RATH YOUNG PIGNATELLI

Sherilyn Burnett Young
Attorney-At-Law
sby@rathlaw.com
Please reply to: Concord Office

February 12, 2014

Mr. Richard Hull, Remedial Project Manager
New Hampshire Superfund Section
US Environmental Protection Agency; Region I
5 Post Office Square, Suite 100
Boston, MA 02109-3912

RE: Auburn Road Landfill, Administrative Order,
Docket Number I-90-1092, Londonderry, New Hampshire

Dear Mr. Hull:

On behalf of the Town of Londonderry, New Hampshire, and pursuant to the above-captioned Administrative Order, enclosed please find a copy of the 2013 Source Control Operations and Maintenance Report submitted by the Town of Londonderry with respect to the Auburn Road Landfill Superfund Site.

Should you have any questions or concerns with respect to this report, please contact Mr. Kevin Smith at the Town of Londonderry, Mr. Ronald G. St. Michel at Kleinfelder Consultants, or me.

Very truly yours,

Sherilyn Burnett Young

SBY/smw
Enclosure

cc: Mr. Kevin Smith, Town Manager, Town of Londonderry (w/o enclosure)
Mr. Thomas Andrews, New Hampshire DES (w/enclosure)
Mr. Ronald G. St. Michel, Kleinfelder (w/o enclosure)

2013 SOURCE CONTROL OPERATION & MAINTENANCE REPORT AUBURN ROAD LANDFILL

FOR
TOWN OF LONDONDERRY, NEW HAMPSHIRE

FEBRUARY 2014

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1. INTRODUCTION

On behalf of the Town of Londonderry, Kleinfelder has prepared this report pursuant to the post-closure Operation and Maintenance requirements for the Source Control Remedy of the site. This report presents a summary of operation and maintenance activities conducted in calendar year 2013 at the Auburn Road Landfill Superfund Site in Londonderry, New Hampshire. Based on the field observations and data collected during the site visits, this report provides recommendations for corrective actions.

1.1 Background

The Source Control Remedial Action undertaken by the Town for the Auburn Road Landfill consisted of two construction phases. The first phase of work, the Landfill Regrading and Drainage Improvement Remedial Action (LRDIRA) was completed in 1993, and consisted of constructing earthen and rip-rap drainage swales and installing concrete culvert structures. The second phase of work, the Landfill Capping Remedial Action (LCRA) was completed in 1994 and consisted of capping the three landfills (Town Dump, Tire Dump, and Solid Waste Landfill). The Town is responsible for implementing maintenance and monitoring activities for the Source Control Remedy for a thirty-year period following the completion of construction. Currently, the Town has completed its eighteenth (18^{th}) year of maintenance and monitoring activities.

1.2 Operations and Maintenance Plan

In February of 1995, S E A Consultants, Inc. (S E A) prepared a Post-Closure Operation and Maintenance Report that described specific procedures and frequencies for post-closure activities, such as landfill site inspections, soil gas monitoring and settlement monitoring. On August 20, 1999, S E A submitted a letter to Rath, Young and Pignatelli, the Town's legal advisors, which proposed modifications to the Post-Closure Operation and Maintenance Report. Based on review comments received from the United States Environmental Protection Agency (USEPA) and from the State of New Hampshire Department of Environmental Services (NHDES), the Source Control Post-Closure Use Operations and Maintenance Plan, was revised as follows:

- Landfill site inspections shall be reduced to a semi-annual frequency (two times per year).
- Gas monitoring must continue, but shall be reduced to a semi-annual frequency (with one winter round).
- Visual inspections for settlement shall be performed during the landfill site inspections, and a platform survey shall be performed every three years. The next platform survey is scheduled to be performed in the fall of 2014.

