

STATE OF MISSOURI
DEPARTMENT OF NATURAL RESOURCES
MISSOURI CLEAN WATER COMMISSION



MISSOURI STATE OPERATING PERMIT

In compliance with the Missouri Clean Water Law (Chapter 644 RSMo, hereinafter, the Law), and the Federal Water Pollution Control Act (Public Law 92-500, 92nd Congress) as amended,

Permit No. MO-0112771

Owner: Bridgeton Landfill, LLC
Address: 13570 St. Charles Rock Road, Bridgeton, MO 63044

Continuing Authority: Same as above
Address: Same as above

Facility Name: Bridgeton Landfill
Facility Address: 13570 St. Charles Rock Road, Bridgeton, MO 63044

Legal Description: See following pages
UTM Coordinates: See following pages

Receiving Stream: See following pages
First Classified Stream and ID: See following pages
USGS Basin & Sub-watershed No.: See following pages

is authorized to discharge from the facility described herein, in accordance with the effluent limitations and monitoring requirements as set forth herein:

FACILITY DESCRIPTION

Sanitary Landfill and Transfer Station; SIC Code #4953; NAICS #562212. This facility does not require a certified wastewater operator. Domestic wastewater is managed by sending to POTW.

See page 2 for full facility description.

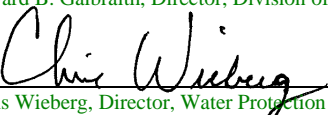
Leachate is not authorized for discharge under this permit. Stormwater which has come into contact with leachate is considered leachate and cannot be discharged. Leachate, and stormwater which has come into contact with leachate, must be managed in accordance with the provisions contained in the Missouri Solid Waste Management Laws, regulations, and Sanitary Landfill Operating Permit; and Hazardous Waste Laws and regulations (if applicable).

This permit authorizes only stormwater discharges under the Missouri Clean Water Law and the National Pollutant Discharge Elimination System; it does not apply to other regulated areas.

January 1, 2021
Effective Date

September 30, 2025
Expiration Date


Edward B. Galbraith, Director, Division of Environmental Quality


Chris Wieberg, Director, Water Protection Program

FACILITY DESCRIPTION (CONTINUED)

Bridgeton Landfill is a capped former sanitary landfill, located within the West Lake Landfill Superfund Site. The West Lake Landfill Superfund Site has been divided into two operable units. West Lake Landfill Operable Unit 1 (OU-1) consists of three separate areas identified in the 2008 OU-1 Record of Decision as Area 1, Area 2, and the Buffer Zone/Crossroad Property. Westlake Landfill Operable Unit 2 (OU-2) consists of the portions of the Superfund Site not known to contain Radiologically-impacted material (RIM). OU-2 is divided into three areas identified in the 2008 OU-2 Record of Decision as the Former Active (Bridgeton) Sanitary Landfill, Closed Demolition Landfill, and Inactive Sanitary Landfill. This permit covers the two applicable portions of the West Lake Landfill Superfund Site OU-2, the Former Active (Bridgeton) Sanitary Landfill and the Closed Demolition Landfill; which are designated in this permit as Bridgeton Landfill and Demolition Landfill. Areas within OU-1 contain RIM and are under the oversight of the EPA Superfund program. The Inactive Sanitary Landfill in OU-2 also remains under the oversight of the EPA Superfund program.

The Bridgeton Landfill waste mass encompasses approximately 52 acres which extends approximately 240 feet below the ground surface and historically exhibited a total waste thickness of 320 feet. The sanitary landfill waste is located in two distinct areas known as the North and South Quarries. Bridgeton Landfill was initially permitted on Nov. 18, 1985 and ceased accepting waste on Dec. 31, 2004. A subsurface smoldering event has been ongoing within the South Quarry of Bridgeton Landfill since at least December 2010. The South Quarry and much of the North Quarry is covered with an Ethylene Vinyl Alcohol (EVOH) capping material to reduce odors and improve the collection of gas and liquids. There is an onsite leachate pre-treatment plant. After pre-treatment, the leachate is discharged to the Metropolitan St. Louis Sewer District (MSD). Outside the pre-treatment plant are multiple large leachate storage and treatment tanks. Solids remaining from the pre-treatment process are characterized and trucked off-site for proper disposal. Leachate infrastructure contained on the landfill is overseen by the DNR Solid Waste Management Program while the pre-treatment plant itself is operated under permit and oversight of MSD. Discharge of leachate is not authorized under this stormwater permit. Bridgeton Landfill also has numerous aboveground storage tanks located in the drainage area of Outfall #003 which are used to store diesel fuel and used oil.

An active waste transfer station is also located within the boundaries of Bridgeton Landfill, and is associated with heavy truck traffic. Per DNR Solid Waste Management Program records, it is estimated to receive and transfer approximately 16,000-28,000 tons of waste per month. The transfer station tipping floor is surrounded by three walls and is under roof. Stored waste is not exposed to stormwater. Wastewater from the transfer station is sent to the Bridgeton Landfill leachate management system. The stormwater in the vicinity of the transfer station is discharged to outfall #007.

Bridgeton Hauling Fleet Management parking lot shares discharge with outfall #004. Bridgeton Hauling is currently permitted under MO-R80C276.

Missouri Asphalt Products (Missouri Asphalt) leases land from Bridgeton Landfill, LLC within the boundaries of the Bridgeton Landfill. Missouri Asphalt currently holds Department-issued stormwater permit MO-G491316. Effluent from Missouri Asphalt is not authorized by this permit for discharge through Bridgeton Landfill outfalls, as it was disclosed to the Department this effluent would not discharge to Bridgeton Landfill outfalls.

The USGS Basin & Sub-watershed Number for all outfalls is Cowmire Creek-Missouri River (10300200-0801). Actual flow to all outfalls is dependent on precipitation.

OUTFALL #001

Eliminated in 2011 renewal, water rerouted to outfall #007.

OUTFALL #002

Eliminated in 2004 renewal. A record of why this outfall was made inactive was not found by the permit writer.

OUTFALL #003 – Stormwater; SIC #4953, #2951

Receives discharge from a retention pond on the southwest side of the landfill. Stormwater to this pond drains from the leachate pre-treatment facility, the holding area for a 97,000 gallon leachate tank, the heat removal system (with an approximately 20,000 gallon storage tank), the maintenance building and fuel storage tanks, the auxiliary utility flare, the western portion of Bridgeton Landfill, and the eastern portion of the Inactive Sanitary Landfill. Stormwater sheet flows and is directed toward perimeter channels around the landfill footprint before entering the retention pond. This outfall drains approximately 75.7 acres.

Legal Description:	Land Grant 131, St. Louis County
UTM Coordinates:	X = 721556, Y = 4293546
Receiving Stream:	Tributary to Fee Fee Creek (Old)
First Classified Stream and ID:	100K Extent-Remaining Stream (C) 3960
Flow in 10 yr 24 hr rain event:	7.8 MGD

OUTFALL # 004 – Stormwater – SIC # 4953, 4231

Receives discharge from a sediment pond to the East of the landfill footprint. Stormwater to this pond drains from the soil borrow area and the northeast portion of the Bridgeton Landfill (previously directed to outfall #006). Bridgeton Hauling Fleet management parking lot also discharges to this sediment pond. Stormwater is collected in the perimeter channel and drained into a retention basin before entering the sediment pond. After the construction of the sediment basin at outfall #008, this outfall will also receive flow from the northern portion of the Bridgeton Landfill. This outfall drains approximately 66.2 acres, after the addition of outfall #008's flow, it will drain approximately 70 acres. Disclosures made to the Department indicate this outfall will not receive stormwater impacted by RIM, therefore any discharge from this outfall of RIM-impacted effluent, or effluent with the potential to be impacted by RIM, is prohibited.

Legal Description:	Land Grant 131, St. Louis County
UTM Coordinates:	X = 722592, Y = 4293974
Receiving Stream:	Tributary to Missouri River
First Classified Stream and ID:	Missouri River (P) 1604
Flow in 10 yr 24 hr rain event:	6.9 MGD

OUTFALL # 005 – Stormwater – SIC # 4953

Receives discharge from a retention basin located on the southeast corner of the landfill property. Stormwater to this pond drains from the eastern portion of the Bridgeton Landfill. Stormwater sheet flows down the slope of the landfill to a perimeter channel, then to the retention basin. At the time of permitting this outfall was blocked, with discharges being pumped to outfall #003. This outfall is still authorized to discharge should the pumping to outfall #003 cease. The outfall drains approximately 36 acres.

Legal Description:	Land Grant 131, St. Louis County
UTM Coordinates:	X = 722101, Y = 4293495
Receiving Stream:	Tributary to Fee Fee Creek (Old)
First Classified Stream and ID:	100K Extent-Remaining Stream (C) 3960
Flow in 10 yr 24 hr rain event:	3.7 MGD

OUTFALL #006 – Eliminated in last permit renewal; effluent routed to outfall #004.

OUTFALL # 007 – Stormwater – SIC # 4953

Receives stormwater from various closed landfills on the property (including West Lake Landfill OU-1, OU-2 Demolition Landfill, and OU-2 Inactive Sanitary Landfill) and the container storage area to the west of the office building. This outfall also collects stormwater from the transfer station located onsite. A concrete-lined perimeter channel, with several rock check dams, drains stormwater to this outfall. This outfall drains stormwater from approximately 34.6 acres.

Legal Description:	Land Grant 131, St. Louis County
UTM Coordinates:	X = 722195, Y = 4294529
Receiving Stream:	Tributary to Missouri River
First Classified Stream and ID:	Missouri River (P) 1604
Flow in 10 yr 24 hr rain event:	3.6 MGD

OUTFALL # 008 – Stormwater – SIC # 4953

Receives stormwater from the northern portion of the Bridgeton Landfill. The location of outfall 008 will be moved a small distance when a new lined stormwater basin is constructed in the summer of 2020 to separate flows from OU-1 Area 1. After the construction of the basin, discharges will be pumped to outfall #004; however, in the event of an overflow, the emergency outlet pipe will discharge to the new outfall #008 location. Disclosures made to the Department indicate this outfall will not receive stormwater impacted by RIM, therefore any discharge from this outfall of RIM-impacted effluent, or effluent with the potential to be impacted by RIM, is prohibited. Acreage drained is approximately 3.3 acres.

Legal Description:	Land Grant 131, St. Louis County
UTM Coordinates:	Current: X = 722379, Y = 4294335 After Construction of sediment pond: X = 722348, Y = 4294371
Receiving Stream:	Tributary to Missouri River
First Classified Stream and ID:	Missouri River (P) 1604
Flow in 10 yr 24 hr rain event:	0.34 MGD

OUTFALL # 009 – Stormwater – SIC # 4953

Receives stormwater from the northern portion of the Demolition Landfill and the east portion of Westlake Landfill OU-1, Area 2. Drains approximately 10.8 acres.

Legal Description:	Land Grant 131, St. Louis County
UTM Coordinates:	X = 721983, Y = 4294769
Receiving Stream:	Tributary to Missouri River
First Classified Stream and ID:	Missouri River (P) 1604
Flow in 10 yr 24 hr rain event:	1.1 MGD

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

OUTFALL #003, #004, #005, #007, #008, #009 <i>stormwater outfalls</i>		TABLE A-1 FINAL EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS				
The permittee is authorized to discharge from outfall(s) with serial number(s) as specified in the application for this permit. The final effluent limitations shall become effective on January 1, 2021 and remain in effect until expiration of the permit. Such discharges shall be controlled, limited and monitored by the permittee as specified below:						
EFFLUENT PARAMETERS	UNITS	FINAL LIMITATIONS		BENCH- MARKS	MONITORING REQUIREMENTS **	
		DAILY MAXIMUM	MONTHLY AVERAGE		MEASUREMENT FREQUENCY	SAMPLE TYPE
LIMIT SET: M						
PHYSICAL						
Flow	MGD	*		-	once/month	24 Hr Est.
Precipitation	inches	*		-	once/month	measured
CONVENTIONAL						
Total Suspended Solids	mg/L	80		-	once/month	grab
MONITORING REPORTS SHALL BE SUBMITTED <u>MONTHLY</u> ; THE FIRST REPORT IS DUE <u>FEBRUARY 28, 2021</u> . THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.						
LIMIT SET: Q						
CONVENTIONAL						
Biochemical Oxygen Demand (BOD ₅)	mg/L	45		-	once/quarter ◇	grab
Chemical Oxygen Demand	mg/L	120		-	once/quarter ◇	grab
Oil & Grease	mg/L	**		10	once/quarter ◇	grab
pH †	SU	6.5 to 9.0		-	once/quarter ◇	grab
METALS						
Aluminum, Total Recoverable	µg/L	**		750	once/quarter ◇	grab
Chromium (VI), Dissolved ‡	µg/L	*		-	once/quarter ◇	grab
Copper, Total Recoverable	µg/L	**		40	once/quarter ◇	grab
Iron, Total Recoverable	µg/L	4,000		-	once/quarter ◇	grab
Selenium, Total Recoverable ††	µg/L	*		-	once/quarter ◇	grab
Thallium, Total Recoverable †††	µg/L	*		-	once/quarter ◇	grab
Zinc, Total Recoverable	µg/L	**		175	once/quarter ◇	grab
NUTRIENTS						
Ammonia as N	mg/L	*		-	once/quarter ◇	grab
OTHER						
α-Terpineol †††	mg/L	*	-	once/quarter ◇	grab	
Benzene	µg/L	**	71	once/quarter ◇	grab	
Benzoic Acid †††	mg/L	*	-	once/quarter ◇	grab	
Chloride + Sulfate	mg/L	1000	-	once/quarter ◇	grab	
p-Cresol †††	mg/L	*	-	once/quarter ◇	grab	
MONITORING REPORTS SHALL BE SUBMITTED <u>QUARTERLY</u> ; THE FIRST REPORT IS DUE <u>APRIL 28, 2021</u> . THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.						

See notes on page 6

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (CONTINUED)

OUTFALL #003, #004, #005, #007, #008, #009 <i>stormwater outfalls</i>		TABLE A-2 FINAL EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS				
The permittee is authorized to discharge from outfall(s) with serial number(s) as specified in the application for this permit. The final effluent limitations shall become effective on January 1, 2021 and remain in effect until expiration of the permit. Such discharges shall be controlled, limited and monitored by the permittee as specified below:						
EFFLUENT PARAMETERS	UNITS	FINAL LIMITATIONS		BENCH- MARKS	MONITORING REQUIREMENTS **	
		DAILY MAXIMUM	MONTHLY AVERAGE		MEASUREMENT FREQUENCY	SAMPLE TYPE
LIMIT SET: A						
METALS						
Antimony, Total Recoverable	µg/L	*		-	once/year	grab
Arsenic, Total Recoverable	µg/L	*		-	once/year	grab
Beryllium, Total Recoverable	µg/L	*		-	once/year	grab
Cadmium, Total Recoverable	µg/L	*		-	once/year	grab
Chromium (III), Total Recoverable	µg/L	*		-	once/year	grab
Lead, Total Recoverable	µg/L	*		-	once/year	grab
Mercury, Total Recoverable	µg/L	*		-	once/year	grab
Nickel, Total Recoverable	µg/L	*		-	once/year	grab
OTHER						
Phenol	mg/L	*		-	once/year	grab
MONITORING REPORTS SHALL BE SUBMITTED <u>ANNUALLY</u> ; THE FIRST REPORT IS DUE <u>JANUARY 28, 2022</u> . THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.						

OUTFALL #007, #009 stormwater outfalls – radiological parameters		TABLE A-3 INTERIM EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS				
The facility is authorized to discharge from outfall(s) as specified. In accordance with 10 CSR 20-7.031, the final effluent limitations outlined in Table A-4 must be achieved as soon as possible but no later than January 1, 2024 . These interim effluent limitations are effective beginning January 1, 2021 and remain in effect through December 31, 2023 or as soon as possible. Discharges shall be controlled, limited and monitored by the facility as specified below:						
EFFLUENT PARAMETERS	UNITS	INTERIM LIMITATIONS		BENCH-MARKS	MONITORING REQUIREMENTS **	
		DAILY MAXIMUM	MONTHLY AVERAGE		MEASUREMENT FREQUENCY	SAMPLE TYPE
LIMIT SET: Q						
Barium, Total Recoverable	µg/L	*		-	once/quarter ◇	grab
MONITORING REPORTS SHALL BE SUBMITTED <u>QUARTERLY</u> ; THE FIRST REPORT IS DUE <u>APRIL 28, 2021</u> . THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.						
LIMIT SET: M						
RADIONUCLIDES ***						
Gross Alpha	pCi/L	*		-	once/month	grab
Beta Particle and Photon Radioactivity (Gross Beta)	pCi/L	*		-	once/month	grab
Radium-226 + Radium-228	pCi/L	*		-	once/month	grab
Radium-226	pCi/L	*		-	once/month	grab
Radium-228	pCi/L	*		-	once/month	grab
Thorium-230	pCi/L	*		-	once/month	grab
Thorium-232	pCi/L	*		-	once/month	grab
Uranium, Total	µg/L	*		-	once/month	grab
MONITORING REPORTS SHALL BE SUBMITTED <u>MONTHLY</u> ; THE FIRST REPORT IS DUE <u>FEBRUARY 28, 2021</u> . THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.						
Beta Particle and Photon Radioactivity (Gross Beta) ***, ††	mrem/year	*		-	††	grab
MONITORING REPORTS SHALL BE SUBMITTED ON THE 28 TH DAY OF THE MONTH FOLLOWING SAMPLING IN ACCORDANCE WITH “†††” BELOW. THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.						

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (CONTINUED)

OUTFALL #007, #009 stormwater outfalls – radiological parameters		TABLE A-4 FINAL EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS				
The permittee is authorized to discharge from outfall(s) with serial number(s) as specified in the application for this permit. The final effluent limitations shall become effective on January 1, 2024 and remain in effect until expiration of the permit. Such discharges shall be controlled, limited and monitored by the permittee as specified below:						
EFFLUENT PARAMETERS	UNITS	FINAL LIMITATIONS		BENCH- MARKS	MONITORING REQUIREMENTS **	
		DAILY MAXIMUM	MONTHLY AVERAGE		MEASUREMENT FREQUENCY	SAMPLE TYPE
LIMIT SET: Q						
Barium, Total Recoverable	µg/L	*		-	once/quarter ◇	grab
MONITORING REPORTS SHALL BE SUBMITTED QUARTERLY; THE FIRST REPORT IS DUE APRIL 28, 2024. THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.						
LIMIT SET: M						
RADIONUCLIDES ***						
Gross Alpha	pCi/L	*		-	once/month	grab
Beta Particle and Photon Radioactivity (Gross Beta)	pCi/L	*		-	once/month	grab
Radium-226 + Radium-228	pCi/L	5		-	once/month	grab
Radium-226	pCi/L	*		-	once/month	grab
Radium-228	pCi/L	*		-	once/month	grab
Thorium-230	pCi/L	*		-	once/month	grab
Thorium-232	pCi/L	*		-	once/month	grab
Uranium, Total	µg/L	*		-	once/month	grab
MONITORING REPORTS SHALL BE SUBMITTED MONTHLY; THE FIRST REPORT IS DUE FEBRUARY 28, 2024. THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.						
Beta Particle and Photon Radioactivity (Gross Beta) ***, ††	mrem/year	*		-	††	grab
MONITORING REPORTS SHALL BE SUBMITTED ON THE 28 TH DAY OF THE MONTH FOLLOWING SAMPLING IN ACCORDANCE WITH “†††” BELOW. THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.						

NOTES:

* Monitoring and reporting requirement only

** Monitoring and reporting requirement with benchmark. See Special Conditions for additional requirements.

*** Unless substitute methods are approved by the Department, analysis shall be conducted in accordance with the radiological contaminant analytical methods in paragraphs 40 CFR 141.25(a) and (b) of the July 1, 2011, Code of Federal Regulations. This does not include later amendments or additions.

† pH: the facility will report the minimum and maximum values; pH is not to be averaged.

** Precipitation Event Monitoring Requirement: all samples shall be collected from a discharge resulting from a precipitation event greater than 0.1 inches in magnitude and occurring at least 72 hours from the previously measurable precipitation event. If a discharge does not occur within the reporting period, report as no discharge. The total amount of precipitation should be noted from the event from which the samples were collected.

†† This permit establishes monitoring for total recoverable selenium. Selenium has water quality standards which are below the most commonly used analytical methods' detection limits. However, 40 CFR 136 indicates effluent characteristics can be effectively quantified using EPA approved Methods 200.9 or 3113B. An equivalent approved EPA or ASTM method may also be used if detection limits are sufficiently sensitive to determine compliance with state water quality standards for selenium.

††† This permit establishes effluent monitoring for total recoverable thallium. Thallium has water quality standards which are below the most commonly used analytical methods detection limits. However, 40 CFR 136 indicates effluent characteristics can be effectively quantified using EPA approved Methods 200.9 or 200.8/3120B. An equivalent approved EPA or ASTM wastewater method may also be used if detection limits are sufficiently sensitive to determine compliance with state water quality standards for thallium.

- ‡ This permit establishes monitoring for dissolved hexavalent chromium. This permit establishes the requirement to use Standard Method 3500-Cr C-2011 or newer to ensure data submitted to the Department conforms to the most sensitive method as required by Standard Conditions Part I Section A 4 and is analyzed within the required method holding times. An equivalent approved EPA method may also be used if detection limits are sufficiently sensitive to determine compliance with state water quality standards for dissolved hexavalent chromium.
- ‡‡ For any monthly sample result for Beta Particle and Photon Radioactivity greater than 50 pCi/L, the radiation dose shall be calculated in mrem/year and submitted to the Department. In addition to the laboratory sheets for this parameter, the data and calculations used to total the mrem/year shall be submitted electronically as an attachment. The calculated results and the attachment will be submitted with the report of the month following the monthly sample. If the monthly sample result is 50 pCi/L or less, the radiation dose in mrem/year is not required.
- ‡‡‡ For any analytical values above 0.033 mg/L for α -terpineol, 0.12 mg/L for benzoic acid, or 0.025 mg/L for *p*-cresol, the facility shall give an explanation for the values exceeding these numbers. The explanation shall be entered into the comments box for the parameter in the eDMR system. The facility shall use a sufficiently sensitive method for the detection of these parameters.

◇ Quarterly sampling

MINIMUM QUARTERLY SAMPLING REQUIREMENTS			
QUARTER	MONTHS	QUARTERLY EFFLUENT PARAMETERS	REPORT IS DUE
First	January, February, March	Sample at least once during any month of the quarter	April 28 th
Second	April, May, June	Sample at least once during any month of the quarter	July 28 th
Third	July, August, September	Sample at least once during any month of the quarter	October 28 th
Fourth	October, November, December	Sample at least once during any month of the quarter	January 28 th

B. SCHEDULE OF COMPLIANCE

Schedules of compliance are allowed per 40 CFR 122.47 and 10 CSR 20-7.031(11). The facility shall attain compliance with final effluent limitations established in this permit as soon as reasonably achievable:

1. Within six months of the effective date of this permit, the facility shall report progress made in attaining compliance with the final effluent limits.
2. The facility shall submit interim progress reports detailing progress made in attaining compliance with the final effluent limits every 12 months from effective date. The first report is due January 1, 2022.
3. Within 3 years of the effective date of this permit, the facility shall attain compliance with the final effluent limits at outfalls #007 and #009, for Radium 226 + Radium 228.

C. STANDARD CONDITIONS

In addition to specified conditions stated herein, this permit is subject to the attached Part I standard conditions dated August 1, 2014 and hereby incorporated as though fully set forth herein.

D. SPECIAL CONDITIONS

1. Spills, Overflows, and Other Unauthorized Discharges.
 - (a) Any spill, overflow, or other discharge(s) not specifically authorized above are unauthorized discharges.
 - (b) Should an unauthorized discharge cause or permit any contaminants to discharge or enter waters of the state, the unauthorized discharge must be reported to the regional office as soon as practicable but no more than 24 hours after the discovery of the discharge. If the spill or overflow needs to be reported after normal business hours or on the weekend, the facility must call the Department's 24 hour spill line at 573-634-2436.
 - (c) If the unauthorized discharge was from an overflow from a no-discharge wastewater (leachate) basin, the report must include all records confirming operation and maintenance records documenting proper maintenance in accordance with condition (d) below.
 - (d) To prevent unauthorized discharges from no discharge wastewater (leachate) basins, the basin must be properly operated and maintained to contain all wastewater plus run-in and direct precipitation. During normal weather conditions, the liquid level in the storage structure should be maintained below the upper operating level, so adequate storage capacity is available for use during adverse weather periods. The liquid level in the storage structure should be lowered on a routine schedule based on the design storage period. Typically this should be accomplished prior to expected seasonal wet and winter climate periods.
2. Electronic Discharge Monitoring Report (eDMR) Submission System

Per 40 CFR Part 127 National Pollutant Discharge Elimination System (NPDES) Electronic Reporting Rule, reporting of effluent monitoring data and any report required by the permit (unless specifically directed otherwise by the permit), shall be submitted via an electronic system to ensure timely, complete, accurate, and nationally consistent set of data about the NPDES program.

 - (a) eDMR Registration Requirements. The facility must register with the Department's eDMR system through the Missouri Gateway for Environmental Management (MoGEM) before the first report is due. Registration and other information regarding MoGEM can be found at <https://dnr.mo.gov/mogem>. Information about the eDMR system can be found at <https://dnr.mo.gov/env/wpp/edmr.htm>. The first user shall register as an Organization Official and the association to the facility must be approved by the Department. Regarding Standard Conditions Part I, Section B, #7, the eDMR system is currently the only Department approved reporting method for this permit unless a waiver is granted by the department. See paragraph (c) below.
 - (b) Electronic Submissions. To access the eDMR system, use the following link in your web browser: <https://apps5.mo.gov/mogems/welcome.action> If you experience difficulties with using the eDMR system you may contact edmr@dnr.mo.gov or call 855-789-3889 or 573-526-2082 for assistance.
 - (c) Waivers from Electronic Reporting. The facility must electronically submit compliance monitoring data and reports unless a waiver is granted by the department in compliance with 40 CFR Part 127. Only facilities with an approved waiver request may submit monitoring data and reports on paper to the Department for the period the approved electronic reporting waiver is effective. Facilities may obtain an electronic reporting waiver by first submitting an eDMR Waiver Request Form: <http://dnr.mo.gov/forms/780-2692-f.pdf>. The department will either approve or deny this electronic reporting waiver request within 120 calendar days.
3. Stormwater Pollution Prevention Plan (SWPPP).

The facility's SIC code or description is found in 40 CFR 122.26(b)(14) and/or 10 CSR 20-6.200(2) and hence shall implement a Stormwater Pollution Prevention Plan (SWPPP) which must be prepared and implemented upon permit effective date. The SWPPP must be kept on-site and should not be sent to the Department unless specifically requested. The SWPPP must be reviewed and updated annually or if site conditions affecting stormwater change. The permittee shall select, install, use, operate, and maintain the Best Management Practices prescribed in the SWPPP in accordance with the concepts and methods described in: *Developing Your Stormwater Pollution Prevention Plan, A Guide for Industrial Operators*, (EPA 833-B-09-002) published by the EPA in 2015 https://www.epa.gov/sites/production/files/2015-11/documents/swppp_guide_industrial_2015.pdf The purpose of the SWPPP and the Best Management Practices (BMPs) listed herein is the prevention of pollution of waters of the state. A deficiency of a BMP means it was not effective at preventing pollution [644.016(17)] to waters of the state. Corrective action describes the steps the facility took to eliminate the deficiency.

The SWPPP must include:

 - (a) A listing of specific contaminants and their control measures (or BMPs) and a narrative explaining how BMPs are implemented to control and minimize the amount of contaminants potentially entering stormwater.
 - (b) A map with all outfalls and structural BMPs marked.
 - (c) A schedule for at least once per month site inspections and brief written reports. The inspection report must include precipitation information for the entire period since last inspection, as well as observations and evaluations of BMP effectiveness. Throughout coverage under this permit, the facility must perform ongoing SWPPP review and revision to incorporate any site condition changes.
 - (1) Operational deficiencies must be corrected within seven (7) calendar days.
 - (2) Minor structural deficiencies must be corrected within fourteen (14) calendar days.

