

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 R.S. Mo. as amended, hereinafter, the Law), and the Federal Water Pollution Control Act (Public Law 92-500, 92nd Congress) as amended,

Permit No. MO-0111996

Owner: Meridian Land Company, LLC
Address: 12540 Broadwell Road, Suite 2104, Milton, GA, 30004

Continuing Authority: Same as above
Address: Same as above

Facility Name: Eagle Ridge Landfill
Address: 13100 Highway VV, Bowling Green, MO 63334

Legal Description: See page 2

Receiving Stream: Tributary to Gailey Branch
First Classified Stream and ID: Tributary to Gailey Branch (8-20-13 MUDD V 1.0) (C) (3960)
USGS Basin & Sub-watershed No.: (07110007-0401)

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

FACILITY DESCRIPTION

See page 2.

Leachate cannot be discharged. Stormwater that has come into contact with leachate is considered leachate and cannot be discharged. Leachate and stormwater that 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 Program (if applicable).

This permit authorizes only wastewater discharges under the Missouri Clean Water Law and the National Pollutant Discharge Elimination System; it does not apply to other regulated areas. This permit may be appealed in accordance with Section 644.051.6 of the Law.

February 1, 2016 June 20, 2016
Effective Date Modification Date


Sara Parker Pauley, Director, Department of Natural Resources

December 31, 2020
Expiration Date


John Madras, Director, Water Protection Program

FACILITY DESCRIPTION (continued)

Outfall #001 – Active Landfill - SIC #4953

Storm water runoff (North storm water detention pond)

Design flow is 2.11 MGD, based upon 1-in-10-year, 24-hour event.

Actual flow is dependent upon precipitation.

Legal Description: SW ¼, NW ¼, Sec. 2, T53N, R3W, Pike County

UTM Coordinates: X= 653768, Y=4362586

Outfall #002 – Active Landfill - SIC #4953

Storm water runoff (South storm water detention pond)

Design flow is 2.44 MGD, based upon 1-in-10-year, 24-hour event.

Actual flow is dependent upon precipitation.

Legal Description: NE ¼, SW ¼, Sec. 2, T53N, R3W, Pike County

UTM Coordinates: X= 653891, Y= 4361910

Outfall #003 – Active Landfill - SIC #4953

Storm water runoff

Design flow is 1.4 MGD, based upon 1-in-10-year 24-hour event.

Average flow is dependent upon precipitation.

Legal Description: NE ¼, SE ¼, Sec. 2, T53N, R3W, Pike County

UTM Coordinates: X= 654664, Y= 4362122

Outfall #004 – Active Landfill - SIC #4953 – eliminated

Storm water runoff

Design flow is 0.21 MGD, based upon 1-in-10-year 24-hour event.

Average flow is dependent upon precipitation.

Legal Description: SW ¼, NW ¼, Sec. 2, T53N, R3W, Pike County

UTM Coordinates: X=653814, Y=4362201

Outfall #005 – Deleted

The Leachate holding pond is to be handled in accordance with the Solid Waste Disposal Area Operating Permit, Report of Approval of Plans and Specifications (with conditions). No discharge is authorized by the Water Pollution Control Branch.

Outfall #006 - Deleted

The Leachate holding pond is to be handled in accordance with the Solid Waste Disposal Area Operating Permit, Report of Approval of Plans and Specifications (with conditions). No discharge is authorized by the Water Pollution Control Branch.

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 **February 1, 2016**. Such discharges shall be controlled, limited and monitored by the permittee as specified below:

EFFLUENT PARAMETER(S) (Note 1, Note 2, Note 3, Page 6)	UNITS	FINAL EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS	
		DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MEASUREMENT FREQUENCY	SAMPLE TYPE
Flow	MGD	*		*	once/quarter***	24 hr. estimate
Precipitation	inches	*		*	daily	measurement
Biochemical Oxygen Demand ₅	mg/L	45		30	once/quarter***	grab
Chemical Oxygen Demand	mg/L	90		60	once/quarter***	grab
Total Suspended Solids	mg/L	80		60	once/quarter***	grab
pH – Units	SU	**		**	once/quarter***	grab
Total Hardness	mg/L	*		*	once/quarter***	grab
Settleable Solids	ml/L/hr	1.5		1.0	once/quarter***	grab
Ammonia as N	mg/L	*		*	once/quarter***	grab
Oil & Grease	mg/L	15		10	once/quarter***	grab
Chloride	mg/L	*			once/quarter***	grab
Chloride + Sulfate	mg/L	1000			once/quarter***	grab
Benzene	µg/L	*			once/quarter***	grab
Ethylbenzene	µg/L	*			once/quarter***	grab
Toluene	µg/L	*			once/quarter***	grab
Antimony, Total Recoverable	µg/L	*			once/quarter***	grab
Aluminum, Total Recoverable	µg/L	750			once/quarter***	grab
Arsenic, Total Recoverable	µg/L	*			once/quarter***	grab
Beryllium, Total Recoverable	µg/L	*			once/quarter***	grab
Cadmium, Total Recoverable	µg/L	*			once/quarter***	grab
Chromium (VI), Dissolved	µg/L	*			once/quarter***	grab
Iron, Total Recoverable	µg/L	*			once/quarter***	grab
Lead, Total Recoverable	µg/L	*			once/quarter***	grab
Selenium, Total Recoverable	µg/L	*			once/quarter***	grab
Silver, Total Recoverable	µg/L	4.4			once/quarter***	grab
Thallium, Total Recoverable	µg/L	*			once/quarter***	grab

MONITORING REPORTS SHALL BE SUBMITTED QUARTERLY; THE FIRST REPORT IS DUE APRIL 28, 2016. THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

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 **February 1, 2016**. Such discharges shall be controlled, limited and monitored by the permittee as specified below:

EFFLUENT PARAMETER(S) (Note 1, Note 2, Note 3, Page 6)	UNITS	FINAL EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS	
		DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MEASUREMENT FREQUENCY	SAMPLE TYPE
Chromium (III), Total Recoverable	µg/L	*			once/year grab	
Copper, Total Recoverable	µg/L	*			once/year grab	
Mercury, Total Recoverable	µg/L	*			once/year grab	
Nickel, Total Recoverable	µg/L	*			once/year grab	
Zinc, Total Recoverable	µg/L	*			once/year grab	

MONITORING REPORTS SHALL BE SUBMITTED ANNUALLY; THE FIRST REPORT IS DUE OCTOBER 28, 2016. THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

OUTFALL #003	TABLE A-1. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS				Page 5 of 10 Permit Mo-0111996	
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 upon issuance. Such discharges shall be controlled, limited and monitored by the permittee as specified below:						
EFFLUENT PARAMETER(S) (Note 1, Note 2, Page 6)	UNITS	FINAL EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS	
		DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MEASUREMENT FREQUENCY	SAMPLE TYPE
Flow	MGD	*		*	once/quarter***	24 hr. estimate
Precipitation	inches	*		*	daily	measurement
Biochemical Oxygen Demand ₅	mg/L	45		30	once/quarter***	grab
Chemical Oxygen Demand	mg/L	90		60	once/quarter***	grab
Total Suspended Solids	mg/L	80		60	once/quarter***	grab
pH – Units	SU	**		**	once/quarter***	grab
Total Hardness	mg/L	*		*	once/quarter***	grab
Settleable Solids	ml/L/hr	1.5		1.0	once/quarter***	grab
Ammonia as N	mg/L	*		*	once/quarter***	grab
Oil & Grease	mg/L	15		10	once/quarter***	grab
Chloride	mg/L	*			once/quarter***	grab
Chloride + Sulfate	mg/L	1000			once/quarter***	grab
Benzene	µg/L	*			once/quarter***	grab
Ethlybenzene	µg/L	*			once/quarter***	grab
Toluene	µg/L	*			once/quarter***	grab
Antimony, Total Recoverable	µg/L	*			once/quarter***	grab
Aluminum, Total Recoverable	µg/L	*			once/quarter***	grab
Arsenic, Total Recoverable	µg/L	*			once/quarter***	grab
Beryllium, Total Recoverable	µg/L	*			once/quarter***	grab
Cadmium, Total Recoverable	µg/L	*			once/quarter***	grab
Iron, Total Recoverable	µg/L	*			once/quarter***	grab
Lead, Total Recoverable	µg/L	*			once/quarter***	grab
Selenium, Total Recoverable	µg/L	*			once/quarter***	grab
Silver, Total Recoverable	µg/L	4.4			once/quarter***	grab
Thallium, Total Recoverable	µg/L	*			once/quarter***	grab

MONITORING REPORTS SHALL BE SUBMITTED QUARTERLY; THE FIRST REPORT IS DUE APRIL 28, 2016.
THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

OUTFALL #003	TABLE A--1. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS			Page 6 of 10 Permit Mo-0111996		
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 upon issuance. Such discharges shall be controlled, limited and monitored by the permittee as specified below:						
EFFLUENT PARAMETER(S) (Note 1, Note 2, Page 6)	UNITS	FINAL EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS	
		DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MEASUREMENT FREQUENCY	SAMPLE TYPE
Chromium (VI), Dissolved	µg/L	*			once/year	grab
Chromium (III), Total Recoverable	µg/L	*			once/year	grab
Copper, Total Recoverable	µg/L	*			once/year	grab
Mercury, Total Recoverable	µg/L	*			once/year	grab
Nickel, Total Recoverable	µg/L	*			once/year	grab
Zinc, Total Recoverable	µg/L	*			once/year	grab
MONITORING REPORTS SHALL BE SUBMITTED <u>ANNUALLY</u> ; THE FIRST REPORT IS DUE <u>OCTOBER 28, 2016</u> . THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.						

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (continued)

Note 1 – All samples shall be collected from a discharge resulting from a precipitation event greater than 0.1 inches in magnitude and that occurs at least 72 hours from the previously measurable precipitation event. If a precipitation event does not occur within the reporting period, report as **no discharge**.

Note 2 - This parameter incorporates a Benchmark Value associated with Best Management Practices (BMPs). See Special Condition #10 for Benchmark Value.

Note 3 -Since the storm water basins have valves to control discharge, samples shall be collected during the first discharge of the quarter. An additional sample shall be collected any time either basin overflows the emergency outlet. Flow shall be estimated once per month during a discharge event. If a discharge does not occur within the reporting period, report as no discharge on the submitted discharge monitoring report.

* Monitoring requirement only.

** pH is measured in pH units and is not to be averaged. The pH is limited to the range of 6.5-9.0 pH units.

*** See table below for quarterly sampling.

Minimum Sampling Requirements			
Quarter	Months	Influent 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 28th
Third	July, August, September	Sample at least once during any month of the quarter	October 28th
Fourth	October, November, December	Sample at least once during any month of the quarter	January 28th

For the annual samples, sampling shall occur a minimum of once per year in the period of May through September. Monitoring reports shall be submitted no later than October 28th.

B. 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.

C. SPECIAL CONDITIONS (Con't)

1. This permit may be reopened and modified, or alternatively revoked and reissued, to:
 - (a) Comply with any applicable effluent standard or limitation issued or approved under Sections 301(b)(2)(C) and (D), 304(b)(2), and 307(a) (2) of the Clean Water Act, if the effluent standard or limitation so issued or approved:
 - (1) contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or
 - (2) controls any pollutant not limited in the permit.
 - (b) Incorporate new or modified effluent limitations or other conditions, if the result of a waste load allocation study, toxicity test or other information indicates changes are necessary to assure compliance with Missouri's Water Quality Standards.
 - (c) Incorporate new or modified effluent limitations or other conditions if, as the result of a watershed analysis, a Total Maximum Daily Load (TMDL) limitation is developed for the receiving waters which are currently included in Missouri's list of waters of the state not fully achieving the state's water quality standards, also called the 303(d) list.