2. MONITORING AND MAINTENANCE ACTIVITIES

2.1 Summary of Monitoring Activities

The monitoring activities for 2013 were completed in accordance with the Post-Closure Use Operations and Maintenance Plan, as revised in October 1999. The monitoring activities, which were completed by Kleinfelder personnel, included the following:

- Two landfill examinations (June 2013 and December 2013).
- Two rounds of soil gas monitoring (June 2013 and December 2013).

2.2 Summary of Monitoring Results

The following monitoring results are a summary of field observations and data collected during the most recent site visits. Appendix A and B contain a copy of the June 2013 and December 2013 site visits, respectively.

2.2.1 Landfill Inspection Observations

Results of the landfill inspections indicate that the LRDIRA and the LCRA were performing as designed.

Swales

All swales and culverts were observed to be operating as designed. Vegetation and sediment deposits have been observed in the invert of Swale F at the confluence of Swales E and H. If ponded water is observed, the Town should remove the sediment. Currently, the deposits do not prevent the swale from passing stormwater runoff.

Beaver Activity

The Town continues to periodically breach and/or remove beaver dams in order to allow water to flow through the site. However, beaver dams continue to present maintenance challenges. Despite the beaver dams, all swales continue to function properly. New beaver activity was observed in Swale E during the June 2013 inspection. The corrective actions completed are summarized in Section 2.3 and additional recommended corrective actions are provided in Section 3.1.

Landfill Surfaces

The Town Dump, Tire Dump and Solid Waste Landfill caps have maintained their integrity and were in good condition except for a few bare spots. The Town reseeded and fertilized the three landfill surfaces in fall of October 2011; however, some bare spots remain. The Town will re-evaluate the landfill surfaces in the spring 2014. No signs of erosion on the landfill caps were observed.

Landfill Gas Monitoring Wells and Landfill Gas Vents

The landfill gas monitoring wells and landfill gas vents on the landfills were observed to be intact and functioning properly based on landfill gas monitoring results.

Security Fencing

The security fences and gates around the landfills were in good condition. The Town has cleared vegetative growth from the fence line at the Tire Dump as recommended.

Access Roads

The site access roads consist of paved and gravel surfaces. The access roads were observed to be in good condition with no signs of erosion.

2.2.2 Soil Gas Monitoring

The soil gas monitoring program at the site consists of measuring soil gas parameters from three gas vents at each of the three landfills and at four boundary gas wells located along Auburn Road. The following parameters are measured at each of the ten locations:

- percentage of methane by volume of air;
- lower explosive limit (LEL) for methane;
- percentage of carbon dioxide by volume of air;
- percentage of oxygen by volume of air;
- concentration of hydrogen sulfide in parts per million (ppm); and
- concentration of volatile organic compounds (ppm).

Results of soil gas monitoring are consistent with those obtained from previous monitoring events. The results of the two soil-gas monitoring rounds (June and December 2013) indicate that the four wells located along Auburn Road are producing no recordable concentrations of hydrogen sulfide or methane. Consequently, the soil gas from the landfill does not appear to be migrating off-site and does not pose an apparent risk to human health and the environment. Sampling results from the gas wells within the landfills indicate that the waste material continues to produce methane and hydrogen sulfide gases.

2.2.3 Settlement Survey

The latest settlement platform survey was performed in October 2011; the eighth (8^{th}) survey since the completion of the LCRA (October 1994). The settlement surveys are comprised of measuring settlement at three platform locations on each of the three landfill areas. Based on the eight rounds of settlement survey information collected, the average settlement rate from 1994 to 1999 was approximately one inch of settlement per year. Since the 1999 survey event the settlement rate has slowed. The total settlement Post LCRA of the three landfills is summarized in the following table.

Table 2.1
Summary of Settlement Data

Location	Total Post Closure Settlement (feet)
Tire Dump	
SP-1	-0.39
SP-2	-0.47
SP-3	-0.88
Town Dump	
SP-4	-0.27
SP-5	-0.15
SP-6	-0.08
Solid Waste Landfill	
SP-7	-0.68
SP-8	-0.59
SP-9	-0.54
Average Settlement	**-0.45**

During the site inspections performed in 2013 there were no visual observations of settlement or indication of damage to the landfill cap at any of the three landfill sites.