D. SPECIAL CONDITIONS (CONTINUED)

- (3) Major structural deficiencies (deficiencies projected to take longer than 14 days to correct) must be reported as an uploaded attachment through the eDMR system with the DMRs. The initial report shall consist of the deficiency noted, the proposed remedies, the interim or temporary remedies (including proposed timing of the placement of the interim measures), and an estimate of the timeframe needed to wholly complete the repairs or construction. If required by the Department, the permittee shall work with the regional office to determine the best course of action. The permittee should consider temporary structures to control stormwater runoff. The facility shall correct the major structural deficiency as soon as reasonably achievable.
 - (4) All actions taken to correct the deficiencies shall be included with the written report, including photographs, and kept with the SWPPP. Additionally, corrective action of major structural deficiencies shall be reported as an uploaded attachment through the eDMR system with the DMRs.
 - (5) BMP failure causing discharge through an unregistered outfall is considered an illicit discharge and must be reported in accordance with Standard Conditions Part I.
 - (6) Inspection reports must be kept on site with the SWPPP and maintained for a period of five (5) years. These must be made available to Department personnel upon request. Electronic versions of the documents and photographs are acceptable.
- (d) A provision for designating an individual to be responsible for environmental matters and a provision for providing training to all personnel involved in housekeeping, material handling (including but not limited to loading and unloading), storage, and staging of all operational, maintenance, storage, and cleaning areas. Proof of training shall be submitted upon request by the Department.
4. Site-wide minimum Best Management Practices (BMPs). At a minimum, the permittee shall adhere to the following:
 - (a) Prevent the spillage or loss of fluids, oil, grease, fuel, etc. from vehicle maintenance, equipment cleaning, warehouse activities, and other areas, and thereby prevent the contamination of stormwater from these substances.
 - (b) Ensure adequate provisions are provided to prevent surface water intrusion into the wastewater (leachate) storage basin, to divert stormwater runoff around the wastewater (leachate) storage basin, and to protect embankments from erosion.
 - (c) Provide collection facilities and arrange for proper disposal of waste products including but not limited to petroleum waste products, and solvents.
 - (d) Store all paint, solvents, petroleum products and petroleum waste products (except fuels), and storage containers (such as drums, cans, or cartons) so these materials are not exposed to stormwater or provide other prescribed BMPs such as plastic lids and/or portable spill pans to prevent the commingling of stormwater with container contents. Commingled water may not be discharged under this permit. Provide spill prevention control, and/or management sufficient to prevent any spills of these pollutants from entering waters of the state. Any containment system used to implement this requirement shall be constructed of materials compatible with the substances contained and shall also prevent the contamination of groundwater. Spill records should be retained on-site.
 - (e) Provide good housekeeping practices on the site to keep trash from entry into waters of the state.
 - (f) Provide sediment and erosion control sufficient to prevent or control sediment loss off of the property.
 - (g) Remove sediment from stormwater sediment pond(s) no less than every ten years, or more frequently dependent on the amount of sediment received; sediment accumulated shall be no more than 20% total volume or as prescribed in the engineering design, whichever is less. Records must be retained since last cleanout.
5. Stormwater Benchmarks. This permit stipulates pollutant benchmarks applicable to your stormwater discharges.
 - (a) The benchmarks do not constitute direct numeric effluent limitations; therefore, a benchmark exceedance alone is not a permit violation. Benchmark monitoring and visual inspections shall be used to determine the overall effectiveness of the SWPPP and to assist you in knowing when additional corrective action may be necessary to protect water quality. If a sample exceeds a benchmark concentration you must review your SWPPP and your BMPs to determine what improvements or additional controls are needed to reduce the pollutant in your stormwater discharge(s).
 - (b) Any time a benchmark exceedance occurs, a Corrective Action Report (CAR) must be completed. A CAR is a document recording the efforts undertaken by the facility to improve BMPs to meet benchmarks in future samples. CARs must be retained with the SWPPP and be available to the Department upon request. If the efforts taken by the facility are not sufficient and subsequent exceedances of a benchmark occur, the facility must contact the Department if a benchmark value cannot be achieved. Failure to take corrective action to address a benchmark exceedance and failure to make measureable progress towards achieving the benchmarks is a permit violation.
6. Petroleum Secondary Containment.

Before releasing water accumulated in petroleum secondary containment areas, it must be examined for hydrocarbon odor and presence of sheen to protect the general criteria found at 10 CSR 20-7.031(4).

 - (a) If odor or sheen is found, the water shall not be discharged without treatment and shall be disposed of in accordance with legally approved methods, such as being sent to an accepting wastewater treatment facility.
 - (b) If the facility wishes to discharge the accumulated stormwater with hydrocarbon odor or presence of sheen, the water shall be treated using an appropriate removal method. Following treatment and before release, the water shall be tested for oil and grease,

D. SPECIAL CONDITIONS (CONTINUED)

benzene, toluene, ethylbenzene, and xylene using 40 CFR part 136 methods. All pollutant levels must be below the most protective, applicable standards for the receiving stream, found in 10 CSR 20-7.031 Table A before discharge is authorized. Records of all testing and treatment of water accumulated in secondary containment shall be available on demand to the Department. Electronic records retention is acceptable.

7. Leachate Secondary Containment.

Before releasing water accumulated in secondary containment for leachate collection tanks, it must be examined for the presence of sheen. If sheen is present, the water may not be released and must be treated as leachate and disposed of using approved leachate management methods. In the event of a leachate release into the secondary containment, the accumulated stormwater and leachate must be treated as leachate and disposed of using approved leachate management methods. No additional water may be discharged from secondary containment which has held water with sheen and/or leachate until approval is granted by the Department. Approval shall be granted after the cause of the release is disclosed and repaired, and the secondary containment is cleaned to the satisfaction of the Department.

8. The full implementation of this operating permit, which includes implementation of any applicable schedules of compliance, shall constitute compliance with all applicable federal and state statutes and regulations in accordance with RSMo 644.051.16, and the CWA section 402(k); however, this permit may be reopened and modified, or alternatively revoked and reissued to comply with any applicable effluent standard or limitation issued or approved under Clean Water Act Sections 301(b)(2)(C) and (D), §304(b)(2), and §307(a) (2), if the effluent standard or limitation so issued or approved contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or controls any pollutant not limited in the permit. This permit may be modified, revoked and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, termination, notice of planned changes, or anticipated non-compliance does not stay any permit condition.

9. All outfalls must be clearly marked in the field.

10. Report no discharge when a discharge does not occur during the report period. It is a violation of this permit to report no-discharge when a discharge has occurred.

11. Changes in Discharges of Toxic Pollutant.

In addition to the reporting requirements under 40 CFR 122.41(1), all existing manufacturing, commercial, mining, and silvicultural dischargers must notify the Director as soon as they know or have reason to believe:

(a) That an activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following notification levels:

- (1) One hundred micrograms per liter (100 µg/L);
- (2) Two hundred micrograms per liter (200 µg/L) for acrolein and acrylonitrile;
- (3) Five hundred micrograms per liter (500 µg/L) for 2,4-dinitrophenol and for 2-methyl-4, 6-dinitrophenol;
- (4) One milligram per liter (1 mg/L) for antimony;
- (5) Five (5) times the maximum concentration value reported for the pollutant in the permit application in accordance with 40 CFR 122.21(g)(7); or
- (6) The notification level established by the Department in accordance with 40 CFR 122.44(f).

(b) That any activity has occurred or will occur which would result in any discharge, on a non-routine or infrequent basis, of a toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following “notification levels”:

- (1) Five hundred micrograms per liter (500 µg/l);
- (2) One milligram per liter (1 mg/l) for antimony;
- (3) Ten (10) times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 CFR 122.21(g)(7).
- (4) The level established by the Director in accordance with 40 CFR 122.44(f).

12. Reporting of Non-Detects.

(a) Compliance analysis conducted by the permittee or any contracted laboratory shall be conducted in such a way the precision and accuracy of the analyzed result can be enumerated. See sufficiently sensitive test method requirements in Standard Conditions Part I, Section A, #4 regarding proper testing and detection limits used for sample analysis. For the purposes of this permit, the definitions in 40 CFR 136 apply; method detection limit (MDL) and laboratory established reporting limit (RL) are used interchangeably in this permit.

(b) The permittee shall not report a sample result as “non-detect” without also reporting the MDL. Reporting “non-detect” without also including the MDL will be considered failure to report, which is a violation of this permit.

(c) For the daily maximum, the permittee shall report the highest value; if the highest value was a non-detect, use the less than “<” symbol and the laboratory’s highest method detection limit (MDL) or the highest reporting limit (RL); whichever is higher (e.g. <6).

D. SPECIAL CONDITIONS (CONTINUED)

13. Failure to pay fees associated with this permit is a violation of the Missouri Clean Water Law (644.055 RSMo).
14. This permit does not authorize the placement of fill materials in flood plains, placement of solid materials into any waterway, the obstruction of stream flow, or changing the channel of a defined drainage course. The facility must contact the U.S. Army Corps of Engineers to determine if a CWA §404 permit or §401 water quality certification is required for the project.
15. This permit shall be reopened and modified, or alternatively revoked and reissued, at such a time the Department has determined the Stormwater Monitoring Plan, or other stormwater controls, for West Lake Landfill Operable Units 1 and 2, under the jurisdiction of U.S. EPA, is insufficient to monitor or control pollutants originating from West Lake Landfill Operable Units 1 and 2, and discharging to waters of the state. The permittee shall have 30 days to respond to and address any reopening or revocation of the permit under this condition. The permittee shall have the opportunity to comment or appeal any modification or reissuance of the permit in accordance with administrative procedures.
16. The permittee shall submit all laboratory reports; including data, quality assurance analysis, and chain of custody, for all discharge monitoring conducted in accordance with this permit. When reporting through eDMR, this condition will be satisfied through the following:
 - (a) Attaching all laboratory reports for the reporting period to the eDMR submission.
 - (b) Confirming submission through the parameter labeled "Report Due" (parameter code 85539). Reporting "0" for this parameter indicates all laboratory reports are attached. Reporting "1" indicates all laboratory reports are not attached, Reporting "1" will be considered a violation of the permit.
17. The permittee will not be required to procure a separate general permit (MO-RAxxx) for on-site land disturbance activities which discharge through outfalls authorized in this permit. Discharges must comply with the limits and conditions of this permit. If land disturbance activities discharge to any location other than through a permitted outfall, a separate MORA general permit may be required, or a modification of this operating permit. The general permit does not cover disturbance of contaminated soils.
18. Renewal Application Requirements.
 - (a) This facility shall submit an appropriate and complete application to the Department no less than 180 days from the expiration date listed on page 1 of the permit.
 - (b) Application materials shall include complete Form A and Form C. If the form names have changed, then the facility should ensure they are submitting the correct forms as required by regulation.
 - (c) The facility may use the electronic submission system to submit the application to the Program, if available.
 - (d) This facility must submit all corrective action reports completed for the last permit term if a benchmark exceedance occurred.

E. NOTICE OF RIGHT TO APPEAL

If you were adversely affected by this decision, you may be entitled to pursue an appeal before the administrative hearing commission (AHC) pursuant to Sections 621.250 and 644.051.6 RSMo. To appeal, you must file a petition with the AHC within thirty days after the date this decision was mailed or the date it was delivered, whichever date was earlier. If any such petition is sent by registered mail or certified mail, it will be deemed filed on the date it is mailed; if it is sent by any method other than registered mail or certified mail, it will be deemed filed on the date it is received by the AHC. Any appeal should be directed to:

Administrative Hearing Commission
U.S. Post Office Building, Third Floor
131 West High Street, P.O. Box 1557
Jefferson City, MO 65102-1557
Phone: 573-751-2422
Fax: 573-751-5018
Website: <https://ahc.mo.gov>

MISSOURI DEPARTMENT OF NATURAL RESOURCES
FACT SHEET
FOR THE PURPOSE OF RENEWAL
OF
MO-0112771
BRIDGETON LANDFILL

The Federal Water Pollution Control Act ("Clean Water Act" Section 402 Public Law 92-500 as amended) established the National Pollutant Discharge Elimination System (NPDES) permit program. This program regulates the discharge of pollutants from point sources into the waters of the United States, and the release of stormwater from certain point sources. All such discharges are unlawful without a permit (Section 301 of the "Clean Water Act"). After a permit is obtained, a discharge not in compliance with all permit terms and conditions is unlawful. Missouri State Operating Permits (MSOPs) are issued by the Director of the Missouri Department of Natural Resources (Department) under an approved program, operating in accordance with federal and state laws (Federal "Clean Water Act" and "Missouri Clean Water Law" Section 644 as amended). MSOPs are issued for a period of five (5) years unless otherwise specified for less.

As per [40 CFR Part 124.8(a)] and [10 CSR 20-6.020(1)(A)2.] a factsheet shall be prepared to give pertinent information regarding the applicable regulations, rationale for the development of effluent limitations and conditions, and the public participation process for the Missouri State Operating Permit (MSOP or operating permit) listed below. A factsheet is not an enforceable part of an operating permit.

PART I. FACILITY INFORMATION

Facility Type:	Industrial: Stormwater >1 MGD
SIC Code(s):	4953, 2951, 4231
NAICS Code(s):	562212
Application Date:	04/02/2020
Expiration Date:	09/30/2020
Last Inspection:	08/31/2018-Compliance Assistance

FACILITY DESCRIPTION:

Bridgeton Landfill is a capped former sanitary landfill, located within the West Lake Landfill Superfund Site. The West Lake Landfill Superfund Site has been divided into two operable units. West Lake Landfill Operable Unit 1 (OU-1) consists of three separate areas identified in the 2008 OU-1 Record of Decision as Area 1, Area 2, and the Buffer Zone/Crossroad Property. Westlake Landfill Operable Unit 2 (OU-2) consists of the portions of the Superfund Site not known to contain radiologically-impacted material (RIM). OU-2 is divided into three areas identified in the 2008 OU-2 Record of Decision as the Former Active (Bridgeton) Sanitary Landfill, Closed Demolition Landfill, and Inactive Sanitary Landfill. This permit covers the two applicable portions of the West Lake Landfill Superfund Site OU-2, the Former Active (Bridgeton) Sanitary Landfill and the Closed Demolition Landfill; which are designated in this permit as Bridgeton Landfill and Demolition Landfill. Areas within OU-1 contain RIM and are under the oversight of the EPA Superfund program. The Inactive Sanitary Landfill in OU-2 also remains under the oversight of the EPA Superfund program.

The Bridgeton Landfill waste mass encompasses approximately 52 acres which extends approximately 240 feet below the ground surface and historically exhibited a total waste thickness of 320 feet. The sanitary landfill waste is located in two distinct areas known as the North and South Quarries. Bridgeton Landfill was initially permitted on Nov. 18, 1985 and ceased accepting waste on Dec. 31, 2004. A subsurface smoldering event has been ongoing within the South Quarry of Bridgeton Landfill since at least December 2010. The South Quarry and much of the North Quarry is covered with an Ethylene Vinyl Alcohol (EVOH) capping material to reduce odors and improve the collection of gas and liquids.

There is an onsite leachate pre-treatment plant. After pre-treatment, the leachate is discharged to the Metropolitan St. Louis Sewer District (MSD). Outside the pre-treatment plant are multiple large leachate storage and treatment tanks. Solids remaining from the pre-treatment process are characterized and trucked off-site for proper disposal. Leachate infrastructure contained on the landfill is overseen by the DNR Solid Waste Management Program while the pre-treatment plant itself is operated under permit and oversight of MSD. Discharge of leachate is not authorized under this stormwater permit. Bridgeton also has numerous above ground tanks located in the drainage area of Outfall #003 which are used to store diesel fuel and used oil.

An active waste transfer station is also located within the boundaries of Bridgeton Landfill, and is associated with heavy truck traffic. Per DNR Solid Waste Management Program records, it is estimated to receive and transfer approximately 16,000-28,000 tons of waste a month. The transfer station tipping floor is surrounded by three walls and is under roof. Stored waste is not exposed to stormwater. Wastewater from the transfer station is sent to the Bridgeton Landfill leachate management system. The stormwater in the vicinity of the transfer station is discharged to outfall #007.

Bridgeton Hauling Fleet Management parking lot shares discharge with outfall #004. Bridgeton Hauling is currently permitted under MO-R80C276.

Missouri Asphalt Products (Missouri Asphalt) leases land from Bridgeton Landfill, LLC within the boundaries of the Bridgeton Landfill. Missouri Asphalt currently holds Department-issued stormwater permit MO-G491316. The discharge of Missouri Asphalt effluent is not authorized by this permit, as comments from Bridgeton Landfill stated this effluent was not to be discharged through Bridgeton Landfill outfalls.

The charter number for the continuing authority for this facility is FL0016219; this number was verified by the permit writer to be associated with the facility and precisely matches the continuing authority reported by the facility.

Sources and additional information:

<https://cumulis.epa.gov/supercpad/cursites/csitinfo.cfm?id=0701039>, last accessed 07/17/2020

<http://dnr.mo.gov/bridgeton/index.html>, last accessed 07/17/2020

<http://dnr.mo.gov/env/hwp/fedfac/westlakelandfill-ffs.htm>, last accessed 07/17/2020

In accordance with 40 CFR 122.21(f)(6), the permittee reported other permits currently held by this facility. This facility has the following permits:

Permit Number	Permit type	Issuing Authority	Date Issued	Expiration Date
SD20-0004	Land Disturbance Permit (Borrow Area)	City of Bridgeton	03/03/2020	03/03/2021
MB22988C-0	Migratory Bird Depredation Permit	U.S. Fish and Wildlife Service	04/01/2020	03/31/2020
MORA09479	MSOP Land Disturbance	Missouri Department of Natural Resources – Water Protection	02/14/2017	02/07/2022
118912	Sanitary Landfill Permit	Missouri Department of Natural Resources – Waste Management	11/18/1985, Modified 10/28/1993, Modified 03/23/1998	N/A
1003803000-1.4	Hauled and Industrial Wastewater Discharge Permit	Metropolitan St. Louis Sewer District	09/01/2019	08/31/2024
7864 & 7865	Construction (NSR)/Operate (Local)	St. Louis County Air Pollution Control	04/25/2014	N/A
7972	Construction (NSR)/Operate (Local)	St. Louis County Air Pollution Control	04/02/2016	N/A
042018-005A	Construction (NSR)	Missouri Department of Natural Resources – Air Pollution Control	06/12/2018	N/A
8085	Construction (NSR)/Operate (Local)	St. Louis County Air Pollution Control	01/22/2020	N/A
OP2019-019	Title V	Missouri Department of Natural Resources – Air Pollution Control	05/31/2019	05/31/2024
418920	Solid Waste Transfer Station Operating Permit	Missouri Department of Natural Resources – Waste Management	12/23/2004	N/A
420	Transfer Station Permit	St. Louis County Department of Public Health	08/27/2019	08/27/2020

PERMITTED FEATURES TABLE:

OUTFALL	AVERAGE FLOW	DESIGN FLOW	TREATMENT LEVEL	EFFLUENT TYPE
#003	Dependent on precipitation	7.8 MGD	BMPs	Landfill stormwater, asphalt plant stormwater
#004	Dependent on precipitation	6.9 MGD	BMPs	Landfill stormwater, Soil borrow stormwater, West Lake stormwater
#005	Dependent on precipitation	3.7 MGD	BMPs	Landfill stormwater
#007	Dependent on precipitation	3.6 MGD	BMPs	Landfill stormwater, active transfer station stormwater, West Lake stormwater
#008	Dependent on precipitation	0.34 MGD	BMPs	Landfill stormwater, West Lake stormwater
#009	Dependent on precipitation	1.1 MGD	BMPs	Demo landfill stormwater, West Lake stormwater

FACILITY PERFORMANCE HISTORY & COMMENTS:

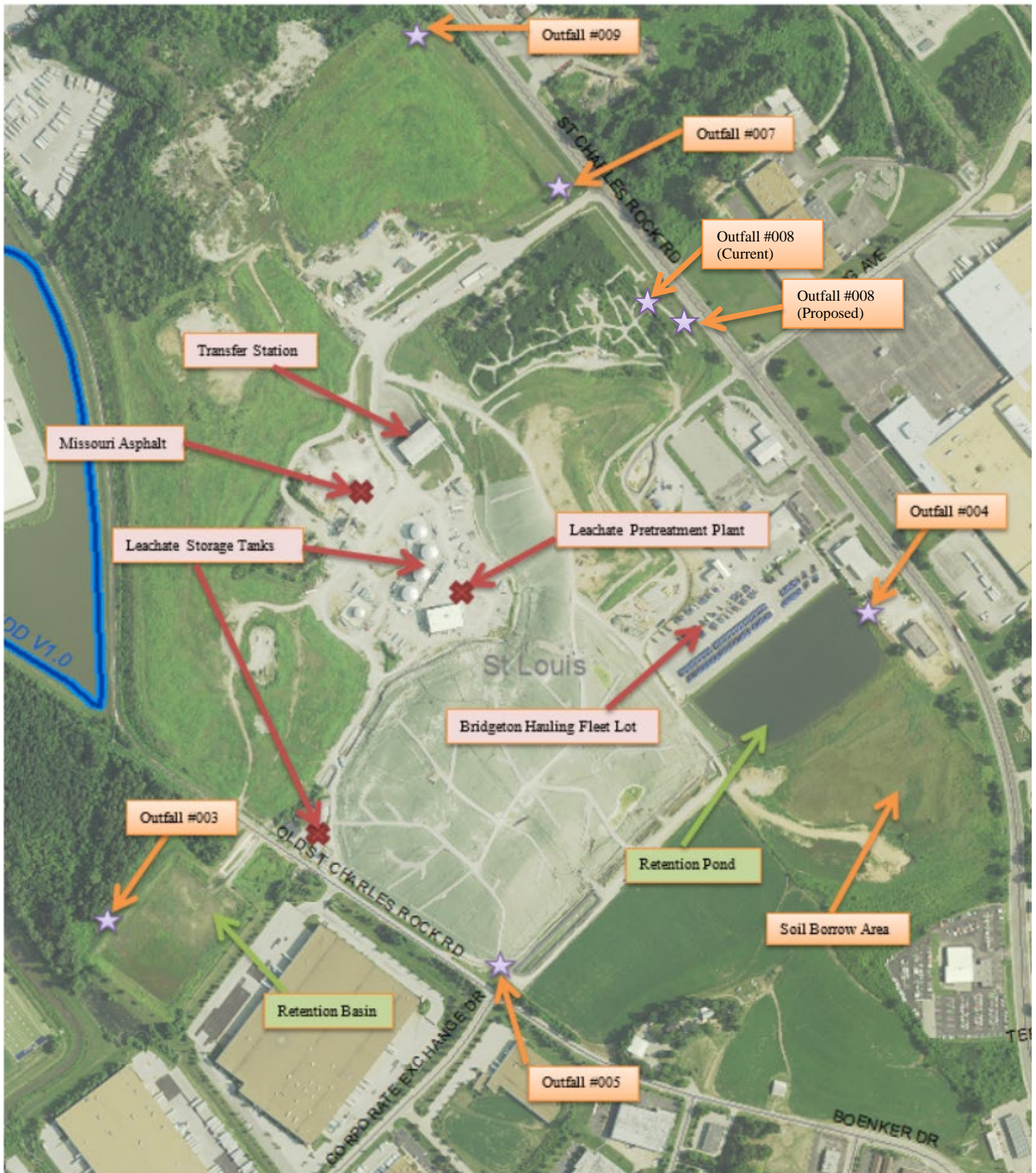
Bridgeton Landfill continues to monitor and respond to a subsurface smoldering event that began in 2010. Compliance assistance visits to the site were recorded in July and August of 2018. The Water Protection Program continues to work closely with the other applicable Department programs, the St. Louis Regional Office, and the EPA to appropriately monitor, regulate, and respond to the site.

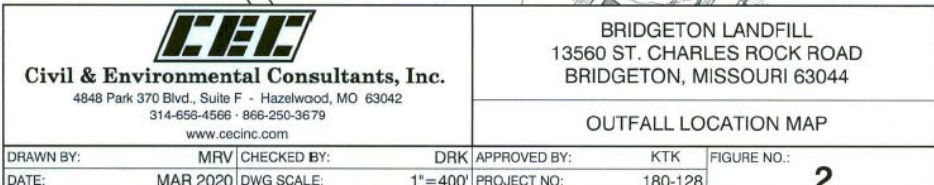
The electronic discharge monitoring reports were reviewed for the last permit term. Elevated levels of aluminum and TSS exceeding the benchmarks were noted at all outfalls. Aluminum levels are often tied to TSS due to sorption of the aluminum to the solids. The permittee should address these issues through modification of BMPs to lower TSS as necessary to attain the benchmarks. Elevated BOD, COD, chlorides and sulfates, copper, and iron were also noted on the DMRs for certain outfalls. It is the best professional judgment of the permit writer many of these exceedances are likely also tied to TSS.

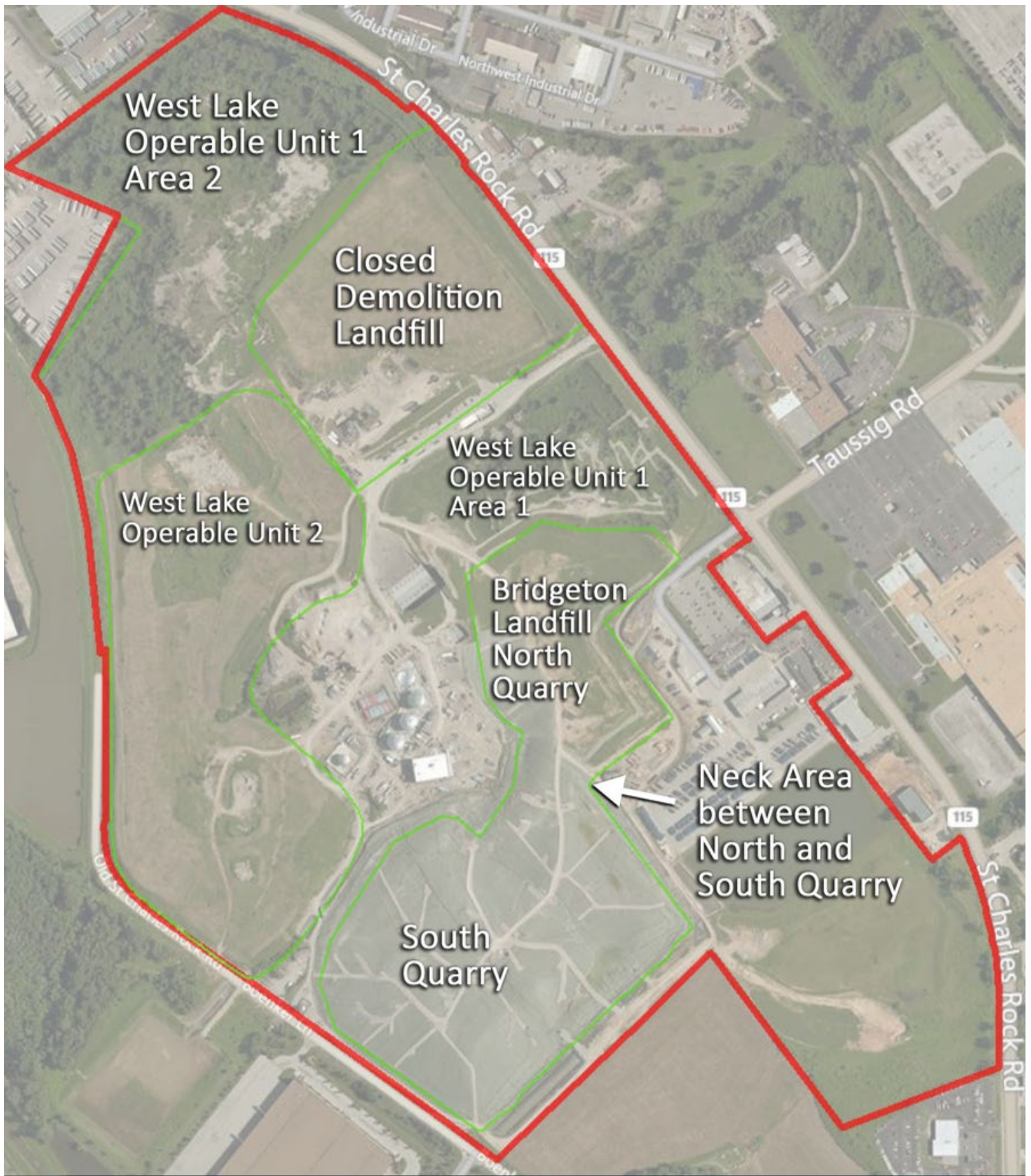
In the previous permit, the permit writer noted the facility was not using sufficiently sensitive methods for many parameters. After review of the data for this renewal, the permit writer noted the facility has switched to sufficiently sensitive methods for many parameters. However, last permit cycle parameters from the ELG for landfills was added to this permit. The permit writer noted for some of these parameters, the site is not using sufficiently sensitive methods. These parameters are: α -terpineol and *p*-Cresol. The facility must ensure the detection limits and reporting limits of the laboratory used can confirm levels of these pollutants below that in the ELG. The facility reported the laboratory occasionally does not meet the reporting limits required, therefore the permit writer added a note to the permit requiring the facility to submit explanations for values above the ELG values for those pollutants, for future evaluations by permit writers. The reason for the values being above the ELG levels may be important in determining terms and conditions in the renewal permit.