The permit as modified or reissued under this paragraph shall also contain any other requirements of the Clean Water Act then applicable.
2. All outfalls must be clearly marked in the field.
3. Water Quality Standards
 - (a) To the extent required by law, Discharges to waters of the state shall not cause a violation of water quality standards rule under 10 CSR 20-7.031, including both specific and general criteria.
 - (b) General Criteria. The following general water quality criteria shall be applicable to all waters of the state at all times including mixing zones. No water contaminant, by itself or in combination with other substances, shall prevent the waters of the state from meeting the following conditions:
 - (1) Waters shall be free from substances in sufficient amounts to cause the formation of putrescent, unsightly or harmful bottom deposits or prevent full maintenance of beneficial uses;
 - (2) Waters shall be free from oil, scum and floating debris in sufficient amounts to be unsightly or prevent full maintenance of beneficial uses;
 - (3) Waters shall be free from substances in sufficient amounts to cause unsightly color or turbidity, offensive odor or prevent full maintenance of beneficial uses;
 - (4) Waters shall be free from substances or conditions in sufficient amounts to result in toxicity to human, animal or aquatic life;
 - (5) There shall be no significant human health hazard from incidental contact with the water;
 - (6) There shall be no acute toxicity to livestock or wildlife watering;
 - (7) Waters shall be free from physical, chemical or hydrologic changes that would impair the natural biological community;
 - (8) Waters shall be free from used tires, car bodies, appliances, demolition debris, used vehicles or equipment and solid waste as defined in Missouri's Solid Waste Law, section 260.200, RSMo, except as the use of such materials is specifically permitted pursuant to section 260.200-260.247.
4. Changes in Discharges of Toxic Substances
The permittee shall notify the Director as soon as it knows or has reason to believe:
 - (a) That any activity has occurred or will occur which would result in the discharge 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; five hundred micrograms per liter (500 µg/L) for 2,5 dinitrophenol and for 2-methyl-4, 6-dinitrophenol; and one milligram per liter (1 mg/L) for antimony;
 - (3) Five (5) times the maximum concentration value reported for the pollutant in the permit application;
 - (4) The level established by the Director in accordance with 40 CFR 122.44(f).
 - (b) That they have begun or expect to begin to use or manufacture as an intermediate or final product or byproduct any toxic pollutant, which was not reported in the permit application.
5. Report as no-discharge when a discharge does not occur during the report period.

C. SPECIAL CONDITIONS (con't)

6. Reporting of Non-Detects:
 - (a) An analysis conducted by the permittee or their contracted laboratory shall be conducted in such a way that the precision and accuracy of the analyzed result can be enumerated.
 - (b) The permittee shall not report a sample result as "Non-Detect" without also reporting the detection limit of the test. Reporting as "Non Detect" without also including the detection limit will be considered failure to report, which is a violation of this permit.
 - (c) The permittee shall provide the "Non-Detect" sample result using the less than sign and the minimum detection limit (e.g. <10).
 - (d) Where the permit contains a Minimum Level (ML) and the permittee is granted authority in the permit to report zero in lieu of the < ML for a specified parameter (conventional, priority pollutants, metals, etc.), then zero (0) is to be reported for that parameter.
 - (e) See Standard Conditions Part I, Section A, #4 regarding proper detection limits used for sample analysis.

7. The permittee shall implement a Stormwater Pollution Prevention Plan (SWPPP). The SWPPP must be prepared and implemented upon permit issuance. 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, if needed, every five (5) years or as site conditions 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 the following document:

Developing Your Stormwater Pollution Prevention Plan, A Guide for Industrial Operators,
(Document number EPA 833-B-09-002) published by the United States Environmental Protection Agency (USEPA) in February 2009. The SWPPP must include the following:

 1. A listing of specific Best Management Practices (BMPs) and a narrative explaining how BMPs will be implemented to control and minimize the amount of potential contaminants that may enter stormwater. The BMPs at the facility should be designed to meet this value during rainfall event up to the 10 year, 24 hour rain event.
 2. The SWPPP must include a schedule for once per month site inspections and brief written reports. The inspection report must include weather information for the entire period since last inspection, as well as observations and evaluations of BMP effectiveness. Deficiencies must be corrected within seven (7) days and the actions taken to correct the deficiencies shall be included with the written report, including photographs. Any corrective measure that necessitates major construction may also need a construction permit. 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.
 3. A provision for designating an individual to be responsible for environmental matters.
 4. A provision for providing training to all personnel involved in material handling and storage, and housekeeping of maintenance and cleaning areas. Proof of training shall be submitted on request of the department.

8. Permittee shall adhere to the following minimum Best Management Practices (BMPs):
 1. Prevent the spillage or loss of fluids, oil, grease, fuel, etc. from vehicle maintenance, equipment cleaning, or warehouse activities and thereby prevent the contamination of storm water from these substances.
 2. Provide collection facilities and arrange for proper disposal of waste products including but not limited to petroleum waste products, and solvents.
 3. Store all paint, solvents, petroleum products and petroleum waste products (except fuels), and storage containers (such as drums, cans, or cartons) so that these materials are not exposed to storm water or provide other prescribed BMPs such as plastic lids and/or portable spill pans to prevent the commingling of storm water 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.
 4. Provide good housekeeping practices on the site to keep trash from entry into waters of the state.
 5. Provide sediment and erosion control sufficient to prevent or control sediment loss off of the property. This could include the use of straw bales, silt fences, or sediment basins, if needed, to comply with permit conditions.

9. The purpose of the SWPPP and the BMPs listed herein is the prevention of pollution of waters of the state. A deficiency of a BMP means it was not effective in preventing pollution [10 CSR 20-2.010(56)] of waters of the state, and corrective actions means the facility took steps to eliminate the deficiency.

C. SPECIAL CONDITIONS (con't)

10. The following Benchmark Value is considered necessary to protect existing water quality and should not be exceeded during discharges resulting from a precipitation event exceeding 0.1 inches during a 24 hour period. The BMPs at the facility should be designed to meet this value during rainfall event up to the 10 year, 24 hour rain event. The benchmark does not constitute numeric effluent limitations. **A benchmark exceedance alone, therefore, is not a permit violation.** If a sample exceeds a benchmark concentration a review of the facilities SWPPP and BMPs shall take place to determine whether any improvement or additional controls are needed to reduce that pollutant in the stormwater discharge. The facility may demonstrate via a Corrective Action Report that the benchmark value cannot be achieved through the application of BMPs representing the available technology and the benchmark is not feasible because no further pollutant reductions are technologically available and economically practicable and achievable in light of best industry practice. Upon concurrence with a Corrective Action report by the Department, the facility may return to normal quarterly reporting. This evaluation must be kept on file with the SWPPP. Failure to evaluate and improve BMPs to address a benchmark value exceedance is a permit violation.

Benchmark– Effluent Values Determination for Outfall #001

Parameter	Daily Maximum Benchmark*
Benzene	71 µg/L
Arsenic, Total Recoverable	20.0 µg/L
Selenium, Total Recoverable	5.0 µg/L
Beryllium, Total Recoverable	5.0 µg/L
Cadmium, Total Recoverable	5.4 µg/L
Iron, Total Recoverable	1000 µg/L
Lead, Total Recoverable	89.9 µg/L
Thallium, Total Recoverable	6.3 µg/L

Benchmark– Effluent Values Determination for Outfall #002

Parameter	Daily Maximum Benchmark*
Benzene	71 µg/L
Antimony, Total Recoverable	4.3 µg/L
Selenium, Total Recoverable	5.0 µg/L
Beryllium, Total Recoverable	5.0 µg/L
Cadmium, Total Recoverable	5.4 µg/L
Iron, Total Recoverable	1000 µg/L
Lead, Total Recoverable	89.9 µg/L
Thallium, Total Recoverable	6.3 µg/L

C. SPECIAL CONDITIONS (con't)

Benchmark– Effluent Values Determination for Outfall #003

Parameter	Daily Maximum Benchmark*
Arsenic, Total Recoverable	20 µg/L
Antimony, Total Recoverable	4.3 µg/L
Selenium, Total Recoverable	5.0 µg/L
Beryllium, Total Recoverable	5.0 µg/L
Cadmium, Total Recoverable	5.4 µg/L
Iron, Total Recoverable	1000 µg/L
Lead, Total Recoverable	89.9 µg/L
Thallium, Total Recoverable	6.3 µg/L

* **Because all the discharges are storm water related, only daily maximum values will be use. Water Quality Standards that are listed on 10 CSR 20-7.031 Table A are adapted in determining the benchmark values for the protection of downstream designated uses.**

Any time a benchmark exceedance occurs a Corrective Action Report (CAR) must be completed. A CAR is a document that records the efforts undertaken by the facility to improve BMPs to meet benchmarks in future samples. CARs must be retained with the SWPPP and 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 tangible progress towards achieving the benchmarks is a permit violation.

11. All fueling facilities present on the site shall adhere to applicable federal and state regulations concerning underground storage, above ground storage, and dispensers, including spill prevention, control and counter measures.
12. Release of a hazardous substance must be reported to the department in accordance with 10 CSR 24-3.010. A record of each reportable spill shall be retained with the SWPPP and made available to the department upon request

MISSOURI DEPARTMENT OF NATURAL RESOURCES
STATEMENT OF BASIS
MO-0111996
EAGLE RIDGE LANDFILL

This Statement of Basis (Statement) gives pertinent information regarding simple modification(s) to the above listed operating permit without the need for a public comment process.

A Statement is not an enforceable part of a Missouri State Operating Permit.

Part I – Facility Information

Facility Type: Landfill
Facility SIC Code(s): 4953

Facility Description:

Eagle Ridge Landfill is an active landfill. Storm water retention basins have been constructed at outfalls #001 and #002. These stormwater basins are directly under the leachate collection basins (no discharge). For Outfalls #001 and 002, storm water is collected from +/- 57.5 acres on the north side of the landfill and +/- 52.5 acres on the south side, respectively. Outfall #003 is an existing outfall to the east of the landfill and collects storm water from +/- 49 acres on the east side of the landfill. Outfalls 001, 002, 003 are primary discharge points for this landfill that receive active landfill water. The facility also has two leachate collection basins that do not discharge. Leachate basin near Outfall 001 collects leachate from the northern portion of the active fill area and basin near Outfall 002 collects leachate from areas in the southern portion of the fill area and is aerated. Leachate is hauled by tanker truck and discharged to the City of Louisiana. The landfill is regulated mainly under the Solid Waste Management Permit #0116304. No discharge of leachate is allowed.

Part II – Modification Rationale

This operating permit is hereby modified to reflect a change in ownership from Waste Corporation of Missouri, Inc. to Meridian Land Company LLC. The original fact sheet is retained with this modification for informational purposes.

No other changes were made at this time.

Part III – 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.

DATE OF STATEMENT OF BASIS: 06/10/2016

COMPLETED BY:

AMBERLY SCHULZ, ENVIRONMENTAL SPECIALIST
MISSOURI DEPARTMENT OF NATURAL RESOURCES
WATER PROTECTION PROGRAM
OPERATING PERMITS SECTION - INDUSTRIAL UNIT
(573) 751-8049
Amberly.schulz@dnr.mo.gov

MISSOURI DEPARTMENT OF NATURAL RESOURCES
FACT SHEET
INDUSTRIAL STORMWATER RUNOFF FROM LANDFILL ACTIVITIES
STANDARD INDUSTRIAL CLASSIFICATION (SIC): 4953
FOR THE PURPOSE OF RENEWAL
OF
MO-0111996
Eagle Ridge Landfill, LLC in Pike County

The Federal Water Pollution Control Act ("Clean Water Act" Section 402 Public Law 92-500 as amended) established the National Pollution 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 (MCWL)" Section 644 as amended). MSOPs are issued for a period of five (5) years unless otherwise specified.