2.3 Maintenance Activities Completed

The Town is responsible for implementing the maintenance and monitoring of the Source Control Remedy for a thirty-year period following the completion of construction. The Town has completed the following corrective actions since the 2012 Operations and Maintenance Report was written.

- Mowed the vegetative surfaces on the landfills.
- Removed beaver dam from Swale E.
- Breached beaver dam in Swale D located south of the access road (near the Tire Dump).
- Cleared isolated brush growth in the mid-slope swale on the Solid Waste Landfill.
- Cleared vegetation that was encroaching into the north side of the access road east of Swale B.
- Removed a fallen tree on the western bank of Swale F.

- Cleared vegetation in northeast corner of the Town Dump to provide access to landfill gas monitoring well GV-4.

2.4 Other Activities

In September of 2012, the EPA completed the fifth Five-Year Review Report for the Auburn Road Landfill, which assesses the protectiveness of the remedy implemented at the site. The Five-Year Review Report notes that the "remedy implemented at the Auburn Road Landfill Superfund Site currently protects human health and the environment....However,....arsenic concentrations have not attained the interim cleanup level of 10 ppb" within the five (5) year cleanup time predicted after capping. Therefore the EPA recommends the following actions to occur:

a. Schedule a meeting between the Agencies, ARPPPG, and the USGS to discuss the required follow-up actions necessary to expedite the time to reach groundwater cleanup levels, and further investigate groundwater interactions with nearby surface waters/sediments.
b. Expand the institutional control (GMZ) boundary north of Auburn Road.
c. Gather additional VOC data from the Site in order to reassess potential vapor intrusion pathway, and achievement of interim cleanup levels.

A complete summary of the findings and recommendations can be found in the Five-Year Review Report.

The Town continues to lease a small portion of the site to the New Hampshire Flying Tigers Radio Control Club for passive recreation activities. The recreation area is located on the eastern perimeter of the site, on the north side of the access road, outside the limits of the Solid Waste Landfill.

3. RECOMMENDATIONS

3.1 Summary of Recommendations

In response to observations made during the 2013 monitoring activities, the following recommendations are offered:

1. Continue mowing activities on each of the three landfills. As recommended in the Post-Closure Operations and Maintenance Plan (1995), the vegetative layer should be cut twice a year.
2. Saplings and vegetation growth in the rip rap swales surrounding the landfills should continue to be monitored and removed if necessary to provide proper drainage. Vegetation in the earthen swales should remain intact; Swales D and E are part of the wetland replication area, care shall be taken to protect the wetland species.
3. Continue to monitor and clear vegetation from all culvert inlets and outlets as needed.
4. Continue to monitor and clear brush within the rip rap toe-of-slopes and along the chain link fences as needed.
5. Continue to trap and remove beavers from the site and breach beaver dams as needed.
6. Provide seed and fertilizer to the bare areas on the Town Dump, Tire Dump and the Solid Waste Landfill surface.

Appendix A
June 2013 Site Visit Report

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July 3, 2013

Mr. William Hart
Acting Town Manager
268B Mammoth Road
Londonderry, New Hampshire 03053

RE: Auburn Road Landfill Superfund Site
Site Inspection Number 38
Kleinfelder Reference No.: 20100222.003-A

Dear Mr. Hart:

Enclosed please find the most recent site examination report for the Auburn Road Landfill, which was performed on Friday, June, 14, 2013. The purpose of the exam was to monitor the Operations and Maintenance (O&M) activities for the three landfills and the site in general. This O&M Report is being submitted in accordance with the Record of Decision (ROD) and applicable federal regulations.