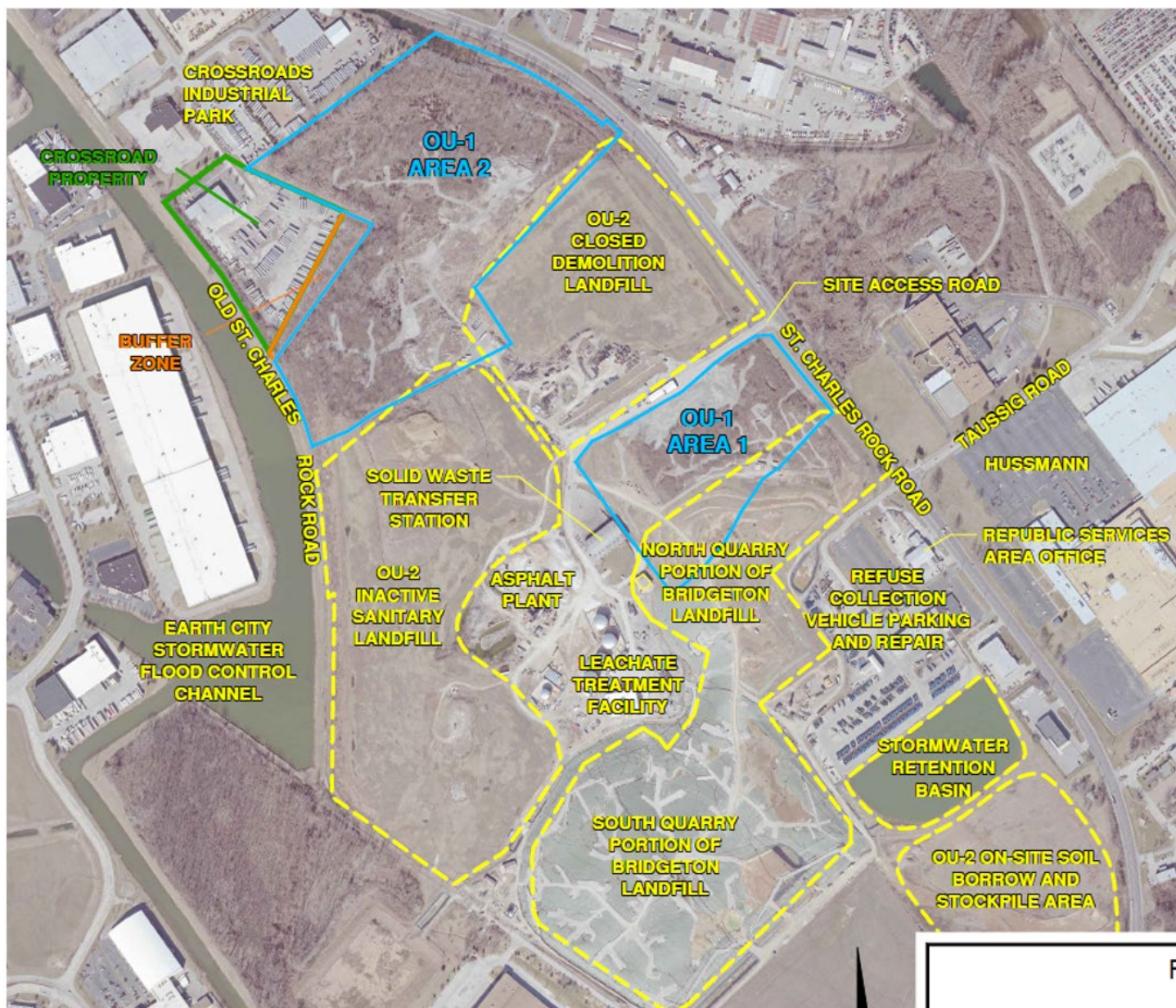
Landfills which utilize sediment ponds as a BMP require regular maintenance. Draining and removing the accumulated sediment sludge from stormwater basins which have received any leachate discharge is necessary to maintain the structures and to protect water quality. Retention basins can collect pollutants in the sediment which can be recirculated into the stormwater discharge during events causing turbidity in the water. It is generally advised to scoop the sediment from these ponds no less than every five to ten years, or more frequently depending on the amount of sediment and water they receive (sediment accumulation should be no more than 6-12 inches). Bridgeton Landfill is required to inspect and maintain their BMP structures per the conditions of this permit.

FACILITY MAPS:



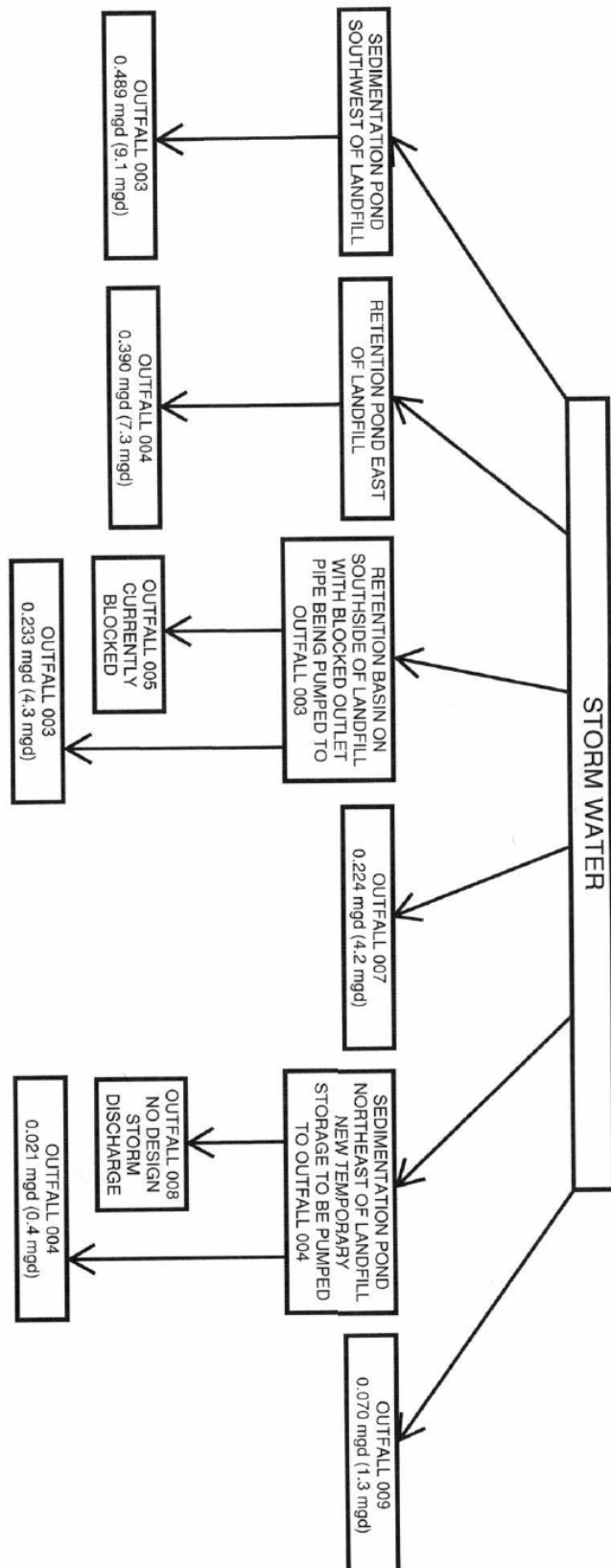






WATER BALANCE DIAGRAM:

FIGURE 3 - FORM C SECTION 2.0 LINE DRAWING



Average flow: Rational Method using annual rainfall for STL Lambert Airport, Rainfall = 0.3 in/day with C=0.8
(Max flow): Rational Method, Rainfall = 5.6 in/day (25 year, 24 hour storm event) with C=0.8

PART II. RECEIVING WATERBODY INFORMATION

RECEIVING WATERBODY TABLE:

OUTFALL	WATERBODY NAME	CLASS	WBID	DESIGNATED USES	DISTANCE TO SEGMENT	12-DIGIT HUC
#003	Tributary to Fee Fee Creek (Old)	n/a	n/a	GEN	0.0 mi	10300200-0801 Cowmire Creek-Missouri River
	100K Extent-Remaining Stream	C	3960	GEN, HHP, IRR, LWW, SCR, WBC-B, WWH (ALP)	0.33 mi	
#004	Tributary to Missouri River	n/a	n/a	GEN	0.0 mi	
	Missouri River	P	1604	GEN, DWS, HHP, IND, IRR, LWW, SCR, WBC-B, HHP, WWH (ALP)	2.4 mi	
#005	Tributary to Fee Fee Creek (Old)	n/a	n/a	GEN	0.0 mi	
	100K Extent-Remaining Stream	C	3960	GEN, HHP, IRR, LWW, SCR, WBC-B, WWH (ALP)	0.69 mi	
#007	Tributary to Missouri River	n/a	n/a	GEN	0.0 mi	
	Missouri River	P	1604	GEN, DWS, HHP, IND, IRR, LWW, SCR, WBC-B, HHP, WWH (ALP)	1.0 mi	
#008	Tributary to Missouri River	n/a	n/a	GEN	0.0 mi	
	Missouri River	P	1604	GEN, DWS, HHP, IND, IRR, LWW, SCR, WBC-B, HHP, WWH (ALP)	2.8 mi (Current Outfall)	
#009	Tributary to Missouri River	n/a	n/a	GEN	0.0 mi	
	Missouri River	P	1604	GEN, DWS, HHP, IND, IRR, LWW, SCR, WBC-B, HHP, WWH (ALP)	0.9 mi	

Classes are representations of hydrologic flow volume or lake basin size as defined in 10 CSR 20-7.031(1)(F). L1: Lakes with drinking water supply - wastewater discharges are not permitted to occur to L1 watersheds per 10 CSR 20-7.015(3)(C); L2: major reservoirs; L3: all other public and private lakes; P: permanent streams; C: streams which may cease flow in dry periods but maintain pools supporting aquatic life; E: streams which do not maintain surface flow; and W: wetland. Losing streams are defined in 10 CSR 20-7.031(1)(O) and are designated on the Losing Stream dataset or determined by the Department to lose 30% or more of flow to the subsurface.

WBID = Waterbody Identification: Missouri Use Designation Dataset per 10 CSR 20-7.031(1)(Q) and (S) as 100K Extant-Remaining Streams or newer; data can be found as an ArcGIS shapefile on MSDIS at ftp://msdis.missouri.edu/pub/Inland_Water_Resources/MO_2014_WQS_Stream_Classifications_and_Use_shp.zip; New C streams described on the dataset per 10 CSR 20-7.031(2)(A)3. as 100K Extent Remaining Streams.

10 CSR 20-7.031(1)(C)1.: **ALP** = Aquatic Life Protection (formerly AQL); current uses are defined to ensure the protection and propagation of fish shellfish and wildlife, further subcategorized as: WWH = Warm Water Habitat; CLH = Cool Water Habitat; CDH = Cold Water Habitat; EAH = Ephemeral Aquatic Habitat; MAH = Modified Aquatic Habitat; LAH = Limited Aquatic Habitat. This permit uses ALP effluent limitations in 10 CSR 20-7.031 Table A1-B3 for all habitat designations unless otherwise specified.

10 CSR 20-7.031(1)(C)2.: Recreation in and on the water

WBC = Whole Body Contact recreation where the entire body is capable of being submerged;

WBC-A = whole body contact recreation supporting swimming uses and has public access;

WBC-B = whole body contact recreation not included in WBC-A;

SCR = Secondary Contact Recreation (like fishing, wading, and boating)

10 CSR 20-7.031(1)(C)3. to 7.:

HHP (formerly HHF) = Human Health Protection as it relates to the consumption of fish and drinking of water;

IRR = irrigation for use on crops utilized for human or livestock consumption

LWW = Livestock and Wildlife Watering (current narrative use is defined as LWP = Livestock and Wildlife Protection);

DWS = Drinking Water Supply, includes aquifers per 10 CSR 20-7.031(5)

IND = industrial water supply

10 CSR 20-7.031(1)(C)8. to 11.: Wetlands (10 CSR 20-7.031 Tables A1-B3 currently does not have corresponding habitat use criteria for these defined uses): WSA = storm- and flood-water storage and attenuation; WHP = habitat for resident and migratory wildlife species; WRC = recreational, cultural, educational, scientific, and natural aesthetic values and uses; WHC = hydrologic cycle maintenance.

10 CSR 20-7.031(6): **GRW** = Groundwater

20 CSR 20-7.031(4): GEN = general criteria; acute toxicity criteria applicable to all waters even those lacking designated uses

n/a = not applicable

EXISTING WATER QUALITY:

The receiving streams Tributary to Missouri River and Tributary to Old Fee Fee Creek have no concurrent water quality data available. Neither of the receiving streams is on the 303d List, is classified as losing, or is associated with a TMDL. However, the Missouri River Watershed is subject to a 2006 TMDL for PCBs and chlordane (see below).

303(d) LIST:

Section 303(d) of the federal Clean Water Act requires each state identify waters not meeting water quality standards and for which adequate water pollution controls have not been required. Water quality standards protect such beneficial uses of water as whole body contact (such as swimming), maintaining fish and other aquatic life, and providing drinking water for people, livestock, and wildlife. The 303(d) list helps state and federal agencies keep track of impaired waters not addressed by normal water pollution control programs. <http://dnr.mo.gov/env/wpp/waterquality/303d/303d.htm>

✓ Not applicable; this facility does not discharge to an impaired segment of a 303(d) listed stream.

TOTAL MAXIMUM DAILY LOAD (TMDL):

A TMDL is a calculation of the maximum amount of a given pollutant a water body can absorb before its water quality is affected; hence, the purpose of a TMDL is to determine the pollutant loading a specific waterbody can assimilate without exceeding water quality standards. If a water body is determined to be impaired as listed on the 303(d) list, then a watershed management plan or TMDL may be developed. The TMDL shall include the WLA calculation. <http://dnr.mo.gov/env/wpp/tmdl/>

✓ Applicable; the Missouri River watershed is associated with the 2006 EPA approved TMDL for PCBs and chlordane.

- This facility is not listed as a source of the above listed pollutant(s) or considered to contribute to the impairment.

UPSTREAM OR DOWNSTREAM IMPAIRMENTS:

The permit writer has reviewed upstream and downstream stream segments of this facility for impairments.

✓ This facility is located at the top of the watershed therefore no upstream is present at this location/outfalls.

✓ The permit writer has noted downstream of the facility the stream has a TMDL for PCBs and chlordane; however this facility does not contribute to this impairment.

DESIGNATION OF WATERS OF THE STATE:

Per Missouri's technology-based effluent Regulations [10 CSR 20-7.015], waters of the state are divided into seven categories [10 CSR 20-7.015(2) through (8)]. If the discharges at the site are stormwater only, or this is a land application only permit, effluent limitations may not be developed based on the designations of the receiving stream, rather are based on a best professional judgment evaluation, which takes the designation of the receiving water body into consideration. Effluent limitations derived on a site specific basis are discussed in PART IV: EFFLUENTS LIMITS DETERMINATIONS.

✓ All other waters

✓ This is a stormwater only permit.

LAKE NUMERIC NUTRIENT CRITERIA:

Water quality standards per 10 CSR 20-7.031(5)(N) describe nutrient criteria requirements assigned to lakes (which include reservoirs) in Missouri, equal to or greater than 10 acres during normal pool conditions. The Department's Nutrient Criteria Implementation Plan (NCIP) may be reviewed at: <https://dnr.mo.gov/env/wpp/rules/documents/nutrient-implementation-plan-final-072618.pdf> Discharges of wastewater in to lakes or lake watersheds designated as L1 (drinking water use) are prohibited per 10 CSR 20-7.015(3)(C).

✓ Not applicable; this facility does not discharge in a lake watershed

RECEIVING WATERBODY MONITORING REQUIREMENTS:

No receiving water monitoring requirements are recommended at this time. The monitoring at the designated outfalls is sufficient to determine reasonable potential in stream.

MIXING CONSIDERATIONS:

For all outfalls, mixing zone and zone of initial dilution are not allowed per 10 CSR 20-7.031(5)(A)4.B.(I)(a) and (b), as the base stream flow does not provide dilution to the effluent.

PART III. RATIONALE AND DERIVATION OF PERMIT CONDITIONS

ALTERNATIVE EVALUATIONS FOR NEW FACILITIES:

As per [10 CSR 20-7.015(4)(A)], discharges to losing streams shall be permitted only after other alternatives including land application, discharges to a gaining stream and connection to a regional wastewater treatment facility have been evaluated and determined to be unacceptable for environmental and/or economic reasons.

- ✓ Not applicable; the facility does not discharge to a losing stream.

ANTIBACKSLIDING:

Federal Regulations [CWA §303(d)(4); CWA §402(c); 40 CFR Part 122.44(l)] require a reissued permit to be as stringent as the previous permit with some exceptions. Backsliding (a less stringent permit limitation) is only allowed under certain conditions.

- ✓ Limitations in this operating permit for the reissuance conform to the anti-backsliding provisions of Section 402(o) of the Clean Water Act, and 40 CFR Part 122.44.
 - ✓ Material and substantial alterations or additions to the permitted facility occurred after permit issuance justify the application of a less stringent effluent limitation.
 - The facility built a new storage basin at outfall #008 and routed drainage from the site in such a way as to avoid commingling effluent with RIM materials in OU-1 Area 1. For this reason, all requirements for monitoring radiological parameters is removed from this outfall.
 - ✓ Information is available which was not available at the time of permit issuance (other than revised regulations, guidance, or test methods) which would have justified the application of a less stringent effluent limitation.
 - Five years of DMR data were available to support converting limits to a benchmark for oil and grease. After review of DMR data, the permit writer used best professional judgment to determine there is no reasonable potential for excursions from narrative or numeric water quality criteria for this parameter; therefore, limits were removed.
 - The permit writer used best professional judgment to remove settleable solids monitoring from all outfalls. After review of the DMR data, the permit writer determined no reasonable potential for excursions from the narrative water quality criteria found in 10 CSR20-7.01(4). As there is no RP, and the permit writer believes the solids fractions accounted for under the TSS analysis account for the most environmentally significant solids at the site, the requirements for monitoring settleable solids was removed.
 - Silver was removed from monitoring at outfalls #008 and #009. The permit writer reviewed the DMRs and determined silver is not a pollutant of concern at these outfalls. This is in line with previous decisions made in this permit about the site's pollutants of concern.
 - Monitoring frequency of arsenic was reduced from quarterly to annually. DMR data showed no values of water quality concern, so the permit writer determined annual monitoring to be sufficient using best professional judgment. Monitoring is continued annually as it is a pollutant of concern at landfills.
 - ✓ The Department determined technical mistakes or mistaken interpretations of law were made in issuing the permit under section 402(a)(1)(b).
 - The previous permit had a special condition stating: "Any pesticide discharge from any point source shall comply with the requirements of Federal Insecticide, Fungicide and Rodenticide Act, as amended (7 U.S.C. 136 et. seq.) and the use of such pesticides shall be in a manner consistent with its label." The permit writer has determined this special condition was outside the scope of NPDES permitting and was removed.
 - The previous permit had a special condition that indicated spills from hazardous waste substances must be reported to the department. However, this condition is covered under standard conditions therefore was removed from special conditions.

ANTIDEGRADATION REVIEW:

Process water discharges with new, altered, or expanding flows, the Department is to document, by means of antidegradation review, if the use of a water body's available assimilative capacity is justified. In accordance with Missouri's water quality regulations for antidegradation [10 CSR 20-7.031(3)], degradation may be justified by documenting the socio-economic importance of a discharge after determining the necessity of the discharge. Facilities must submit the antidegradation review request to the Department prior to establishing, altering, or expanding discharges. See <http://dnr.mo.gov/env/wpp/permits/antideg-implementation.htm>

- ✓ Not applicable; the facility has not submitted information proposing expanded or altered process water discharge; no further degradation proposed therefore no further review necessary.

This permit requires the development and implementation of a Stormwater Pollution Prevention Plan (SWPPP) which must include an alternative analysis (AA) of the BMPs. The SWPPP must be developed, implemented, updated, and maintained at the facility. Failure to implement and maintain the chosen alternative, is a permit violation. The AA is a structured evaluation of BMPs to determine which are reasonable and cost effective. Analysis should include practices designed to be 1) non-degrading, 2) less degrading, or 3) degrading water quality. The chosen BMP will be the most reasonable and cost effective while ensuring the highest statutory and regulatory requirements are achieved and the highest quality water attainable for the facility is discharged. The analysis must demonstrate why "no discharge" or "no exposure" are not feasible alternatives at the facility. Existing facilities with established SWPPPs and BMPs need not conduct an additional alternatives analysis unless new BMPs are established to address BMP failures or

benchmark exceedances. This structured analysis of BMPs serves as the antidegradation review, fulfilling the requirements of 10 CSR 20-7.015(9)(A)5 and 7.031(3). For stormwater discharges with new, altered, or expanding discharges, the stormwater BMP chosen for the facility, through the AA performed by the facility, must be implemented and maintained at the facility. Failure to implement and maintain the chosen BMP alternative is a permit violation; see SWPPP.

✓ Applicable; the facility must review and maintain stormwater BMPs as appropriate.

BEST MANAGEMENT PRACTICES:

Minimum site-wide best management practices are established in this permit to ensure all permittees are managing their sites equally to protect waters of the state from certain activities which could cause negative effects in receiving water bodies. While not all sites require a SWPPP because the SIC codes are specifically exempted in 40 CFR 122.26(b)(14), these best management practices are not specifically included for stormwater purposes. These practices are minimum requirements for all industrial sites to protect waters of the state. If the minimum best management practices are not followed, the facility may violate general criteria [10 CSR 20-7.031(4)]. Statutes are applicable to all permitted facilities in the state, therefore pollutants cannot be released unless in accordance with RSMo 644.011 and 644.016 (17).

COST ANALYSIS FOR COMPLIANCE (CAFCOM):

Pursuant to Section 644.145, RSMo, when incorporating a new requirement for discharges from publicly owned facilities, or when enforcing provisions of this chapter or the Federal Water Pollution Control Act, 33 U.S.C. 1251 et seq., pertaining to any portion of a publicly owned facility, the Department of Natural Resources shall make a "finding of affordability" on the costs to be incurred and the impact of any rate changes on ratepayers upon which to base such permits and decisions, to the extent allowable under this chapter and the Federal Water Pollution Control Act. This process is completed through a cost analysis for compliance. Permits not including new requirements may be deemed affordable.

✓ The Department is not required to complete a cost analysis for compliance because the facility is not publicly owned.

CHANGES IN DISCHARGES OF TOXIC POLLUTANT:

This special condition reiterates the federal rules found in 40 CFR 122.44(f) and 122.42(a)(1). In these rules, the facility is required to report changes in amounts of toxic substances discharged. Toxic substances are defined in 40 CFR 122.2 as "...any pollutant listed as toxic under section 307(a)(1) or, in the case of "sludge use or disposal practices," any pollutant identified in regulations implementing section 405(d) of the CWA." Section 307 of the clean water act then refers to those parameters found in 40 CFR 401.15. The permittee should also consider any other toxic pollutant in the discharge as reportable under this condition.

COMPLIANCE AND ENFORCEMENT:

Enforcement is the action taken by the Water Protection Program (WPP) to bring an entity into compliance with the Missouri Clean Water Law, its implementing regulations, and/or any terms and conditions of an operating permit. The primary purpose of the enforcement activity in the WPP is to resolve violations and return the entity to compliance.

✓ Not applicable; the facility is not currently under enforcement action with the WPP, as the previously active case was resolved and closed in June 2020.

DOMESTIC WASTEWATER, SLUDGE, AND BIOSOLIDS:

Domestic wastewater is defined as wastewater (i.e., human sewage) originating primarily from the sanitary conveyances of bathrooms and kitchens. Domestic wastewater excludes stormwater, animal waste, process waste, and other similar waste.

✓ Not applicable; this facility discharges domestic wastewater to an off-site permitted wastewater treatment facility (POTW).

Sewage sludge is solid, semi-solid, or liquid residue generated during the treatment of domestic sewage in a treatment works; including but not limited to, domestic septage; scum or solids removed in primary, secondary, or advanced wastewater treatment process; and material derived from sewage sludge. Sewage sludge does not include ash generated during the firing of sewage sludge in a sewage sludge incinerator or grit and screening generated during preliminary treatment of domestic sewage in a treatment works. Biosolids are solid materials resulting from domestic wastewater treatment meeting federal and state criteria for productive use (i.e. fertilizer) and after having pathogens removed.

Additional information: <http://extension.missouri.edu/main/DisplayCategory.aspx?C=74> (WQ422 through WQ449).

✓ Not applicable; the facility does not manage domestic wastewater on-site.

EFFLUENT LIMITATIONS:

Effluent limitations derived and established for this permit are based on current operations of the facility and applied per 10 CSR 20-7.015(9)(A). Any flow through the outfall is considered a discharge and must be sampled and reported as provided in the permit. Future permit action due to facility modification may contain new operating permit terms and conditions which supersede the terms and conditions, including effluent limitations, of this operating permit. Daily maximums and monthly averages are required per 40 CFR 122.45(d)(1) for continuous discharges (not from a POTW).

EFFLUENT LIMITATION GUIDELINE:

Effluent Limitation Guidelines, or ELGs, are found at 40 CFR 400-499. These are limitations established by the EPA based on the SIC code and the type of work a facility is conducting. Most ELGs are for process wastewater and some address stormwater. All are technology based limitations which must be met by the applicable facility at all times.

- ✓ The facility has an associated ELG (40 CFR 445) but does not discharge wastewater to waters of the state; stormwater discharges are not addressed by the ELG. Some parameters from the ELG are incorporated into this permit; however, the full ELG and requirements are not applicable to this permit.

ELECTRONIC DISCHARGE MONITORING REPORT (EDMR) SUBMISSION SYSTEM:

The U.S. Environmental Protection Agency (EPA) promulgated a final rule on October 22, 2015, to modernize Clean Water Act reporting for municipalities, industries, and other facilities by converting to an electronic data reporting system. The final rule requires regulated entities and state and federal regulators to use information technology to electronically report data required by the National Pollutant Discharge Elimination System (NPDES) permit program instead of filing paper reports. To comply with the federal rule, the Department is requiring all permittees to begin submitting discharge monitoring data and reports online.