As per [40 CFR Part 124.8(a)] and [10 CSR 20-6.020(1)2.] a Fact Sheet 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 (operating permit) listed below.

A Fact Sheet is not an enforceable part of an operating permit.

Part I – Applicability & Facility Description

Landfills are to obtain a MSOP in accordance the MCWL, documented above, and its implementing regulations 10 CSR 20-6.010(1)(A); 10 CSR 20-6.010(5)(A); and 10 CSR 20-6.200(1)(A). Stormwater runoff from landfills are considered Industrial activities in accordance with 10 CSR 20-6.200(2)(B)3.B. Closed landfills may also be required to maintain a MSOP in accordance with 10 CSR 20-6.200(1)(B)10.

Facility Description:

Eagle Ridge Landfill is an active landfill. This permit is to allow storm water discharges only. Storm water retention basins have been constructed at outfalls #001 and #002. These stormwater basins are directly under the leachate collection basins (no discharge). For Outfalls #001 and 002, storm water is collected from +/- 57.5 acres on the north side of the landfill and +/- 52.5 acres on the south side, respectively. Outfall #003 is an existing outfall to the east of the landfill and collects storm water from +/- 49 acres on the east side of the landfill. Outfalls 001, 002, 003 are primary discharge points for this landfill that receives active landfill. Permittee requested that Outfall #003 coordinates be modified in the permit by a few hundred feet to the west of its current location due to a change in ownership and property boundary change making the outfall's current location off landfill property. The move will place the outfall on Eagle Landfill property. Outfall #004 had been deleted due to past inactivity at that location but was put back in during the last renewal in 2008. #004 collects storm water from 1.7 acres on the west side of the landfill. The permittee would like to remove this Outfall from the permit. In a letter dated November 14, 2014, Waste Corporation of Missouri requested removal of Outfall #004 from the draft permit. Justification for removal of Outfall #004 indicates that this outfall does not include drainage from the active fill area including a haul road that is nearest to the outfall.

Leachate must be handled in a manner where discharge is not allowed and in accordance with Hazardous Waste Program (if applicable) and Solid Waste Management Program requirements.

The facility also has two leachate collection basins that do not discharge. Leachate basin near Outfall 001 collects leachate from the northern portion of the active fill area and basin near Outfall 002 collects leachate from areas in the southern portion of the fill area and is aerated. Leachate is hauled by tanker truck and discharged to the City of Louisiana. The landfill is regulated mainly under the Solid Waste Management Permit #0116304. No discharge of leachate is allowed.

Actual flow dependent upon precipitation.

The Effluent Limit Guidelines under 40 CFR Part 445.21 does not apply to this facility for the following reasons:

- 1- Under the General Applicability Section of 40 CFR Part 445.1 (b) states that the provisions of this part does not apply to wastewater from surface impoundments. Outfalls 001 and 002 discharge storm water from a storm water basin, therefore we believe 40 CFR Part 45.21 does not apply to these outfalls.
- 2- Outfall 003 and 004 do not drain areas that have contact with contaminated storm water due to their present location on the property, therefore we believe 40 CFR Part 445.21 does not apply to these outfalls.

OUTFALL(S) TABLE:

OUTFALL	DESIGN FLOW (CFS/MGD)	TREATMENT LEVEL	EFFLUENT TYPE	DISTANCE TO CLASSIFIED SEGMENT (MI)
001	4.1 / 2.7	Primary and BMP (Storm water)	Storm water	0 miles
002	4.7 / 3.0	Primary and BMP (Storm water)	Storm water	~ 0.2 miles
003	4.0 / 2.6	Storm water	Storm water	~ 0.0 miles

****Outfall #004 is being eliminated upon request of the applicant. Not an active fill area.**

Water Quality History:

Since 2010, the facility has had five letters of warning (LOW) related to not meeting effluent limitations. A letter of warning was issued in 1/3/14, 10/30/12, 9/6/11, 5/28/10, and 5/11/10. The last inspection was conducted on 10/4/12.

The facility exceeded permitted limits during the following dates: Outfall 001 – June 2013 - TSS; Outfall 002 – May, Nov 2011 (TSS), Nov 2011 (COD); Outfall 003 – missing data for several parameters; and Outfall #004 – March, June 2014, June 2013, March 2010 (TSS), June 2013 (SS).

Comments:

This permit cycle included a review of some of the pollutants of concern (POC) that were added during the last permit cycle. In the Appendix, a reasonable potential determination (RPD) was completed for each outfall. The process for RPD is to determine the maximum value over the five-year permit cycle for the POC and then first compare it to any acute criteria. Chronic criteria are used as a comparison value only if acute criteria are not established for that parameter. Drinking water standards or ground water standards and human health fish consumption criteria values may also be used as comparison to the parameter maximum DMRs. For this discharge, the receiving water is an unclassified tributary and the first classified stream is several miles downstream. Acute criteria are the first consideration prior to evaluation with the chronic criteria.

After evaluating the site specific conditions of this facility, the permit writer has used best professional judgment to establish either daily maximum effluent limitations or benchmarks as deemed necessary to protect water quality standards. The limits/benchmarks are established using acute criteria wherever it is available. Chronic criteria are used as a benchmark only when acute criteria are not established. Statistical multipliers derived from the EPA's *Technical Support Document for Water Quality-Based Toxic Control guidance* do not apply to this type of discharge; therefore, water quality standards are applied directly.

The Eagle Ridge Landfill is permitted for non-contact, non-contaminated storm water only. At this time, therefore, the permittee is not required to conduct WET test on any of the storm water outfalls.

Part II – Receiving Stream Information

APPLICABLE DESIGNATIONS OF WATERS OF THE STATE:

As per Missouri’s Stormwater Regulations [10 CSR 20.6.200(6)(B)2.], the department shall establish effluent limits as necessary to protect waters of the state. Effluent limitations for stormwater are established using best professional judgment based on the category and designated uses of the receiving stream.

- Missouri or Mississippi River:
- Lake or Reservoir:
- Losing:
- Metropolitan No-Discharge:
- Special Stream:
- Subsurface Water:
- All Other Waters:

10 CSR 20-7.031 Missouri Water Quality Standards, the department defines the Clean Water Commission water quality objectives in terms of "water uses to be maintained and the criteria to protect those uses." The receiving stream and/or 1st classified receiving stream’s beneficial water uses to be maintained are located in the Receiving Stream Table located below in accordance with [10 CSR 20-7.031(3)].

RECEIVING STREAM(S) TABLE:

OUTFALL	WATERBODY NAME	CLASS	WBID	DESIGNATED USES*	12-DIGIT HUC/EDU**
001	Tributary to Gailey Branch 8-20-13 MUDD V 1.0	C	3960	AQL, HHP, IRR, LWW, SCR, WBC(B)	07110007-0401and Central Plains / Cuivre / Salt
002	Trib. to Gailey Branch	n/a	N/A	General Criteria	
	Tributary to Gailey Branch 8-20-13 MUDD V 1.0	C	3960	AQL, HHP, IRR, LWW, SCR, WBC(B)	
003	Tributary to Gailey Branch 8-20-13 MUDD V 1.0	C	3960	AQL, IRR, LWW, SCR,WBC(B)	

* - Irrigation (IRR), Livestock & Wildlife Watering (LWW), Protection of Warm Water Aquatic Life and Human Health-Fish Consumption (AQL), Cool Water Fishery(CLF), Cold Water Fishery (CDF), Whole Body Contact Recreation (WBC), Secondary Contact Recreation (SCR), Drinking Water Supply (DWS), Industrial (IND), Groundwater (GRW).
 ** - Ecological Drainage Unit

Part III – Rationale and Derivation of Effluent Limitations & Permit Conditions

ANTI-BACKSLIDING:

A provision in the Federal Regulations [CWA §303(d)(4); CWA §402(c); 40 CFR Part 122.44(I)] that requires a reissued permit to be as stringent as the previous permit with some exceptions.

- All limits in this Factsheet are at least as protective as those previously established; therefore, backsliding does not apply.

ANTIDegradation:

In accordance with Missouri’s Water Quality Standard [10 CSR 20-7.031(2)], the Department is to document by means of Antidegradation Review that the use of a water body’s available assimilative capacity is justified. Degradation is justified by documenting the socio-economic importance of a discharging activity after determining the necessity of the discharge.

- Renewal no degradation proposed and no further review necessary.

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 permittee/facility is not currently under Water Protection Program enforcement action.

FLOW BASED PERMITTING:

A standard mass-balance equation cannot be calculated for stormwater from this facility because the stormwater flow and flow in the receiving stream cannot be determined for conditions on any given day. The amount of stormwater discharged from the facility will vary based on previous rainfall, soil saturation, humidity, detention time, BMPs, surface permeability, etc. Flow in the receiving stream will vary based on similar climatic conditions, size of watershed, and amount of surfaces with reduced permeability (houses, parking lots, and the like) in the watershed, hydrogeology, topography, etc.

It is likely that sufficient rainfall to cause a discharge for four continuous days from a facility will also cause some significant amount of flow in the receiving stream. Chronic WQSs are based on a four-day exposure (except Ammonia, which is based on a thirty day exposure). In the event that discharge does occur from this facility for four continuous days, some amount of flow will occur in the receiving stream. This flow will dilute stormwater discharges from a facility. For these reasons, most industrial stormwater facilities have limited potential to cause a violation of chronic water quality standards in the receiving stream.

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 WQSs are based on a one hour of exposure, and must be protected at all times in unclassified streams, and within mixing zones of class P streams [10 CSR 20-7.031(3) and (4)]. Therefore, industrial stormwater facilities with toxic contaminants do have the potential to cause a violation of acute WQSs if those toxic contaminants occur in sufficient amounts.

It is due to the items stated above that staff drafting this fact sheet are unable to perform statistical Reasonable Potential Analysis and calculate Wasteload Allocations via a mass-balance equation for effluent limit determination. However, staff may use their best professional judgment in determining if a facility has a potential to violate Missouri's Water Quality Standards.

A reasonable potential determination was conducted and summarized in Appendix A. After evaluating the site specific discharge monitoring data for this facility, the permit writer has used best professional judgment to establish either daily maximum effluent limitations or benchmarks as deemed necessary to protect water quality standards. The limits/benchmarks are established using acute criteria wherever it is available. Chronic criteria are used as a benchmark only when acute criteria are not established.

SCHEDULE OF COMPLIANCE (SOC):

A schedule of remedial measures included in a permit, including an enforceable sequence of interim requirements (actions, 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.

Not Applicable; This permit does not contain a SOC. After review of the DMRs, several of the bench marks and new limitations established in the permit are the result of one or two unexplained exceeds; therefore, we believe that a schedule of compliance is not necessary. In addition, the newly established limits for BOD and COD are achievable by the facility based on review of the DMRs.

STORMWATER POLLUTION PREVENTION PLAN (SWPPP):

In accordance with 40 CFR 122.44(k) *Best Management Practices (BMPs)* 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, (Document number EPA 833-B-09-002), BMPs are measures or practices used to reduce the amount of pollution entering (regarding this operating permit) waters of the state. 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 stormwater discharges.

Applicable; A SWPPP shall be developed and implemented for each site and shall incorporate required practices identified by the department with jurisdiction, incorporate erosion control practices specific to site conditions, and provide for maintenance and adherence to the plan.

SPILL REPORTING:

Per 10 CSR 24-3.010, 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.

VARIANCE:

As 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 shall be 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 operating permit is not drafted under premises of a petition for variance.