Landfill gas monitoring was conducted on Friday, June 14, 2013. Ambient air, four perimeter soil gas monitoring wells (GV-1 through GV-4) along Auburn Road and six interior landfill gas sampling wells (GV-5 through GV-10) were monitored using a Landtec GEM-2000+ and a Photo-Ionization Detector (PID). The gas monitoring results indicate that presently there is no significant threat to the environment and/or human health due to landfill gas migration. The landfill gas monitoring results are summarized in greater detail in Item 8 of the attached report.

The Town reseeded and fertilized the landfill surfaces in early October 2011 and they were found to be in good condition with the exception of a few bare areas on the surface of the Town Dump, the Tire Dump and the Solid Waste Landfill. These bare spots should be re-seeded and fertilized. A DPW crew was on-site during the inspection clearing brush growth within drainage swales and along their banks.

Our observations of the site's swales are summarized in the following table.

Swale	Observations	Action to be Taken
A	New vegetative Growth.	None.
B	This swale is operating as designed.	None.
C	This swale appears to be operating as designed.	None.
D	Two (2) beaver dams were observed; one on the southern side of the access road and one on the northern side of the access road. Due to heavy rains just before the inspection the southernmost dam, located adjacent to the Tire Dump, ponded water was observed between Swale D and the Tire Dumps toe-of-slope.	Continue to trap and remove the beaver(s) from the area and monitor the dams for new dam construction. Additional breaching efforts may be warranted of the southernmost beaver dam.

2 Wall Street, Suite # 450, Manchester, New Hampshire 03101 p | 603.623.4400 f | 603.623.4401

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Swale	Observations	Action to be Taken
E	Two new beaver dams observed along this swale.	The beavers should be trapped and relocated. Then the beaver dams should be removed from this swale.
F	Vegetative growth and minor sediment accumulation. One fallen tree on the western bank approximately 150 feet from the access road.	Monitor swale for flow restrictions and development of hearty vegetation. Remove fallen tree (this may have been completed by the DPW crew after the inspection was complete.
H	Swale is clear of vegetation.	None.

The following attachments are provided to document our observations and the work performed:

Attachment A: Site Plan
Attachment B: Site Visit Report
Attachment C: Landfill Gas Monitoring Data
Attachment D: Inspection Photographs

Please feel free to call me at 603.227.2316 with any questions you may have regarding this O&M Report.

Respectfully yours,

KLEINFELDER

Ronald St. Michel, P.E.
Principal Engineer

Enclosures

cc: Mr. John Trottier, P.E., Assistant Director of Public Works and Engineering
Mr. Stephen E. Wright, P.E., Kleinfelder
file