Per 40 CFR 127.15 and 127.24, permitted facilities may request a temporary waiver for up to 5 years or a permanent waiver from electronic reporting from the Department. To obtain an electronic reporting waiver, a permittee must first submit an eDMR Waiver Request Form: <http://dnr.mo.gov/forms/780-2692-f.pdf>. A request must be made for each facility. If more than one facility is owned or operated by a single entity, then the entity must submit a separate request for each facility based on its specific circumstances. An approved waiver is not transferable.

The Department must review and notify the facility within 120 calendar days of receipt if the waiver request has been approved or rejected [40 CFR 124.27(a)]. During the Department review period as well as after a waiver is granted, the facility must continue submitting a hard-copy of any reports required by their permit. The Department will enter data submitted in hard-copy from those facilities allowed to do so and electronically submit the data to the EPA on behalf of the facility.

To assist the facility in entering data into the eDMR system, the permit describes limit sets in each table in Part A of the permit. The data entry personnel should use these identifiers to ensure data entry is being completed appropriately.

- ✓ The permittee/facility is currently using the eDMR data reporting system.

GENERAL CRITERIA CONSIDERATIONS:

In accordance with 40 CFR 122.44(d)(1), effluent limitations shall be placed into permits for pollutants determined to cause, have reasonable potential to cause, or to contribute to, an excursion above any water quality standard, including narrative water quality criteria. In order to comply with this regulation, the permit writer has completed a reasonable potential determination on whether discharges have reasonable potential to cause, or contribute to an excursion of the general criteria listed in 10 CSR 20-7.031(4). In instances where reasonable potential exists, the permit includes limitations within the permit to address the reasonable potential. In discharges where reasonable potential does not exist, the permit may include monitoring to later determine the discharge's potential to impact the narrative criteria. Additionally, RSMo 644.076.1, as well as Section D – Administrative Requirements of Standard Conditions Part I of this permit state it shall be unlawful for any person to cause or allow any discharge of water contaminants from any water contaminant or point source located in Missouri in violation of sections 644.006 to 644.141 of the Missouri Clean Water Law or any standard, rule, or regulation promulgated by the commission. See Part IV for specific determinations.

GROUNDWATER MONITORING:

Groundwater is a water of the state according to RSMo 644.016(27), is subject to regulations at 10 CSR 20-7.015(7) and 10 CSR 20-7.031(6), and must be protected accordingly.

- ✓ This facility is not required to monitor groundwater for the water protection program. The facility monitors groundwater under their Waste Management Program permit. Reporting of this data to the Water Protection Program is not required at this time. Groundwater sampling is also required by EPA Superfund for the West Lake site. Remediation and monitoring of the groundwater at this site is under the jurisdiction of the EPA Superfund Program, and is designated by EPA as OU-3. Reporting of this data to the Water Protection Program is also not required at this time.

LAND APPLICATION:

Land application, or surficial dispersion of wastewater and/or sludge, is performed by facilities to maintain a basin as no-discharge. Requirements for these types of operations are found in 10 CSR 20-6.015; authority to regulate these activities is from RSMo 644.026.

- ✓ Not applicable; this permit does not authorize operation of a surficial land application system to disperse wastewater or sludge.

LAND DISTURBANCE:

Land disturbance, sometimes called construction activities, are actions which cause disturbance of the root layer or soil; these include clearing, grading, and excavating of the land. 40 CFR 122.26(b)(14) and 10 CSR 20-6.200(3) requires permit coverage for these activities. Coverage is not required for facilities when only providing maintenance of original line and grade, hydraulic capacity, or to continue the original purpose of the facility.

- ✓ Applicable; this permit provides coverage for land disturbance activities within the landfill permitted boundaries. All flow of stormwater from land disturbance activities must go through a permitted outfall on site. New outfalls will need to be designated in the permit via permit modification should the stormwater effluent not go through currently permitted outfalls.

MAJOR WATER USER:

Any surface or groundwater user with a water source and the equipment necessary to withdraw or divert 100,000 gallons (or 70 gallons per minute) or more per day combined from all sources from any stream, river, lake, well, spring, or other water source is considered a major water user in Missouri. All major water users are required by law to register water use annually (Missouri Revised Statutes Chapter 256.400 Geology, Water Resources and Geodetic Survey Section). <https://dnr.mo.gov/pubs/pub2236.htm>

- ✓ Not applicable; this permittee cannot withdraw water from the state in excess of 70 gpm/0.1 MGD.

NUTRIENT MONITORING:

Nutrient monitoring is required for facilities characteristically or expected to discharge nutrients (nitrogenous compounds and/or phosphorus) when the design flow is equal to or greater than 0.1 MGD per 10 CSR 20-7.015(9)(D)8.

- ✓ This is a stormwater only permit therefore not subject to provisions found in 10 CSR 20-7.015 per 10 CSR 20-7.015(1)(C).

OIL/WATER SEPARATORS:

Oil water separator (OWS) tank systems are frequently found at industrial sites where process water and stormwater may contain oils and greases, oily wastewaters, or other immiscible liquids requiring separation. Food industry discharges typically require pretreatment prior to discharge to municipally owned treatment works. Per 10 CSR 26-2.010(2)(B), all oil water separator tanks must be operated according to manufacturer's specifications and authorized in NPDES permits per 10 CSR 26-2.010(2) or may be regulated as a petroleum tank.

- ✓ Not applicable; the permittee has not disclosed the use of any oil water separators they wish to include under the NPDES permit at this facility and therefore oil water separator tanks are not authorized by this permit.

PRETREATMENT:

This permit does not regulate pretreatment requirements for facilities discharging to an accepting permitted wastewater treatment facility. If applicable, the receiving entity (the publicly owned treatment works - POTW) is to ensure compliance with any effluent limitation guidelines for pretreatment listed in 40 CFR Subchapter N per 10 CSR 20-6.100. Pretreatment regulations per RSMo 644.016 are limitations on the introduction of pollutants or water contaminants into publicly owned treatment works or facilities.

- ✓ Applicable; this entity reported wastewater is discharged to a POTW and falls under a category with pretreatment requirements.

REASONABLE POTENTIAL (RP):

Federal regulation [40 CFR Part 122.44(d)(1)(i)] requires effluent limitations for all pollutants which are (or may be) discharged at a level causing or have the reasonable potential to cause (or contribute to) an in-stream excursion above narrative or numeric water quality standards. Per 10 CSR 20-7.031(4), general criteria shall be applicable to all waters of the state at all times; however, acute toxicity criteria may be exceeded by permit in zones of initial dilution, and chronic toxicity criteria may be exceeded by permit in mixing zones. If the permit writer determines any given pollutant has the reasonable potential to cause or contribute to an in-stream excursion above the WQS, the permit must contain effluent limits for the pollutant per 40 CFR Part 122.44(d)(1)(iii) and the most stringent limits per 10 CSR 20-7.031(9)(A). Permit writers may use mathematical reasonable potential analysis (RPA) using the Technical Support Document for Water Quality Based Toxics Control (TSD) methods (EPA/505/2-90-001) as found in Section 3.3.2, or may also use reasonable potential determinations (RPD) as provided in Sections 3.1.2, 3.1.3, and 3.2 of the TSD.

- ✓ Not applicable; a mathematical RPA was not conducted for this facility. This permit establishes permit limits and benchmarks for stormwater. The Department has determined stormwater is not a continuous discharge and is therefore not necessarily dependent on mathematical RPAs. However, the permit writer completed an RPD, a reasonable potential determination, using best professional judgment for all of the appropriate parameters in this permit. An RPD consists of reviewing application data and/or discharge monitoring data and comparing those data to narrative or numeric water quality criteria.
- ✓ Permit writers use the Department's permit writer's manual, the EPA's permit writer's manual, program policies, and best professional judgment. For each parameter in each permit, the permit writer carefully considers all applicable information regarding: technology based effluent limitations, effluent limitation guidelines, water quality standards, stream flows and uses, and all applicable site specific information and data gathered by the permittee through discharge monitoring reports and renewal (or new) application sampling. Best professional judgment is based on the experience of the permit writer, cohorts in the Department and resources at the EPA, research, and maintaining continuity of permits if necessary. For stormwater permits, the permit writer is required per 10 CSR 6.200(6)(B)2 to consider: A. application and other information supplied by the permittee; B. effluent guidelines; C. best professional judgment of the permit writer; D. water quality; and E. BMPs. Part IV provides specific decisions related to this permit.

SAMPLING FREQUENCY JUSTIFICATION:

Sampling and reporting frequency was generally retained from previous permit. Sampling frequency for stormwater-only outfalls is typically quarterly even though BMP inspection occurs monthly. Monthly sampling is continued on TSS, as TSS is considered to be the primary indicator of stormwater quality at this facility.

SAMPLING TYPE JUSTIFICATION:

Sampling type was continued from the previous permit. The sampling types are representative of the discharges, and are protective of water quality. Discharges with altering effluent should have composite sampling; discharges with uniform effluent can have grab samples. Grab samples are usually appropriate for stormwater. Parameters which must have grab sampling are: pH, ammonia, *E. coli*, total residual chlorine, free available chlorine, hexavalent chromium, dissolved oxygen, total phosphorus, volatile organic compounds, and others.

SCHEDULE OF COMPLIANCE (SOC):

A schedule of remedial measures included in a permit, including an enforceable sequence of interim requirements (actions, effluent limits, operations, or milestone events) leading to compliance with the Missouri Clean Water Law, its implementing regulations, and/or the terms and conditions of an operating permit. SOC's are allowed under 40 CFR 122.47 and 10 CSR 20-7.031(11) providing certain conditions are met.

A SOC is not allowed:

- For effluent limitations based on technology-based standards established in accordance with federal requirements, if the deadline for compliance established in federal regulations has passed. 40 CFR 125.3.
- For a newly constructed facility in most cases. Newly constructed facilities must meet applicable effluent limitations when discharge begins, because the facility has installed the appropriate control technology as specified in a permit or antidegradation review. A SOC is allowed for a new water quality based effluent limit not included in a previously public noticed permit or antidegradation review, which may occur if a regulation changes during construction.
- To develop a TMDL, UAA, or other study associated with development of a site specific criterion. A facility is not prohibited from conducting these activities, but a SOC may not be granted for conducting these activities.

In order to provide guidance in developing SOC's, and to attain a greater level of consistency, the Department issued a policy on development of SOC's on October 25, 2012. The policy provides guidance to permit writers on standard time frames for schedules for common activities, and guidance on factors to modify the length of the schedule.

✓ Applicable; a schedule of compliance is provided for outfalls #007 and #009 for radium 226 + radium 228.

SPILLS, OVERFLOWS, AND OTHER UNAUTHORIZED DISCHARGE REPORTING:

Per 260.505 RSMo, any emergency involving a hazardous substance must be reported to the Department's 24 hour Environmental Emergency Response hotline at (573) 634-2436 at the earliest practicable moment after discovery. The Department may require the submittal of a written report detailing measures taken to clean up a spill. These reporting requirements apply whether or not the spill results in chemicals or materials leaving the permitted property or reaching waters of the state. This requirement is in addition to the noncompliance reporting requirement found in Standard Conditions Part I. <http://dnr.mo.gov/env/esp/spillbill.htm>

Any other spills, overflows, or unauthorized discharges reaching waters of the state must be reported to the regional office during normal business hours, or after normal business hours, to the Department's 24 hour Environmental Emergency Response spill line at 573-634-2436.

SLUDGE – INDUSTRIAL:

Industrial sludge is solid, semi-solid, or liquid residue generated during the treatment of industrial process or non-process wastewater in a treatment works; including but not limited to, scum or solids removed in primary, secondary, or advanced wastewater treatment process; scum and solids filtered from water supplies and backwashed; and any material derived from industrial sludge.

✓ Applicable; sludge is removed by contract hauler and is conveyed to a wastewater treatment facility.

STANDARD CONDITIONS:

The standard conditions Part I attached to this permit incorporate all sections of 40 CFR 122.41(a) through (n) by reference as required by law. These conditions, in addition to the conditions enumerated within the standard conditions should be reviewed by the permittee to ascertain compliance with this permit, state regulations, state statutes, federal regulations, and the Clean Water Act.

STORMWATER PERMITTING: LIMITATIONS AND BENCHMARKS:

Because of the fleeting nature of stormwater discharges, the Department, under the direction of EPA guidance, has determined monthly averages are capricious measures of stormwater discharges. The *Technical Support Document for Water Quality Based Toxics Control* (EPA/505/2-90-001; 1991) Section 3.1 indicates most procedures within the document apply only to water quality based approaches, not end-of-pipe technology-based controls. Hence, stormwater-only outfalls will generally only contain a maximum daily limit (MDL), benchmark, or monitoring requirement as dictated by site specific conditions, the BMPs in place, past performance of the facility, and the receiving water's current quality.

Sufficient rainfall to cause a discharge for one hour or more from a facility would not necessarily cause significant flow in a receiving stream. Acute Water Quality Standards (WQSs) are based on one hour of exposure, and must be protected at all times. Therefore, industrial stormwater facilities with toxic contaminants present in the stormwater may have the potential to cause a violation of acute WQSs if toxic contaminants occur in sufficient amounts. In this instance, the permit writer may apply daily maximum limitations.

Conversely, it is unlikely for rainfall to cause a discharge for four continuous days from a facility; if this does occur however, the receiving stream will also likely sustain a significant amount of flow providing dilution. Most chronic WQSs are based on a four-day exposure with some exceptions. Under this scenario, most industrial stormwater facilities have limited potential to cause a violation of chronic water quality standards in the receiving stream.

A standard mass-balance equation cannot be calculated for stormwater because stormwater flow and flow in the receiving stream cannot be determined for conditions on any given day or storm event. The amount of stormwater discharged from the facility will vary based on current and previous rainfall, soil saturation, humidity, detention time, BMPs, surface permeability, etc. Flow in the receiving stream will vary based on climatic conditions, size of watershed, area of surfaces with reduced permeability (houses, parking lots, and the like) in the watershed, hydrogeology, topography, etc. Decreased permeability may increase the stream flow dramatically over a short period of time (flash).

Numeric benchmark values are based on site specific requirements taking in to account a number of factors but cannot be applied to any process water discharges. First, the technology in place at the site to control pollutant discharges in stormwater is evaluated. The permit writer also evaluates other similar permits for similar activities. A review of the guidance forming the basis of Environmental Protection Agency's (EPA's) *Multi-Sector General Permit for Stormwater Discharges Associated with Industrial Activity* (MSGP) may also occur. Because precipitation events are sudden and momentary, benchmarks based on state or federal standards or recommendations use the Criteria Maximum Concentration (CMC) value, or acute standard may also be used. The CMC is the estimate of the highest concentration of a material in surface water to which an aquatic community can be exposed briefly without resulting in an unacceptable effect. The CMC for aquatic life is intended to be protective of the vast majority of the aquatic communities in the United States. If a facility has not disclosed BMPs applicable to the pollutants for the site, the permittee may not be eligible for benchmarks.

40 CFR 122.44(b)(1) requires the permit implement the most stringent limitations for each discharge, including industrially exposed stormwater; and 40 CFR 122.44(d)(1)(i) and (iii) requires the permit to include water-quality based effluent limitations where reasonable potential has been found. However, because of the non-continuous nature of stormwater discharges, staff are unable to perform statistical Reasonable Potential Analysis (RPA) under most stormwater discharge scenarios. Reasonable potential determinations (RPDs; see REASONABLE POTENTIAL above) using best professional judgment are performed.

Benchmarks require the facility to monitor, and if necessary, replace and update stormwater control measures. Benchmark concentrations are not effluent limitations. A benchmark exceedance, therefore, is not a permit violation; however, failure to take corrective action is a violation of the permit. Benchmark monitoring data is used to determine the overall effectiveness of control measures and to assist the permittee in knowing when additional corrective actions may be necessary to comply with the conditions of the permit.

BMP inspections typically occur more frequently than sampling. Sampling frequencies are based on the facility's ability to comply with the benchmarks and the requirements of the permit. Inspections should occur after large rain events and any other time an issue is noted; sampling after a benchmark exceedance may need to occur to show the corrective action taken was meaningful.

When a permitted feature or outfall consists of only stormwater, a benchmark may be implemented at the discretion of the permit writer, if there is no RP for water quality excursions.

- ✓ Applicable, this facility has stormwater-only outfalls where benchmarks or limitations were deemed appropriate contaminant measures.

STORMWATER POLLUTION PREVENTION PLAN (SWPPP):

In accordance with 40 CFR 122.44(k), Best Management Practices (BMPs) must be used to control or abate the discharge of pollutants when: 1) Authorized under section 304(e) of the Clean Water Act (CWA) for the control of toxic pollutants and hazardous substances from ancillary industrial activities; 2) Authorized under section 402(p) of the CWA for the control of stormwater discharges; 3) Numeric effluent limitations are infeasible; or 4) the practices are reasonably necessary to achieve effluent limitations and standards or to carry out the purposes and intent of the CWA. In accordance with the EPA's *Developing Your Stormwater Pollution Prevention Plan, A Guide for Industrial Operators*, (EPA 833-B-09-002) published by the EPA in 2015 https://www.epa.gov/sites/production/files/2015-11/documents/swppp_guide_industrial_2015.pdf, BMPs are measures or practices used to reduce the amount of pollution entering waters of the state from a permitted facility. BMPs may take the form of a process, activity, or physical structure. Additionally in accordance with the Stormwater Management, a SWPPP is a series of steps and activities to 1) identify sources of pollution or contamination, and 2) select and carry out actions which prevent or control the pollution of storm water discharges. Additional information can be found in *Stormwater Management for Industrial Activities: Developing Pollution Prevention Plans and Best Management Practices* (EPA 832-R-92-006; September 1992).

A SWPPP must be prepared by the permittee if the SIC code is found in 40 CFR 122.26(b)(14) and/or 10 CSR 20-6.200(2). A SWPPP may be required of other facilities where stormwater has been identified as necessitating better management. The purpose of a SWPPP is to comply with all applicable stormwater regulations by creating an adaptive management plan to control and mitigate stream

pollution from stormwater runoff. Developing a SWPPP provides opportunities to employ appropriate BMPs to minimize the risk of pollutants being discharged during storm events. The following paragraph outlines the general steps the permittee should take to determine which BMPs will work to achieve the benchmark values or limits in the permit. This section is not intended to be all encompassing or restrict the use of any physical BMP or operational and maintenance procedure assisting in pollution control. Additional steps or revisions to the SWPPP may be required to meet the requirements of the permit.

Areas which should be included in the SWPPP are identified in 40 CFR 122.26(b)(14). Once the potential sources of stormwater pollution have been identified, a plan should be formulated to best control the amount of pollutant being released and discharged by each activity or source. This should include, but is not limited to, minimizing exposure to stormwater, good housekeeping measures, proper facility and equipment maintenance, spill prevention and response, vehicle traffic control, and proper materials handling. Once a plan has been developed the facility will employ the control measures determined to be adequate to achieve the benchmark values discussed above. The facility will conduct monitoring and inspections of the BMPs to ensure they are working properly and re-evaluate any BMP not achieving compliance with permitting requirements. For example, if sample results from an outfall show values of TSS above the benchmark value, the BMP being employed is deficient in controlling stormwater pollution. Corrective action should be taken to repair, improve, or replace the failing BMP. This internal evaluation is required at least once per month but should be continued more frequently if BMPs continue to fail. If failures do occur, continue this trial and error process until appropriate BMPs have been established.

For new, altered, or expanded stormwater discharges, the SWPPP shall identify reasonable and effective BMPs while accounting for environmental impacts of varying control methods. The antidegradation analysis must document why no discharge or no exposure options are not feasible. The selection and documentation of appropriate control measures shall serve as an alternative analysis of technology and fulfill the requirements of antidegradation [10 CSR 20-7.031(3)]. For further guidance, consult the antidegradation implementation procedure (<http://dnr.mo.gov/env/wpp/docs/AIP050212.pdf>).

Alternative Analysis (AA) evaluation of the BMPs is a structured evaluation of BMPs which are reasonable and cost effective. The AA evaluation should include practices designed to be: 1) non-degrading; 2) less degrading; or 3) degrading water quality. The glossary of AIP defines these three terms. The chosen BMP will be the most reasonable and effective management strategy while ensuring the highest statutory and regulatory requirements are achieved and the highest quality water attainable for the facility is discharged. The AA evaluation must demonstrate why “no discharge” or “no exposure” is not a feasible alternative at the facility. This structured analysis of BMPs serves as the antidegradation review, fulfilling the requirements of 10 CSR 20-7.031(3) Water Quality Standards and *Antidegradation Implementation Procedure* (AIP), Section II.B.

If parameter-specific numeric benchmark exceedances continue to occur and the permittee feels there are no practicable or cost-effective BMPs which will sufficiently reduce a pollutant concentration in the discharge to the benchmark values established in the permit, the permittee can submit a request to re-evaluate the benchmark values. This request needs to include 1) a detailed explanation of why the facility is unable to comply with the permit conditions and unable to establish BMPs to achieve the benchmark values; 2) financial data of the company and documentation of cost associated with BMPs for review and 3) the SWPPP, which should contain adequate documentation of BMPs employed, failed BMPs, corrective actions, and all other required information. This will allow the Department to conduct a cost analysis on control measures and actions taken by the facility to determine cost-effectiveness of BMPs. The request shall be submitted in the form of an operating permit modification, which includes an appropriate fee; the application is found at: <https://dnr.mo.gov/forms/#WaterPollution>

✓ Applicable; a SWPPP shall be developed, implemented, and updated as necessary for this facility.

SUFFICIENTLY SENSITIVE ANALYTICAL METHODS:

Please review Standard Conditions Part 1, section A, number 4. The analytical and sampling methods used shall conform to the reference methods listed in 10 CSR 20-7.015 and/or 40 CFR 136 unless alternates are approved by the Department and incorporated within this permit. The facility shall use sufficiently sensitive analytical methods for detecting, identifying, and measuring the concentrations of pollutants. The facility shall ensure the selected methods are able to quantify the presence of pollutants in a given discharge at concentrations low enough to determine compliance with Water Quality Standards in 10 CSR 20-7.031 or effluent limitations unless provisions in the permit allow for other alternatives. A method is “sufficiently sensitive” when; 1) the method quantifies the pollutant below the level of the applicable water quality criterion or; 2) the method minimum level is above the applicable water quality criterion, but the amount of pollutant in a facility’s discharge is high enough the method detects and quantifies the level of pollutant in the discharge, or 3) the method has the lowest minimum level of the analytical methods approved under 10 CSR 20-7.015 and or 40 CFR 136. These methods are also required for parameters listed as monitoring only, as the data collected may be used to determine if numeric limitations need to be established. A permittee is responsible for working with their contractors to ensure the analysis performed is sufficiently sensitive.

UNDERGROUND INJECTION CONTROL (UIC):

The UIC program for all classes of wells in the State of Missouri is administered by the Missouri Department of Natural Resources and approved by EPA pursuant to section 1422 and 1425 of the Safe Drinking Water Act (SDWA) and 40 CFR 147 Subpart AA. Injection wells are classified based on the liquids which are being injected. Class I wells are hazardous waste wells which are banned

by RSMo 577.155; Class II wells are established for oil and natural gas production; Class III wells are used to inject fluids to extract minerals; Class IV wells are also banned by Missouri in RSMo 577.155; Class V wells are shallow injection wells; some examples are heat pump wells and groundwater remediation wells. Domestic wastewater being disposed of sub-surface is also considered a Class V well. In accordance with 40 CFR 144.82, construction, operation, maintenance, conversion, plugging, or closure of injection wells shall not cause movement of fluids containing any contaminant into Underground Sources of Drinking Water (USDW) if the presence of any contaminant may cause a violation of drinking water standards or groundwater standards under 10 CSR 20-7.031, or other health based standards, or may otherwise adversely affect human health. If the director finds the injection activity may endanger USDWs, the Department may require closure of the injection wells, or other actions listed in 40 CFR 144.12(c), (d), or (e). In accordance with 40 CFR 144.26, the permittee shall submit a Class V Well Inventory Form for each active or new underground injection well drilled, or when the status of a well changes, to the Missouri Department of Natural Resources, Geological Survey Program, P.O. Box 250, Rolla, Missouri 65402. The Class V Well Inventory Form can be requested from the Geological Survey Program or can be found at the following web address: <http://dnr.mo.gov/forms/780-1774-f.pdf> Single family residential septic systems and non-residential septic systems used solely for sanitary waste and having the capacity to serve fewer than 20 persons a day are excluded from the UIC requirements (40 CFR 144.81(9)).

✓ Not applicable; the permittee has not submitted materials indicating the facility will be performing UIC at this site.

VARIANCE:

Per the Missouri Clean Water Law §644.061.4, variances shall be granted for such period of time and under such terms and conditions as specified by the commission in its order. The variance may be extended by affirmative action of the commission. In no event shall the variance be granted for a period of time greater than is reasonably necessary for complying with the Missouri Clean Water Law §§644.006 to 644.141 or any standard, rule or regulation promulgated pursuant to Missouri Clean Water Law §§644.006 to 644.141.

✓ Not applicable; this permit is not drafted under premise of a petition for variance.

WASTELOAD ALLOCATIONS (WLA) FOR LIMITS:

As per [10 CSR 20-2.010; definitions], the WLA is the amount of pollutant each discharger is allowed to discharge into the receiving stream without endangering water quality. Two general types of effluent limitations, technology-based effluent limits (TBELs) and water quality based effluent limits (WQBELs) are reviewed. If one limit does not provide adequate protection for the receiving water, then the other must be used per 10 CSR 20-7.015(9)(A). Total Maximum Daily Loads, if required for this facility, were also reviewed.

✓ Not applicable; wasteload allocations were either not calculated or were not based on TSD methods.

WASTELOAD ALLOCATION (WLA) MODELING:

Permittees may submit site specific studies to better determine the site specific wasteload allocations applied in permits.

✓ Not applicable; a WLA study was either not submitted or determined not applicable by Department staff.

WATER QUALITY STANDARD REVISION:

In accordance with section 644.058, RSMo, the Department is required to utilize an evaluation of the environmental and economic impacts of modifications to water quality standards of twenty-five percent or more when making individual site-specific permit decisions.

✓ This operating permit does not contain requirements for a water quality standard changing twenty-five percent or more since the previous operating permit.