WLA MODELING:

Not Applicable; A WLA study was either not submitted or determined not applicable by department staff.

WATER QUALITY STANDARDS:

Per [10 CSR 20-7.031(3)], General Criteria shall be applicable to all waters of the state at all times including mixing zones. Additionally, [40 CFR 122.44(d)(1)] directs the department to establish in each NPDES permit to include conditions to achieve water quality established under Section 303 of the Clean Water Act, including State narrative criteria for water quality.

WHOLE EFFLUENT TOXICITY (WET) TEST:

A WET test is a quantifiable method of determining if a discharge from a facility may be causing toxicity to aquatic life by itself, in combination with or through synergistic responses when mixed with receiving stream water.

Not Applicable; At this time, the permittee is not required to conduct WET test for this facility.

303(d) LIST & TOTAL MAXIMUM DAILY LOAD (TMDL):

Section 303(d) of the federal Clean Water Act requires that each state identify waters that are 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 waters that are impaired but not addressed by normal water pollution control programs.

A TMDL is a calculation of the maximum amount of a given pollutant that a body of water can absorb before its water quality is affected. If a water body is determined to be impaired as listed on the 303(d) list, then a watershed management plan will be developed that shall include the TMDL calculation

Not Applicable; This facility does not discharge to a 303(d) listed stream.

Part IV – Effluent Limits Determination

Outfall #001 – Storm water runoff (North storm water detention pond)

Outfall #002 – Storm water runoff (South storm water detention pond)

Effluent limitations derived and established in the below Effluent Limitations Table are based on current operations of the facility. Future permit action due to facility modification may contain new operating permit terms and conditions that supersede the terms and conditions, including effluent limitations, of this operating permit. After review of the DMRs, several of the bench marks and new limitation established in the permit are the result of one or two unexplained exceeds; therefore, we believe that a schedule of compliance is not necessary. In addition, the newly established limits for BOD and COD are achievable by the facility based on review of the DMRs.

PARAMETER	UNIT	BASIS FOR LIMITS	DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MODIFIED	PREVIOUS PERMIT LIMITATIONS
FLOW	gpd	1	*		*	No	S
RAINFALL	Inches	6	*		*	No	S
COD	mg/L	6	90		60	YES	120/90
BOD ₅	mg/L	1/6	45		30	YES	60/45
TSS	mg/L	1	80		60	No	S
pH	SU	1	6.5 – 9.0		6.5 – 9.0	No	S
SETTLABLE SOLIDS	mL/L/hr	1/6	1.5		1.0	No	S
OIL & GREASE	mg/L	1/2/6	15		10	No	S
TOTAL AMMONIA AS N	mg/L	1/2/6	*			No	S
TOTAL HARDNESS	mg/L	6	*			No	S
CHLORIDE	mg/L	1/2/6	*			No	S
CHLORIDE + SULFATE	mg/L	1/2/6	1000			No	S
FLUORIDE	mg/L	1/2/6	*			No	S
BENZENE	µg/L	1/2/6	*			YES	BM VALUE
ETHYLBENZENE	µg/L	1/2/6	*			No	S
TOLUENE	µg/L	1/2/6	*			No	S
ALUMINUM	µg/L	1/2/6	750			YES	*/*
ANTIMONY, TR	µg/L	1/2/6	*			YES	#002 ONLY BM VALUE
ARSENIC, TR	µg/L	1/2/6	*			YES	#001 ONLY BM VALUE
BERYLLIUM, TR	µg/L	1/2/6	*			YES	BM VALUE
CADMIUM, TR	µg/L	1/2/6	*			YES	BM VALUE
CHROMIUM (III), TR	µg/L	1/2/6	*			No	S
COBALT, TR	µg/L	1/2/6				YES	REMOVED
CHROMIUM (VI), DISSOLVED	µg/L	1/2/6	*			YES	CR,TR
COPPER, TR	µg/L	1/2/6	*			No	S
IRON, TR	µg/L	1/2/6	*			YES	BM VALUE
LEAD, TR	µg/L	1/2/6	*			YES	BM VALUE
MERCURY, TR	µg/L	1/2/6	*			YES	2.8/1.4
NICKEL, TR	µg/L	1/2/6	*			No	S
SELENIUM, TR	µg/L	1/2/6	*			YES	BM VALUE
SILVER, TR	µg/L	1/2/6	4.4			YES	*/*
THALLIUM, TR	µg/L	1/2/6	*			YES	BM VALUE
ZINC, TR	µg/L	1/2/6	*			No	S
TEMPERATURE	C	1/2				YES	REMOVED
MONITORING FREQUENCY	Please see Minimum Sampling and Reporting Frequency Requirements in the Derivation and Discussion Section below.						

- * - Monitoring requirement only
- ** - Parameter not previously established in previous state operating permit.
- TR – Total Recoverable
- S – same as previous permit.

Basis for Limitations Codes:

- | | |
|--|-----------------------------------|
| 1. State or Federal Regulation/Law | 5. Water Quality Model |
| 2. Water Quality Standard (includes RPA) | 6. Best Professional Judgment |
| 3. Water Quality Based Effluent Limits | 7. TMDL or Permit in lieu of TMDL |
| 4. Antidegradation Review/Policy | 8. WET Test Policy |

OUTFALL #001 AND 002 – DERIVATION AND DISCUSSION OF LIMITS:

NPDES stormwater permits must contain conditions that ensure water quality standards are protected. This does not always require the use of numeric water-quality based effluent limitations. Under the Clean Water Act and NPDES regulations, permitting authorities may employ a variety of conditions and limitations in stormwater permits as the necessary water quality based limitations. The EPA's Technical Support Document for Water Quality Based Toxics Control (TSD) establishes a methodology for deriving numeric water quality based effluent limitations; however, it was developed primarily for continuous wastewater discharges at low flow conditions in the receiving water, not intermittent wet weather discharges during high flow conditions. After evaluating the site specific conditions of this facility, the permit writer has used best professional judgment to establish either daily maximum effluent limitations or benchmarks as deemed necessary to protect water quality standards. The limits/benchmarks are established using acute criteria wherever it is available. Chronic criteria are used as a benchmark only when acute criteria are not established. Statistical multipliers derived from the TSD do not apply to this type of discharge, therefore, water quality standards are applied directly.

AQL – Aquatic Life

DWS – Drinking Water Source

HHF – Human Health Factor (can be applied when AQL is not available)

- **Flow.** Monitoring only requirement in accordance with [40 CFR Part 122.44(i)(1)(ii)] the volume of effluent discharged from each outfall is needed to assure compliance with permitted effluent limitations. If the permittee is unable to obtain effluent flow, then it is the responsibility of the permittee to inform the department, which may require the submittal of an operating permit modification to determine an alternate location for flow monitoring.
- **Precipitation.** Monitoring only requirement. Precipitation data obtained from DMRs is used to aid in the determination of this facilities specific runoff coefficient and theoretical loading in the watershed.
- **Chemical Oxygen Demand (COD).** Effluent limitations of 90 mg/L as a Daily Maximum and 60 mg/L as a Monthly Average are applicable to this facility and are consistent with other landfill operating permits. Effluent limitations have been modified from previous state operating permit. See Appendix for Reasonable Potential Determination for Outfall #001, 002,003, and 004.
- **Biochemical Oxygen Demand (BOD5).** Effluent limitations of 45 mg/L as a Daily Maximum and 30 mg/L as a Monthly Average are applicable to this facility and are consistent with other landfill operating permits. Effluent limitations have been modified from previous state operating permit. See Appendix for Reasonable Potential Determination for Outfall #001, 002,003, and 004.
- **Total Suspended Solids (TSS).** Effluent limitations of 80 mg/L as a Daily Maximum and 60 mg/L as a Monthly Average are applicable to this facility and are consistent with other landfill operating permits. Effluent limitations have been retained from previous state operating permit. See Appendix for Reasonable Potential Determination for Outfall #001, 002,003, and 004.
- **pH.** Effluent limitation range is from 6.5 to 9.0 Standard pH Units (SU), as per [10 CSR 20-7.031(4)(E)]. pH is not to be averaged.
- **Settleable Solids.** Effluent limitations of 1.5 mL per L per hour as a Daily Maximum and 1.0 mL per L per hour as a Monthly Average are applicable and are consistent with other landfill operating permits.
- **Oil & Grease.** Conventional pollutant, effluent limitation for protection of aquatic life; 10 mg/L monthly average, 15 mg/L daily maximum. See Appendix for Reasonable Potential Determination for Outfall #001, 002,003, and 004. Protection of AQL of 10 mg/L is applicable as per [10 CSR 20-7.031 Table A].
- **Total Ammonia Nitrogen.** Effluent monitoring has been retained from previous state operating permit. See Appendix for Reasonable Potential Determination for Outfall #001, 002,003, and 004.
- **Chlorides.** Effluent monitoring has been retained from previous state operating permit. See Appendix for Reasonable Potential Determination for Outfall #001, 002,003, and 004. Protection of Aquatic Life Acute Criteria of 860 mg/L is applicable as per [10 CSR 20-7.031 Table A]. No mixing considerations allowed; therefore the Acute Criteria (or other criteria) = the WLA.

Acute AQL WQS = 860 mg/L

- **Chlorides + Sulfate.** As per 10 CSR 7.031(4)(L), for streams with a 7Q10 low flow of less than 1 cubic foot per second, the concentration of chloride plus sulfate shall not exceed 1,000 mg/L.

Maximum daily limit = 1,000 mg/L

- **Fluoride.** Effluent monitoring has been removed from state operating permit. See Appendix for Reasonable Potential Determination for Outfall #001, 002,003, and 004.
- **Benzene.** Effluent monitoring has been retained from previous state operating permit. See Appendix for Reasonable Potential Determination for Outfall #001, 002,003, and 004. Protection of HHF of 71 µg/L is applicable as per [10 CSR 20-7.031 Table A]. No mixing considerations allowed; therefore, the HHF criteria = the WLA.

Benchmark = 71 µg/L is applied for Outfall 001 and 002.

- **Ethylbenzene.** Effluent monitoring has been retained from previous state operating permit. See Appendix for Reasonable Potential Determination for Outfall #001, 002,003, and 004. Protection of Aquatic Life Chronic criteria of 320 µg/L as per [10 CSR 20-7.031 Table A].
- **Toluene.** Effluent monitoring has been retained from previous state operating permit. See Appendix for Reasonable Potential Determination for Outfall #001, 002,003, and 004. Protection of HHF of 200 mg/L as per [10 CSR 20-7.031 Table A].

Metals

Effluent limitations for total recoverable metals were developed using methods and procedures outlined in EPA/505/2-90-001 and “The Metals Translator: Guidance For Calculating A Total Recoverable Permit Limit From A Dissolved Criterion” (EPA 823-B-96-007). General warm-water fishery criteria apply and hardness of 108 mg/L.

Due to the absence of contemporaneous effluent and instream data for total recoverable metals, dissolved metals, hardness, and total suspended solids with which to calculate metals translators, partitioning between the dissolved and absorbed phases was assumed to be minimal (Section 5.7.3, EPA/505/2-90-001). Freshwater criteria conversion factors for dissolved metals were used as the metals translator as recommended in guidance (Section 1.3, 1.5.3, and Table 1, EPA 823-B-96-007). If concurrent site-specific data for total recoverable metals, dissolved metals, hardness, and total suspended solids are provided to the department, partitioning evaluations may be considered and site-specific translators developed.

HARDNESS DEPENDENT METALS	CONVERSION FACTORS
	ACUTE
Cadmium	0.941
Chromium III	0.316
Copper	0.960
Lead	0.78
Mercury	0.85
Nickel	0.998
Silver	0.850
Zinc	0.980

Conversion factors for Cd and Pb are hardness dependent. Values calculated using equation found in Section 1.3 of EPA 823-B-96-007 and hardness = 108 mg/L.