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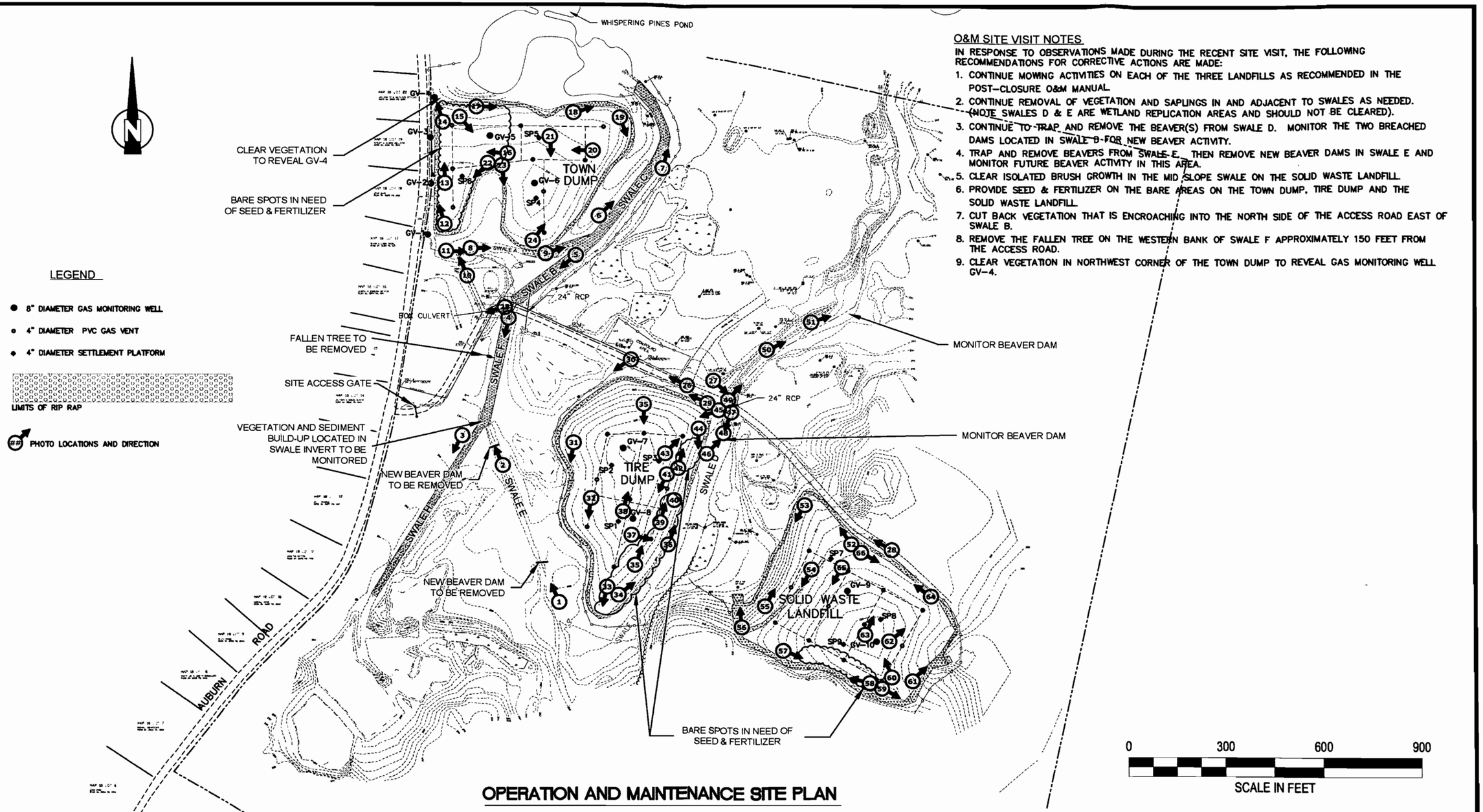
ATTACHMENT A

SITE PLAN



O&M SITE VISIT NOTES

IN RESPONSE TO OBSERVATIONS MADE DURING THE RECENT SITE VISIT, THE FOLLOWING RECOMMENDATIONS FOR CORRECTIVE ACTIONS ARE MADE:

1. CONTINUE MOWING ACTIVITIES ON EACH OF THE THREE LANDFILLS AS RECOMMENDED IN THE POST-CLOSURE O&M MANUAL.
2. CONTINUE REMOVAL OF VEGETATION AND SAPLINGS IN AND ADJACENT TO SWALES AS NEEDED. (NOTE SWALES D & E ARE WETLAND REPLICATION AREAS AND SHOULD NOT BE CLEARED).
3. CONTINUE TO TRAP AND REMOVE THE BEAVER(S) FROM SWALE D. MONITOR THE TWO BREACHED DAMS LOCATED IN SWALE D FOR NEW BEAVER ACTIVITY.
4. TRAP AND REMOVE BEAVERS FROM SWALE E. THEN REMOVE NEW BEAVER DAMS IN SWALE E AND MONITOR FUTURE BEAVER ACTIVITY IN THIS AREA.
5. CLEAR ISOLATED BRUSH GROWTH IN THE MID SLOPE SWALE ON THE SOLID WASTE LANDFILL.
6. PROVIDE SEED & FERTILIZER ON THE BARE AREAS ON THE TOWN DUMP, TIRE DUMP AND THE SOLID WASTE LANDFILL.
7. CUT BACK VEGETATION THAT IS ENCROACHING INTO THE NORTH SIDE OF THE ACCESS ROAD EAST OF SWALE B.
8. REMOVE THE FALLEN TREE ON THE WESTERN BANK OF SWALE F APPROXIMATELY 150 FEET FROM THE ACCESS ROAD.
9. CLEAR VEGETATION IN NORTHWEST CORNER OF THE TOWN DUMP TO REVEAL GAS MONITORING WELL GV-4.