PART IV. EFFLUENT LIMITS DETERMINATIONS

OUTFALL #003, #004, #005, #007, #008, #009 – STORMWATER OUTFALLS

EFFLUENT LIMITATIONS TABLE:

PARAMETERS	UNIT	DAILY MAXIMUM LIMIT	BENCH- MARK	PREVIOUS PERMIT LIMITS	MINIMUM SAMPLING FREQUENCY	REPORTING FREQUENCY	SAMPLE TYPE
PHYSICAL							
FLOW	MGD	*	-	SAME	ONCE/MONTH	ONCE/MONTH	24 HR. EST
PRECIPITATION	inches	*	-	SAME	ONCE/MONTH	ONCE/MONTH	24 HR. TOT
CONVENTIONAL							
BOD ₅	mg/L	45	-	SAME	ONCE/QUARTER	ONCE/QUARTER	GRAB
COD	mg/L	120	-	SAME	ONCE/QUARTER	ONCE/QUARTER	GRAB
OIL & GREASE	mg/L	**	10	15 LIMIT	ONCE/QUARTER	ONCE/QUARTER	GRAB
pH [†]	SU	6.5-9.0	-	SAME	ONCE/QUARTER	ONCE/QUARTER	GRAB
SETTLABLE SOLIDS	MONITORING REMOVED						
TSS	mg/L	80	-	SAME	ONCE/MONTH	ONCE/MONTH	GRAB
METALS							
ALUMINUM, TR	µg/L	**	750	SAME	ONCE/QUARTER	ONCE/QUARTER	GRAB
ANTIMONY, TR	µg/L	*	-	SAME	ONCE/YEAR	ONCE/YEAR	GRAB
ARSENIC, TR	µg/L	*	-	SAME	ONCE/YEAR	ONCE/YEAR	GRAB
BERYLLIUM, TR	µg/L	*	-	SAME	ONCE/YEAR	ONCE/YEAR	GRAB
CADMIUM, TR	µg/L	*	-	SAME	ONCE/YEAR	ONCE/YEAR	GRAB
CHROMIUM (III), TR	µg/L	*	-	SAME	ONCE/YEAR	ONCE/YEAR	GRAB
CHROMIUM (VI), DISSOLVED	µg/L	*	-	SAME	ONCE/QUARTER	ONCE/QUARTER	GRAB
COPPER, TR	µg/L	**	40	22 BENCHMARK	ONCE/QUARTER	ONCE/QUARTER	GRAB
IRON, TR	µg/L	4,000	-	SAME	ONCE/QUARTER	ONCE/QUARTER	GRAB
LEAD, TR	µg/L	*	-	SAME	ONCE/YEAR	ONCE/YEAR	GRAB
MERCURY, TR	µg/L	*	-	SAME	ONCE/YEAR	ONCE/YEAR	GRAB
NICKEL, TR	µg/L	*	-	SAME	ONCE/YEAR	ONCE/YEAR	GRAB
SELENIUM, TR ^{††}	µg/L	*	-	SAME	ONCE/QUARTER	ONCE/QUARTER	GRAB
SILVER, TR	REMOVED FROM MONITORING AT OUTFALLS #008 AND #009						
THALLIUM, TR ^{†††}	µg/L	*	-	SAME	ONCE/QUARTER	ONCE/QUARTER	GRAB
ZINC, TR	µg/L	**	175	*	ONCE/QUARTER	ONCE/QUARTER	GRAB
NUTRIENTS							
AMMONIA AS N	mg/L	*	-	SAME	ONCE/QUARTER	ONCE/QUARTER	GRAB
OTHER							
α-TERPENIOL	mg/L	*	-	SAME	ONCE/QUARTER	ONCE/QUARTER	GRAB
BENZENE	µg/L	**	71	*	ONCE/QUARTER	ONCE/QUARTER	GRAB
BENZOIC ACID	mg/L	*		SAME	ONCE/QUARTER	ONCE/QUARTER	GRAB
CHLORIDE + SULFATE	mg/L	1000	-	SAME	ONCE/QUARTER	ONCE/QUARTER	GRAB
P-CRESOL	mg/L	*	-	SAME	ONCE/QUARTER	ONCE/QUARTER	GRAB
PHENOL	mg/L	*	-	SAME	ONCE/YEAR	ONCE/YEAR	GRAB
RADIONUCLIDES	OUTFALLS #007 AND #009 ONLY						
BARIUM	µg/L	*	-	SAME	ONCE/QUARTER	ONCE/QUARTER	GRAB
GROSS ALPHA	pCi/L	*	-	SAME	ONCE/MONTH	ONCE/MONTH	GRAB
BETA PARTICLE AND PHOTON RADIOACTIVITY (GROSS BETA)	pCi/L or mrem ***, †, ††	*	-	SAME	ONCE/MONTH	ONCE/MONTH	GRAB
RADIUM-226 + RADIUM-228	pCi/L	5	-	*	ONCE/MONTH	ONCE/MONTH	GRAB
RADIUM-226	pCi/L	*	-	SAME	ONCE/MONTH	ONCE/MONTH	GRAB
RADIUM-228	pCi/L	*	-	SAME	ONCE/MONTH	ONCE/MONTH	GRAB
THORIUM-230	pCi/L	*	-	SAME	ONCE/MONTH	ONCE/MONTH	GRAB
THORIUM-232	pCi/L	*	-	SAME	ONCE/MONTH	ONCE/MONTH	GRAB
URANIUM, TOTAL	µg/L	*	-	SAME	ONCE/MONTH	ONCE/MONTH	GRAB

NOTES:

*	monitoring and reporting requirement only
**	monitoring with associated benchmark
***	see note in permit
††	see note in permit or parameter description below on unit reporting requirements
†	report the minimum and maximum pH values; pH is not to be averaged
††	see note in permit
†††	see note in permit
TR	total recoverable

DERIVATION AND DISCUSSION OF LIMITS:

PHYSICAL:

Flow

In accordance with [40 CFR Part 122.44(i)(1)(ii)] the volume of effluent discharged from each outfall is needed to ensure compliance with permitted effluent limitations. If the permittee is unable to obtain estimated effluent flow, then it is the responsibility of the permittee to inform the Department, which may require the submittal of an operating permit modification. The facility will report the estimated total flow in millions of gallons per day (MGD), quarterly monitoring continued from previous permit. The frequency of flow reporting is increased to monthly to match the most frequent parameter.

Precipitation

Monitoring only requirement; measuring the amount of precipitation [(10 CSR 20-6.200(2)(C)1.E(VI)] during an event is necessary to ensure adequate stormwater management exists at the site. Knowing the amount of potential stormwater runoff can provide the permittee a better understanding of any specific control measures be employed to ensure protection of water quality. The facility will provide the 24 hour accumulation value of precipitation from the day of sampling the other parameters. Quarterly monitoring is continued from the previous permit. The frequency of precipitation reporting is increased to monthly to match the most frequent parameter.

CONVENTIONAL:

Biochemical Oxygen Demand - 5 Day (BOD₅)

45 mg/L daily maximum limit with quarterly monitoring, continued from the previous permit. Values reported on DMRs ranged from 5 mg/L up to 137 mg/L in the last permit cycle. There were exceedances of this limit at outfalls #004 and #007 in the previous permit cycle. BOD₅ is a pollutant of concern at landfills, as identified in the ELG found at 40 CFR 445. The limit value is technology based and falls within the range of values implemented in other permits having similar industrial activities. It is believed to be achievable at landfills through proper BMP controls.

Chemical Oxygen Demand (COD)

Daily maximum limit of 120 mg/L with quarterly monitoring, continued from the previous permit. COD is a pollutant of concern in leachate and stormwater. DMR data ranged from 14 mg/L up to 306 mg/L. There were exceedances reported at outfall #007. There is no numeric water quality standard for COD; however, increased oxygen demand may impact instream water quality. COD is also a valuable indicator parameter. COD monitoring allows the permittee to identify increases in COD may indicate materials/chemicals coming into contact with stormwater causing an increase in oxygen demand. Increases in COD may indicate a need for maintenance or improvement of BMPs. The limit value is technology based and falls within the range of values implemented in other permits having similar industrial activities. The limit is believed to be achievable at landfills through proper BMP controls.

Oil & Grease

Quarterly monitoring with a daily maximum benchmark of 10 mg/L. The previous permit required a daily maximum limit of 15 mg/L. After assessment of DMR data, the permit writer used best professional judgment to determine the values reported indicate no reasonable potential to exceed water quality standards found in 10 CSR 20-7.031 Table A, nor do they indicate excursions from the narrative water quality criteria found in 10 CSR 20-7.031(4). As there is no reasonable potential, a benchmark is appropriate for this parameter. Oil and grease are pollutants of concern due to heavy truck traffic, construction, and transfer station activities. Additionally, the site stores quantities of fuel and oil for maintenance purposes.

Oil and grease is considered a conventional pollutant. Oil and grease is a comprehensive test which measures for gasoline, diesel, crude oil, creosote, kerosene, heating oils, heavy fuel oils, lubricating oils, waxes, and some asphalt and pitch. The test can also detect some volatile organics such as benzene, toluene, ethylbenzene, or toluene, but these constituents are often lost during testing due to their boiling points. It is recommended to perform separate testing for these constituents if they are a known pollutant of concern at the site, i.e. aquatic life toxicity or human health is a concern. Results do not allow for separation of specific pollutants within the test, they are reported, totaled, as "oil and grease". Per 10 CSR 20-7.031 Table A1: *Criteria for*

Designated Uses; 10 mg/L is the standard for protection of aquatic life. This standard will also be used to protect the general criteria found at 10 CSR 20-7.031(4). Ten mg/L is the level at which sheen is expected to form on receiving waters. Oils and greases of different densities will possibly form sheen or unsightly bottom deposits at levels which vary from 10 mg/L. To protect the general criteria, it is the responsibility of the permittee to visually observe the discharge and receiving waters for sheen or bottom deposits. The benchmark is achievable through proper operational and maintenance of BMPs and falls within the range of values implemented in other permits having similar industrial activities.

pH

6.5 to 9.0 SU limits – Quarterly instantaneous grab sample. Water quality limits [10 CSR 20-7.031(5)(E)] are applicable to this outfall, and are continued from the previous permit. pH is a fundamental water quality indicator. pH values are variable at the site, and many are close to the 9.0 maximum limit. It is the best professional judgment of the permit writer this indicates reasonable potential to exceed water quality standards found in 10 CSR 20-7.031; therefore, limitations on this parameter are continued. Limitations in this permit will protect against aquatic organism toxicity, downstream water quality issues, human health hazard contact, and negative physical changes in accordance with the general criteria at 10 CSR 20-7.031(4) and the Clean Water Act's (CWA) goal of 100% fishable and swimmable rivers and streams.

Settleable Solids (SS)

Monitoring for settleable solids is removed from this permit. After assessment of the DMR data, it is the best professional judgment of the permit writer the primary pollutant of concern at this site is TSS. Monitoring for TSS occurs monthly. DMR data did not indicate an issue with settleable solids in the discharge of the site; therefore, monitoring for this parameter is discontinued.

Total Suspended Solids (TSS)

Daily maximum limit of 80 mg/L, with monthly monitoring, continued from the previous permit. DMR data ranged from 4 mg/L up to 404 mg/L. Exceedances of the limit were reported at outfalls #003, #004, #007, and #009. The data was improved greatly from the previous permit cycle, likely due to upgrades in BMP measures at the site; however, exceedances of this parameter were still common. Additional BMP upgrades are planned in the upcoming permit cycle.

TSS is the primary pollutant of concern at this facility, and most landfills in general. There is no numeric water quality standard for TSS; however, sediment discharges can negatively impact aquatic life habitat. TSS is also a valuable indicator parameter. TSS monitoring allows the permittee to identify increases in TSS indicating uncontrolled materials leaving the site. Increased suspended solids in runoff can lead to decreased available oxygen for aquatic life and an increase of surface water temperatures in a receiving stream. Suspended solids can also be carriers of toxins, which can adsorb to the suspended particles; therefore, total suspended solids are a valuable indicator parameter for other pollution.

METALS:

Aluminum, Total Recoverable

Quarterly monitoring, with a 750 µg/L benchmark, continued from the previous permit. DMR data for this parameter ranged from 80.6 µg/L up to 3,520 µg/L. The data indicates the facility may need to further upgrade BMPs to prevent benchmark exceedances. Metals are known to adsorb to suspended solids, and may be transported in effluent in this form. Aluminum is a non-ferrous metal widely used in industrial applications. It is used to manufacture beverage cans, foil, other packaging, construction materials, and other products too numerous to list. It is a common constituent of both sanitary and industrial solid waste and is a common pollutant of concern at landfills.

Antimony, Total Recoverable

Annual monitoring, continued from the previous permit. There have been no exceedances of water quality standards for this parameter at these outfalls in the last permit cycle. Monitoring is continued, as antimony is a pollutant of concern at landfill sites. It can be found in certain electronics, cable sheathing, and other products which may be found in landfills and contribute to leachate.

Arsenic, Total Recoverable

Annual monitoring. The previous permit required quarterly monitoring, as the permittee had been using a test method which was sufficiently sensitive to the water quality standards, but was not sensitive enough to ensure the parameter had no reasonable potential. The test the permittee used in this permit cycle showed the levels of arsenic in the effluent were well below the water quality standards; therefore, the permit writer used best professional judgment to determine that annual monitoring will be sufficient for this parameter. Arsenic is a pollutant of concern at landfills. It is found in a variety of consumer products that may have been discarded in a landfill, and thus may be a component of leachate.

Beryllium, Total Recoverable

Annual monitoring, continued from the previous permit. Beryllium has numerous industrial uses due to its light weight and particular chemical properties, especially as an alloy. There is potential for wastes from these uses to be found at a landfill site.

There were no exceedances of the water quality standards at these outfalls in the previous permit cycle. Beryllium is a pollutant of concern at landfills, therefore monitoring will be continued annually.

Cadmium, Total Recoverable

Annual monitoring, continued from the previous permit. Cadmium has numerous industrial uses, including electroplating, paint, batteries, and metal polish, among others. There is a potential for wastes from these uses to be found at a solid waste disposal site. There were no exceedances of the water quality standards for this parameter at these outfalls in the previous permit cycle. Cadmium is a common pollutant of concern at landfills, therefore monitoring will be continued annually.

Chromium (III), Total Recoverable

Annual monitoring, continued from the previous permit. Chromium III has several industrial uses, including chrome plating, the manufacture of dye and pigments, leather and wood preservation, and as an alloy with other metals. There is a potential for wastes from these uses to be found at a solid waste disposal site. There were no exceedances of the water quality standards for this parameter at these outfalls in the previous permit cycle. Annual monitoring will be required due to the varied and uncharacterized wastes accepted at landfills and transfer stations, and the potential for those wastes to release chromium (III).

Chromium (VI), Dissolved

Quarterly monitoring, continued from the previous permit. Chromium VI has several industrial uses, including chrome plating, the manufacture of dye and pigments, leather and wood preservation, and as an alloy with other metals. It was also historically used as “chromic acid” for a glass cleaner in industrial settings. There is a potential for wastes from these uses to be found at a solid waste disposal site, therefore monitoring is continued.

The facility was advised to switch to a more sensitive laboratory method in the previous permit cycle to comply with the terms of this permit. The data shows they have switched to a more sensitive method. The data shows no exceedances of the water quality standards for this pollutant in the last permit cycle. However, the data collected was not sufficient for all outfalls to show no reasonable potential, therefore quarterly monitoring is continued.

Copper, Total Recoverable

Quarterly monitoring with a benchmark of 40 µg/L. In the previous permit cycle, the benchmark was set at 22 µg/L; however, this benchmark was set based on the acute water quality standards for copper. Precipitation likely provides substantial dilution for pollutants discharged from this site and there is a substantial distance for effluent to travel prior to entry into a classified water of the state. It is the best professional judgment of the permit writer to base the benchmark of this parameter on the BMP capabilities of this site. The benchmark is set to the 99 percentile of outfall #007's DMR data. Statistically, this means the facility should be capable of meeting this benchmark 99 percent of the time with proper operation of BMPs. Should BMPs become deficient, it would be reflected in the DMR data. This approach is typical in industrial stormwater permits, and is believed to be protective of all water quality standards to be maintained as no reasonable potential to exceed the standards in stream was determined by the permit writer.

Iron, Total Recoverable

Daily maximum limit of 4,000 µg/L with quarterly monitoring, continued from the previous permit. Exceedances of this limit were reported at outfall #005 and #007 in the previous permit cycle. This limit is considered to be typical and achievable at landfills with proper operation of BMPs.

Lead, Total Recoverable

Annual monitoring, continued from the previous permit. There were no exceedances of the water quality standards for this pollutant at these outfalls in the previous permit cycle. Lead has numerous industrial uses, including batteries, as an alloy, solder, a coolant, in electronics, and others. Lead is a common pollutant of concern at waste disposal sites; therefore, annual monitoring will continue for this pollutant.

Mercury, Total Recoverable

Annual monitoring, continued from the previous permit. There were no exceedances of the water quality standards for this pollutant at these outfalls in the previous permit cycle. Mercury is used industrially for the manufacture of chemicals, in fluorescent lights, and in electronics. There is a potential for wastes from these uses to be found at a solid waste disposal site. Annual monitoring will be continued due to the varied and uncharacterized wastes accepted at landfills and transfer stations, and the potential for those wastes to release mercury.

Nickel, Total Recoverable

Annual monitoring, continued from the previous permit. There were no exceedances of the water quality standards for this pollutant at these outfalls in the previous permit cycle. Nickel is primarily used as an alloy with other metals. It can be found in magnets, rechargeable batteries, and as an anti-corrosive coating. There is a potential for wastes from these uses to be found at a

solid waste disposal site. Annual monitoring will be continued due to the varied and uncharacterized wastes accepted at landfills, and the potential for those wastes to release nickel.

Selenium, Total Recoverable

Quarterly monitoring, continued from the previous permit. In the previous permit cycle the facility was advised to switch laboratory methods to meet the sufficient sensitivity requirements of this permit. The facility made the switch to a more sensitive method and supplied sufficiently sensitive data for this permit cycle. See †† note in permit.

Selenium is found in consumer electronics and glass, and is therefore expected to be in the effluent of landfills and transfer stations. Selenium has only a chronic water quality standard established in Missouri. This parameter was below the chronic water quality standard for data reported at all outfalls except one point reported at outfall #007. It is the best professional judgment of the permit writer the reported value, while exceeding the chronic water quality standard, does not display reasonable potential to exceed the chronic value in stream due to the fleeting nature of discharges from the site during precipitation events. Additionally, the EPA has released an updated method to calculate acute water quality standards for selenium. After review of the method for determining acute criteria, it is the best professional judgment of the permit writer the discharges would be well below the value suggested to protect aquatic life in a lotic environment; therefore limits are not required. Quarterly monitoring is continued as the data show this a pollutant of concern at the site with variable results.

Silver, Total Recoverable

Monitoring has been removed from outfalls #008 and #009 in this permit cycle. After review of the available data, the permit writer has determined this parameter is not necessary for monitoring at outfalls #008 and #009. The data from the site have shown silver is not a pollutant of concern.

Thallium, Total Recoverable

Quarterly monitoring, continued from the previous permit. Thallium was routinely used as a rat poison and an ant killer in the United States until around 1972, but current uses are primarily in optics and electronics. There is a potential for wastes from these uses to be found at a solid waste disposal site. The facility was advised to switch to a more sensitive laboratory method in the previous permit cycle to comply with the terms of this permit. The data shows they have switched to a more sensitive method. The data shows no exceedances of the water quality standards for this pollutant in the last permit cycle. However, the data collected was not sufficient for all outfalls to show no reasonable potential, therefore quarterly monitoring is continued. See ††† note in permit.

Zinc, Total Recoverable

Quarterly monitoring with a benchmark of 175 µg/L. In the previous permit cycle, monitoring only was required. The permit has assessed the data from the previous permit cycle and has determined a benchmark is appropriate for the site to assess proper operation and implementation of BMPs at the site. The benchmark is set at the 99th percentile of the data for outfall #007. Statistically, this means the facility should be capable of meeting this benchmark 99 percent of the time with proper operation of BMPs. Should BMPs become deficient, it would be reflected in the DMR data. This approach is typical in industrial stormwater permits, and is believed to be protective of all water quality standards to be maintained as no reasonable potential to exceed the standards in stream was determined by the permit writer.

Zinc has numerous industrial applications, the most prevalent of which are batteries and anti-corrosion agents. It is also commonly used as an alloy and in industrial chemical compounds such as flame retardants and wood preservatives. It can also be found in agricultural fungicides. Zinc is a common pollutant of concern at solid waste landfills as identified in the ELG found at 40 CFR Part 445.

NUTRIENTS:

Ammonia, Total as Nitrogen

Quarterly monitoring, continued from the previous permit. Ammonia is a pollutant of concern at landfills as it is a primary component of leachate and is found in the ELG for this industry. There were no exceedances of the water quality standards for this parameter at these outfalls in this permit cycle.

OTHER:

α-Terpineol

Quarterly monitoring. This parameter is identified as a pollutant of concern in the ELG found at 40 CFR 445. The previous permit cycle required monitoring only for this parameter; however, after assessing the data, the permit writer determined the facility is not using a laboratory method which is sufficient for comparison with the ELG for this facility. While the facility is not subject to the ELG as they do not discharge treated leachate, the permit writer has used best professional judgment to determine the numbers included in the ELG are a reasonable goal for discharges from this site to achieve. The facility will need to use a method which

ensures compliance with ELG. The permit writer has added a note that requires the facility to explain any data points reported above 0.033 mg/L, as the facility reported the laboratory occasionally has reporting limits above this point. The reporting is required as it is imperative for permit writers to be aware of laboratory issues that may affect results, as data is considered heavily in the development of terms and conditions of a permit.

Benzene

Quarterly monitoring with a benchmark of 71 µg/l. The previous permit required monitoring only for this parameter; however, assessment of the DMRs submitted by the facility indicate outfall #005 had detections of this parameter ranging up to 59 µg/L. It is the best professional judgment of the permit writer to add a benchmark to this parameter to ensure outfalls maintain adequate BMPs. 71 µg/l is considered to be reasonable and achievable, and is higher than all values reported at the site in the previous permit cycle.

Benzoic Acid

Quarterly monitoring. This parameter is identified as a pollutant of concern in the ELG found at 40 CFR 445. The previous permit cycle required monitoring only for this parameter; however, after assessing the data, the permit writer determined the facility is not using a laboratory method which is sufficient for comparison with the ELG for this facility. While the facility is not subject to the ELG as they do not discharge treated leachate, the permit writer has used best professional judgment to determine the numbers included in the ELG are a reasonable goal for discharges from this site to achieve. The permit writer has added a note that requires the facility to explain any data points reported above 0.12 mg/L, as the facility reported the laboratory occasionally has reporting limits above this point. The reporting is required as it is imperative for permit writers to be aware of laboratory issues that may affect results, as data is considered heavily in the development of terms and conditions of a permit.

Chloride + Sulfate

Daily maximum limit of 1,000 mg/L with quarterly monitoring, continued from the previous permit. Limit retained per 10 csr 20-7.031(5)(L)1. Exceedances of this limit occurred at outfall #007 in the previous permit cycle; therefore, the limitations are continued.

p-Cresol

Quarterly monitoring. This parameter is identified as a pollutant of concern in the ELG found at 40 CFR 445. The previous permit cycle required monitoring only for this parameter; however, after assessing the data, the permit writer determined the facility is not using a laboratory method which is sufficient for comparison with the ELG for this facility. While the facility is not subject to the ELG as they do not discharge treated leachate, the permit writer has used best professional judgment to determine the numbers included in the ELG are a reasonable goal for discharges from this site to achieve. The permit writer has added a note that requires the facility to explain any data points reported above 0.025 mg/L, as the facility reported the laboratory occasionally has reporting limits above this point. The reporting is required as it is imperative for permit writers to be aware of laboratory issues that may affect results, as data is considered heavily in the development of terms and conditions of a permit.

Phenol

Annual monitoring. The previous permit required quarterly monitoring, however, review of the data by the permit writer indicated annual monitoring would be acceptable for this parameter as the data shows low levels of this parameter when compared to the water quality standards. Phenol is identified as a pollutant of concern in the ELG found at 40 CFR 445.

RADIONUCLIDES (OUTFALLS 007 AND 009):

Radionuclides have been sampled in the West Lake Landfill and vicinity. See tables A-3 and A-4 in the permit. Samples have been taken by EPA, DNR, Missouri Department of Health and Senior Services (DHSS), non-governmental groups, and private organizations. Results of this sampling indicate radiologically-impacted material on the surface of West Lake Landfill Operable Unit 1. These four outfalls receive stormwater runoff from West Lake Landfill Operable Unit 1. Stormwater samples, overseen by EPA, collected in the watershed of these outfalls show detectable amounts of radionuclides. Additionally, sediments in the watershed area of these outfalls have been sampled which show elevated radionuclides, although the direct impact of radiologically-impacted sediment on stormwater runoff is not clear. Discharges of radioactive materials must be in compliance with 10 CSR 60-4.060; Division 60 explains drinking water regulations. Missouri's discharge regulation incorporates drinking water regulations for radionuclides per 10 CSR 20-7.031(5)(I). Monitoring is required to assess the concentration of the pollutant in the discharge from the facility. In the previous permit cycle, monitoring at outfall #008 was required; however in this permit cycle, site changes were made which mean effluent from OU-1 does not impact outfall #008.

Barium

Quarterly monitoring, continued from the previous permit. DMR data indicates this is a pollutant of concern in the effluent, therefore monitoring is continued. The reported contaminant at West Lake Landfill Operable Unit 1, per the EPA, is leached barium-sulfate residues. These outfalls receive stormwater runoff from West Lake Landfill Operable Unit 1. Barium is not a radionuclide, but may be indicative of radionuclide discharges.

Gross Alpha

Monthly monitoring, continued from the previous permit. DMR reports submitted by this facility indicate the maximum value for gross alpha was 9.93 picoCuries per litre (pCi/L) at outfall #007. It is the best professional judgment of the permit writer to continue monthly monitoring for this parameter as it is shown to be a pollutant of concern in the effluent. Gross alpha is a test that is performed to measure the overall alpha radioactivity in a water sample. Radioactive elements emit alpha particles as they decay. Per 10 CSR 60-4.060, the maximum contaminant level for gross alpha particle activity (including radium-226, but excluding radon and uranium) is 15 pCi/L. The facility has discussed using an alternate laboratory method varying from the methods required in this permit. The analytical method proposed has not been approved by the Department, and reporting data found using alternative test methods is a violation of this permit until alternative methods have been approved by the Water Protection Program.

Beta Particle and Photon Radioactivity (Gross Beta)

Monthly monitoring only, continued from the previous permit. The maximum value reported for gross beta was 20.1 pCi/L at outfall #007. Gross beta is a test that is performed to measure the overall beta radioactivity in a water sample. Radioactive elements emit beta particles as they decay. Per 10 CSR 60-4.060, the maximum contaminant level for beta particle and photon activity is 4 millirem/year (mrem/yr). Of the man-made beta emitters regulated by 10 CSR 60-4.060, only Tritium is currently known to be found in the landfill leachate; however, leachate is not currently permissible for discharge under this permit. Per 10 CSR 60-4.060 Table A, the activity concentration of Tritium that equates to 4 mrem dose per year would equal 20,000 pCi/L of constant exposure. Monitoring of Gross Beta is required to assess the concentration of the pollutant in the discharge from the facility. Results will be reported in pCi/L, unless the sample result is greater than 50 pCi/L. In this instance, the radiation dose will be calculated as required by 10 CSR 60-4.060(1)(C)(2); total dose of all present beta emitters in millirem/year. See note “†††” in the permit for more information.

Radium-226

Monthly monitoring, continued from the previous permit. Radium-226 is a known pollutant of concern at the West Lake site, and is monitored for under the EPA Stormwater Monitoring plan. Monitoring is required to assess the concentration of the pollutant in the discharge from these outfalls. Compliance with 10 CSR 60-4.060 requires Radium-226 + Radium-228 to total less than 5 pCi/L.

Radium-228

Monthly monitoring, continued from the previous permit. Radium-228 is a known pollutant of concern at the West Lake site, and is monitored for under the EPA Stormwater Monitoring plan. Monitoring is required to assess the concentration of the pollutant in the discharge from these outfalls. Compliance with 10 CSR 60-4.060 requires Radium-226 + Radium-228 to total less than 5 pCi/L.

Radium-226 + Radium-228

Daily maximum limit of 5 pCi/L. A three year schedule of compliance is provided for meeting the new water quality limits for this parameter. In the previous permit cycle, the permittee reported up to 14.87 pCi/L at outfall #007. Per 10 CSR 60-4.060, the maximum contaminant level for combined radium-226 and radium-228 is 5 pCi/L. This parameter is a reporting requirement, and requires the total of Radium-226 and Radium-228 to be reported on DMRs each month.

Thorium-230

Monthly monitoring, continued from the previous permit. Thorium has multiple radioactive species, and is a pollutant of concern at the West Lake site.

Thorium-232

Monthly monitoring, continued from the previous permit. Thorium has multiple radioactive species, and is a pollutant of concern at the West Lake site.

Uranium, Total

Monitoring only, continued from the previous permit. Uranium is a known pollutant of concern at the West Lake Site and is monitored for under the EPA Stormwater Monitoring plan. Monitoring is required to assess the concentration of the pollutant in the discharge from these outfalls. Per 10 CSR 60-4.060, the maximum contaminant level for Total Uranium is 30 µg/L. The highest value reported on the facility's DMRs was 5.38 µg/L.

PART V. ADMINISTRATIVE REQUIREMENTS

On the basis of preliminary staff review and the application of applicable standards and regulations, the Department, as administrative agent for the Missouri Clean Water Commission, proposes to issue a permit(s) subject to certain effluent limitations, schedules, and special conditions contained herein and within the operating permit. The proposed determinations are tentative pending public comment.

