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March 31, 2016

Mr. Eric Syftestad
Wisconsin Department of Natural Resources
Waste Management Engineer
3911 Fish Hatchery Road
Fitchburg, WI 53711

Re: Marathon County Landfill – Bluebird Ridge Recycling & Disposal Facility (License No. 4228)
2015 Annual Solid Waste Report

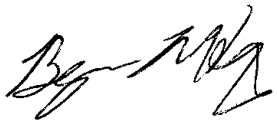
Dear Mr. Syftestad:

On behalf of the Marathon County Solid Waste Department (Marathon County) Cornerstone Environmental Group, LLC (Cornerstone) is hereby submitting four (4) copies (three paper and one electronic) of the 2015 Annual Solid Waste Report for the Bluebird Ridge Recycling and Disposal Facility (BRRDF) of the Marathon County Landfill. This Annual Solid Waste Report is being submitted in accordance with the approved plan of operation for BRRDF.

If you have any questions or comments regarding this Annual Solid Waste Report do not hesitate to contact Mr. Mike Melan at (630) 633-5841 or Ms. Meleesa Johnson at (715) 466-3101 ext 104.

Sincerely,

Cornerstone Environmental Group, LLC



Benjamin Hintz
Project Scientist

Enclosure: As Noted

cc: Marathon County Landfill (File Copies)

Marathon County Solid Waste Department
Bluebird Ridge Recycling & Disposal Facility
2015 ANNUAL REPORT

WDNR License No. 4228
FID 337005680

Marathon County Solid Waste Management Department
R18500 Highway 29
Ringle, WI 54471
Phone 715-446-3101
Director: X104
Operations Manager: 715-551-5864
Business Office: X100
Environmental Technician: X101
Scale: X103

Solid Waste & Recycling Information Line: 877-270-3989

www.marathoncountysolidwaste.org

marathoncountysolidwaste

Staff, Consultants & Contractors

Marathon County Solid Waste Department Staff:

- Meleesa Johnson-Director
- David Hagenbucher-Operations Manager
- Diane Borchardt-Scale Operator
- Ron Smith-Environmental Technician
- Julie Groshek-Accounting Specialist
- Chris Wickman-Equipment Maintenance Specialist
- Kevin Steinke-Equipment Operator
- Eric Olson-Eqiupment Operator
- Alex Thomas-Intern
- Carson Pethan-Intern
- Dave Vitt-Intern
- Chris Wood-Seasonal Field Assistant

Engineering Consultants:

- Mike Michels
  Cornerstone Environmental Group, LLC
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  435 E Mill Street, Suite 15
  Plymouth, WI 53073
- Cyndi Neitzel
  Cornerstone Environmental Group, LLC
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Contractors:

- CQM, Inc.
  2679 Continental Drive
  Green Bay, WI 54311
- Northern Lakes Service, Inc.
  400 North Lake Avenue
  Crandon, WI 54520
- Northern Pipe Equipment, Inc.
  1722 County Road QQ
  Green Bay, WI 54311
- Recycling Connections Corporation
  P.O. Box 91
  Stevens Point, WI 54481-0091
- Veolia ES-Technical Solutions
  W124 N9311 Boundary Road
  Menomonee Falls, WI 53051
- Kulp Roofing

C1891 Hwy 153
Stratford, WI 54484

- Lloyd Trucking
  P.O. Box 1731
  Wausau, WI 54402-1731
- Marathon County Forestry Department
  212 River Drive
  Wausau, WI 54403
- Raith Logging
  N9426 County Road B
  Summit Lake, WI
- Krueger & Stienfest INC
  539 Forrest Ave,
  Antigo, WI 54409
- Walt's Petroleum Service, Inc
  5207 E. Jelinek Avenue
  Schofield, WI 54476
- E-Con Electric
  4610 Plover Rd
  PO Box 324
  Wisconsin Rapids, WI 54495-0324

Introduction

This document meets the annual reporting requirements of the Wisconsin Department of Natural Resources (DNR) January 31, 2013 Plan of Operation approval and the January 15, 2015 Plan Modification approval.

