill Operator shall provide potable water for purposes of human or animal consumption normally provided by their well to any resident whose well has become contaminated if it appears that such contamination originated from the Operator's landfill or other activities. Such action shall continue until (a) a permanent replacement source is made available or, (b) it appears that such contamination was not caused by the Operator, whichever occurs first. If the Operator is responsible for such contamination and fails to take corrective action, and if the City participates in corrective actions, the Operator shall repay the City for reasonable costs it incurs reasonably necessary to implement corrective action.

18. (a) Future Parkland Development will only be allowed to place materials as outlined in reports presented by RMT from the 68th and 83rd Street foundries of Briggs & Stratton as set forth in the initial proposal. If there is any significant change in the wastes from these foundries, a full chemical analysis must be presented to the City for its approval prior to placement. If Future Parkland Development wishes to place other non-hazardous wastes from Briggs & Stratton Corporation at the landfill, it shall present a full chemical analysis of such waste to the City and obtain the City's approval prior to placement.

(b) In any event, materials such as garbage, municipal solid waste and putrescible waste, as defined in Wisconsin Administrative Code Section NR 180.04(26), (35) and (47), shall never be dumped at the site.

(c) If Future Parkland Development wishes to place waste from other foundries at the landfill, it shall do the following: 1) present a full chemical analysis of such waste to the City, and 2) obtain the City's approval prior to placement.

19. The wastes, with the exception of sludge, shall be placed in 18" maximum lifts and compacted to minimize settlement. Proper watering of exposed wastes shall be maintained to prevent dust problems.

20. The City or its agents shall be allowed access to the site at any time during normal operating hours for the purposes of inspection of operations, testing of compaction or testing of materials. The City will be allowed to have an independent testing lab check composition and compaction of all materials at any time during normal operating hours.

21. Notice shall be published in the local newspaper and be given to the City and contiguous landowners a minimum of three (3) weeks prior to commencement of construction of any new cells.

22. A conceptual post-closure plan for the 13-acre landfill shall be presented to the City prior to the commencement of operations. Any final post-closure plan, including plans for

post-closure usage, shall allow for the protection of the finished cells and their clay seal, and shall be submitted to the Plan Commission for approval prior to implementation.

23. An annual report on operations of the facility as submitted to DNR shall also be given to the City and County. This report shall include a summary of the previous year's activities and the proposed next year's operations.

24. Calcium carbide slag shall not be allowed in the landfill.

25. The leachate from the disposal site shall be tested semi-annually and compared to the normal influent to the wastewater treatment plant at Briggs & Stratton. The sludge leaving this plant shall also be tested semi-annually. If it is determined that the cycling of the leachate from the disposal site to the wastewater treatment plant and back to the disposal site as sludge creates elevated levels of potentially hazardous wastes, Future Parkland Development shall discontinue disposal of leachate at the wastewater treatment facility at Briggs & Stratton. The City shall be permitted at any time to have independent tests performed on either the leachate or wastewater sludge at its cost.

26. Dust from the construction or operation of the landfill shall be controlled at all times. The gravel delivery road shall have an approved dust treatment. Future Parkland Development will have someone on site responsible for dust control during all hours of operation. If visible dust in the City has been determined by the zoning officer after due examination, then henceforth all trucks shall be covered while in Waukesha County.

27. Future Parkland Development shall fulfill all requirements of the Wisconsin Department of Natural Resources or its successor as to the filing of appropriate evidence of financial responsibility for closure of the site and proof of financial responsibility for long-term care of the site after closure. Copies of such evidence shall be filed with the City and County simultaneously with filing with the DNR.

28. Future Parkland Development and Briggs & Stratton shall enter into an agreement with the City upon granting of this Conditional Use whereby Future Parkland Development and Briggs & Stratton shall, jointly and severally, agree to hold harmless and indemnify the City, City officials and employees, when acting in their official capacity, as to any claims or damages against the City, City officials and employees, when acting in their official capacity, arising from the operation of the landfill, including but not limited to, defending the City, City officials and employees, when acting in their official capacity, against all said claims and payment of all said claims. If Future Parkland Development obtains Environmental Impairment Liability Insurance coverage or similar insurance coverage for the landfill, the City

(to include also its officials and employees, when acting in their official capacity) shall be named as an additional insured in the same amounts as Future Parkland Development.