PERMIT SYNCHRONIZATION:

The Department of Natural Resources is currently undergoing a synchronization process for operating permits. Permits are normally issued on a five-year term, but to achieve synchronization many permits will need to be issued for less than the full five years allowed by regulation. The intent is all permits within a watershed will move through the Watershed Based Management (WBM) cycle together will all expire in the same fiscal year. <http://dnr.mo.gov/env/wpp/cpp/docs/watershed-based-management.pdf>. This will allow further streamlining by placing multiple permits within a smaller geographic area on public notice simultaneously, thereby reducing repeated administrative efforts. This will also allow the Department to explore a watershed based permitting effort at some point in the future. Renewal applications must continue to be submitted within 180 days of expiration, however, in instances where effluent data from the previous renewal is less than two years old, such data may be re-submitted to meet the requirements of the renewal application. If the permit provides a schedule of compliance for meeting new water quality based effluent limits beyond the expiration date of the permit, the time remaining in the schedule of compliance will be allotted in the renewed permit.

✓ This permit will maintain synchronization by expiring the end of the 3rd quarter, 2025.

PUBLIC NOTICE:

The Department shall give public notice a draft permit has been prepared and its issuance is pending.

<http://dnr.mo.gov/env/wpp/permits/pn/index.html> Additionally, public notice will be issued if a public hearing is to be held because of a significant degree of interest in or with water quality concerns related to a draft permit. No public notice is required when a request for a permit modification or termination is denied; however, the requester and permittee must be notified of the denial in writing.

The Department must issue public notice of a pending operating permit or of a new or reissued statewide general permit. The public comment period is the length of time not less than 30 days following the date of the public notice which interested persons may submit written comments about the proposed permit.

For persons wanting to submit comments regarding this proposed operating permit, then please refer to the Public Notice page located at the front of this draft operating permit. The Public Notice page gives direction on how and where to submit appropriate comments.

✓ The Public Notice period for this operating permit started on October 23, 2020 and ended on November 23, 2020. No comments were received on the draft operating permit.

DATE OF FACT SHEET: 08/12/2020

COMPLETED BY:

AMBERLY SCHULZ, ENVIRONMENTAL ANALYST
MISSOURI DEPARTMENT OF NATURAL RESOURCES
WATER PROTECTION PROGRAM
OPERATING PERMITS SECTION – STORMWATER AND CERTIFICATION UNIT
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STANDARD CONDITIONS FOR NPDES PERMITS
ISSUED BY
THE MISSOURI DEPARTMENT OF NATURAL RESOURCES
MISSOURI CLEAN WATER COMMISSION
REVISED
AUGUST 1, 2014

These Standard Conditions incorporate permit conditions as required by 40 CFR 122.41 or other applicable state statutes or regulations. These minimum conditions apply unless superseded by requirements specified in the permit.

Part I – General Conditions

Section A – Sampling, Monitoring, and Recording

1. **Sampling Requirements.**
 - a. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.
 - b. All samples shall be taken at the outfall(s) or Missouri Department of Natural Resources (Department) approved sampling location(s), and unless specified, before the effluent joins or is diluted by any other body of water or substance.
2. **Monitoring Requirements.**
 - a. Records of monitoring information shall include:
 - i. The date, exact place, and time of sampling or measurements;
 - ii. The individual(s) who performed the sampling or measurements;
 - iii. The date(s) analyses were performed;
 - iv. The individual(s) who performed the analyses;
 - v. The analytical techniques or methods used; and
 - vi. The results of such analyses.
 - b. If the permittee monitors any pollutant more frequently than required by the permit at the location specified in the permit using test procedures approved under 40 CFR Part 136, or another method required for an industry-specific waste stream under 40 CFR subchapters N or O, the results of such monitoring shall be included in the calculation and reported to the Department with the discharge monitoring report data (DMR) submitted to the Department pursuant to Section B, paragraph 7.
3. **Sample and Monitoring Calculations.** Calculations for all sample and monitoring results which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified in the permit.
4. **Test Procedures.** The analytical and sampling methods used shall conform to the reference methods listed in 10 CSR 20-7.015 unless alternates are approved by the Department. The facility shall use sufficiently sensitive analytical methods for detecting, identifying, and measuring the concentrations of pollutants. The facility shall ensure that the selected methods are able to quantify the presence of pollutants in a given discharge at concentrations that are low enough to determine compliance with Water Quality Standards in 10 CSR 20-7.031 or effluent limitations unless provisions in the permit allow for other alternatives. A method is “sufficiently sensitive” when; 1) the method minimum level is at or below the level of the applicable water quality criterion for the pollutant or, 2) the method minimum level is above the applicable water quality criterion, but the amount of pollutant in a facility’s discharge is high enough that the method detects and quantifies the level of pollutant in the discharge, or 3) the method has the lowest minimum level of the analytical methods approved under 10 CSR 20-7.015. These methods are also required for parameters that are listed as monitoring only, as the data collected may be used to determine if limitations need to be established. A permittee is responsible for working with their contractors to ensure that the analysis performed is sufficiently sensitive.
5. **Record Retention.** Except for records of monitoring information required by the permit related to the permittee’s sewage sludge use and disposal activities, which shall be retained for a period of at least five (5) years (or longer as required by 40 CFR part 503), the permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by the permit, and records of all data used to complete the application for the permit, for a period of at least three (3) years from the date of the sample, measurement, report or application. This period may be extended by request of the Department at any time.

6. **Illegal Activities.**
 - a. The Federal Clean Water Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under the permit shall, upon conviction, be punished by a fine of not more than \$10,000, or by imprisonment for not more than two (2) years, or both. If a conviction of a person is for a violation committed after a first conviction of such person under this paragraph, punishment is a fine of not more than \$20,000 per day of violation, or by imprisonment of not more than four (4) years, or both.
 - b. The Missouri Clean Water Law provides that any person or who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained pursuant to sections 644.006 to 644.141 shall, upon conviction, be punished by a fine of not more than \$10,000, or by imprisonment for not more than six (6) months, or by both. Second and successive convictions for violation under this paragraph by any person shall be punished by a fine of not more than \$50,000 per day of violation, or by imprisonment for not more than two (2) years, or both.

Section B – Reporting Requirements

1. **Planned Changes.**
 - a. The permittee shall give notice to the Department as soon as possible of any planned physical alterations or additions to the permitted facility when:
 - i. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in 40 CFR 122.29(b); or
 - ii. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations in the permit, nor to notification requirements under 40 CFR 122.42;
 - iii. The alteration or addition results in a significant change in the permittee’s sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan;
 - iv. Any facility expansions, production increases, or process modifications which will result in a new or substantially different discharge or sludge characteristics must be reported to the Department 60 days before the facility or process modification begins. Notification may be accomplished by application for a new permit. If the discharge does not violate effluent limitations specified in the permit, the facility is to submit a notice to the Department of the changed discharge at least 30 days before such changes. The Department may require a construction permit and/or permit modification as a result of the proposed changes at the facility.
2. **Non-compliance Reporting.**
 - a. The permittee shall report any noncompliance which may endanger health or the environment. Relevant information shall be provided orally or via the current electronic method approved by the Department, within 24 hours from the time the permittee becomes aware of the circumstances, and shall be reported to the appropriate Regional Office during normal business hours or the Environmental Emergency Response hotline at 573-634-2436 outside of normal business hours. A written submission shall also be provided within five (5) business days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.



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- b. The following shall be included as information which must be reported within 24 hours under this paragraph.
 - i. Any unanticipated bypass which exceeds any effluent limitation in the permit.
 - ii. Any upset which exceeds any effluent limitation in the permit.
 - iii. Violation of a maximum daily discharge limitation for any of the pollutants listed by the Department in the permit required to be reported within 24 hours.
 - c. The Department may waive the written report on a case-by-case basis for reports under paragraph 2. b. of this section if the oral report has been received within 24 hours.
3. **Anticipated Noncompliance.** The permittee shall give advance notice to the Department of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements. The notice shall be submitted to the Department 60 days prior to such changes or activity.
 4. **Compliance Schedules.** Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of the permit shall be submitted no later than 14 days following each schedule date. The report shall provide an explanation for the instance of noncompliance and a proposed schedule or anticipated date, for achieving compliance with the compliance schedule requirement.
 5. **Other Noncompliance.** The permittee shall report all instances of noncompliance not reported under paragraphs 2, 3, and 6 of this section, at the time monitoring reports are submitted. The reports shall contain the information listed in paragraph 2. a. of this section.
 6. **Other Information.** Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Department, it shall promptly submit such facts or information.
 7. **Discharge Monitoring Reports.**
 - a. Monitoring results shall be reported at the intervals specified in the permit.
 - b. Monitoring results must be reported to the Department via the current method approved by the Department, unless the permittee has been granted a waiver from using the method. If the permittee has been granted a waiver, the permittee must use forms provided by the Department.
 - c. Monitoring results shall be reported to the Department no later than the 28th day of the month following the end of the reporting period.
- b. Notice.
 - i. Anticipated bypass. If the permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible at least 10 days before the date of the bypass.
 - ii. Unanticipated bypass. The permittee shall submit notice of an unanticipated bypass as required in Section B – Reporting Requirements, paragraph 5 (24-hour notice).
 - c. Prohibition of bypass.
 - i. Bypass is prohibited, and the Department may take enforcement action against a permittee for bypass, unless:
 1. Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
 2. There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and
 3. The permittee submitted notices as required under paragraph 2. b. of this section.
 - ii. The Department may approve an anticipated bypass, after considering its adverse effects, if the Department determines that it will meet the three (3) conditions listed above in paragraph 2. c. i. of this section.
3. **Upset Requirements.**
 - a. Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology based permit effluent limitations if the requirements of paragraph 3. b. of this section are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.
 - b. Conditions necessary for a demonstration of upset. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:
 - i. An upset occurred and that the permittee can identify the cause(s) of the upset;
 - ii. The permitted facility was at the time being properly operated; and
 - iii. The permittee submitted notice of the upset as required in Section B – Reporting Requirements, paragraph 2. b. ii. (24-hour notice).
 - iv. The permittee complied with any remedial measures required under Section D – Administrative Requirements, paragraph 4.
 - c. Burden of proof. In any enforcement proceeding, the permittee seeking to establish the occurrence of an upset has the burden of proof.

Section C – Bypass/Upset Requirements

1. **Definitions.**
 - a. *Bypass*: the intentional diversion of waste streams from any portion of a treatment facility, except in the case of blending.
 - b. *Severe Property Damage*: substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.
 - c. *Upset*: an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.
2. **Bypass Requirements.**
 - a. Bypass not exceeding limitations. The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of paragraphs 2. b. and 2. c. of this section.

Section D – Administrative Requirements

1. **Duty to Comply.** The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Missouri Clean Water Law and Federal Clean Water Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application.
 - a. The permittee shall comply with effluent standards or prohibitions established under section 307(a) of the Federal Clean Water Act for toxic pollutants and with standards for sewage sludge use or disposal established under section 405(d) of the CWA within the time provided in the regulations that establish these standards or prohibitions or standards for sewage sludge use or disposal, even if the permit has not yet been modified to incorporate the requirement.
 - b. The Federal Clean Water Act provides that any person who violates section 301, 302, 306, 307, 308, 318 or 405 of the Act, or any permit condition or limitation implementing any such sections in a permit issued under section 402, or any requirement imposed in a pretreatment program approved under sections 402(a)(3) or 402(b)(8) of the Act, is subject to a civil penalty not to exceed \$25,000 per day for each violation. The Federal Clean Water Act provides that any person who negligently violates sections 301, 302, 306, 307, 308, 318, or 405 of the Act, or any condition or limitation implementing any of such sections in a permit issued under section 402 of the Act, or any requirement



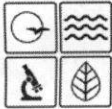
STANDARD CONDITIONS FOR NPDES PERMITS
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- imposed in a pretreatment program approved under section 402(a)(3) or 402(b)(8) of the Act, is subject to criminal penalties of \$2,500 to \$25,000 per day of violation, or imprisonment of not more than one (1) year, or both. In the case of a second or subsequent conviction for a negligent violation, a person shall be subject to criminal penalties of not more than \$50,000 per day of violation, or by imprisonment of not more than two (2) years, or both. Any person who knowingly violates such sections, or such conditions or limitations is subject to criminal penalties of \$5,000 to \$50,000 per day of violation, or imprisonment for not more than three (3) years, or both. In the case of a second or subsequent conviction for a knowing violation, a person shall be subject to criminal penalties of not more than \$100,000 per day of violation, or imprisonment of not more than six (6) years, or both. Any person who knowingly violates section 301, 302, 303, 306, 307, 308, 318 or 405 of the Act, or any permit condition or limitation implementing any of such sections in a permit issued under section 402 of the Act, and who knows at that time that he thereby places another person in imminent danger of death or serious bodily injury, shall, upon conviction, be subject to a fine of not more than \$250,000 or imprisonment of not more than 15 years, or both. In the case of a second or subsequent conviction for a knowing endangerment violation, a person shall be subject to a fine of not more than \$500,000 or by imprisonment of not more than 30 years, or both. An organization, as defined in section 309(c)(3)(B)(iii) of the CWA, shall, upon conviction of violating the imminent danger provision, be subject to a fine of not more than \$1,000,000 and can be fined up to \$2,000,000 for second or subsequent convictions.
- c. Any person may be assessed an administrative penalty by the EPA Director for violating section 301, 302, 306, 307, 308, 318 or 405 of this Act, or any permit condition or limitation implementing any of such sections in a permit issued under section 402 of this Act. Administrative penalties for Class I violations are not to exceed \$10,000 per violation, with the maximum amount of any Class I penalty assessed not to exceed \$25,000. Penalties for Class II violations are not to exceed \$10,000 per day for each day during which the violation continues, with the maximum amount of any Class II penalty not to exceed \$125,000.
- d. It is unlawful for any person to cause or permit any discharge of water contaminants from any water contaminant or point source located in Missouri in violation of sections 644.006 to 644.141 of the Missouri Clean Water Law, or any standard, rule or regulation promulgated by the commission. In the event the commission or the director determines that any provision of sections 644.006 to 644.141 of the Missouri Clean Water Law or standard, rules, limitations or regulations promulgated pursuant thereto, or permits issued by, or any final abatement order, other order, or determination made by the commission or the director, or any filing requirement pursuant to sections 644.006 to 644.141 of the Missouri Clean Water Law or any other provision which this state is required to enforce pursuant to any federal water pollution control act, is being, was, or is in imminent danger of being violated, the commission or director may cause to have instituted a civil action in any court of competent jurisdiction for the injunctive relief to prevent any such violation or further violation or for the assessment of a penalty not to exceed \$10,000 per day for each day, or part thereof, the violation occurred and continues to occur, or both, as the court deems proper. Any person who willfully or negligently commits any violation in this paragraph shall, upon conviction, be punished by a fine of not less than \$2,500 nor more than \$25,000 per day of violation, or by imprisonment for not more than one year, or both. Second and successive convictions for violation of the same provision of this paragraph by any person shall be punished by a fine of not more than \$50,000 per day of violation, or by imprisonment for not more than two (2) years, or both.
2. **Duty to Reapply.**
- a. If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for and obtain a new permit.
- b. A permittee with a currently effective site-specific permit shall submit an application for renewal at least 180 days before the expiration date of the existing permit, unless permission for a later date has been granted by the Department. (The Department shall not grant permission for applications to be submitted later than the expiration date of the existing permit.)
- c. A permittee with currently effective general permit shall submit an application for renewal at least 30 days before the existing permit expires, unless the permittee has been notified by the Department that an earlier application must be made. The Department may grant permission for a later submission date. (The Department shall not grant permission for applications to be submitted later than the expiration date of the existing permit.)
3. **Need to Halt or Reduce Activity Not a Defense.** It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
4. **Duty to Mitigate.** The permittee shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.
5. **Proper Operation and Maintenance.** The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems which are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of the permit.
6. **Permit Actions.**
- a. Subject to compliance with statutory requirements of the Law and Regulations and applicable Court Order, this permit may be modified, suspended, or revoked in whole or in part during its term for cause including, but not limited to, the following:
- i. Violations of any terms or conditions of this permit or the law;
- ii. Having obtained this permit by misrepresentation or failure to disclose fully any relevant facts;
- iii. A change in any circumstances or conditions that requires either a temporary or permanent reduction or elimination of the authorized discharge; or
- iv. Any reason set forth in the Law or Regulations.
- b. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition.
7. **Permit Transfer.**
- a. Subject to 10 CSR 20-6.010, an operating permit may be transferred upon submission to the Department of an application to transfer signed by the existing owner and the new owner, unless prohibited by the terms of the permit. Until such time the permit is officially transferred, the original permittee remains responsible for complying with the terms and conditions of the existing permit.
- b. The Department may require modification or revocation and reissuance of the permit to change the name of the permittee and incorporate such other requirements as may be necessary under the Missouri Clean Water Law or the Federal Clean Water Act.
- c. The Department, within 30 days of receipt of the application, shall notify the new permittee of its intent to revoke or reissue or transfer the permit.
8. **Toxic Pollutants.** The permittee shall comply with effluent standards or prohibitions established under section 307(a) of the Federal Clean Water Act for toxic pollutants and with standards for sewage sludge use or disposal established under section 405(d) of the Federal Clean Water Act within the time provided in the regulations that establish these standards or prohibitions or standards for sewage sludge use or disposal, even if the permit has not yet been modified to incorporate the requirement.
9. **Property Rights.** This permit does not convey any property rights of any sort, or any exclusive privilege.



STANDARD CONDITIONS FOR NPDES PERMITS
ISSUED BY
THE MISSOURI DEPARTMENT OF NATURAL RESOURCES
MISSOURI CLEAN WATER COMMISSION
REVISED
AUGUST 1, 2014

10. **Duty to Provide Information.** The permittee shall furnish to the Department, within a reasonable time, any information which the Department may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. The permittee shall also furnish to the Department upon request, copies of records required to be kept by this permit.
11. **Inspection and Entry.** The permittee shall allow the Department, or an authorized representative (including an authorized contractor acting as a representative of the Department), upon presentation of credentials and other documents as may be required by law, to:
 - a. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of the permit;
 - b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
 - c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and
 - d. Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the Federal Clean Water Act or Missouri Clean Water Law, any substances or parameters at any location.
12. **Closure of Treatment Facilities.**
 - a. Persons who cease operation or plan to cease operation of waste, wastewater, and sludge handling and treatment facilities shall close the facilities in accordance with a closure plan approved by the Department.
 - b. Operating Permits under 10 CSR 20-6.010 or under 10 CSR 20-6.015 are required until all waste, wastewater, and sludges have been disposed of in accordance with the closure plan approved by the Department and any disturbed areas have been properly stabilized. Disturbed areas will be considered stabilized when perennial vegetation, pavement, or structures using permanent materials cover all areas that have been disturbed. Vegetative cover, if used, shall be at least 70% plant density over 100% of the disturbed area.
13. **Signatory Requirement.**
 - a. All permit applications, reports required by the permit, or information requested by the Department shall be signed and certified. (See 40 CFR 122.22 and 10 CSR 20-6.010)
 - b. The Federal Clean Water Act provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or non-compliance shall, upon conviction, be punished by a fine of not more than \$10,000 per violation, or by imprisonment for not more than six (6) months per violation, or by both.
 - c. The Missouri Clean Water Law provides that any person who knowingly makes any false statement, representation or certification in any application, record, report, plan, or other document filed or required to be maintained pursuant to sections 644.006 to 644.141 shall, upon conviction, be punished by a fine of not more than ten thousand dollars, or by imprisonment for not more than six months, or by both.
14. **Severability.** The provisions of the permit are severable, and if any provision of the permit, or the application of any provision of the permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of the permit, shall not be affected thereby.



MISSOURI DEPARTMENT OF NATURAL RESOURCES
WATER PROTECTION PROGRAM
FORM A – APPLICATION FOR NONDOMESTIC PERMIT UNDER MISSOURI
CLEAN WATER LAW

RECEIVED
APR 02 2020

FOR AGENCY USE ONLY

CHECK NUMBER

DATE RECEIVED

FEE SUBMITTED

JET PAY CONFIRMATION NUMBER

PLEASE READ ALL THE ACCOMPANYING INSTRUCTIONS BEFORE COMPLETING THIS FORM.
SUBMITTAL OF AN INCOMPLETE APPLICATION MAY RESULT IN THE APPLICATION BEING RETURNED.

IF YOUR FACILITY IS ELIGIBLE FOR A NO EXPOSURE EXEMPTION:

Fill out the No Exposure Certification Form (Mo 780-2828): <https://dnr.mo.gov/forms/780-2828-f.pdf>

1. REASON FOR APPLICATION:

- ☒ a. This facility is now in operation under Missouri State Operating Permit (permit) MO – 0112771, is submitting an application for renewal, and there is no proposed increase in design wastewater flow. Annual fees will be paid when invoiced and there is no additional permit fee required for renewal.
- ☐ b. This facility is now in operation under permit MO – _____, is submitting an application for renewal, and there is a proposed increase in design wastewater flow. Antidegradation Review may be required. Annual fees will be paid when invoiced and there is no additional permit fee required for renewal.
- ☐ c. This is a facility submitting an application for a new permit (for a new facility). Antidegradation Review may be required. New permit fee is required.
- ☐ d. This facility is now in operation under Missouri State Operating Permit (permit) MO – _____ and is requesting a modification to the permit. Antidegradation Review may be required. Modification fee is required.

2. FACILITY

NAME Bridgeton Landfill		TELEPHONE NUMBER WITH AREA CODE 209-227-9531	
ADDRESS (PHYSICAL) 13570 St. Charles Rock Road	CITY Bridgeton	STATE MO	ZIP CODE 63044

3. OWNER

NAME Bridgeton Landfill, LLC		TELEPHONE NUMBER WITH AREA CODE 209-227-9531	
EMAIL ADDRESS efanning@republicservices.com			
ADDRESS (MAILING) 13570 St. Charles Rock Road	CITY Bridgeton	STATE MO	ZIP CODE 63044

4. CONTINUING AUTHORITY

NAME Same as owner		TELEPHONE NUMBER WITH AREA CODE	
EMAIL ADDRESS			
ADDRESS (MAILING)	CITY	STATE	ZIP CODE

5. OPERATOR CERTIFICATION

NAME N/A	CERTIFICATE NUMBER	TELEPHONE NUMBER WITH AREA CODE	
ADDRESS (MAILING)	CITY	STATE	ZIP CODE

6. FACILITY CONTACT

NAME Erin Fanning	TITLE Division Manager	TELEPHONE NUMBER WITH AREA CODE 209-227-9531	
E-MAIL ADDRESS efanning@republicservices.com			

7. DOWNSTREAM LANDOWNER(S) Attach additional sheets as necessary.

NAME See attached Form A Section 7 and 8.1 Supplemental			
ADDRESS	CITY	STATE	ZIP CODE

8. ADDITIONAL FACILITY INFORMATION**8.1 Legal Description of Outfalls. (Attach additional sheets if necessary.)**

For Universal Transverse Mercator (UTM), use Zone 15 North referenced to North American Datum 1983 (NAD83)

001	_____ ¼ _____ ¼	Sec _____	T _____	R _____	_____ County
UTM Coordinates Easting (X): _____		Northing (Y): _____			
002	_____ ¼ _____ ¼	Sec _____	T _____	R _____	_____ County
UTM Coordinates Easting (X): _____		Northing (Y): _____			
003	NW ¼ NW ¼	Sec 3	T 46N	R 5E	St. Louis _____ County
UTM Coordinates Easting (X): 721,556		Northing (Y): 4,293,546			
004	NW ¼ NE ¼	Sec 3	T 46N	R 5E	St. Louis _____ County
UTM Coordinates Easting (X): 721,196		Northing (Y): 4,294,471			

8.2 Primary Standard Industrial Classification (SIC) and Facility North American Industrial Classification System (NAICS) Codes.

Primary SIC 4953	and NAICS _____	SIC 3273	and NAICS _____
SIC _____	and NAICS _____	SIC _____	and NAICS _____

9. ADDITIONAL FORMS AND MAPS NECESSARY TO COMPLETE THIS APPLICATION

- A. Is this permit for a manufacturing, commercial, mining, solid/hazardous waste, or silviculture facility? YES ☐ NO ☒
If yes, complete Form C.
- B. Is the facility considered a "Primary Industry" under EPA guidelines (40 CFR Part 122, Appendix A)? YES ☐ NO ☒
If yes, complete Forms C and D.
- C. Is wastewater land applied? YES ☐ NO ☒
If yes, complete Form I.
- D. Are sludge, biosolids, ash, or residuals generated, treated, stored, or land applied? YES ☒ NO ☐
If yes, complete Form R. Biosolids are generated within the wastewater treatment plant but are dewatered and hauled off site. No land application of biosolids occurs on the property.
- E. Have you received or applied for any permit or construction approval under the CWA or any other environmental regulatory authority? YES ☐ NO ☒
If yes, please include a list of all permits or approvals for this facility.
- F. Do you use cooling water in your operations at this facility? YES ☒ NO ☐
If yes, please indicate the source of the water: Closed loop blow down directed to sanitary outfall
- G. Attach a map showing all outfalls and the receiving stream at 1" = 2,000' scale. See attached Figure 1

10. ELECTRONIC DISCHARGE MONITORING REPORT (eDMR) SUBMISSION SYSTEM

Per 40 CFR Part 127 National Pollutant Discharge Elimination System (NPDES) Electronic Reporting Rule, reporting of effluent limits and monitoring shall be submitted by the permittee via an electronic system to ensure timely, complete, accurate, and nationally consistent set of data. **One of the following must be checked in order for this application to be considered complete.** Please visit <http://dnr.mo.gov/env/wpp/edmr.htm> to access the Facility Participation Package.

- ☐ - You have completed and submitted with this permit application the required documentation to participate in the eDMR system.
- ☒ - You have previously submitted the required documentation to participate in the eDMR system and/or you are currently using the eDMR system.
- ☐ - You have submitted a written request for a waiver from electronic reporting. See instructions for further information regarding waivers.