Background

Marathon County Solid Waste Department (MCSWD) owns, operates, and manages Bluebird Ridge Recycling and Disposal Facility (BRRDF), with MCSWD staff directing all facets of the operation. The facility opened in July 2014, with an approved capacity of 2,900,000 cubic yards. This landfill sits on the southeast corner of the 532 acre site owned by the MCSWD and is the third landfill to be located here. The property is located along the north side of Hwy 29, in the town of Ringle, Wisconsin.

Bluebird Ridge Recycling & Disposal Facility
(Shown at Construction phase in September 2013)

Summary of Landfill Activities in 2015

Disposal operations began on July 21, 2014. As of January 2016, there remains an estimated capacity of 2,504,803 cubic yards. During 2015, BRRDF served as the final disposal for 183,069 tons of waste. Operational duties include, but are not limited to, complete site operations, administrative management, air permit compliance, gas system management, storm water management, and customer service. As needed, the county hired various contractors to perform specific tasks beyond the capabilities of the staff and operational contractors.

Cover materials and alternative daily cover (ADC) were used as the only means of odor control. No gas system is yet in place.

Operations Summary

- Daily operations
  - Compact & cover operations
  - Supplemental cover added to control odors
  - Litter control-retained inmate labor to assist with this task
  - Plow roads
  - Grade roads
  - Water roads & also add calcium chloride for dust control
- Conducted upgrades to overburden stockpile to reduce erosion, including re-grading and seeding
- Evaluated and approved special waste disposal requests for high volume industrial products, off-specification food additives, contaminated soils and other materials using approved special waste plan
- Conducted daily, monthly, annual environmental monitoring
- Conducted educational tours
- Began work with Central WI Off-road Cycling Coalition, DNR and Ice Age Trail Alliance to develop off-road biking course

Waste Disposal Activities

During 2015, 183,069 of wastes were buried in BRRDF. Included in this sum were the following waste categories (reported in tons):

- Category 1-Municipal Waste 151,718 tons
- Category 2-Utility Ash & Sludge 1,561 tons
- Category 3-Pump/peppermill mfg. waste 3,727 tons
- Category 6-All other wastes 10,740 tons
- Category 21-High Volume Waste Used As Daily Cover, Berms, Dike, Etc. 6,571 tons
- Category 25-Construction/demolition 8,718 tons
- Category 27-Wate Generated by a Nonprofit Organization 34 tons

In addition to wastes buried, 32,247.08 tons of reacted coal combustion bottom ash, 904.22 tons of street sweepings, and 500 tons of contaminated soil (C-Soil) was delivered for use as alternative daily cover (ADC) material. No ADC was used on exterior side-slopes or within 100 feet of the limits of waste. Native soils were also used as cover material. A total of 82.7 tons of friable asbestos was also accepted as part of the waste disposal activities in 2015.

Waste that was disposed of at the facility originated from the following counties:

- Eau Claire
- Clark
- Taylor
- Vilas
- Ashland
- Bayfield
- Oneida
- Langlade
- Menominee
- Portage
- Wood
- Shawano
- Marathon
- Waupaca
- Price
- Forest
- Chippewa

There were no issues or problems in handling the wastes delivered. MCSWD staff preformed their duties so as to quickly and effectively see to the through-put, compaction, and covering of wastes.

Special Wastes

BRRDF is licensed to accept waste that would be considered non-hazardous special wastes. This includes contaminated soils, wastewater treatment plant sludge, paper mill process sludge, combustion ash, paint process debris, pollution control by-products, street sweepings, and car wash grit. MCDSW pre-screens all special wastes via the Special Waste Profile Form. Customers wishing to deliver non-standard wastes must complete the form and provide to MCSWD staff for review and approval. The generator of waste, or their agent, must complete the form and also have a variety of laboratory tests conducted on the special waste. The MCSWD Special Waste Analytical Protocol and Acceptance Criteria delineates parameter thresholds the waste material must meet in order to qualify as a non-hazardous special waste. No special wastes are accepted without first completing this process. All records are retained.

Types of special waste accepted in 2015 include, but are not limited to, petroleum-contaminated soils, lead-painted brick, chlorinated solvent-contaminated soils, metal finishing/process sludge, street sweepings, and spoiled food-grade nutrient supplements. All special wastes were approved per the Special Waste Protocol and Acceptance Criteria.