29. This Conditional Use Grant permits this site to accept waste for fifteen (15) years after the first day solid waste is received at the site. This condition shall not prevent Future Parkland Development from seeking to obtain all necessary State and local approvals to extend the period of disposal or expand the site within the parameters hereinbefore stated.

HOLD HARMLESS & INDEMNITY AGREEMENT

For valuable consideration acknowledged by all parties hereto, the undersigneds agree as follows:

1. That Briggs & Stratton, Inc. and Future Parkland Development, Inc. hereby jointly and severally agree to hold harmless and indemnify the City of Muskego from any claim whatsoever made against the City of Muskego growing out of the operation of a landfill by Future Parkland Development within the City of Muskego and each agree to defend the City, at their expense, against such claim or claims.

2. This Agreement is binding upon and inures to the benefit of the parties hereto, their heirs, assigns, successors and legal representatives.

Dated this 1st day of July, 1986.

BRIGGS & STRATTON, INC.

BY: Laverne J. Dooks

BY: R H Eldridge

Dated this 1st day of July, 1986.

FUTURE PARKLAND DEVELOPMENT, INC.

BY: Thomas J. Rutkowski

BY: Kuendu K. Preston

Exhibit "D"

ATTACHMENT 12 – EPL PAA REPORT REVISION SECTIONS 3 AND 4

3.0 ALTERNATIVE 1 – "REVISED" PROPOSED WESTERN EXPANSION (ALTERNATIVE 1)

3.1 SUMMARY OF SELECTED OPTION

EPL's selected option is the "Revised" Proposed Western Expansion - Alternative 1 (Attachment 6). The revised Alternative 1 expansion footprint is located directly west and contiguous with the currently permitted EPL. The revised proposed Alternative 1 footprint provides for approximately 26.7 acres of contiguous lateral waste disposal area west of the existing landfill with an additional 23.1 acres of vertical expansion, equating to approximately 7.2 million cubic yards of design capacity. Attachment 6 shows the revised proposed Alternative 1 footprint.

The Alternative 1 limits of waste is constrained by high quality wetlands and a navigable waterway to the north, by the existing EPL to the east, and by Union Church Drive and residences to the south. The west side of the proposed expansion limits are limited by a high-power transmission line.

The revised Alternative 1 will be filled contiguously with Phases 1-8, along the western edge of the permitted Phase 7 South-West and Phase 8 of the EPL. In accordance with NR 504.05(3), the revised Alternative 1 will add waste disposal capacity without exceeding 15 years of site life. The revised Alternative 1 will add approximately 7.2 million cubic yards of waste capacity which will add approximately 9 years of site life, based on estimated filling rates. The revised Alternative 1 is expected to be developed in several phases which includes added area to existing phases.

3.2 SUMMARY OF INITIAL SITE REPORT

The Initial Site Report (ISR) was prepared for the Southwestern Horizontal Expansion by RMT and submitted to the WDNR on December 22, 2005. The Southwestern Horizontal Expansion initially included the footprint of the Western Expansion. The ISR reviewed the existing land use information, regional geotechnical information, waste characterization, locational criteria, and contained a conceptual design of the proposed expansion. The EPL received a letter from the WDNR dated January 26, 2006, stating that additional information was needed to complete the ISR. Then EPL submitted the additional information to the WDNR in a report dated February 17, 2006. The WDNR responded to EPL in an ISR Opinion letter dated May 18, 2006, identifying potential locational and performance criteria constraints. The constraints were addressed by EPL in the 2014 Feasibility Report and subsequent addenda and documents.

In a letter from the WDNR dated June 6, 2011, Ann Coakley indicated that EPL would not be required to submit a new ISR for the proposed Southwestern Expansion (which initially included the footprint of the Western Expansion), and that the ISR submitted on December 22, 2005, for the Southwestern Horizontal Expansion would suffice (see Attachment A of the original PAA Submittal).

3.3 ENVIRONMENTAL ASSESSMENT

The revised Alternative 1 minimizes impacts to the environment and minimizes surface water runoff disturbance. The surface water ponds servicing the existing EPL are not anticipated to be impacted by the proposed expansion. The manmade surface water pond P6 located southeast of the Phase 8 footprint will be directly impacted when the currently permitted Phase 8 is constructed, not as part of the revised Alternative 1.