11. FEES

Permit fees may be paid by attaching a check, or online by credit card or eCheck through the JetPay system. Use the URL provided to access JetPay and make an online payment: <https://magic.collectorsolutions.com/magic-ui/payments/mo-natural-resources/>

12. CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

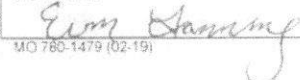
NAME AND OFFICIAL TITLE (TYPE OR PRINT)

Erin Fanning, Division Manager

TELEPHONE NUMBER WITH AREA CODE

209-227-9531

SIGNATURE



DATE SIGNED

March 30, 2020

FORM A – SECTIONS 7 AND 8.1 SUPPLEMENTAL

7.0 Downstream Landowners

H W Development, LLC
13060 Old St Charles Rock Road
Bridgeton, MO 63044

Tusler Family LLP
12964 St Charles Rock Road
Bridgeton, MO 63044

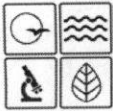
Paving Maintenance Supply, Inc.
12950 St Charles Rock Road
Bridgeton, MO 63044

Dugan Realty, LLC
13201 Corporate Exchange Drive
Bridgeton, MO 63044

Meeks Development, LLC
4614 Crossroads Industrial Drive
Bridgeton, MO 63044

8.1 Legal Descriptions of Outfalls Continued

005	SE ¼	NW ¼	SEC 3	T46N	R5E	St Louis County		
UTM Coordinates:		Easting (X): 721,216		Northing (Y): 4,293,765		SIC: 4953		
007	NE ¼	SW ¼	SEC 34	T46N	R5E	St Louis County		
UTM Coordinates:		Easting (X): 722,114		Northing (Y): 4,293,484		SIC: 4953		
008	Requesting to be moved due to proposed improvements							
	NE ¼	SW ¼	SEC 34	T46N	R5E	St Louis County		
UTM Coordinates (existing):		Easting (X): 722,379		Northing (Y): 4,294,335		SIC: 4953		
UTM Coordinates (proposed):		Easting (X): 722,348		Northing (Y): 4,294,371		SIC: 4953		
009	NE ¼	SW ¼	SEC 34	T46N	R5E	St Louis County		
UTM Coordinates (existing):		Easting (X): 721,983		Northing (Y): 4,294,769		SIC: 4953		



MISSOURI DEPARTMENT OF NATURAL RESOURCES
WATER PROTECTION PROGRAM, WATER POLLUTION CONTROL BRANCH
**FORM C – APPLICATION FOR DISCHARGE PERMIT – MANUFACTURING, COMMERCIAL,
MINING, SILVICULTURE OPERATIONS, AND STORMWATER**

RECEIVED
APR 02 2020
Water Protection Program

GENERAL INFORMATION (PLEASE SEE INSTRUCTIONS)				
1.0 NAME OF FACILITY Bridgeton Landfill				
1.1 THIS FACILITY IS OPERATING UNDER MISSOURI STATE OPERATING PERMIT (MSOP) NUMBER: MO-0112771				
1.2 IS THIS A NEW FACILITY? PROVIDE CONSTRUCTION PERMIT (CP) NUMBER IF APPLICABLE. N/A				
1.3 Describe the nature of the business, in detail. Identify the goods and services provided by the business. Include descriptions of all raw, intermediate, final products, byproducts, or waste products used in the production or manufacturing process, stored outdoors, loaded or transferred and any other pertinent information for potential sources of wastewater or stormwater discharges. Municipal solid waste landfill				
FLOWS, TYPE, AND FREQUENCY				
2.0 Attach a line drawing showing the water flow through the facility. Indicate sources of intake water, operations contributing wastewater to the effluent, and treatment units labeled to correspond to the more detailed descriptions in item B. Construct a water balance on the line drawing by showing average and maximum flows between intakes, operations, treatment units, evaporation, public sewers, and outfalls. If a water balance cannot be determined (e.g., for certain mining activities), provide a pictorial description of the nature and amount of any sources of water and any collection or treatment measures. See attached Figure 3				
2.1 For each outfall (1) below, provide: (2) a description of all operations contributing wastewater to the effluent, including process wastewater, sanitary wastewater, cooling water, stormwater runoff, and any other process or non-process wastewater, (3) the average flow and maximum flow (put max in parentheses) contributed by each operation and the sum of those operations, (4) the treatment received by the wastewater, and (5) the treatment type code. Continue on additional sheets if necessary.				
1. OUTFALL NO.	2. OPERATION(S) CONTRIBUTING FLOW; INCLUDE ALL PROCESSES AND SUB PROCESSES AT EACH OUTFALL	3. AVERAGE FLOW AND (MAXIMUM FLOW), INCLUDE UNITS.	4. TREATMENT DESCRIPTION	5. TREATMENT CODES FROM TABLE A
003	Storm water runoff	0.489 MGD (9.1)	Sedimentation	1-U
			Discharge to surface water	4-A
004	Storm water runoff	0.390 MGD (7.3)	Sedimentation	1-U
			Discharge to surface water	4-A
005	Storm water runoff	0.233 MGD (4.3)	Sedimentation	1-U
	(Currently being pumped to Outfall 003)		Discharge to surface water	4-A
007	Storm water runoff	0.224 MGD (4.2)	Discharge to surface water	4-A
008	Storm water runoff (Relocated Outfall)	0.021 MGD (0.4)	Discharge to surface water	4-A
009	Storm water runoff	0.070 MGD (1.3)	Discharge to surface water	4-A
Attach additional pages if necessary.				

2.2 INTERMITTENT DISCHARGES

Except for stormwater runoff, leaks, or spills, are any of the discharges described in items 2.0 or 2.1 intermittent or seasonal?

☐ Yes (complete the following table)

☒ No (go to section 2.3)

1. OUTFALL NUMBER	2. OPERATION(S) CONTRIBUTING FLOW	3. FREQUENCY		4. FLOW				C. DURATION (in days)
				A. FLOW RATE (in mgd)		B. TOTAL VOLUME (specify with units)		
		A. DAYS PER WEEK (specify average)	B. MONTHS PER YEAR (specify average)	1. MAXIMUM DAILY	2. LONG TERM AVERAGE	4. LONG TERM DAILY	3. MAXIMUM AVERAGE	

2.3 PRODUCTION

A. Does an effluent limitation guideline (ELG) promulgated by EPA under section 304 of the Clean Water Act apply to your facility? Indicate the part and subparts applicable.

☒ Yes 40 CFR ⁴⁴⁵ Subpart(s) ^B ☐ No (go to section 2.5)

B. Are the limitations in the effluent guideline(s) expressed in terms of production (or other measure of operation)? Describe in C below.

☐ Yes (complete C.) ☒ No (go to section 2.5)

C. If you answered "yes" to B, list the quantity representing an actual measurement of your maximum level of production, expressed in the terms and units used in the applicable effluent guideline and indicate the affected outfalls.

A. OUTFALL(S)	B. QUANTITY PER DAY	C. UNITS OF MEASURE	D. OPERATION, PRODUCT, MATERIAL, ETC. (specify)

2.4 IMPROVEMENTS

A. Are you required by any federal, state, or local authority to meet any implementation schedule for the construction, upgrading, or operation of wastewater treatment equipment or practices or any other environmental programs which may affect the discharges described in this application? This includes, but is not limited to, permit conditions, administrative or enforcement orders, enforcement compliance schedule letters, stipulations, court orders, and grant or loan conditions.

☒ Yes (complete the following table) ☐ No (go to 2.6)

1. IDENTIFICATION OF CONDITION, AGREEMENT, ETC.	2. AFFECTED OUTFALLS	3. BRIEF DESCRIPTION OF PROJECT	4. FINAL COMPLIANCE DATE	
			A. REQUIRED	B. PROJECTED
Final Consent Judgement	All	Stormwater Evaluation	*	2020
		* stormwater improvements under construction		

B. Optional: provide below or attach additional sheets describing water pollution control programs or other environmental projects which may affect discharges. Indicate whether each program is underway or planned, and indicate actual or planned schedules for construction. This may include proposed bmp projects for stormwater.

2.5 SLUDGE MANAGEMENT

Describe the removal of any industrial or domestic biosolids or sludges generated at your facility. Include names and contact information for any haulers used. Note the frequency, volume, and methods (incineration, landfilling, composting, etc) used. See Form A for additional forms which may need to be completed.

N/A

DATA COLLECTION AND REPORTING REQUIREMENTS FOR APPLICANTS

3.0 EFFLUENT (AND INTAKE) CHARACTERISTICS (SEE INSTRUCTIONS)

A. & B. See instructions before continuing – complete one Table 1 for **each outfall** (and intake) – annotate the outfall (intake) number or designation in the space provided. The facility is not required to complete intake data unless required by the department or rule.

C. Use the space below to list any pollutants listed in the instructions section 3.0 C. Table B which you know or have reason to believe is discharged or may be discharged from any outfall not listed in parts 3.0 A or B on Table 1. For every pollutant listed, briefly describe the reasons you believe it to be present and report any analytical data in your possession.

1. POLLUTANT	2. SOURCE	3. OUTFALL(S)	4. ANALYTICAL RESULTS (INCLUDE UNITS)
N/A	N/A	N/A	N/A

3.1 Whole Effluent Toxicity Testing

A. To your knowledge, have any Whole Effluent Toxicity (WET) tests been performed on the facility discharges (or on receiving waters in relation to your discharge) within the last three years?

☐ Yes (go to 3.1 B)

☒ No (go to 3.2)

3.1 B

Disclose wet testing conditions, including test duration (chronic or acute), the organisms tested, and the testing results. Provide any results of toxicity identification evaluations (TIE) or toxicity reduction evaluations (TRE) if applicable. Please indicate the conclusions of the test(s) including any pollutants identified as causing toxicity and steps the facility is taking to remedy the toxicity.


N/A

3.2 CONTRACT ANALYSIS INFORMATION

Were any of the analyses reported herein, above, or on Table 1 performed by a contract laboratory or consulting firm?

☒ Yes (list the name, address, telephone number, and pollutants analyzed by each laboratory or firm.) ☐ No (go to 4.0)

A. LAB NAME	B. ADDRESS	C. TELEPHONE (area code and number)	D. POLLUTANTS ANALYZED (list or group)
Teklab, Inc.	5445 Horseshoe Lake Rd Collinsville, IL 62234	618-344-1004	See enclosed Form C - Section 3.2 supplemental
Pace Analytical Services, LLC	1638 Roseytown Road Greensburg, PA 15601	724-850-5600	See enclosed Form C - Section 3.2 supplemental

4.0 STORMWATER			
4.1 Do you have industrial stormwater discharges from the site? If so, attach a site map outlining drainage areas served by each outfall. Indicate the following attributes within each drainage area: pavement or other impervious surfaces; buildings; outdoor storage areas; material loading and unloading areas; outdoor industrial activities; structural stormwater control measures; hazardous waste treatment, storage, and disposal units; and wells or springs in the area.			
OUTFALL NUMBER	TOTAL AREA DRAINED (PROVIDE UNITS)	TYPES OF SURFACES (VEGETATED, STONE, PAVED, ETC)	BEST MANAGEMENT PRACTICES EMPLOYED; INCLUDE STRUCTURAL BMPs AND TREATMENT DESIGN FLOW FOR BMPs DESCRIBE HOW FLOW IS MEASURED
003	75.7 Acres		See enclosed Figure 2 and Form C - Section 4.1 Supplemental
004	66.2 Acres		See enclosed Figure 2 and Form C - Section 4.1 Supplemental
005	36.0 Acres		See enclosed Figure 2 and Form C - Section 4.1 Supplemental
007	34.6 Acres		See enclosed Figure 2 and Form C - Section 4.1 Supplemental
008	3.3 Acres		See enclosed Figure 2 and Form C - Section 4.1 Supplemental
009	10.8 Acres		See enclosed Figure 2 and Form C - Section 4.1 Supplemental
4.2 STORMWATER FLOWS Provide the date of sampling with the flows, and how the flows were estimated. See enclosed Form C - Section 4.2 Supplemental			
SIGNATORY REQUIREMENTS			
5.0 CERTIFICATION I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.			
NAME AND OFFICIAL TITLE (TYPE OR PRINT)			TELEPHONE NUMBER WITH AREA CODE
Erin Fanning, Division Manager			209-227-9531
SIGNATURE (SEE INSTRUCTIONS)			DATE SIGNED
			March 30, 2020

SEE INSTRUCTIONS; PLEASE PRINT OR TYPE.

You may report some or all of this information on separate sheet (use similar format) instead of completing these pages.

FORM C TABLE 1 FOR 3.0 - ITEMS A AND B

EFFLUENT (AND INTAKE) CHARACTERISTICS										OUTFALL NO. 003	
3.0 PART A – You must provide the results of at least one analysis for every pollutant in Part A. Complete one table for each outfall or proposed outfall. See instructions.											
1. POLLUTANT	2. VALUES				3. UNITS (specify if blank)				A. CONCEN- TRATION	B. MASS	
	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUES		C. LONG TERM AVERAGE VALUES		D. NO. OF ANALYSES				
	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS					
A. Biochemical Oxygen Demand, 5-day (BOD ₅)	< 5	< 6.9					1	mg/L		lbs	
B. Chemical Oxygen Demand (COD)	31	42.5					1	mg/L		lbs	
C. Total Organic Carbon (TOC)	n/a	n/a									
D. Total Suspended Solids (TSS)	10	13.7					1	mg/L		lbs	
E. Ammonia as N	< 0.10	< 0.14					1	mg/L		lbs	
F. Flow	VALUE 0.164		VALUE		VALUE		1	MILLIONS OF GALLONS PER DAY (MGD)			
G. Temperature (winter)	VALUE 34.5		VALUE		VALUE				*F		
H. Temperature (summer)	VALUE n/a		VALUE		VALUE				*F		
I. pH	MINIMUM 8.01		MAXIMUM 8.01		AVERAGE				STANDARD UNITS (SU)		
3.0 PART B – Mark "X" in column 2A for each pollutant you know or have reason to believe is present. Mark "X" in column 2B for each pollutant you believe to be absent. If you mark Column 2A for any pollutant, you must provide the results for at least one analysis for the pollutant. Complete one table for each outfall (intake). Provide results for additional parameters not listed here in Part 3.0 C.											
1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X"		3. VALUES				4. UNITS				
	A. BELIEVED PRESENT	B. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUES		C. LONG TERM AVERAGE VALUES		D. NO. OF ANALYSES	A. CONCEN- TRATION	B. MASS
			CONCENTRATION	MASS	CONCENTRATION	MASS	CONCENTRATION	MASS			
Subpart 1 – Conventional and Non-Conventional Pollutants											
A. Alkalinity (CaCO ₃)		X	MINIMUM				MINIMUM				
B. Bromide (24959-67-9)		X									
C. Chloride (16887-00-6)	X		43	59			1	mg/L		lbs	
D. Chlorine, Total Residual		X									
E. Color		X									
F. Conductivity		X									
F. Cyanide, Amenable to Chlorination		X									

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X"		3. VALUES						4. UNITS			
	A. BELIEVED PRESENT	B. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE		C. LONG TERM AVERAGE VALUE		D. NO. OF ANALYSES	A. CONCENTRATION	B. MASS	
			CONCENTRATION	MASS	CONCENTRATION	MASS	CONCENTRATION	MASS				
Subpart 1 – Conventional and Non-Conventional Pollutants (Continued)												
G. <i>E. coli</i>		X										
H. Fluoride (16984-48-8)		X										
I. Nitrate plus Nitrate (as N)		X										
J. Kjeldahl, Total (as N)		X										
K. Nitrogen, Total Organic (as N)		X										
L. Oil and Grease	X		< 5						1	mg/L	lbs	
M. Phenols, Total	X		< 0.018						1	mg/L	lbs	
N. Phosphorus (as P), Total (7723-14-0)		X										
O. Sulfate (as SO ₄) (14808-79-8)	X		60	82.3					1	mg/L	lbs	
P. Sulfide (as S)		X										
Q. Sulfite (as SO ₃) (14265-45-3)		X										
R. Surfactants		X										
S. Trihalomethanes, Total		X										
Subpart 2 – Metals												
1M. Aluminum, Total Recoverable (7429-90-5)	X		0.783	1.074					1	mg/L	lbs	
2M. Antimony, Total Recoverable (7440-36-9)	X		< 0.001						1	mg/L	lbs	
3M. Arsenic, Total Recoverable (7440-38-2)	X		0.0020	0.0027					1	mg/L	lbs	
4M. Barium, Total Recoverable (7440-39-3)		X										
5M. Beryllium, Total Recoverable (7440-41-7)	X		< 0.0005						1	mg/L	lbs	
6M. Boron, Total Recoverable (7440-42-8)		X										
7M. Cadmium, Total Recoverable (7440-43-9)	X		< 0.0004						1	mg/L	lbs	
8M. Chromium III Total Recoverable (16065-83-1)	X		< 0.005						1	mg/L	lbs	
9M. Chromium VI, Dissolved (18540-29-9)	X		< 0.0002						1	mg/L	lbs	
10M. Cobalt, Total Recoverable (7440-48-4)		X										

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X"		3. VALUES						4. UNITS			
	A. BELIEVED PRESENT	B. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE		C. LONG TERM AVERAGE VALUE		D. NO. OF ANALYSES	A. CONCENTRATION	B. MASS	
			CONCENTRATION	MASS	CONCENTRATION	MASS	CONCENTRATION	MASS				
Subpart 2 – Metals (Continued)												
11M. Copper, Total Recoverable (7440-50-8)	X		0.0038	0.0052					1	mg/L	lbs	
12M. Iron, Total Recoverable (7439-89-6)	X		0.847	1.162					1	mg/L	lbs	
13M. Lead, Total Recoverable (7439-92-1)	X		0.0008	0.00011					1	mg/L	lbs	
14M. Magnesium, Total Recoverable (7439-95-4)		X										
15M. Manganese, Total Recoverable (7439-96-5)		X										
16M. Mercury, Total Recoverable (7439-97-6)	X		< 0.0002						1	mg/L	lbs	
17M. Methylmercury (22967926)		X										
18M. Molybdenum, Total Recoverable (7439-98-7)		X										
19M. Nickel, Total Recoverable (7440-02-0)	X		0.0020	0.0027					1	mg/L	lbs	
20M. Selenium, Total Recoverable (7782-49-2)	X		0.0008	0.0011					1	mg/L	lbs	
21M. Silver, Total Recoverable (7440-22-4)		X										
22M. Thallium, Total Recoverable (7440-28-0)	X		< 0.0008						1	mg/L	lbs	
23M. Tin, Total Recoverable (7440-31-5)		X										
24M. Titanium, Total Recoverable (7440-32-6)		X										
25M. Zinc, Total Recoverable (7440-66-6)	X		< 0.01						1	mg/L	lbs	
Subpart 3 – Radioactivity												
1R. Alpha Total		X										
2R. Beta Total		X										
3R. Radium Total		X										
4R. Radium 226 plus 228 Total		X										

SEE INSTRUCTIONS; PLEASE PRINT OR TYPE.

You may report some or all of this information on separate sheet (use similar format) instead of completing these pages.

FORM C TABLE 1 FOR 3.0 - ITEMS A AND B

EFFLUENT (AND INTAKE) CHARACTERISTICS										OUTFALL NO. 004	
3.0 PART A – You must provide the results of at least one analysis for every pollutant in Part A. Complete one table for each outfall or proposed outfall. See instructions.											
1. POLLUTANT	2. VALUES				3. UNITS (specify if blank)						
	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUES		C. LONG TERM AVERAGE VALUES		D. NO. OF ANALYSES	A. CONCENTRATION	B. MASS		
	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS					
A. Biochemical Oxygen Demand, 5-day (BOD ₅)	< 5	< 203.8					1	mg/L	lbs		
B. Chemical Oxygen Demand (COD)	24	978.6					1	mg/L	lbs		
C. Total Organic Carbon (TOC)	n/a	n/a									
D. Total Suspended Solids (TSS)	< 6	< 244.6					1	mg/L	lbs		
E. Ammonia as N	< 0.10	< 4.08					1	mg/L	lbs		
F. Flow	VALUE	4.886	VALUE		VALUE		1	MILLIONS OF GALLONS PER DAY (MGD)			
G. Temperature (winter)	VALUE	34.5	VALUE		VALUE			°F			
H. Temperature (summer)	VALUE	n/a	VALUE		VALUE			°F			
I. pH	MINIMUM	8.42	MAXIMUM	8.42	AVERAGE			STANDARD UNITS (SU)			
3.0 PART B – Mark "X" in column 2A for each pollutant you know or have reason to believe is present. Mark "X" in column 2B for each pollutant you believe to be absent. If you mark Column 2A for any pollutant, you must provide the results for at least one analysis for the pollutant. Complete one table for each outfall (intake). Provide results for additional parameters not listed here in Part 3.0 C.											
1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X"		3. VALUES				4. UNITS				
	A. BELIEVED PRESENT	B. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUES		C. LONG TERM AVERAGE VALUES		D. NO. OF ANALYSES	A. CONCENTRATION	B. MASS
			CONCENTRATION	MASS	CONCENTRATION	MASS	CONCENTRATION	MASS			
Subpart 1 – Conventional and Non-Conventional Pollutants											
A. Alkalinity (CaCO ₃)		X	MINIMUM				MINIMUM				
B. Bromide (24959-67-9)		X									
C. Chloride (16887-00-6)	X		38	1549.5					1	mg/L	lbs
D. Chlorine, Total Residual		X									
E. Color		X									
F. Conductivity		X									
F. Cyanide, Amenable to Chlorination		X									

1. POLLUTANT AND GAS NUMBER (if available)	2. MARK "X"		3. VALUES						4. UNITS			
	A. BELIEVED PRESENT	B. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE		C. LONG TERM AVERAGE VALUE		D. NO. OF ANALYSES	A. CONCENTRATION	B. MASS	
			CONCENTRATION	MASS	CONCENTRATION	MASS	CONCENTRATION	MASS				
Subpart 1 – Conventional and Non-Conventional Pollutants (Continued)												
G. <i>E. coli</i>		X										
H. Fluoride (16984-48-8)		X										
I. Nitrate plus Nitrate (as N)		X										
J. Kjeldahl, Total (as N)		X										
K. Nitrogen, Total Organic (as N)		X										
L. Oil and Grease	X		< 5						1	mg/L	lbs	
M. Phenols, Total	X		< 0.004						1	mg/L	lbs	
N. Phosphorus (as P), Total (7723-14-0)		X										
O. Sulfate (as SO ₄) (14808-79-8)	X		20	815.5					1	mg/L	lbs	
P. Sulfide (as S)		X										
Q. Sulfite (as SO ₃) (14265-45-3)		X										
R. Surfactants		X										
S. Trihalomethanes, Total		X										
Subpart 2 – Metals												
1M. Aluminum, Total Recoverable (7429-90-5)	X		0.165	6.728					1	mg/L	lbs	
2M. Antimony, Total Recoverable (7440-36-9)	X		< 0.001						1	mg/L	lbs	
3M. Arsenic, Total Recoverable (7440-38-2)	X		0.0012	0.049					1	mg/L	lbs	
4M. Barium, Total Recoverable (7440-39-3)		X										
5M. Beryllium, Total Recoverable (7440-41-7)	X		< 0.0005						1	mg/L	lbs	
6M. Boron, Total Recoverable (7440-42-8)		X										
7M. Cadmium, Total Recoverable (7440-43-9)	X		< 0.0004						1	mg/L	lbs	
8M. Chromium III Total Recoverable (16065-83-1)	X		< 0.005						1	mg/L	lbs	
9M. Chromium VI, Dissolved (18540-29-9)	X		< 0.0002						1	mg/L	lbs	
10M. Cobalt, Total Recoverable (7440-48-4)		X										

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X"		3. VALUES						4. UNITS			
	A. BELIEVED PRESENT	B. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE		C. LONG TERM AVERAGE VALUE		D. NO. OF ANALYSES	A. CONCENTRATION	B. MASS	
			CONCENTRATION	MASS	CONCENTRATION	MASS	CONCENTRATION	MASS				
Subpart 2 – Metals (Continued)												
11M. Copper, Total Recoverable (7440-50-8)	X		0.0029	0.118					1	mg/L	lbs	
12M. Iron, Total Recoverable (7439-89-6)	X		0.175	7.14					1	mg/L	lbs	
13M. Lead, Total Recoverable (7439-92-1)	X		0.0007	0.0285					1	mg/L	lbs	
14M. Magnesium, Total Recoverable (7439-95-4)		X										
15M. Manganese, Total Recoverable (7439-96-5)		X										
16M. Mercury, Total Recoverable (7439-97-6)	X		< 0.0002						1	mg/L	lbs	
17M. Methylmercury (22967926)		X										
18M. Molybdenum, Total Recoverable (7439-98-7)		X										
19M. Nickel, Total Recoverable (7440-02-0)	X		< 0.005						1	mg/L	lbs	
20M. Selenium, Total Recoverable (7782-49-2)	X		< 0.001						1	mg/L	lbs	
21M. Silver, Total Recoverable (7440-22-4)		X										
22M. Thallium, Total Recoverable (7440-28-0)	X		< 0.0008						1	mg/L	lbs	
23M. Tin, Total Recoverable (7440-31-5)		X										
24M. Titanium, Total Recoverable (7440-32-6)		X										
25M. Zinc, Total Recoverable (7440-66-6)	X		< 0.01						1	mg/L	lbs	
Subpart 3 – Radioactivity												
1R. Alpha Total		X										
2R. Beta Total		X										
3R. Radium Total		X										
4R. Radium 226 plus 228 Total		X										

SEE INSTRUCTIONS; PLEASE PRINT OR TYPE.

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FORM C TABLE 1 FOR 3.0 - ITEMS A AND B

EFFLUENT (AND INTAKE) CHARACTERISTICS										OUTFALL NO. 005	
THIS OUTFALL IS: Stormwater (currently being pumped to Outfall 003)											
3.0 PART A – You must provide the results of at least one analysis for every pollutant in Part A. Complete one table for each outfall or proposed outfall. See instructions.											
1. POLLUTANT	2. VALUES				3. UNITS (specify if blank)						
	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUES		C. LONG TERM AVERAGE VALUES		D. NO. OF ANALYSES	A. CONCENTRATION	B. MASS		
	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS					
A. Biochemical Oxygen Demand, 5-day (BOD ₅)	n/a	n/a									
B. Chemical Oxygen Demand (COD)	n/a	n/a									
C. Total Organic Carbon (TOC)	n/a	n/a									
D. Total Suspended Solids (TSS)	n/a	n/a									
E. Ammonia as N	n/a	n/a									
F. Flow	VALUE	n/a	VALUE		VALUE				MILLIONS OF GALLONS PER DAY (MGD)		
G. Temperature (winter)	VALUE	n/a	VALUE		VALUE				°F		
H. Temperature (summer)	VALUE	n/a	VALUE		VALUE				°F		
I. pH	MINIMUM	n/a	MAXIMUM	n/a	AVERAGE				STANDARD UNITS (SU)		
3.0 PART B – Mark "X" in column 2A for each pollutant you know or have reason to believe is present. Mark "X" in column 2B for each pollutant you believe to be absent. If you mark Column 2A for any pollutant, you must provide the results for at least one analysis for the pollutant. Complete one table for each outfall (intake). Provide results for additional parameters not listed here in Part 3.0 C.											
1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X"		3. VALUES						4. UNITS		
	A. BELIEVED PRESENT	B. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUES		C. LONG TERM AVERAGE VALUES		D. NO. OF ANALYSES	A. CONCENTRATION	B. MASS
			CONCENTRATION	MASS	CONCENTRATION	MASS	CONCENTRATION	MASS			
Subpart 1 – Conventional and Non-Conventional Pollutants											
A. Alkalinity (CaCO ₃)		X	MINIMUM					MINIMUM			
B. Bromide (24959-67-9)		X									
C. Chloride (16887-00-6)		X									
D. Chlorine, Total Residual		X									
E. Color		X									
F. Conductivity		X									
F. Cyanide, Amenable to Chlorination		X									

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X"		3. VALUES						4. UNITS		
	A. BELIEVED PRESENT	B. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE		C. LONG TERM AVERAGE VALUE		D. NO. OF ANALYSES	A. CONCENTRATION	B. MASS
			CONCENTRATION	MASS	CONCENTRATION	MASS	CONCENTRATION	MASS			
Subpart 1 – Conventional and Non-Conventional Pollutants (Continued)											
G. <i>E. coli</i>		X									
H. Fluoride (16984-48-8)		X									
I. Nitrate plus Nitrate (as N)		X									
J. Kjeldahl, Total (as N)		X									
K. Nitrogen, Total Organic (as N)		X									
L. Oil and Grease		X									
M. Phenols, Total		X									
N. Phosphorus (as P), Total (7723-14-0)		X									
O. Sulfate (as SO ₄) (14808-79-8)		X									
P. Sulfide (as S)		X									
Q. Sulfite (as SO ₃) (14265-45-3)		X									
R. Surfactants		X									
S. Trihalomethanes, Total		X									
Subpart 2 – Metals											
1M. Aluminum, Total Recoverable (7429-90-5)		X									
2M. Antimony, Total Recoverable (7440-36-9)		X									
3M. Arsenic, Total Recoverable (7440-38-2)		X									
4M. Barium, Total Recoverable (7440-39-3)		X									
5M. Beryllium, Total Recoverable (7440-41-7)		X									
6M. Boron, Total Recoverable (7440-42-8)		X									
7M. Cadmium, Total Recoverable (7440-43-9)		X									
8M. Chromium III Total Recoverable (16065-83-1)		X									
9M. Chromium VI, Dissolved (18540-29-9)		X									
10M. Cobalt, Total Recoverable (7440-48-4)		X									

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X"		3. VALUES						4. UNITS		
	A. BELIEVED PRESENT	B. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE		C. LONG TERM AVERAGE VALUE		D. NO. OF ANALYSES	A. CONCENTRATION	B. MASS
			CONCENTRATION	MASS	CONCENTRATION	MASS	CONCENTRATION	MASS			
Subpart 2 – Metals (Continued)											
11M. Copper, Total Recoverable (7440-50-8)		X									
12M. Iron, Total Recoverable (7439-89-6)		X									
13M. Lead, Total Recoverable (7439-92-1)		X									
14M. Magnesium, Total Recoverable (7439-95-4)		X									
15M. Manganese, Total Recoverable (7439-96-5)		X									
16M. Mercury, Total Recoverable (7439-97-6)		X									
17M. Methylmercury (22967926)		X									
18M. Molybdenum, Total Recoverable (7439-98-7)		X									
19M. Nickel, Total Recoverable (7440-02-0)		X									
20M. Selenium, Total Recoverable (7782-49-2)		X									
21M. Silver, Total Recoverable (7440-22-4)		X									
22M. Thallium, Total Recoverable (7440-28-0)		X									
23M. Tin, Total Recoverable (7440-31-5)		X									
24M. Titanium, Total Recoverable (7440-32-6)		X									
25M. Zinc, Total Recoverable (7440-66-6)		X									
Subpart 3 – Radioactivity											
1R. Alpha Total		X									
2R. Beta Total		X									
3R. Radium Total		X									
4R. Radium 226 plus 228 Total		X									

SEE INSTRUCTIONS; PLEASE PRINT OR TYPE.