Hardness 25th Percentile = 108 mg/L. Samples analysis from the combined Outfalls #001, 002, 003, 004 monitoring.

- **Aluminum (Al), Total Recoverable.** See Appendix for Reasonable Potential Determination for Outfall #001, 002, 003, and 004.

Acute WQS = 750 mg/L
Maximum Daily Limit = 750 mg/L

- **Antimony (Sb), Total Recoverable.** See Appendix for Reasonable Potential Determination for Outfall #001, 002, 003 and 004.

Chronic HHF WQS = 4.3 mg/L
Benchmark = 4.3 mg/L applied to Outfall 002 only.

- **Arsenic (As), Total Recoverable.** See Appendix for Reasonable Potential Determination for Outfall #001, 002, 003 and 004.

Chronic AQL WQS = 20 µg/L
Benchmark = 20 µg/L applied to Outfall 001 only.

- **Beryllium (Be), Total Recoverable.** See Appendix for Reasonable Potential Determination for Outfall #001, 002, 003 and 004.

Chronic AQL WQS = 5µg/L
Benchmark = 5µg/L

- **Cadmium, Total Recoverable.** See Appendix for Reasonable Potential Determination for Outfall #001, 002, 003 and 004.

Acute AQL WQS = $e^{(1.0166 \cdot \ln 108 - 3.062490)} \cdot (1.136672 - (\ln 108 \cdot 0.041838))$
 $e^{2.2876} \cdot 0.916472 = 5.1 \mu\text{g/L}$ dissolved cadmium

Total Recoverable Conversion = $5.1/0.916 = 5.4 \mu\text{g/L}$ total recoverable cadmium

Benchmark = 5.4 µg/L

- **Chromium (III), Total Recoverable.** Effluent monitoring has been retained from previous state operating permit. See Appendix for Reasonable Potential Determination for Outfall #001, 002, 003 and 004.

- **Chromium (VI), Dissolved.** Effluent monitoring has been retained from previous state operating permit. See Appendix for Reasonable Potential Determination for Outfall #001, 002, 003 and 004.

- **Copper, Total Recoverable.** Effluent monitoring has been retained from previous state operating permit. See Appendix for Reasonable Potential Determination for Outfall #001, 002, 003 and 004.

- **Iron, Total Recoverable.** Effluent monitoring has been retained from previous state operating permit. See Appendix for Reasonable Potential Determination for Outfall #001, 002, 003 and 004.

Chronic AQL WQS = 1,000 µg/L

Benchmark = 1,000 µg/L

- **Lead, Total Recoverable.** Effluent monitoring has been retained from previous state operating permit. See Appendix for Reasonable Potential Determination for Outfall #001, 002, 003 and 004.

Acute AQL WQS = $e^{(1.273 \cdot \ln 108 - 1.460448)} \cdot (1.46203 - (\ln 193 \cdot 0.145712))$
 $e^{5.2388} \cdot 0.69523 = 70$ dissolved lead

Total recoverable conversion = $70.0/0.780 = 89.8 \mu\text{g/L}$ total recoverable lead

Benchmark = 89.8 µg/L

- **Mercury, Total Recoverable.** Effluent monitoring has been applied. Limitations from previous state operating permit were removed due to no exceedences. Appendix for Reasonable Potential Determination for Outfall #001, 002, 003 and 004.

- **Nickel, Total Recoverable.** Effluent monitoring has been retained from previous state operating permit. See Appendix for Reasonable Potential Determination for Outfall #001, 002, 003 and 004.
- **Selenium, Total Recoverable.** Effluent monitoring has been retained from previous state operating permit. See Appendix for Reasonable Potential Determination for Outfall #001, 002, 003 and 004.

Chronic AQL WQS = 5 µg/L
 Benchmark = 5 µg/L

- **Silver, Total Recoverable.** Effluent limitation for protection of aquatic life applied. See Appendix for Reasonable Potential Determination for Outfall #001, 002, 003 and 004.

$$\text{Acute AQL WQS} = e^{(1.72 \cdot \ln 108 - 6.588144)} \cdot 0.85$$

$$e^{2.4637} \cdot 0.859 = 3.7 \text{ µg/L dissolved silver}$$

Total recoverable conversion = 3.7/0.850 = 4.4 µg/L total recoverable silver

Daily maximum limit = 4.4 µg/L

- **Thallium, Total Recoverable.** Effluent monitoring has been retained from previous state operating permit. See Appendix for Reasonable Potential Determination for Outfall #001, 002, 003 and 004.

Chronic HHF WQS = 6.3 µg/L

Benchmark = 6.3 µg/L

- **Zinc, Total Recoverable.** Effluent monitoring has been retained from previous state operating permit. See Appendix for Reasonable Potential Determination for Outfall #001, 002, 003 and 004.

Part IV (continued) Benchmark– Effluent Values Determination for Outfall #001

Parameter	Daily Maximum Benchmark*
Benzene	71 µg/L
Arsenic, Total Recoverable	20.0 µg/L
Selenium, Total Recoverable	5.0 µg/L
Beryllium, Total Recoverable	5.0 µg/L
Cadmium, Total Recoverable	5.4 µg/L
Iron, Total Recoverable	1000 µg/L
Lead, Total Recoverable	89.9 µg/L
Thallium, Total Recoverable	6.3 µg/L

Benchmark– Effluent Values Determination for Outfall #002

Parameter	Daily Maximum Benchmark*
Benzene	71 µg/L
Antimony, Total Recoverable	4.3 µg/L
Selenium, Total Recoverable	5.0 µg/L
Beryllium, Total Recoverable	5.0 µg/L
Cadmium, Total Recoverable	5.4 µg/L
Iron, Total Recoverable	1000 µg/L
Lead, Total Recoverable	89.9 µg/L
Thallium, Total Recoverable	6.3 µg/L

- * **Because all the discharges are storm water related, only daily maximum values will be use. Water Quality Standards that are listed on 10 CSR 20-7.031 Table A are adapted in determining the benchmark values for the protection of downstream designated uses.**
- **Metals: Silver, Aluminum, Arsenic, Beryllium, Cadmium, , Chromium (VI), Copper, Iron, Nickel, Lead, Antimony, Selenium, Thallium, And Zinc.** A monitoring requirement has been established for the total recoverable values of the listed parameters. These parameters are included in the state regulations [10 CSR 20-7.031, Table A, Metals].
- **BTEX (including Xylene component), Temperature, Manganese, Magnesium, Barium, Boron, Sodium, Calcium, Total Organic Carbon, Vanadium, Total Dissolved Solids, Conductivity, Nitrate and Nitrite as N, and Phosphorus.** Monitoring only requirement removed due to no applicable water quality criteria for the listed designated uses.
- **Fluoride, Cobalt.** Monitoring only requirement removed due to no reasonable potential to exceed criteria.

- **Minimum Sampling and Reporting Frequency Requirements.**

PARAMETER	SAMPLING FREQUENCY	REPORTING FREQUENCY
FLOW	ONCE/MONTH	ONCE/QUARTER
RAINFALL	DAILY	ONCE/QUARTER
BENZENE	ONCE/QUARTER	ONCE/QUARTER
ETHYLBENZENE	ONCE/QUARTER	ONCE/QUARTER
TOLUENE	ONCE/QUARTER	ONCE/QUARTER
BIOCHEMICAL OXYGEN DEMAND (BOD ₅)	ONCE/QUARTER	ONCE/QUARTER
CHEMICAL OXYGEN DEMAND (COD)	ONCE/QUARTER	ONCE/QUARTER
TOTAL SUSPENDED SOLIDS (TSS)	ONCE/QUARTER	ONCE/QUARTER
SETTLABLE SOLIDS (SS)	ONCE/QUARTER	ONCE/QUARTER
CHLORIDES	ONCE/QUARTER	ONCE/QUARTER
CHLORIDE PLUS SULFATES	ONCE/QUARTER	ONCE/QUARTER
IRON, TOTAL RECOVERABLE	ONCE/QUARTER	ONCE/QUARTER
PH	ONCE/QUARTER	ONCE/QUARTER
OIL & GREASE	ONCE/QUARTER	ONCE/QUARTER
SILVER, TOTAL RECOVERABLE	ONCE/QUARTER	ONCE/QUARTER
ARSENIC, TOTAL RECOVERABLE	ONCE/QUARTER	ONCE/QUARTER
BERYLLIUM, TOTAL RECOVERABLE	ONCE/QUARTER	ONCE/QUARTER
THALLIUM, TOTAL RECOVERABLE	ONCE/QUARTER	ONCE/QUARTER
CADMIUM, TOTAL RECOVERABLE	ONCE/QUARTER	ONCE/QUARTER
ANTIMONY, TOTAL RECOVERABLE	ONCE/QUARTER	ONCE/QUARTER
LEAD, TOTAL RECOVERABLE	ONCE/QUARTER	ONCE/QUARTER
SELENIUM, TOTAL RECOVERABLE	ONCE/QUARTER	ONCE/QUARTER
ALUMINUM, TOTAL RECOVERABLE	ONCE/QUARTER	ONCE/QUARTER
CHROMIUM (VI), DISSOLVED	ONCE/YEAR	ONCE/YEAR
COPPER, TOTAL RECOVERABLE	ONCE/YEAR	ONCE/YEAR
TOTAL HARDNESS	ONCE/YEAR	ONCE/YEAR
MERCURY, TOTAL RECOVERABLE	ONCE/YEAR	ONCE/YEAR
AMMONIA AS N	ONCE/YEAR	ONCE/YEAR
NICKEL, TOTAL RECOVERABLE	ONCE/YEAR	ONCE/YEAR
CHROMIUM (III), TOTAL RECOVERABLE	ONCE/YEAR	ONCE/YEAR
ZINC, TOTAL RECOVERABLE	ONCE/YEAR	ONCE/YEAR

- **Sampling Frequency Justification:**

Sampling and Reporting Frequency was retained from previous permit.

- **Sampling Type Justification:**

Grab samples are an appropriate method for collecting stormwater samples.

The above frequencies are the minimum sampling frequency requirement. If samples are collected on a more frequent basis, then the per-month average of the samples may be submitted. Samples shall be collected during the first discharge of the quarter and any time the basin overflows the emergency outlet. Report as “no-discharge” when a discharge does not occur during the entire monitoring period.

For quarterly samples, sampling shall occur once per quarter in the periods of January through March, April through June, July through September, and October through December. Results are to be reported by the 28th day of the month following the applicable quarter (e.g., for the first quarter of January through March, the sample should be reported by the 28th of April). Samples shall be recorded as if they were sampled in the last month of each quarter.

For the annual samples, sampling shall occur a minimum of once per year in the period of May through September. Monitoring reports shall be submitted no later than October 28th. For tracking purposes, samples shall be recorded by the department as though they were taken in September.

Outfall #003 – Storm water runoff

Effluent limitations derived and established in the below Effluent Limitations Table are based on current operations of the facility. Future permit action due to facility modification may contain new operating permit terms and conditions that supersede the terms and conditions, including effluent limitations, of this operating permit.