OPERATION AND MAINTENANCE SITE PLAN

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Scale	AS NOTED
Date	JUNE 2013
Job No.	2010222
Designed by	RSM
Drawn by	RSM
Checked by	SEW
Approved by	SEW

Client: TOWN OF LONDONDERRY, NEW HAMPSHIRE

Project: AUBURN ROAD LANDFILL
OPERATIONS AND MAINTENANCE

Drawing: FIGURE 1 -
SITE VISIT NUMBER 38

ATTACHMENT B

SITE VISIT REPORT

Auburn Road Landfill Superfund Site
Londonderry, New Hampshire
Operation and Maintenance Site Inspection 38

GENERAL INFORMATION:

Project Name: Auburn Road Landfill Superfund Site

Project Location: Londonderry, New Hampshire

Facility Operator: Town of Londonderry, New Hampshire

Previous O&M Site Inspection:

Number: 37

Date: November 1, 2012

Time: 8:00 a.m. to 11:30 a.m.

Current O&M Site Inspection:

Number: 38

Date: June 14, 2013

Time: 9:30 a.m. to 2:00 p.m.

On-Site Personnel:

Ron St. Michel, P.E. - Kleinfelder

Weather (for Manchester, NH from www.wunderground.com):

June 14, 2013

The temperature ranged between 65 and 75°F, overcast to partly cloudy, wind speed at approximately 5 mph.

Barometric pressure was relatively steady.

Last Precipitation was 0.43 inches on November 14, 2013 (overnight) and 0.29 inches on November 13, 2013.

Kleinfelder Project Number: 20100222.003-A

SITE VISIT OBSERVATIONS:

The following table summarizes the observations made during the site visit. Refer to the site plan provided in Attachment A for a summary of recommendations based on recent site observations.

ITEM	SIGNIFICANT COMMENTS	CORRECTIVE ACTION REQUIRED?	
		YES	NO
(1.) General	The Remedial Action Construction (LRDIRA and LCRA) was performed in 1993 and 1994, respectively, and included the construction of three earthen swales (A, D, and E); four rip-rap swales (B, C, F, and H); two 24-inch concrete pipe culverts; one 3-foot by 8-foot concrete box culvert; the capping of three landfill areas (Town Dump, Tire Dump, and Solid Waste Landfill), and subsequent construction of nine wetland replication areas (R-1 through R-6, R-9, R-11, and R-12) in 1995.	N/A	N/A
(2.) Supervision	The operations and maintenance of the landfill is under the supervision of the Town of Londonderry. Currently, Mr. John Trottier, P.E., Assistant Director of Public Works and Engineering, is supervising operations and maintenance for the site.	N/A	N/A
(3.) Current Use	The Town is performing maintenance activities at the site, which consist of mowing the landfill areas, clearing vegetation from drainage swales, beaver control, repairing fences and gates and maintaining access roads. The Management of Migration Potentially Responsible Parties (MOM-PRPs) is continuing to perform surface and groundwater sampling on a periodic	N/A	N/A

Auburn Road Landfill Superfund Site
Londonderry, New Hampshire
Operation and Maintenance Site Inspection 38