Load Inspections

Load inspections were completed periodically, at least every 5,000 tons and for suspicious loads. Forms documenting load inspections are kept in the facility files.

Additional Waste & Recycling Services Information

The MCSWD offers a full range of solid waste and recycling services. During 2015, the following material were either separated for recycling from the waste stream by staff or source separated by the generator:

- Appliances
- Electronics
- Fluorescent lighting
- Household hazardous waste
- Very small quantity generator hazardous waste
- Lead-acid batteries
- Oil filters
- Rechargeable batteries
- Recyclable containers and papers
- Scrap metal
- Sharps
- Tires
- Waste anti-freeze
- Waste oil
- Shingles
- Vinyl siding

In 2012 the MCSWD was granted, by the DNR, a NR502.05(3)(j) exemption for a short-term, non-containerized, waste storage facility for the collection and short-term storage of waste shingles. The shingle recycling drop-off opened in June 2012 and was permitted to receive both residential and residential-like commercial shingle for recycling. Only clean shingles (free of debris and garbage-nails allowed) are accepted for recycling. Loads that do not meet the criteria are required to be landfilled.

In 2015, the shingle recycling program diverted 1,166 tons of shingles from landfill disposal. All shingles were taken to Pitlik & Wick, Eagle River, Wisconsin, where they were ground up and nails were removed via magnet. Ground shingles were mixed with asphalt.

Since the MCSWD does not host a yard material site, all yard materials, including grass, leaves, and brush were referred to various municipal facilities that manage such items. Compost bins were also sold to those who wished to manage their yard materials on their properties.

MCSWD administers a multi-municipality street sweeping low hazard exemption beneficial reuse program. Participating municipalities are able to divert from landfilling the sand/grit collected after the winter season. Collected sweepings are used in municipal utility and public works projects. In 2015 this program diverted over 9,580 cubic yards of sweepings from landfill disposal and saved participating municipalities a collective $499,351 on disposal fees.

In addition to the above noted materials, MCSWD underwrote the entire cost of the county's Medication Drop Box Program, at six local police departments, for unused/unwanted/outdated medications. MCSWD operated a household hazardous materials collection facility which provided service to Marathon county residents, farmers, and businesses on a fee-free system. Shawano, Lincoln, and Wood county residents, farmers, and businesses where provided this service on a fee-based system.

Landfill Maintenance

During 2015 the following site maintenance activities were completed:

- Regular inspections of leachate tank area and sump were conducted to check for potential leaks.
- All roadways were treated with calcium chloride as a means of dust control during spring and fall of 2015.
- All plantings on the vegetative buffers along the southern and eastern boundaries were regularly checked for predation and water needs. Fencing was installed where needed to prevent destruction to plantings.
- The storm water and infiltration basin was inspected to ensure the integrity of overflow and slopes.
- Identified wetland areas upkeep including silt fencing to delineate and periodic inspection.
- Insulated above ground leachate tank with spray on insulation (completed by Kulp Roofing) to prevent potential freezing.
- Insulated piping and added heating system to inside of sideslope riser vault to prevent pipes from freezing.
- Repaired leachate pumping system damaged by lightning
- Maintained storm water system & biofilter
- Maintained vegetative buffer-added plantings where necessary
- Logged off area within the future Phase III-V cell expansion limits

Gas Collection System

The gas collection system is not required to be installed nor have any features been installed at BRRDF. Landfill gas emissions from BRRDF are regulated under and in accordance with Air Pollution Control Operation Permit 737092730-P11 (expired January 1, 2015 and renewed November 1, 2015) and renewed Air Pollution Control Operation Permit 737092730-P20 (expired November 2, 2015 and renewed December 1, 2015).

Soil Gas Monitoring

During 2015 the soil gas probes were monitored quarterly for relative pressure, methane (CH4), oxygen (02), ambient air temperature, gas temperature, ground conditions, barometric pressure, and barometric pressure trend. In 2015, these monitoring results indicated no gas migration.