The revised Alternative 1 area is currently utilized to support landfill operations, for agricultural and undeveloped land consisting of wetlands and upland areas.

A WDNR endangered resources review request was completed by Tetra Tech. Based on the WDNR response letter dated November 26, 2019 (renewed 9/13/2022), the site is located outside of the known maternity roost tree and hibernacula areas for the Northern Long-eared bat. The WDNR requested that if erosion matting must be used for the project, a biodegradable product is preferred in order to protect wildlife. No further actions were required by the WDNR. Tetra Tech also utilized the United States Fish and Wildlife Service (US FWS) Information for Planning and Consultation (IPaC) project planning tool to assist with the US FWS environmental review process. An official species list was provided by IPaC for the project area. The site is located outside of the critical habitat area for the Poweshiek Skipperling and as previously identified by the WDNR, will not have impacts to the Northern Long-Eared Bat. The Eastern Prairie Fringed Orchid was identified as a threatened species in this area; however, the project area does not support wet to mesic prairie or wetland communities and due to the majority of the site previously being converted for agricultural use, impacts to this species are anticipated to be minimal. Based on the results of the evaluation, no further actions are required. Correspondence regarding endangered species and designated critical habitats is included in Appendix E of the Practicable Alternatives Analysis submitted to the WDNR, February 27, 2023 (original PAA Submittal).

The revised Alternative 1 would result in the direct filling of approximately 14.81 acres of wetlands. This includes all or portions of wetlands W1, W2, W3, W4, W7 and W12. The total area of directly impacted wetlands includes the areas within the revised Alternative 1 limits of waste, perimeter berm and limits of construction. It should be noted that some wetlands within the proposed expansion footprint, adjacent to the currently permitted EPL, will have already been impacted during construction of the currently permitted EPL. These include portions of W1, W2, and all of W3, W4, W7 and W12 with a direct impact area of approximately 1.27 acres. Additional discussion regarding the wetland impacts incurred as part of the construction of the currently permitted EPL is provided in Section 4.5 of the original PAA Submittal.

EPL has developed an approximately 70.76-acre high-quality restoration project, including approximately 53 acres of wetland and 17 acres of upland/prairie wetland buffer. EPL has committed significant time, effort, and funds to restore and enhance historical wetlands that are upstream and in the immediate vicinity of Big Muskego Lake. This project would provide an opportunity to replace the total 14.81 acres of low to medium functional value affected by the development of the proposed expansion with significantly more acres of higher quality wetlands and native upland buffer. A more detailed assessment of these wetlands and the proposed mitigation program are provided in Sections 6 and 7 of the original PAA Submittal.

This option also impacts approximately 1060 feet of a navigable manmade agricultural drainageway (S1) located within the revised Alternative 1. As suggested during meetings with the WDNR, EPL will apply for a Chapter 30 permit to realign the course of the drainageway by constructing a stream along the west side of the proposed expansion to replace the impacted navigable portion of the drainageway, and to transport water collected in Sedimentation Basin No. 9 to upstream areas of S1. Presently, surface water controls for the existing landfill drain to these same wetlands through existing piping and ditches.

The development of this alternative includes an extensive storm water management system. This system would be designed to replace the flood and storm water attenuation, water quality, and wildlife habitat functions of the impacted wetlands.

Wetlands and manmade agricultural drainageways located north, southwest, and west of the proposed expansion are not expected to be directly impacted. Surface water management controls are planned for the expansion that will result in no measurable impacts to off-site surface water features. The proposed expansion will be located, designed, and operated to avoid potential adverse impacts to the manmade agricultural drainageways and wetland areas.

3.4 ECONOMIC ASSESSMENT

The revised Alternative 1 is of adequate capacity and dimension to justify the capital and operational investment for EPL. The cost of the revised Alternative 1 for permitting, liner construction, cover construction and gas collection and control system improvements is approximately $4.13 per cubic yard based on the revised Alternative 1 volume of approximately 7.2 million cubic yards as shown in Attachment 6. The cost for construction and operation is practicable due to the proposed footprint being located adjacent to the existing EPL and allowing use of existing infrastructure (entrance facility, scale, office, roads, gas processing facility, leachate disposal processing, etc.). Reasonable construction and operations costs allow competitive waste disposal fees thereby avoiding adverse economic impacts to citizens and industries that currently use EPL for managing their solid waste. With the exception of Waste Management Metro RDF, which is located immediately east of EPL, utilizing other landfills would likely require waste to be hauled on average an additional 10 to 50 miles for disposal. If the proposed expansion is not developed, it would likely increase waste disposal rates at other surrounding landfills due to the lack of pricing competition that EPL currently provides to the service area.