PARAMETER	UNIT	BASIS FOR LIMITS	DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MODIFIED	PREVIOUS PERMIT LIMITATIONS
FLOW	gpd	1	*		*	No	S
RAINFALL	Inches	6	*		*	No	S
CHEMICAL OXYGEN DEMAND (COD)	mg/L	6	90		60	YES	120/90
BIOCHEMICAL OXYGEN DEMAND (BOD ₅)	mg/L	1/6	45		30	YES	60/45
TSS	mg/L	1	80		60	No	S
pH	SU	1	6.5 – 9.0		6.5 – 9.0	No	S
SETTLABLE SOLIDS	mL/L/hr	1/6	1.5		1.0	No	S
OIL & GREASE	mg/L	1/2/6	15		10	No	S
TOTAL AMMONIA AS N	mg/L	1/2/6	*		*	No	S
TOTAL HARDNESS	mg/L	6	*		*	No	S
CHLORIDE	mg/L	1/2/6	*		*	No	S
CHLORIDE + SULFATE	mg/L	1/2/6	1000			No	S
FLUORIDE	mg/L	1/2/6				YES	REMOVED
BENZENE	µg/L	1/2/6	*			No	S
ETHYLBENZENE	µg/L	1/2/6	*			No	S
TOLUENE	µg/L	1/2/6	*			No	S
ALUMINUM	µg/L	1/2/6	*			No	S
ANTIMONY, TR	µg/L	1/2/6	*			YES	BM VALUE
ARSENIC, TR	µg/L	1/2/6	*			YES	BM VALUE
BERYLLIUM, TR	µg/L	1/2/6	*			YES	BM VALUE
CADMIUM, TR	µg/L	1/2/6	*			YES	BM VALUE
CHROMIUM (III), TR	µg/L	1/2/6	*				
COBALT, TR	µg/L	1/2/6				YES	REMOVED
CHROMIUM (VI), DISSOLVED	µg/L	1/2/6	*			YES	Cr,TR
COPPER, TR	µg/L	1/2/6	*				S
IRON, TR	µg/L	1/2/6	*			YES	BM VALUE
LEAD, TR	µg/L	1/2/6	*			YES	BM VALUE
MERCURY, TR	µg/L	1/2/6	*			YES	2.8/1.4
NICKEL, TR	µg/L	1/2/6	*			No	S
SELENIUM, TR	µg/L	1/2/6	*			YES	BM VALUE
SILVER, TR	µg/L	1/2/6	4.4			YES	**
THALLIUM, TR	µg/L	1/2/6	*			YES	BM VALUE
ZINC, TR	µg/L	1/2/6	*			No	S
TEMPERATURE	C	1/2				YES	REMOVED
MONITORING FREQUENCY	Please see Minimum Sampling and Reporting Frequency Requirements in the Derivation and Discussion Section below.						

- * - Monitoring requirement only
- ** - Parameter not previously established in previous state operating permit.
- TR – Total Recoverable
- S – same as previous permit.

Basis for Limitations Codes:

1. State or Federal Regulation/Law
2. Water Quality Standard (includes RPA)
3. Water Quality Based Effluent Limits
4. Antidegradation Review/Policy
5. Water Quality Model
6. Best Professional Judgment
7. TMDL or Permit in lieu of TMDL
8. WET Test Policy

OUTFALL #003 – DERIVATION AND DISCUSSION OF LIMITS:

- **Flow.** Monitoring only requirement in accordance with [40 CFR Part 122.44(i)(1)(ii)] the volume of effluent discharged from each outfall is needed to assure compliance with permitted effluent limitations. If the permittee is unable to obtain effluent flow, then it is the responsibility of the permittee to inform the department, which may require the submittal of an operating permit modification to determine an alternate location for flow monitoring.
- **Precipitation.** Monitoring only requirement. Precipitation data obtained from DMRs is used to aid in the determination of this facilities specific runoff coefficient and theoretical loading in the watershed.
- **Chemical Oxygen Demand (COD).** Effluent limitations of 90 mg/L as a Daily Maximum and 60 mg/L as a Monthly Average are applicable to this facility and are consistent with other landfill operating permits. Effluent limitations have been modified from previous state operating permit. See Appendix for Reasonable Potential Determination for Outfall #001, 002,003, and 004.
- **Biochemical Oxygen Demand (BOD5).** Effluent limitations of 45 mg/L as a Daily Maximum and 30 mg/L as a Monthly Average are applicable to this facility and are consistent with other landfill operating permits. Effluent limitations have been modified from previous state operating permit. See Appendix for Reasonable Potential Determination for Outfall #001, 002,003, and 004.
- **Total Suspended Solids (TSS).** Effluent limitations of 80 mg/L as a Daily Maximum and 60 mg/L as a Monthly Average are applicable to this facility and are consistent with other landfill operating permits. Effluent limitations have been retained from previous state operating permit. See Appendix for Reasonable Potential Determination for Outfall #001, 002,003, and 004.
- **pH.** Effluent limitation range is from 6.5 to 9.0 Standard pH Units (SU), as per [10 CSR 20-7.031(4)(E)]. pH is not to be averaged.
- **Settleable Solids.** Effluent limitations of 1.5 mL per L per hour as a Daily Maximum and 1.0 mL per L per hour as a Monthly Average are applicable and are consistent with other landfill operating permits.
- **Oil & Grease.** Conventional pollutant, effluent limitation for protection of aquatic life; 10 mg/L monthly average, 15 mg/L daily maximum. See Appendix for Reasonable Potential Determination for Outfall #001, 002,003, and 004. Protection of AQL of 10 mg/L is applicable as per [10 CSR 20-7.031 Table A].
- **Total Ammonia Nitrogen.** Effluent monitoring has been retained from previous state operating permit. See Appendix for Reasonable Potential Determination for Outfall #001, 002,003, and 004.
- **Chlorides.** Effluent monitoring has been retained from previous state operating permit. See Appendix for Reasonable Potential Determination for Outfall #001, 002,003, and 004. Protection of Aquatic Life Acute Criteria of 860 mg/L is applicable as per [10 CSR 20-7.031 Table A]. No mixing considerations allowed; therefore the Acute Criteria (or other criteria) = the WLA.

Acute AQL WQS = 860 mg/L
- **Chlorides + Sulfate.** As per 10 CSR 7.031(4)(L), for streams with a 7Q10 low flow of less than 1 cubic foot per second, the concentration of chloride plus sulfate shall not exceed 1,000 mg/L.

Maximum daily limit = 1,000 mg/L
- **Fluoride.** Effluent monitoring has been removed from state operating permit. See Appendix for Reasonable Potential Determination for Outfall #001, 002,003, and 004.
- **Benzene.** Effluent monitoring has been retained from previous state operating permit. See Appendix for Reasonable Potential Determination for Outfall #001, 002,003, and 004. Protection of HHF of 71 µg/L is applicable as per [10 CSR 20-7.031 Table A]. No mixing considerations allowed; therefore, the HHF criteria = the WLA.

Benchmark = 71 µg/L is applied for Outfall 001 and 002.
- **Ethylbenzene.** Effluent monitoring has been retained from previous state operating permit. See Appendix for Reasonable Potential Determination for Outfall #001, 002,003, and 004. Protection of Aquatic Life Chronic criteria of 320 µg/L as per [10 CSR 20-7.031 Table A].

- **Toluene**. Effluent monitoring has been retained from previous state operating permit. See Appendix for Reasonable Potential Determination for Outfall #001, 002,003, and 004. Protection of HHF of 200 mg/L as per [10 CSR 20-7.031 Table A].

Metals

Effluent limitations for total recoverable metals were developed using methods and procedures outlined in EPA/505/2-90-001 and “The Metals Translator: Guidance For Calculating A Total Recoverable Permit Limit From A Dissolved Criterion” (EPA 823-B-96-007). General warm-water fishery criteria apply and hardness of 108 mg/L.

Due to the absence of contemporaneous effluent and instream data for total recoverable metals, dissolved metals, hardness, and total suspended solids with which to calculate metals translators, partitioning between the dissolved and absorbed phases was assumed to be minimal (Section 5.7.3, EPA/505/2-90-001). Freshwater criteria conversion factors for dissolved metals were used as the metals translator as recommended in guidance (Section 1.3, 1.5.3, and Table 1, EPA 823-B-96-007). If concurrent site-specific data for total recoverable metals, dissolved metals, hardness, and total suspended solids are provided to the department, partitioning evaluations may be considered and site-specific translators developed.

HARDNESS DEPENDENT METALS	CONVERSION FACTORS
	ACUTE
Cadmium	0.941
Chromium III	0.316
Copper	0.960
Lead	0.78
Mercury	0.85
Nickel	0.998
Silver	0.850
Zinc	0.980

Conversion factors for Cd and Pb are hardness dependent. Values calculated using equation found in Section 1.3 of EPA 823-B-96-007 and hardness = 108 mg/L.

Hardness 25th Percentile = 108 mg/L from Outfalls #001, 002, 003, 004 combined.

- **Aluminum (Al), Total Recoverable**. Effluent monitoring has been retained from previous state operating permit. See Appendix for Reasonable Potential Determination for Outfall #001, 002, 003, and 004. Acute WQS = 750 mg/L.
- **Antimony (Sb), Total Recoverable**. See Appendix for Reasonable Potential Determination for Outfall #001, 002, 003 and 004.

Chronic HHF WQS = 4.3 mg/L
 Benchmark = 4.3 mg/L.

- **Arsenic (As), Total Recoverable**. See Appendix for Reasonable Potential Determination for Outfall #001, 002, 003 and 004.

Chronic AQL WQS = 20 µg/L
 Benchmark = 20 µg/L.

- **Beryllium (Be), Total Recoverable**. See Appendix for Reasonable Potential Determination for Outfall #001, 002, 003 and 004.

Chronic AQL WQS = 5µg/L
 Benchmark = 5µg/L

- **Cadmium, Total Recoverable**. See Appendix for Reasonable Potential Determination for Outfall #001, 002, 003 and 004.

Acute AQL WQS = $e^{(1.0166 \cdot \ln 108 - 3.062490)} \cdot (1.136672 - (\ln 108 \cdot 0.041838))$
 $e^{2.2876} \cdot 0.916472 = 5.1 \mu\text{g/L}$ dissolved cadmium
 Total Recoverable Conversion = $5.1/0.916 = 5.4 \mu\text{g/L}$ total recoverable cadmium

Benchmark = 5.4 µg/L

- **Chromium (III), Total Recoverable**. Effluent monitoring has been retained from previous state operating permit. See Appendix for Reasonable Potential Determination for Outfall #001, 002, 003 and 004.

- **Chromium (VI), Dissolved.** Effluent monitoring has been retained from previous state operating permit. See Appendix for Reasonable Potential Determination for Outfall #001, 002, 003 and 004.
- **Copper, Total Recoverable.** Effluent monitoring has been retained from previous state operating permit. See Appendix for Reasonable Potential Determination for Outfall #001, 002, 003 and 004.
- **Iron, Total Recoverable.** Effluent monitoring has been retained from previous state operating permit. See Appendix for Reasonable Potential Determination for Outfall #001, 002, 003 and 004.

Chronic AQL WQS = 1,000 µg/L

Benchmark = 1,000 µg/L

- **Lead, Total Recoverable.** Effluent monitoring has been retained from previous state operating permit. See Appendix for Reasonable Potential Determination for Outfall #001, 002, 003 and 004.

Acute AQL WQS = $e^{(1.273 \cdot \ln 108 - 1.460448)} \cdot (1.46203 - (\ln 193 \cdot 0.145712))$
 $e^{5.2388} \cdot 0.69523 = 70$ dissolved lead

Total recoverable conversion = $70.0/0.780 = 89.8$ µg/L total recoverable lead

Benchmark = 89.8 µg/L

- **Mercury, Total Recoverable.** Effluent monitoring has been applied. Limitations from previous state operating permit were removed due to no exceedences. Appendix for Reasonable Potential Determination for Outfall #001, 002, 003 and 004.
- **Nickel, Total Recoverable.** Effluent monitoring has been retained from previous state operating permit. See Appendix for Reasonable Potential Determination for Outfall #001, 002, 003 and 004.
- **Selenium, Total Recoverable.** Effluent monitoring has been retained from previous state operating permit. See Appendix for Reasonable Potential Determination for Outfall #001, 002, 003 and 004.