First Quarter Probe Data (January 28, 2015):

Gas Probe [Depth in feet]	Location	Methane (%CH4 by Vol.)	Oxygen (%O2 by Vol.)	Pressure (inch W.C.)	Notes:
WDNR Parameter #		85547	85550	46389	WDNR ID No.
BRRDF Probes	Lic. 4228				
GP101	N BRRDF	0.0	20.1	0.00	550
GP102	E BRRDF	0.0	19.8	0.00	551
GP103	E BRRDF	0.0	21.1	0.00	552
GP104	S BRRDF	0.0	20.0	0.00	553
GP105	S BRRDF	0.0	20.3	0.00	554
GP106	W BRRDF	0.0	20.4	0.00	555

Second Quarter Probe Data (April 29, 2015):

Gas Probe [Depth in feet]	Location	Methane (%CH4 by Vol.)	Oxygen (%O2 by Vol.)	Pressure (inch W.C.)	Notes:
WDNR Parameter #		85547	85550	46389	WDNR ID No.
BRRDF Probes	Lic. 4228				
GP101	N BRRDF	0.0	21.0	0.01	550
GP102	E BRRDF	0.0	19.3	0.00	551
GP103	E BRRDF	0.0	20.3	0.02	552
GP104	S BRRDF	0.0	20.1	0.03	553
GP105	S BRRDF	0.0	19.4	0.05	554
GP106	W BRRDF	0.0	19.2	0.11	555

Third Quarter Probe Data (July 27, 2015):

Gas Probe [Depth in feet]	Location	Methane (%CH4 by Vol.)	Oxygen (%O2 by Vol.)	Pressure (inch W.C.)	Notes:
WDNR Parameter #		85547	85550	46389	WDNR ID No.
BRRDF Probes	Lic. 4228				
GP101	N BRRDF	0.0	20.8	0.00	550
GP102	E BRRDF	0.0	20.4	0.00	551
GP103	E BRRDF	0.0	20.5	0.00	552
GP104	S BRRDF	0.0	20.3	0.00	553
GP105	S BRRDF	0.0	20.1	0.00	554
GP106	W BRRDF	0.0	20.2	0.00	555

Fourth Quarter Probe Data (October 20, 2015):

Gas Probe [Depth in feet]	Location	Methane (%CH4 by Vol.)	Oxygen (%O2 by Vol.)	Pressure (inch W.C.)	Notes:
WDNR Parameter #		85547	85550	46389	WDNR ID No.
BRRDF Probes	Lic. 4228				
GP101	N BRRDF	0.1	20.7	-0.02	550
GP102	E BRRDF	0.0	20.8	0.01	551
GP103	E BRRDF	0.0	20.8	0.00	552
GP104	S BRRDF	0.0	20.9	0.00	553
GP105	S BRRDF	0.0	20.8	0.00	554
GP106	W BRRDF	0.0	20.8	0.00	555

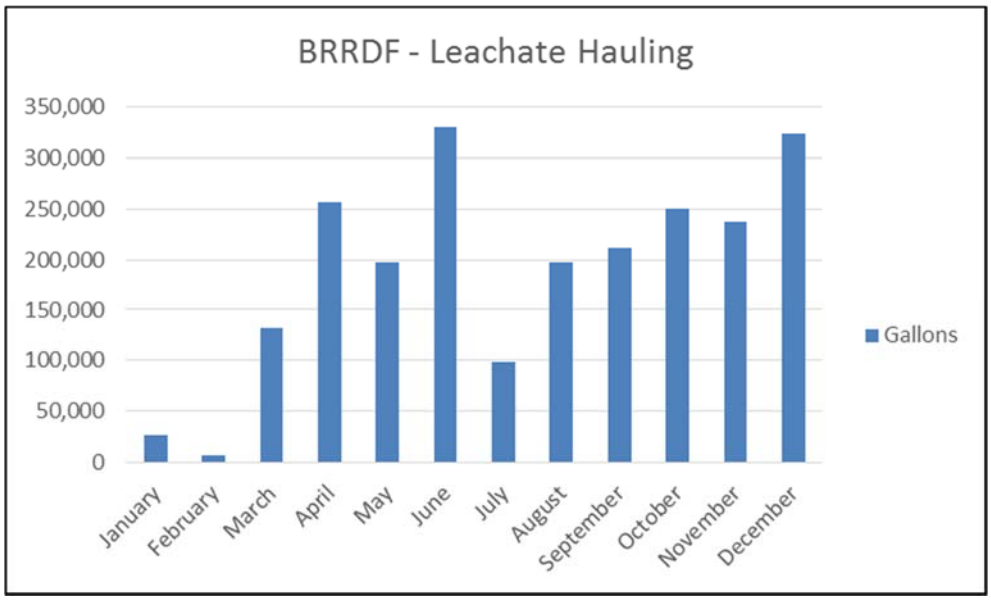
Leachate System Information:

Leachate is collected throughout a system of perforated piping laid in trenches at the base of the landfill. Leachate gathers in a sump at the base of side slope riser. A pump within the riser pipe transfers leachate through a forcemain system to an aboveground storage tank. One of the proposed three sideslope riser pipes is operational (Phase 1 and 2) and there are two yet to be constructed (Phase 3 and 4 and Phase 5). Pumping from the side slope risers is interrupted should a sensor system inside the storage tank indicate the liquid has reached a specified level to ensure the tank does not overflow. The contract hauler makes regular visits to the site to pump the stored leachate into a 6,600 gallon tanker truck that is delivered to a licensed waste water treatment facility.

Leachate collected is transported to either Domtar, Inc. in Rothschild, Wisconsin, Wausau Wastewater Treatment Facility, or Stevens Point Wastewater Treatment Facility. Leachate is pumped into the waste water treatment facility and treated to ensure all effluent meet Wisconsin Pollutant Discharge Elimination System (WPDES) standards prior to discharge into the Wisconsin River.

Total volume of leachate collected/transported/treated in 2015 is as follows:

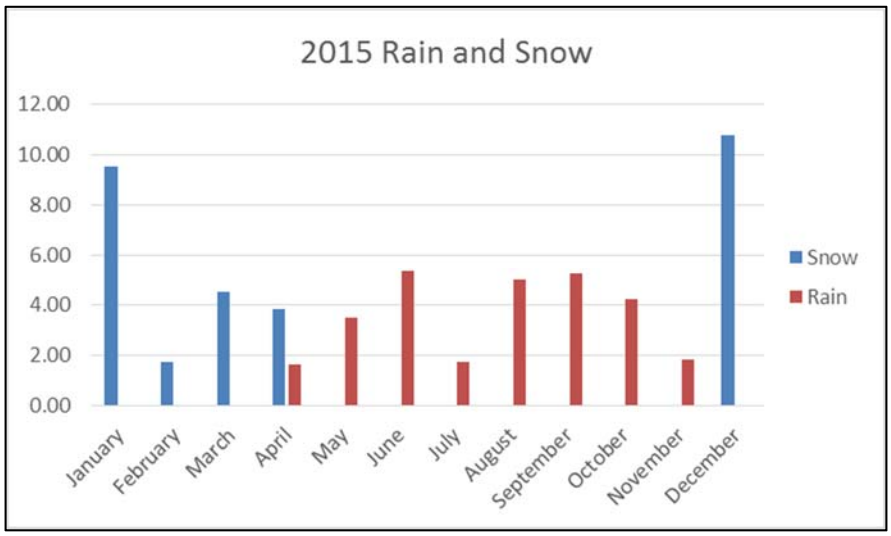
Month	Gallons
January	26,400
February	6,600
March	132,000
April	257,400
May	198,000
June	330,000
July	99,000
August	198,000
September	211,200
October	250,800
November	237,600
December	323,400
Total	2,270,400