Additional money brought into the landfill would be returned to the local economy in the form of host fees, services and materials purchased, and wages paid to EPL staff, resulting in positive, stimulating, and increasing effects on the local economy.

3.5 LOGISTICAL ASSESSMENT

Logistically, the revised Alternative 1 can utilize the existing landfill entrance, existing office, existing maintenance facility, and the existing truck scale. In addition, leachate connections to the above ground storage tank will be utilized along with the existing infrastructure for landfill gas collection and use. No major site features or infrastructure would require relocation with this revised Alternative 1.

3.6 DESIGN, CONSTRUCTION, OPERATING, AND LONG-TERM CARE ASSESSMENT

The revised Alternative 1 incorporates an area that is currently used for ancillary landfill activities and creates a rectangular footprint for development. This landfill configuration allows the revised Alternative 1 to be constructed within current standards of practice and typical construction quality assurance. The footprint of the expansion is determined by applicable design criteria identified in NR 504 including final cover grades and maximum length of leachate cleanout lines. All aspects of this expansion allow liners, leachate collection, final cover, gas collection, storm water, and other performance, design, and construction criteria to conform to current regulations and standards of practice. Excavation to subbase grades prior to liner installation will produce adequate amounts of soil for use in liners, caps, perimeter berms, and cover soils.

3.7 CONCLUSION

Considering these environmental, economic, logistical, and technical assessments, Tetra Tech finds that the revised Alternative 1 meets the project purpose and goals and is the most practicable alternative available to continue landfill operations at EPL.

4.3 ALTERNATIVE 3 – "REVISED" NORTHERN EXPANSION (ALTERNATIVE 3)

4.3.1 Summary of Alternative

The "Revised" Northern Expansion - Alternative 3, provides for approximately 33.2 acres of non-contiguous lateral waste disposal area north of the existing landfill. The revised Alternative 3 would have a net volume of approximately 4.3 million cubic yards which would be reduced to approximately 4.0 million cubic yards after disposal of the Future Parkland Development, Inc Landfill (FPDI) within the footprint. Attachment 5 of this Additional Information Request Response shows the revised Alternative 3. The footprint is constrained to the north by the EPL property boundary; to the east and west by wetlands and waterways; and by surface water channel, current access road, and monitoring infrastructure to the south.

The revised Alternative 3 area was developed in 2020 and is currently operated as an active composting facility which has made this location for an expansion of EPL less practical. For revised Alternative 3 to be feasible, the composting operations, soil stockpiles, and closed landfill would need to be exhumed and relocated on-site. Note that the excavation of final cover or any waste materials at a solid waste disposal facility that is no longer in operation is prohibited under NR 506.085 and would require an exemption from the WDNR. The FPDI also has a deed restriction that states within Conditional Use Grant approved July 11, 1986, condition 18b included within Attachment 9. The environmental, economic, logistical, and technical impacts of the revised Alternative 3are described in more detail below.

4.3.2 Environmental Assessment

The revised Alternative 3 would directly impact approximately 903 linear feet of an unnamed intermittent stream as well as approximately 5.0 acres of a wetland that surround the stream and other wetland areas impacted from the perimeter access road, as shown within Attachment 5 of this Additional Information Request Response. Other wetlands could potentially be impacted by this alternative due to the filling of the wetland and intermittent stream, as well as the relocation of other site features currently located within the revised Alternative 3 footprint (e.g. the closed FPDI, compost facility and stockpiles). The wooded land within the revised Alternative 3 footprint would be cleared for grading, impacting the existing habitat by removing it entirely. A review of threatened or endangered species and designated critical habitats was not completed for the surrounding areas and would need to be completed prior to any development. There are also known archeological significant areas located north of the revised expansion that will require further investigation and could further limit the practicability of this alternative.