Chronic AQL WQS = 5 µg/L

Benchmark = 5 µg/L

- **Silver, Total Recoverable.** Effluent limitation for protection of aquatic life applied. See Appendix for Reasonable Potential Determination for Outfall #001, 002, 003 and 004.

Acute AQL WQS = $e^{(1.72 \cdot \ln 108 - 6.588144)} \cdot 0.85$
 $e^{2.4637} \cdot 0.859 = 3.7$ µg/L dissolved silver

Total recoverable conversion = $3.7/0.850 = 4.4$ µg/L total recoverable silver

Daily maximum limit = 4.4 µg/L

- **Thallium, Total Recoverable.** Effluent monitoring has been retained from previous state operating permit. See Appendix for Reasonable Potential Determination for Outfall #001, 002, 003 and 004.

Chronic HHF WQS = 6.3 µg/L

Benchmark = 6.3 µg/L

- **Zinc, Total Recoverable.** Effluent monitoring has been retained from previous state operating permit. See Appendix for Reasonable Potential Determination for Outfall #001, 002, 003 and 004.

Benchmark– Effluent Values Determination for Outfalls #003

Parameter	Daily Maximum Benchmark*
Arsenic, Total Recoverable	20 µg/L
Antimony, Total Recoverable	4.3 µg/L
Selenium, Total Recoverable	5.0 µg/L
Beryllium, Total Recoverable	5.0 µg/L
Cadmium, Total Recoverable	5.4 µg/L
Iron, Total Recoverable	1000 µg/L
Lead, Total Recoverable	89.9 µg/L
Thallium, Total Recoverable	6.3 µg/L

* Because all the discharges are storm water related, only daily maximum values will be use. Water Quality Standards that are listed on 10 CSR 20-7.031 Table A are adapted in determining the benchmark values for the protection of downstream designated uses.

- **Metals: Silver, Aluminum, Arsenic, Beryllium, Cadmium, Chromium III, (VI), Copper, Iron, Nickel, Lead, Antimony, Selenium, Thallium, And Zinc.** A monitoring requirement has been established for the total recoverable values of the listed parameters. These parameters are included in the state regulations [10 CSR 20-7.031, Table A, Metals].
- **BTEX (including Xylene component), Temperature, Manganese, Magnesium, Barium, Boron, Sodium, Calcium, Total Organic Carbon, Vanadium, Total Dissolved Solids, Conductivity, Nitrate and Nitrite as N, and Phosphorus.** Monitoring only requirement removed due to no applicable water quality criteria for the listed designated uses. Description retained from previous permit.
- **Fluoride, Cobalt.** Monitoring only requirement removed due to no reasonable potential to exceed criteria

- **Minimum Sampling and Reporting Frequency Requirements.**

PARAMETER	SAMPLING FREQUENCY	REPORTING FREQUENCY
FLOW	ONCE/MONTH	ONCE/QUARTER
RAINFALL	DAILY	ONCE/QUARTER
BENZENE	ONCE/QUARTER	ONCE/QUARTER
ETHYLBENZENE	ONCE/QUARTER	ONCE/QUARTER
TOLUENE	ONCE/QUARTER	ONCE/QUARTER
BIOCHEMICAL OXYGEN DEMAND (BOD ₅)	ONCE/QUARTER	ONCE/QUARTER
CHEMICAL OXYGEN DEMAND (COD)	ONCE/QUARTER	ONCE/QUARTER
TOTAL SUSPENDED SOLIDS (TSS)	ONCE/QUARTER	ONCE/QUARTER
SETTLABLE SOLIDS (SS)	ONCE/QUARTER	ONCE/QUARTER
CHLORIDES	ONCE/QUARTER	ONCE/QUARTER
CHLORIDE PLUS SULFATES	ONCE/QUARTER	ONCE/QUARTER
IRON, TOTAL RECOVERABLE	ONCE/QUARTER	ONCE/QUARTER
PH	ONCE/QUARTER	ONCE/QUARTER
OIL & GREASE	ONCE/QUARTER	ONCE/QUARTER
SILVER, TOTAL RECOVERABLE	ONCE/QUARTER	ONCE/QUARTER
ARSENIC, TOTAL RECOVERABLE	ONCE/QUARTER	ONCE/QUARTER
BERYLLIUM, TOTAL RECOVERABLE	ONCE/QUARTER	ONCE/QUARTER
THALLIUM, TOTAL RECOVERABLE	ONCE/QUARTER	ONCE/QUARTER
CADMIUM, TOTAL RECOVERABLE	ONCE/QUARTER	ONCE/QUARTER
ANTIMONY, TOTAL RECOVERABLE	ONCE/QUARTER	ONCE/QUARTER
LEAD, TOTAL RECOVERABLE	ONCE/QUARTER	ONCE/QUARTER
SELENIUM, TOTAL RECOVERABLE	ONCE/QUARTER	ONCE/QUARTER
CHROMIUM (VI), DISSOLVED	ONCE/YEAR	ONCE/YEAR
COPPER, TOTAL RECOVERABLE	ONCE/YEAR	ONCE/YEAR
TOTAL HARDNESS	ONCE/YEAR	ONCE/YEAR
MERCURY, TOTAL RECOVERABLE	ONCE/YEAR	ONCE/YEAR
AMMONIA AS N	ONCE/YEAR	ONCE/YEAR
NICKEL, TOTAL RECOVERABLE	ONCE/YEAR	ONCE/YEAR
CHROMIUM (III), TOTAL RECOVERABLE	ONCE/YEAR	ONCE/YEAR
ALUMINUM, TOTAL RECOVERABLE	ONCE/YEAR	ONCE/YEAR
ZINC, TOTAL RECOVERABLE	ONCE/YEAR	ONCE/YEAR

- **Sampling Frequency Justification:**

Sampling and Reporting Frequency was retained from previous permit.

- **Sampling Type Justification:**

Grab samples are an appropriate method for collecting stormwater samples.

The above frequencies are the minimum sampling frequency requirement. If samples are collected on a more frequent basis, then the per-month average of the samples may be submitted. Samples shall be collected during the first discharge of the quarter and any time the basin overflows the emergency outlet. Report as “no-discharge” when a discharge does not occur during the entire monitoring period.

For quarterly samples, sampling shall occur once per quarter in the periods of January through March, April through June, July through September, and October through December. Results are to be reported by the 28th day of the month following the applicable quarter (e.g., for the first quarter of January through March, the sample should be reported by the 28th of April). Samples shall be recorded as if they were sampled in the last month of each quarter.

For the annual samples, sampling shall occur a minimum of once per year in the period of May through September. Monitoring reports shall be submitted no later than October 28th. For tracking purposes, samples shall be recorded by the department as though they were taken in September.

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 that all permits within a watershed will move through the Watershed Based Management (WBM) cycle together will all expire in the same fiscal year. 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 three years old, that 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.

PUBLIC NOTICE:

The Department shall give public notice that a draft permit has been prepared and its issuance is pending. Additionally, public notice will be issued if a public hearing is to be held because of a significant degree of interest in and 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 was from 12/12/14 to 1/12/15. No responses were received.

Prior to issuance, permitting staff updated receiving stream information to reflect most current available data. Staff also updated a typo in Table A-1 for Outfalls #001-003 in the following way: Chromium VI was entered in the table as Chromium VI, Total Recoverable; this was changed to Chromium VI, Dissolved. It was correct in the fact sheet; the table is updated to reflect correct information. Typos were also corrected in the fact sheet for Silver, total recoverable limit calculations. These updates do not affect permit conditions; therefore, they are considered a minor modifications and no further public notice is required.

DATE OF FACT SHEET: 10/2014

DATE OF REVISION: 12/29/2015

COMPLETED BY:

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Appendices

APPENDIX – TITLE: Reasonable Potential Determination for Outfall #001, 002,003, and 004

Outfall #001												
Unclassified												
Facility Name	Eagle Ridge Landfill											
Permit Number	MO-0111996											
Stream name	Tributary to Gailey Branch (U)											
Qe = Variable Stormwater												
Parameters	UNITS	Aquatic Life Acute (CMC)	Aquatic Life Chronic (CCC)	Human Health Fish (HHF)	Chronic Drinking Water Standard (DWS)	Sample Number	Maximum	Minimum	Mean	RPTE CMC (Y/N)	RPTE CCC (Y/N)	RPTE HHF or DWS (Y/N)
Al	ug/L	750.0			6	5	2100.00	0.580	445.060	Y	N	Y
NH3_Summer	mg/L	3.1	1.4		NA	5	0.20	0.010	0.156	N	N	N
Sb	ug/L			4300.0	6	5	20.00	0.020	6.012	N	N	N
As	ug/L	N.A.	20.0		50	5	20.00	0.020	7.012	N	Y	N
Benzene	ug/L			71.0	5	20	5.00	0.002	1.251	N	N	Y
Be	ug/L		5.0		4	5	5.00	0.005	1.203	N	Y	N
BOD	mg/L					20	17.00	4.000	5.305			
Cd	ug/L	5.4	0.3		5	5	2.00	0.002	0.802	N	Y	N
COD	mg/L					20	37.00	6.000	20.480			
Cl-	mg/L	860.0	230.0		250	20	21.00	2.500	11.130	N	N	N
Cl-&So4	mg/L	1000.0	1000.0			20	82.00	19.000	39.385	N	N	N
CrVI	ug/L	15.0	10.0			5	5.00	0.005	2.004	N	N	N
CrIII	ug/L	1921.0	92.0		100	5	5.00	0.005	2.004	N	N	N
Co	ug/L				1000 ¹	5	5.00	0.002	1.402	N	N	N
Cu	ug/L	15.0	10.0		1300	5	10.00	0.010	3.846	N	N	N
Ethylbenzene	ug/L		320.0		700	20	5.00	0.002	1.351	N	N	N
F	mg/L				4	4	0.55	0.250	0.343	N	N	N
Fe	mg/L	N.A.	1.0			20	13.00	0.130	3.233	N	Y	N
Pb	ug/L	89.8	3.5		15	5	10.00	0.010	4.006	N	Y	N
Hg	ug/L	2.4	0.5		2	5	0.26	0.000	0.092	N	N	N
Ni	ug/L	501.0	55.7		100	5	12.00	0.010	3.206	N	N	N
O&G	mg/L		10.0		NA	20	10.00	5.000	5.715	N	Y	N
Se	ug/L		5.0		50	5	10.00	0.010	4.006	N	Y	N
Ag	ug/L	4.4	N.A.		50	5	10.00	0.010	2.406	Y	N	N
Tl	ug/L			6.3	2	5	20.00	0.010	6.007	N	Y	Y
Toluene	mg/L			200000.0	1000	20	22.00	0.002	2.151	N	N	N
TSS	mg/L				NA	20	190.00	6.000	37.755			
Zn	ug/L	128.0	128.0		5000	5	11.00	0.010	4.210	N	N	N
Footnote 1:		WQ Criteria:										
*Groundwater (GRW) standard		Except Chromium VI, chronic and acute metals standards converted to total recoverable. 25th Percentile hardness of 108 mg/L was used.										
Assumptions and Basis:												
Less than values in the dataset were assigned 1/2 the detection limit (DL).												
RPTE is compared to acute criteria for stormwater												
RPTE = reasonable potential to exceed												