ITEM	SIGNIFICANT COMMENTS	CORRECTIVE ACTION REQUIRED?	
		YES	NO
	basis.		
(4.) Ground Conditions	No earthen depressions were observed on the landfill surfaces.		√
(5.) Health and Safety	Activities at the site were performed in Level D personal protective equipment and in accordance with the provisions of the Site-Specific Health and Safety Plan.	N/A	N/A
(6.) LRDIRA	Comments on the LRDIRA are provided in items (6a) through (6h).		
(a.) Swale A (Town Dump)	This swale appears to be operating as designed.		√
(b.) Swale B (Town Dump)	This swale is operating as designed. Brush has been cut back within the swale and on the banks. Town crews on-site during inspection.		√
(c.) Swale C (Town Dump)	This swale is operating as designed. Brush has been cut back within the swale and on the banks. Town crews on-site during inspection.		√
(d.) Swale D (Tire Dump)	Two (2) beaver dams were observed; one on the southern side of the access road and one on the northern side of the access road. Both dams have been breached to permit stream flow. Continue to trap and remove the beaver(s) from the area and then breach the beaver dams as necessary. **High water levels due to recent heavy rains observed. Grass area between Swale D and Tire Landfill Toe-of-Slope had ponded water. Town may want to remove beaver dam in this area.**	√	
(e.) Swale E (Tire Dump)	**The swale is not operating as designed due to two new beaver dams. The beavers should be trapping and relocated and the dam removed.**	√	
(f.) Swale F	In general the swale appears to be operating as designed. In the invert of Swale F near the confluence of Swale E and H, a pocket of sediment and grass build up was found. No standing water was observed, however this area could pose as a restriction to flow from swale H. Sediment build up in this area should be monitored and removed if ponded water is observed in Swale H. A fallen tree was observed approximate 150 feet from the access road on the western bank that should be removed. **Town crews were on-site during inspection and they may have removed this after the inspection concluded.**	√	
(g.) Swale H	The swale is functioning as designed. Sediment build up in the swale should be monitored and removed if ponded water is observed.		√
(h.) Concrete Culverts	The concrete culverts were observed to be in good condition.		√
(7.) LCRA	Comments on the LCRA are provided in items (7a) through (7c).		
(a.) Town Dump	**The vegetation on western lobe of the landfill needs to be re-seeded and fertilized. There are large areas of sparse grass. The northwest corner of the site needs to be cleared of vegetation to reveal gas monitoring well GV-4 which is overgrown.** The eastern lobe of the landfill appears to have better vegetation since the last inspection. No depressions or obvious erosions channels were observed. The gas	√	

Auburn Road Landfill Superfund Site
Londonderry, New Hampshire
Operation and Maintenance Site Inspection 38

ITEM	SIGNIFICANT COMMENTS	CORRECTIVE ACTION REQUIRED?	
		YES	NO
	monitoring wells, and settlement platforms were intact. The security fence around the Town Dump appeared to be in good condition and **the brush along the fence has been cut back. Isolated brush growth in the toe-of-slope rip rap has been removed.**		
(b.) Tire Dump	**The vegetation on eastern slope of the landfill needs to be re-seeded and fertilized. There are large areas of sparse grass.** No depressions or obvious erosion channels were observed. The gas vents and settlement platforms were intact. The security fencing around the Tire Dump appeared to be in good condition and **the brush along the fence has been cut back. Isolated brush growth in the toe-of-slope rip rap has been removed.**	√	
(c.) Solid Waste Landfill	**The vegetation on the southern edge of the landfill has improved; however, the new vegetation consists of weeds and not grasses. This area may need seed and fertilizer treatment in the future.** No depressions or obvious erosion channels were observed. The gas vents and settlement platforms were intact. The security fence around the solid waste landfill appeared to be in good condition. **Isolated brush growth in the toe-of-slope rip rap and the mid-slope swale should be removed.**	√	
(8.) Landfill Gas Screening	Ambient air, four perimeter landfill gas monitoring wells (GV-1 through GV-4) and six interior landfill gas sampling wells (GV-5 through GV-10) were field-screened during the site visit using a Landtec GEM-2000+ and a Photo-Ionization Detector (PID). The gas monitoring results indicate no significant threat to the environment and/or human health due to landfill gas migration. The results are summarized below. Attachment C contains a table that summarizes the monitoring results. • No methane was detected at any of the following monitoring locations: GV-1 through GV-4 located along Auburn Road and in GV-10 on the Solid Waste Landfill. Methane was detected in monitoring locations GV-5 and GV-6 located on the Town Dump and GV-9 located on the Solid Waste Landfill. • Hydrogen sulfide was detected at monitoring wells GV-6 and GV-9. • Volatile organic compounds (VOCs) were detected at low levels at all monitoring wells. There were no nuisance odors detected at the site.		√
(9.) Wetlands	Wetland species have developed within the wetland replication areas and earthen swales.		√
(10.) General			
(a.) Settlement	No settlement survey was conducted. The next settlement platform survey is due in November 2014.		√
(b.) Boundary Markers	Boundary markers exist around the perimeter of the site. Permanent elevation markers appear to be intact along the access road.		√
(c.) Access	The main access road starting off Auburn Road is paved for a majority of	√	