The development of the revised Alternative 3 would also require the removal and relocation of waste currently located within the closed FPDI, as well as all liner, leachate collection, final cover, and storm water components. There is a greater risk for leachate spills during FPDI waste excavation and relocation. The waste relocation into the revised Alternative 3 footprint would reduce the total airspace of this alternative because it would have to be moved to an active landfill area. In addition, the FPDI is listed as an open site in the WDNR Environmental Repair Program (ERP) due to contamination associated with the landfill. As such, the WDNR may require additional actions to address contamination issues prior to removing the closed landfill and redeveloping the site as part of the revised Alternative 3.

4.3.3 Economic Assessment

The revised Alternative 3does not provide adequate capacity (+ or – 7.2 million cubic yards) to justify the capital investment for EPL. The cost of the revised Alternative 3 for permitting, liner construction, cover construction and gas collection and control system improvements is approximately $9.05 per cubic yard based on the proposed expansion volume of 4.0 million cubic yards as shown in Attachment 7 of this Additional Information Request Response. Costs of construction and operation per cubic yard of design capacity would be increased due to the

landfill's smaller capacity (approximately 4.0 million cubic yards) when compared to the Alternative 1. The reduced design capacity and associated site life of this alternative would result in reduced host fees to the communities and towns, loss of wages to EPL employees who all live in central Wisconsin, and the loss of local purchases for services and supplies. This alternative would also result in additional landfill capacity being developed at another location sooner than the Alternative 1, which could result in 1) higher waste disposal fees for residents and industries that utilize EPL due to lack of competition and 2) increased travel costs to haulers.

Furthermore, siting, permitting and documenting the relocation of the existing closed FPDI, stockpiles, and recently constructed composting operations would increase this cost significantly. Additional costs would also be incurred to potentially address contamination associated with the open contamination site at the FPDI and to obtain an exemption to NR 506.085 to exhume the closed FPDI Landfill and remove the deed restriction prior to any ground disturbance.

4.3.4 Logistical Assessment

Logistically, the revised Alternative 3 can utilize the existing landfill entrance, existing office, existing maintenance facility, and the existing truck scale. However, a significant amount of existing infrastructure would require reconfiguration and/or relocation.

The footprint of the revised Alternative 3 would require that the two stockpiles, the closed FPDI, and composting operations be moved to an alternate location on-site. Furthermore, an exemption from the WDNR would be required in order to exhume the closed FPDI and a significant effort would be required to remove the current deed restriction on FPDI to construct the revised Alternative 3. The relocation process for the closed landfill would require significant planning and permitting prior to the construction of this alternative.

4.3.5 Design, Construction, Operating, and Long-Term Care Assessment

The revised Alternative 3 presents a landfill area mostly rectangular in shape. Technically, this landfill configuration allows it to be constructed within current standards of practice and typical construction quality assurance. All aspects of this expansion allow liners, leachate collection, final cover, gas collection, storm water, and other aspects to conform to current regulations and standards of practice. Excavation to subgrade, prior to liner installation, will produce adequate amounts of soil for use in liners, caps, perimeter berms and cover soils.

Relocating the closed FPDI would also require the removal of the composting facility, cover, liner, and excavating waste, and would require significant planning, construction, and permitting challenges to ensure the waste is relocated in accordance with code.

The development of the revised Alternative 3 would include an extensive storm water management system. This system would be designed to replace and improve the flood and storm water attenuation, water quality, and wildlife habitat functions presently provided by the wetlands and stream impacted by the revised Alternative 3.

4.3.6 Conclusion

Considering these environmental, economic, logistical, and technical assessments, Tetra Tech finds that revised Alternative 3 does not meet the project goals. While it does provide a technically sound design and arguably reduces environmental impacts to wetlands, the revised Alternative 3 eliminates the recently constructed and approved compost area which would have to be reconstructed on-site and would also require significant excavation and relocation of current stockpiles which could both potentially increase the wetland acres disturbed. The revised Alternative 3 area also would require the removal of a deed restriction and a WDNR exemption to excavate the FPDI and relocate the waste within the Alternative 3 footprint.

The revised Alternative 3 also does not provide sufficient waste disposal capacity to justify the development cost, increases costs due to the removal and reconstruction of the compost facility, the removal and relocation of stockpiles, excavation of FPDI, and increases cost to potentially address environmental contamination issues

associated with the open ERP site at the closed FPDI Landfill to obtain an exemption from NR 506.085, and creates more logistical impacts than the Alternative 1.