You may report some or all of this information on separate sheet (use similar format) instead of completing these pages.

FORM C TABLE 1 FOR 3.0 - ITEMS A AND B

EFFLUENT (AND INTAKE) CHARACTERISTICS										OUTFALL NO. 007		
3.0 PART A - You must provide the results of at least one analysis for every pollutant in Part A. Complete one table for each outfall or proposed outfall. See instructions.												
2. VALUES										3. UNITS (specify if blank)		
1. POLLUTANT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUES		C. LONG TERM AVERAGE VALUES		D. NO. OF ANALYSES	A. CONCENTRATION	B. MASS			
	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS						
A. Biochemical Oxygen Demand, 5-day (BOD ₅)	66	358.8					1	mg/L	lbs			
B. Chemical Oxygen Demand (COD)	226	1228.7					1	mg/L	lbs			
C. Total Organic Carbon (TOC)	n/a	n/a										
D. Total Suspended Solids (TSS)	321	1745.2					1	mg/L	lbs			
E. Ammonia as N	0.2	1.09					1	mg/L	lbs			
F. Flow	VALUE 0.651487		VALUE		VALUE		1	MILLIONS OF GALLONS PER DAY (MGD)				
G. Temperature (winter)	VALUE 40.3		VALUE		VALUE				*F			
H. Temperature (summer)	VALUE n/a		VALUE		VALUE				*F			
I. pH	MINIMUM 8.04		MAXIMUM 8.04		AVERAGE				STANDARD UNITS (SU)			
3.0 PART B - Mark "X" in column 2A for each pollutant you know or have reason to believe is present. Mark "X" in column 2B for each pollutant you believe to be absent. If you mark Column 2A for any pollutant, you must provide the results for at least one analysis for the pollutant. Complete one table for each outfall (intake). Provide results for additional parameters not listed here in Part 3.0 C.												
1. POLLUTANT AND CAS NUMBER (if available)		2. MARK "X"		3. VALUES						4. UNITS		
		A. BELIEVED PRESENT	B. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUES		C. LONG TERM AVERAGE VALUES		D. NO. OF ANALYSES	A. CONCENTRATION	B. MASS
				CONCENTRATION	MASS	CONCENTRATION	MASS	CONCENTRATION	MASS			
Subpart 1 - Conventional and Non-Conventional Pollutants												
A. Alkalinity (CaCO ₃)			X	MINIMUM		MINIMUM						
B. Bromide (24959-67-9)			X									
C. Chloride (16887-00-6)	X			293	1593					1	mg/L	lbs
D. Chlorine, Total Residual			X									
E. Color			X									
F. Conductivity			X									
F. Cyanide, Amenable to Chlorination			X									

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X"		3. VALUES						4. UNITS			
	A. BELIEVED PRESENT	B. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE		C. LONG TERM AVERAGE VALUE		D. NO. OF ANALYSES	A. CONCENTRATION	B. MASS	
			CONCENTRATION	MASS	CONCENTRATION	MASS	CONCENTRATION	MASS				
Subpart 1 – Conventional and Non-Conventional Pollutants (Continued)												
G. <i>E. coli</i>		X										
H. Fluoride (16984-48-8)		X										
I. Nitrate plus Nitrate (as N)		X										
J. Kjeldahl, Total (as N)		X										
K. Nitrogen, Total Organic (as N)		X										
L. Oil and Grease	X		< 6						1	mg/L	lbs	
M. Phenols, Total	X		< 0.022						1	mg/L	lbs	
N. Phosphorus (as P), Total (7723-14-0)		X										
O. Sulfate (as SO ₄) (14808-79-8)	X		56	304					1	mg/L	lbs	
P. Sulfide (as S)		X										
Q. Sulfite (as SO ₃) (14265-45-3)		X										
R. Surfactants		X										
S. Trihalomethanes, Total		X										
Subpart 2 – Metals												
1M. Aluminum, Total Recoverable (7429-90-5)	X		7.63	41.5					1	mg/L	lbs	
2M. Antimony, Total Recoverable (7440-36-9)	X		0.0014	0.0076					1	mg/L	lbs	
3M. Arsenic, Total Recoverable (7440-38-2)	X		0.0066	0.036					1	mg/L	lbs	
4M. Barium, Total Recoverable (7440-39-3)	X		0.168	0.9134					1	mg/L	lbs	
5M. Beryllium, Total Recoverable (7440-41-7)	X		< 0.0005						1	mg/L	lbs	
6M. Boron, Total Recoverable (7440-42-8)		X										
7M. Cadmium, Total Recoverable (7440-43-9)	X		0.0001	0.0005					1	mg/L	lbs	
8M. Chromium III Total Recoverable (16065-83-1)	X		< 0.005						1	mg/L	lbs	
9M. Chromium VI, Dissolved (18540-29-9)	X		0.0005	0.0027					1	mg/L	lbs	
10M. Cobalt, Total Recoverable (7440-48-4)		X										

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X"		3. VALUES						4. UNITS		
	A. BELIEVED PRESENT	B. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE		C. LONG TERM AVERAGE VALUE		D. NO. OF ANALYSES	A. CONCENTRATION	B. MASS
			CONCENTRATION	MASS	CONCENTRATION	MASS	CONCENTRATION	MASS			
Subpart 2 – Metals (Continued)											
11M. Copper, Total Recoverable (7440-50-8)	X		0.0419	0.228					1	mg/L	lbs
12M. Iron, Total Recoverable (7439-89-6)	X		11.2	60.9					1	mg/L	lbs
13M. Lead, Total Recoverable (7439-92-1)	X		0.0013	0.007					1	mg/L	lbs
14M. Magnesium, Total Recoverable (7439-95-4)		X									
15M. Manganese, Total Recoverable (7439-96-5)		X									
16M. Mercury, Total Recoverable (7439-97-6)	X		< 0.0002						1	mg/L	lbs
17M. Methylmercury (22967926)		X									
18M. Molybdenum, Total Recoverable (7439-98-7)		X									
19M. Nickel, Total Recoverable (7440-02-0)	X		0.0046	0.025					1	mg/L	lbs
20M. Selenium, Total Recoverable (7782-49-2)	X		0.003	0.0163					1	mg/L	lbs
21M. Silver, Total Recoverable (7440-22-4)		X									
22M. Thallium, Total Recoverable (7440-28-0)	X		0.0005	0.0027					1	mg/L	lbs
23M. Tin, Total Recoverable (7440-31-5)		X									
24M. Titanium, Total Recoverable (7440-32-6)		X									
25M. Zinc, Total Recoverable (7440-66-6)	X		0.181	0.984					1	mg/L	lbs
Subpart 3 – Radioactivity											
1R. Alpha Total	X		7.89	19457896					1	pCi/L	pCi
2R. Beta Total	X		9.70	23921622					1	pCi/L	pCi
3R. Radium Total	X		0.619	1526545					1	pCi/L	pCi
4R. Radium 226 plus 228 Total	X		0.982	2421756					1	pCi/L	pCi

SEE INSTRUCTIONS; PLEASE PRINT OR TYPE.

You may report some or all of this information on separate sheet (use similar format) instead of completing these pages.

FORM C TABLE 1 FOR 3.0 - ITEMS A AND B

EFFLUENT (AND INTAKE) CHARACTERISTICS										OUTFALL NO. 008	
3.0 PART A – You must provide the results of at least one analysis for every pollutant in Part A. Complete one table for each outfall or proposed outfall. See instructions.											
1. POLLUTANT	2. VALUES						3. UNITS (specify if blank)				
	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUES		C. LONG TERM AVERAGE VALUES		D. NO. OF ANALYSES	A. CONCENTRATION	B. MASS		
	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS					
A. Biochemical Oxygen Demand, 5-day (BOD ₅)	n/a	n/a									
B. Chemical Oxygen Demand (COD)	n/a	n/a									
C. Total Organic Carbon (TOC)	n/a	n/a									
D. Total Suspended Solids (TSS)	n/a	n/a									
E. Ammonia as N	n/a	n/a									
F. Flow	VALUE	n/a	VALUE			VALUE				MILLIONS OF GALLONS PER DAY (MGD)	
G. Temperature (winter)	VALUE	n/a	VALUE			VALUE				°F	
H. Temperature (summer)	VALUE	n/a	VALUE			VALUE				°F	
I. pH	MINIMUM	n/a	MAXIMUM	n/a		AVERAGE				STANDARD UNITS (SU)	
3.0 PART B – Mark "X" in column 2A for each pollutant you know or have reason to believe is present. Mark "X" in column 2B for each pollutant you believe to be absent. If you mark Column 2A for any pollutant, you must provide the results for at least one analysis for the pollutant. Complete one table for each outfall (intake). Provide results for additional parameters not listed here in Part 3.0 C.											
1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X"		3. VALUES						4. UNITS		
	A. BELIEVED PRESENT	B. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUES		C. LONG TERM AVERAGE VALUES		D. NO. OF ANALYSES	A. CONCENTRATION	B. MASS
			CONCENTRATION	MASS	CONCENTRATION	MASS	CONCENTRATION	MASS			
Subpart 1 – Conventional and Non-Conventional Pollutants											
A. Alkalinity (CaCO ₃)		X	MINIMUM			MINIMUM					
B. Bromide (24959-67-9)		X									
C. Chloride (16887-00-6)		X									
D. Chlorine, Total Residual		X									
E. Color		X									
F. Conductivity		X									
F. Cyanide, Amenable to Chlorination		X									

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X"		3. VALUES						4. UNITS		
	A. BELIEVED PRESENT	B. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE		C. LONG TERM AVERAGE VALUE		D. NO. OF ANALYSES	A. CONCENTRATION	B. MASS
			CONCENTRATION	MASS	CONCENTRATION	MASS	CONCENTRATION	MASS			
Subpart 1 – Conventional and Non-Conventional Pollutants (Continued)											
G. <i>E. coli</i>		X									
H. Fluoride (16984-48-8)		X									
I. Nitrate plus Nitrate (as N)		X									
J. Kjeldahl, Total (as N)		X									
K. Nitrogen, Total Organic (as N)		X									
L. Oil and Grease		X									
M. Phenols, Total		X									
N. Phosphorus (as P), Total (7723-14-0)		X									
O. Sulfate (as SO ₄) (14808-79-8)		X									
P. Sulfide (as S)		X									
Q. Sulfite (as SO ₃) (14265-45-3)		X									
R. Surfactants		X									
S. Trihalomethanes, Total		X									
Subpart 2 – Metals											
1M. Aluminum, Total Recoverable (7429-90-5)		X									
2M. Antimony, Total Recoverable (7440-36-9)		X									
3M. Arsenic, Total Recoverable (7440-38-2)		X									
4M. Barium, Total Recoverable (7440-39-3)		X									
5M. Beryllium, Total Recoverable (7440-41-7)		X									
6M. Boron, Total Recoverable (7440-42-8)		X									
7M. Cadmium, Total Recoverable (7440-43-9)		X									
8M. Chromium III Total Recoverable (16065-83-1)		X									
9M. Chromium VI, Dissolved (18540-29-9)		X									
10M. Cobalt, Total Recoverable (7440-48-4)		X									

1. POLLUTANT AND GAS NUMBER (if available)	2. MARK "X"		3. VALUES						4. UNITS		
	A. BELIEVED PRESENT	B. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE		C. LONG TERM AVERAGE VALUE		D. NO. OF ANALYSES	A. CONCENTRATION	B. MASS
			CONCENTRATION	MASS	CONCENTRATION	MASS	CONCENTRATION	MASS			
Subpart 2 – Metals (Continued)											
11M. Copper, Total Recoverable (7440-50-8)		X									
12M. Iron, Total Recoverable (7439-89-6)		X									
13M. Lead, Total Recoverable (7439-92-1)		X									
14M. Magnesium, Total Recoverable (7439-95-4)		X									
15M. Manganese, Total Recoverable (7439-96-5)		X									
16M. Mercury, Total Recoverable (7439-97-6)		X									
17M. Methylmercury (22967926)		X									
18M. Molybdenum, Total Recoverable (7439-98-7)		X									
19M. Nickel, Total Recoverable (7440-02-0)		X									
20M. Selenium, Total Recoverable (7782-49-2)		X									
21M. Silver, Total Recoverable (7440-22-4)		X									
22M. Thallium, Total Recoverable (7440-28-0)		X									
23M. Tin, Total Recoverable (7440-31-5)		X									
24M. Titanium, Total Recoverable (7440-32-6)		X									
25M. Zinc, Total Recoverable (7440-66-6)		X									
Subpart 3 – Radioactivity											
1R. Alpha Total		X									
2R. Beta Total		X									
3R. Radium Total		X									
4R. Radium 226 plus 228 Total		X									

SEE INSTRUCTIONS; PLEASE PRINT OR TYPE.

You may report some or all of this information on separate sheet (use similar format) instead of completing these pages.

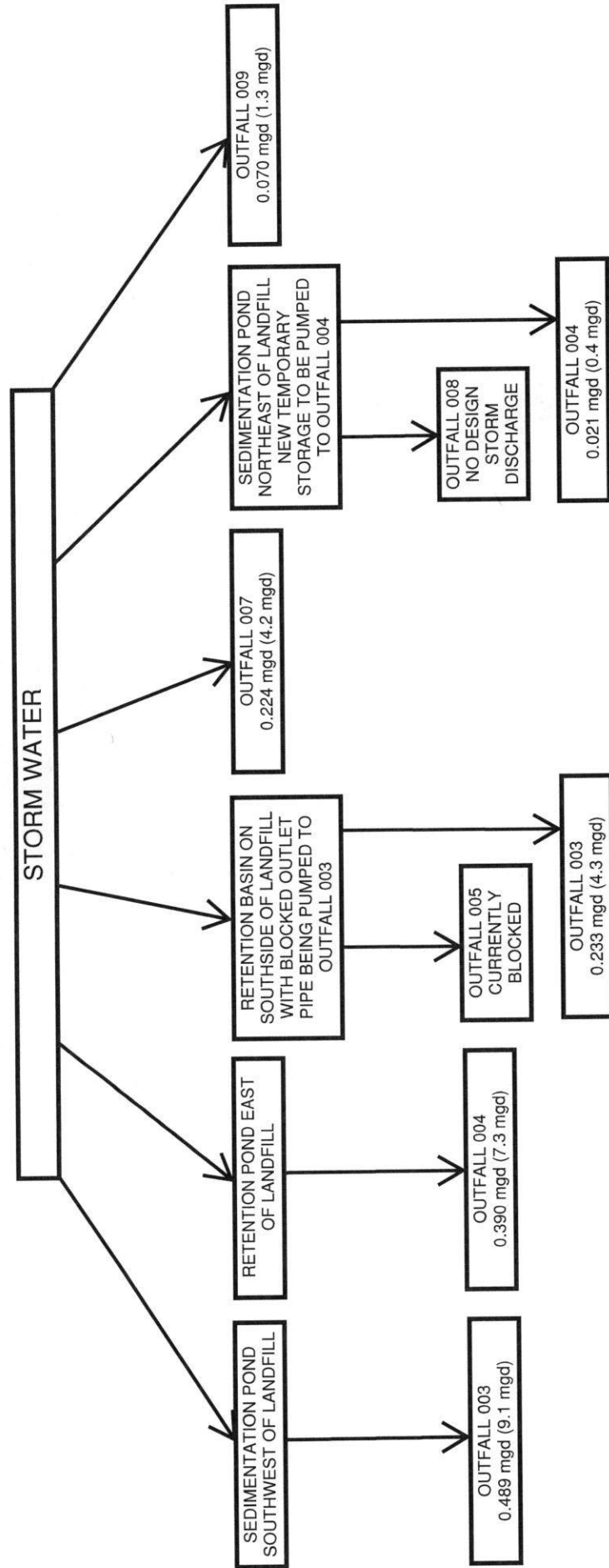
FORM C TABLE 1 FOR 3.0 - ITEMS A AND B

EFFLUENT (AND INTAKE) CHARACTERISTICS										OUTFALL NO. 009	
3.0 PART A - You must provide the results of at least one analysis for every pollutant in Part A. Complete one table for each outfall or proposed outfall. See instructions.											
1. POLLUTANT	2. VALUES				3. UNITS (specify if blank)						
	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUES		C. LONG TERM AVERAGE VALUES		D. NO. OF ANALYSES	A. CONCENTRATION	B. MASS		
	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS					
A. Biochemical Oxygen Demand, 5-day (BOD ₅)	< 5	< 0.06					1	mg/L	lbs		
B. Chemical Oxygen Demand (COD)	76	0.91					1	mg/L	lbs		
C. Total Organic Carbon (TOC)	n/a	n/a									
D. Total Suspended Solids (TSS)	10	0.12					1	mg/L	lbs		
E. Ammonia as N	0.04	0.0005					1	mg/L	lbs		
F. Flow	VALUE 0.00144		VALUE		VALUE		1	MILLIONS OF GALLONS PER DAY (MGD)			
G. Temperature (winter)	VALUE 33		VALUE		VALUE			°F			
H. Temperature (summer)	VALUE n/a		VALUE		VALUE			°F			
I. pH	MINIMUM 7.38		MAXIMUM 7.38		AVERAGE			STANDARD UNITS (SU)			
3.0 PART B - Mark "X" in column 2A for each pollutant you know or have reason to believe is present. Mark "X" in column 2B for each pollutant you believe to be absent. If you mark Column 2A for any pollutant, you must provide the results for at least one analysis for the pollutant. Complete one table for each outfall (intake). Provide results for additional parameters not listed here in Part 3.0 C.											
1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X"		3. VALUES				4. UNITS				
	A. BELIEVED PRESENT	B. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUES		C. LONG TERM AVERAGE VALUES		D. NO. OF ANALYSES	A. CONCENTRATION	B. MASS
			CONCENTRATION	MASS	CONCENTRATION	MASS	CONCENTRATION	MASS			
Subpart 1 - Conventional and Non-Conventional Pollutants											
A. Alkalinity (CaCO ₃)		X	MINIMUM				MINIMUM				
B. Bromide (24959-67-9)		X									
C. Chloride (16887-00-6)	X		2	0.024					1	mg/L	lbs
D. Chlorine, Total Residual		X									
E. Color		X									
F. Conductivity		X									
F. Cyanide, Amenable to Chlorination		X									

1. POLLUTANT AND CAS NUMBER (if available)		2. MARK "X"		3. VALUES						4. UNITS			
		A. BELIEVED PRESENT	B. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE		C. LONG TERM AVERAGE VALUE		D. NO. OF ANALYSES	A. CONCENTRATION	B. MASS	
				CONCENTRATION	MASS	CONCENTRATION	MASS	CONCENTRATION	MASS				
Subpart 1 – Conventional and Non-Conventional Pollutants (Continued)													
G. <i>E. coli</i>			X										
H. Fluoride (16984-48-8)			X										
I. Nitrate plus Nitrate (as N)			X										
J. Kjeldahl, Total (as N)			X										
K. Nitrogen, Total Organic (as N)			X										
L. Oil and Grease		X		3	0.036					1	mg/L		lbs
M. Phenols, Total		X		< 0.004						1	mg/L		lbs
N. Phosphorus (as P), Total (7723-14-0)			X										
O. Sulfate (as SO ⁴) (14808-79-8)		X		61	0.733					1	mg/L		lbs
P. Sulfide (as S)			X										
Q. Sulfite (as SO ³) (14265-45-3)			X										
R. Surfactants			X										
S. Trihalomethanes, Total			X										
Subpart 2 – Metals													
1M. Aluminum, Total Recoverable (7429-90-5)		X		1.3	0.0156					1	mg/L		lbs
2M. Antimony, Total Recoverable (7440-36-9)		X		0.0009	0.00001					1	mg/L		lbs
3M. Arsenic, Total Recoverable (7440-38-2)		X		0.002	0.00002					1	mg/L		lbs
4M. Barium, Total Recoverable (7440-39-3)		X		0.0777	0.00093					1	mg/L		lbs
5M. Beryllium, Total Recoverable (7440-41-7)		X		< 0.0005						1	mg/L		lbs
6M. Boron, Total Recoverable (7440-42-8)			X										
7M. Cadmium, Total Recoverable (7440-43-9)		X		< 0.001						1	mg/L		lbs
8M. Chromium III Total Recoverable (16065-83-1)		X		< 0.005						1	mg/L		lbs
9M. Chromium VI, Dissolved (18540-29-9)		X		0.00037	0.000004					1	mg/L		lbs
10M. Cobalt, Total Recoverable (7440-48-4)		X		< 0.005						1	mg/L		lbs

1. POLLUTANT AND GAS NUMBER (if available)	2. MARK "X"		3. VALUES						4. UNITS			
	A. BELIEVED PRESENT	B. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE		C. LONG TERM AVERAGE VALUE		D. NO. OF ANALYSES	A. CONCENTRATION	B. MASS	
			CONCENTRATION	MASS	CONCENTRATION	MASS	CONCENTRATION	MASS				
Subpart 2 – Metals (Continued)												
11M. Copper, Total Recoverable (7440-50-8)	X		0.005	0.00006					1	mg/L	lbs	
12M. Iron, Total Recoverable (7439-89-6)	X		1.37	0.016					1	mg/L	lbs	
13M. Lead, Total Recoverable (7439-92-1)	X		0.0018	0.00002					1	mg/L	lbs	
14M. Magnesium, Total Recoverable (7439-95-4)		X										
15M. Manganese, Total Recoverable (7439-96-5)		X										
16M. Mercury, Total Recoverable (7439-97-6)	X		< 0.0002						1	mg/L	lbs	
17M. Methylmercury (22967926)		X										
18M. Molybdenum, Total Recoverable (7439-98-7)		X										
19M. Nickel, Total Recoverable (7440-02-0)	X		0.0034	0.00004					1	mg/L	lbs	
20M. Selenium, Total Recoverable (7782-49-2)	X		< 0.001						1	mg/L	lbs	
21M. Silver, Total Recoverable (7440-22-4)	X		< 0.007									
22M. Thallium, Total Recoverable (7440-28-0)	X		< 0.0008						1	mg/L	lbs	
23M. Tin, Total Recoverable (7440-31-5)		X										
24M. Titanium, Total Recoverable (7440-32-6)		X										
25M. Zinc, Total Recoverable (7440-66-6)	X		0.0337	0.0004					1	mg/L	lbs	
Subpart 3 – Radioactivity												
1R. Alpha Total	X		1.32	7195					1	pCi/L	pCi	
2R. Beta Total	X		5.57	30362					1	pCi/L	pCi	
3R. Radium Total	X		< 0.471						1	pCi/L	pCi	
4R. Radium 226 plus 228 Total	X		< 0.471						1	pCi/L	pCi	

FIGURE 3 - FORM C SECTION 2.0 LINE DRAWING



Average flow: Rational Method using annual rainfall for STL Lambert Airport, Rainfall = 0.3 in/day with C=0.8
 (Max flow): Rational Method, Rainfall = 5.6 in/day (25 year, 24 hour storm event) with C=0.8

FORM C – SECTION 3.2 SUPPLEMENTAL

CONTRACT ANALYSIS INFORMATION

Pollutants Analyzed

All Outfalls

Biochemical Oxygen Demand (BOD)

Chemical Oxygen Demand (COD)

Oil & Grease

pH

Settleable Solids

Aluminum

Antimony

Arsenic

Beryllium

Cadmium

Chromium III

Chromium IV

Cobalt

Copper

Iron

Lead

Mercury

Nickel

Selenium

Silver

Thallium

Zinc

Ammonia-N

Benzene

Chloride + Sulfate

Terpineol

Benzoic Acid

Cresol

Phenol

Total Suspended Solids (TSS)

Outfalls 007, 008 & 009 Only

Barium

Gross Alpha

Beta Particle and Photon Radioactivity (Gross Beta)

Radium-226 + Radium-228

Radium-226

Radium-228

Thorium-230

Thorium-232

Uranium

FORM C – SECTION 4.1 SUPPLEMENTAL

BEST MANAGEMENT PRACTICES

Outfall Number	Total Area Drained (Ac)	Types of Surfaces	Best Management Practices (BMPs)	Flow Measured
003	75.7	40% Vegetated 45% Lined Cell 15% Paved	Perimeter channels, filter socks, retention pond	Grab sample
004	66.2	40% Vegetated 20% Lined Cell 40% Paved	Perimeter channels, filter socks, retention pond	Grab sample
005	36.0	55% Vegetated 45% Lined Cell	Perimeter channels, filter socks. Current blocked and pumping flows to Outfall 003 retention pond	Grab sample
007	34.6	60% Vegetated 40% Paved	Perimeter channels, filter socks, sediment traps, hydrodynamic separator	Grab sample
008	3.3	50% Vegetated 50% Proposed Lined Cell	Perimeter channels and proposed lined detention pond to be pumped to Outfall 004 retention pond	Grab sample
009	10.8	100% Vegetated	Perimeter channels and filter socks	Grab sample

FORM C – SECTION 4.2 SUPPLEMENTAL

STORMWATER FLOW DATA

Stormwater flow measurements performed by Feezor Engineering:

Outfall Number	Storm Event Date	Storm Duration (hours)	Precipitation (Inches)	Flow Rate (MGD)
003	01/10/2020	24	2.14	0.164413
004	01/10/2020	24	2.14	4.886156
005	01/10/2020	24	2.14	0 (being pumped to Outfall 003)
007	01/10/2020	24	2.14	0.651487
008	01/10/2020	24	2.14	0 (no discharge)
009	01/11/2020	24	0.79	0.00144

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Water Protection Program

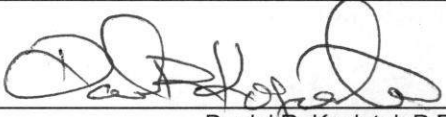
 Civil & Environmental Consultants, Inc. 4848 Park 370 Blvd. Suite F Hazelwood, MO 63042 Phone: (314) 656-4566 · Toll Free: (866) 250-3679 Fax: (314) 656-4595	Letter of Transmittal	
	Date: 3/30/2020	Job No.: 180-128
	Attention: Chris Wieberg	
To: Missouri Department of Natural Resources P.O. Box 176 Jefferson City, MO 65102	RE: Bridgeton Landfill - NPDES Permit Renewal Application	

We are sending you attached via FedEx Priority the following items:

- ☐ Shop drawings ☐ Prints ☐ Plans ☐ Samples ☐ Specifications
☐ Copy of letter ☐ Change order ☒ Application

Copies	Date	No.	Description
1	03/30/2020	3	Cover Letter
1	03/30/2020	5	MDNR Form A and Supplemental Info and Figures
1	03/30/2020	26	MDNR Form C and Supplemental Info

- ☒ For approval ☐ Approved as submitted ☐ Resubmit _ copies for approval
☐ For your use ☐ Approved as noted ☐ Submit _ copies for distribution
☐ As requested ☐ Returned for corrections ☐ Return _ prints
☐ For review and comment ☐ _
☐ For bids due ☐ Prints returned after loan to us

Remarks: Application and cover letter being sent on behalf of Bridgeton Landfill, LLC		
Copy to:	<u>Erin Fanning - Bridgeton Landfill</u>	Signed:  Daniel R. Koziatek P.E.