Appendices

APPENDIX – TITLE: Reasonable Potential Determination for Outfall # 002

Outfall #002												
Unclassified												
Facility Name	Eagle Ridge Landfill											
Permit Number	MO-0111996											
Stream name	Tributary to Gailey Branch (U)											
Qe = Variable Stormwater												
Parameters	UNITS	Aquatic Life Acute (CMC)	Aquatic Life Chronic (CCC)	Human Health Fish (HHF)	Drinking Water Standard (DWS)	Sample Number	Maximum	Minimum	Mean	RPTE CMC (Y/N)	RPTE CCC (Y/N)	RPTE HHF or DWS (Y/N)
Al	ug/L	750.0			6	6	1000.000	0.050	310.720	Y	N	Y
NH3_Summer	mg/L	3.1	1.4		NA	6	0.200	0.010	0.135	N	N	N
Sb	ug/L			4300.0	6	6	20.000	0.020	5.013	N	N	Y
As	ug/L	N.A.	20.0		50	6	20.000	0.002	5.844	N	N	N
Benzene	ug/L			71.0	5	20	5.000	0.002	1.251	N	N	Y
Be	ug/L		5.0		4	6	5.000	0.005	1.003	N	Y	Y
BOD	mg/L					20	10.000	4.000	4.895			
Cd	ug/L	5.4	0.3		5	6	2.000	0.002	0.668	N	Y	N
COD	mg/L					20	550.000	6.000	44.690			
Cl-	mg/L	860.0	230.0		250	20	38.000	6.500	14.795	N	N	N
Cl-&So4	mg/L	1000.0	1000.0			20	156.000	0.005	62.235	N	N	N
CrVI	ug/L	15.0	10.0			6	5.000	0.005	1.671	N	N	N
CrIII	ug/L	1921.0	92.0		100	6	5.000	0.005	1.672	N	N	N
Co	ug/L				1000 ¹	6	20.000	0.002	4.170	N	N	N
Cu	ug/L	15.0	10.0		1300	6	10.000	0.010	2.707	N	N	N
Ethylbenzene	ug/L		320.0		700	20	5.000	0.002	1.251	N	N	N
F	mg/L				4	6	0.982	0.250	0.635	N	N	N
Fe	mg/L	N.A.	1.0			20	35.000	0.160	3.156	N	Y	N
Pb	ug/L	89.8	3.5		15	6	10.000	0.001	1.839	N	Y	N
Hg	ug/L	2.4	0.5		2	6	0.220	0.000	0.070	N	N	N
Ni	ug/L	501.0	55.7		100	6	10.000	0.010	2.040	N	N	N
O&G	mg/L		10.0			20	6.000	5.000	5.465	N	N	N
Se	ug/L		5.0		50	6	10.000	0.010	3.340	N	Y	N
Ag	ug/L	4.4	N.A.		50	6	10.000	0.010	2.007	Y	N	N
Tl	ug/L			6.3	2	6	20.000	0.010	5.007	N	Y	Y
Toluene	mg/L			200000.0	1000	20	2.000	0.002	0.801	N	N	N
TSS	mg/L				NA	20	460.000	4.000	43.810			
Zn	ug/L	128.0	128.0		5000	6	10.000	0.010	3.343	N	N	N
Footnote 1:		WQ Criteria:										
*Groundwater (GRW) standard		Except Chromium VI, chronic and acute metals standards converted to total recoverable. 25th Percentile hardness of 108 mg/L was used.										
Assumptions and Basis:												
Less than values in the dataset were assigned 1/2 the detection limit (DL).												
RPTE is compared to acute criteria for stormwater												
RPTE = reasonable potential to exceed												

Appendices

APPENDIX – TITLE: Reasonable Potential Determination for Outfall #004

Outfall #004												
Unclassified												
Facility Name	Eagle Ridge Landfill											
Permit Number	MO-0111996											
Stream name	Tributary to Gailey Branch (U)											

Qe = Variable Stormwater

Parameters	UNITS	Aquatic Life Acute (CMC)	Aquatic Life Chronic (CCC)	Human Health Fish (HHF)	Chronic Drinking Water Standard (DWS)	Sample Number	Maximum	Minimum	Mean	RPTE CMC (Y/N)	RPTE CCC (Y/N)	RPTE HHF or DWS (Y/N)
Al	ug/L	750.0			6	3	890.000	0.050	296.715	Y	N	Y
NH3_Summer	mg/L	3.1	1.4		NA	3	0.200	0.010	0.137	N	N	N
Sb	ug/L			4300.0	6	3	20.000	0.020	6.680	N	N	Y
As	ug/L	N.A.	20.0		50	3	20.000	0.020	6.680	N	Y	N
Benzene	ug/L			71.0	5	15	2.000	0.002	1.068	N	Y	Y
Be	ug/L		5.0		4	3	5.000	0.005	1.670	N	Y	Y
BOD	mg/L					15	6.000	4.000	4.467			
Cd	ug/L	5.4	0.3		5	3	2.000	0.002	0.668	N	Y	N
COD	mg/L					15	38.000	6.000	19.200			
Cl-	mg/L	860.0	230.0		250	15	36.000	2.000	11.293	N	N	N
Cl-&So4	mg/L	1000.0	1000.0			15	87.000	2.700	30.993	N	N	N
CrVI	ug/L	15.0	10.0			3	5.000	0.005	1.670	N	N	N
CrIII	ug/L	1921.0	92.0		100	3	5.000	0.005	1.671	N	N	N
Co	ug/L				1000 ¹	3	5.000	0.002	1.669	N	N	N
Cu	ug/L	15.0	10.0		1300	3	10.000	0.010	3.350	N	Y	N
Ethylbenzene	ug/L		320.0		700	15	2.000	0.002	1.068	N	N	N
F	mg/L				4	3	0.250	0.250	0.250	N	N	N
Fe	mg/L	N.A.	1.0			15	100.000	0.023	7.832	N	Y	N
Pb	ug/L	89.8	3.5		15	3	10.000	0.010	3.340	N	Y	N
Hg	ug/L	2.4	0.5		2	3	0.200	0.000	0.067	N	N	N
Ni	ug/L	501.0	55.7		100	3	10.000	0.010	3.340	N	N	N
O&G	mg/L		10.0		NA	15	8.000	4.000	5.600	N	N	N
Se	ug/L		5.0		50	3	10.000	0.010	3.340	N	Y	N
Ag	ug/L	4.4	N.A.		50	3	10.000	0.010	3.340	Y	N	N
Tl	ug/L			6.3	2	3	10.000	0.010	3.340	N	Y	Y
Toluene	mg/L			200000.0	1000	15	2.000	0.002	0.801	N	N	N
TSS	mg/L				NA	15	1700.000	2.000	137.040			
Zn	ug/L	128.0	128.0		5000	3	13.000	0.010	4.340	N	N	N

Footnote 1:

*Groundwater (GRW) standard

WQ Criteria:

Except Chromium VI, chronic and acute metals standards converted to total recoverable. 25th Percentile hardness of 108 mg/L was used.

Assumptions and Basis:

Less than values in the dataset were assigned 1/2 the detection limit (DL).

RPTE is compared to acute criteria for stormwater

RPTE = reasonable potential to exceed



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.



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

- 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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THE MISSOURI DEPARTMENT OF NATURAL RESOURCES
MISSOURI CLEAN WATER COMMISSION
REVISED
AUGUST 1, 2014

- 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 permittees 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.

RECEIVED

MAY 20 2016



MISSOURI DEPARTMENT OF NATURAL RESOURCES
 WATER PROTECTION PROGRAM, WATER POLLUTION BRANCH
APPLICATION FOR TRANSFER OF OPERATING PERMIT

FOR AGENCY USE ONLY	
CHECK NO.	2568
DATE RECEIVED	5/20/16
FEE SUBMITTED	\$100.0088

PERMIT NUMBER
 #MO-0111996

THE FOLLOWING ITEMS (1 - 4) ARE TO BE COMPLETED BY THE CURRENT OWNER. SEE INSTRUCTIONS FOR APPROPRIATE FEE TO BE SUBMITTED WITH APPLICATION.

1. FACILITY

NAME Eagle Ridge Landfill		TELEPHONE NUMBER WITH AREA CODE (573) 324-5610	
ADDRESS (PHYSICAL) 13100 Highway VV	CITY Bowling Green	STATE MO	ZIP 63334

2. CURRENT OWNER

NAME Waste Corporation of Missouri, Inc.		TELEPHONE NUMBER WITH AREA CODE (417) 851-1951	
ADDRESS 19212 East 231st Street	CITY Harrisonville	STATE MO	ZIP 64701
EMAIL ADDRESS kobrien@wcamerica.com			

3. CONTINUING AUTHORITY: Permanent organization that will serve as the continuing authority for the operation, maintenance and modernization of the facility. (If same as current owner, respond "same")

NAME Same as above		TELEPHONE NUMBER WITH AREA CODE	
ADDRESS	CITY	STATE	ZIP
EMAIL ADDRESS			

4. CERTIFICATION

I certify I am familiar with the information contained in the application, that to the best of my knowledge and belief such information is true, complete and accurate, and upon transfer approval, I agree to abide by the Missouri Clean Water Law and all rules, regulations, orders and decisions, subject to any legitimate appeal available under the Missouri Clean Water Law. Further, I certify I have read the existing permit and agree to abide by the terms and conditions once the transfer is complete.

NAME (TYPE OR PRINT) Kevin O'Brien	OFFICIAL TITLE Regional Vice President	TELEPHONE NUMBER WITH AREA CODE (417) 851-1951
SIGNATURE 		DATE SIGNED 5-17-16

THE FOLLOWING ITEMS (5 - 10) WILL APPLY AFTER THE COMPLETION OF TRANSFER (SALE) AND ARE TO BE COMPLETED BY THE APPLICANT FOR TRANSFER OF OPERATING PERMIT (BUYER) OR AUTHORIZED AGENT.

5. FACILITY (IF DIFFERENT THAN ABOVE)

NAME	TELEPHONE NUMBER WITH AREA CODE
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6. FUTURE OWNER

NAME Meridian Land Company, LLC.		TELEPHONE NUMBER WITH AREA CODE (724) 799-4305	
ADDRESS 12540 Broadwell Road, Suite 2104	CITY Milton	STATE GA	ZIP 30004
EMAIL ADDRESS jeff@meridianwastesolutions.com			

7. CONTINUING AUTHORITY: Permanent organization that will serve as the continuing authority for the operation, maintenance and modernization of the facility. (If same as future owner, respond "same")

NAME Same as above		TELEPHONE NUMBER WITH AREA CODE	
ADDRESS	CITY	STATE	ZIP
EMAIL ADDRESS			

8. FACILITY CONTACT

NAME Michael Cosman		TITLE General Manager Transfer and Landfill	
EMAIL ADDRESS mcosman@meridianwaste.com		TELEPHONE NUMBER WITH AREA CODE (573) 324-5610	
ADDRESS 13100 Highway VV	CITY Bowling Green	STATE MO	ZIP 63334

9. ADDITIONAL INFORMATION

9.1 Anticipated Effective Date of Transfer of Ownership: December 28, 2015

9.2 Are any changes in production, in raw materials, or in the quantity of discharges from this facility planned or anticipated?
 Yes No If yes, explain (Attach sheets as necessary)

10. CERTIFICATION

I certify I am familiar with the information contained in the application, that to the best of my knowledge and belief such information is true, complete and accurate, and upon transfer approval, I agree to abide by the Missouri Clean Water Law and all rules, regulations, orders and decisions, subject to any legitimate appeal available under the Missouri Clean Water Law. Further, I certify I have read the existing permit and agree to abide by the terms and conditions once the transfer is complete.

NAME (TYPE OR PRINT) Jeffrey Cosman	OFFICIAL TITLE Chairman-CEO	TELEPHONE NUMBER WITH AREA CODE (724) 799-4305
SIGNATURE 		DATE SIGNED 5/11/2016