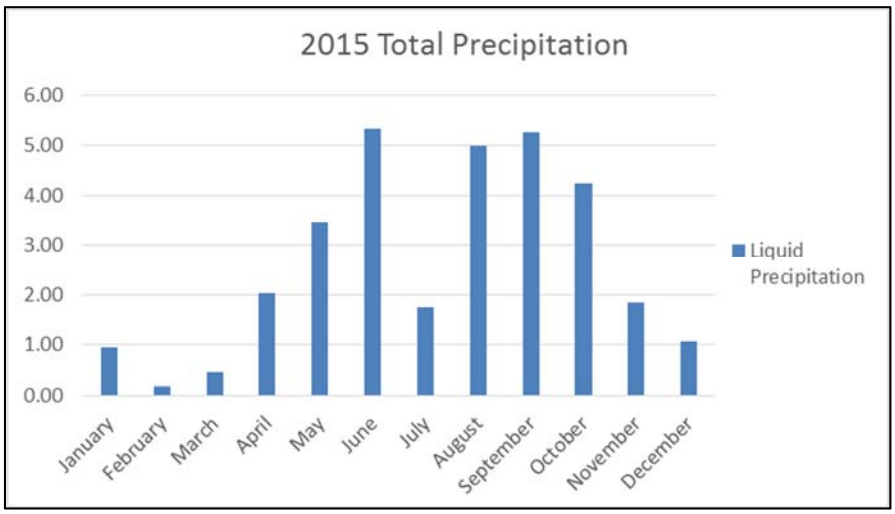


Precipitation:

2015 Precipitation Totals			
Month	Snow (inches)	Rain (inches)	Liquid Precipitation* (inches)
January	9.55		0.96
February	1.75		0.18
March	4.50		0.45
April	3.84	1.65	2.03
May		3.48	3.48
June		5.33	5.33
July		1.75	1.75
August		5.00	5.00
September		5.25	5.25
October		4.25	4.25
November		1.85	1.85
December	10.75		1.08
Total	30.39	28.55	31.59

**Snow converted to liquid precipitation by dividing by 10*





Leachate Line Jetting:

On July 6, 2015 Northern Pipe Equipment, Inc. of Green Bay, Wisconsin, water jetted the BRRDF leachate lines with a total of 1,500 gallons of water. Jetting was accomplished by accessing pipes from both ends for cleaning to overlap in the center or jetting the full length from access at end. The results/findings are:

MARATHON COUNTY LANDFIL

LEACHATE PIPE CLEANOUT RECORDS

DATE: July, 6,2015
CONTRACTOR NAME: Northern Pipe Equipment, Inc.
CONTRACTOR PHONE: 920.468.7074
EQUIPMENT USED: #36 Vac-Con w/ 1,200 ft. 3/4" hose

BLUE BIRD RIDGE

CLEANOUT ACCESS POINT	Line Name	PIPE SIZE	PIPE LENGTH (FT)	FT. JETTED NORTH	FT. JETTED SOUTH	COMMENTS
LH W4	West Line	6"	1070	110	1,000	Jetter stops on North side ; South side no problems ; Achieved overlap
North Side	Ease Line	6"	1020	800	270	Jetter stops on North side ; South side no problems ; Achieved overlap
West End	U Shape	6"	395	0	395	Good all the way

Leachate Head Well Monitoring

Leachate head wells were monitored by MCSWD staff on a quarterly basis. The site's monitoring results indicate that the leachate head wells were dry for 2015.

Leachate Sampling

Leachate sampling and analytical analysis was conducted twice in 2015; testing was conducted in April and October. Sampling results for volatile organic compounds show a wide variety of compounds present. Full results are available on the WDNR Groundwater and Environmental Monitoring System (GEMS) database.

Leachate tank sampling conductivity results are as follows;

LST-101

April	6260 umho/cm
October	7370 umho/cm

Analyses show leachate presents as slightly acidic to neutral.

LST-101

April	5.92 ph
October	6.21 ph

Leachate Force Main Pressure Testing

Leachate force main and pipe pressure testing took place in June 2015. Testing was completed by Riverview Construction staff and MCSWD staff.

Storm Water Management

The one storm water basin and infiltration basin was continually checked for any signs of failure or problems. The basin and infiltration basin preformed as designed and lost no structural integrity. A small temporary basin exists on the southwest corner of Phase II. This basin is continually monitored to ensure it does not threaten to scour out the berm and liner containing waste to the east of the basin. No storm water left the site.

Environmental Monitoring

Private Well Monitoring

Potable well sources of landfill neighbors were sampling in April and October. The sampling for these wells was done in conjunction with the Area A private wells. No exceedances were discovered during these samplings.

Ground Water Monitoring

Groundwater wells associated with BRRDF were sampled and analyzed in April and October. There were no exceedances in excess of the Prevention Action Limit (PAL) or Enforcement Standard (ES).