Auburn Road Landfill Superfund Site
Londonderry, New Hampshire
Operation and Maintenance Site Inspection 38

ITEM	SIGNIFICANT COMMENTS	CORRECTIVE ACTION REQUIRED?	
		YES	NO
Roads	the road leading into the site. The eastern end of the access road is gravel. Roadway appears to be in good condition. **Vegetation on the northern side of the access road east of Swale B was observed encroaching into the roadway. This vegetation should be cut back. Town crews were on-site during the inspection this work may have been completed.**		
(d.) Security	The gate on the main access road along Auburn Road was secure. Off-road vehicular traffic (dirt bikes) appears to be present in the areas east of the Town Dump and the to east of the Solid Waste Landfill. No damage was observed in the landfill areas.		√
(e.) Posting	Visible signage was posted at the main entrance to the site.		√
(f.) Leachate	Leachate was not observed seeping from any of the three landfills.		√

RECOMMENDATIONS FOR CORRECTIVE ACTIONS

In response to observations made during the recent site visit, the following recommendations are made:

1. Continue mowing activities on each of the three landfills as recommended in the post-closure O&M manual.
2. Continue removal of vegetation and saplings located in and adjacent to swales as needed. (Note Swales D & E are wetland replication areas and should not be cleared)
3. Continue to trap and remove the beaver(s) from Swale D. Monitor the two breached dams located on the southern and northern side of the access road in Swale D for new beaver activity.
4. Trap and remove beavers from Swale E area. Then remove the new beaver dams in Swale E and monitor future beaver activity in this area.
5. Clear isolated brush growth in the mid-slope swale on the Solid Waste Landfill.
6. Provide seed and fertilizer to the bare areas on the Town Dump, Tire Dump and the Solid Waste Landfill surfaces.
7. Cut back vegetation encroaching into the north side of the access road east of Swale B.
8. Remove the fallen tree on the western bank of Swale F approximately 150 feet from the access road.
9. Clear vegetation in the northwest corner of the Town Dump to reveal landfill gas monitoring well GV-4.

ATTACHMENT C

GAS MONITORING RESULTS

AUBURN ROAD LANDFILL
LONDONDERRY, NEW HAMPSHIRE
OPERATION AND MAINTENANCE
SOIL GAS MONITORING ROUND 40

June 14, 2013
Kleinfelder Project No. 20100222.003-A

MONITORING RESULTS										
Well ID		LOCATION	TIME	Pressure (In Hg)	CH_4 (%)	LEL (%)	CO_2 (%)	O_2 (%)	H_2S (ppm)	PID (ppm)
GV-1	pre	Auburn Road	10:03	29.78	0.0	0.0	0.2	20.5	0	1.2
	post		10:06	29.78	0.0	0.0	0.1	20.6	0	1.0
GV-2	pre	Auburn Road	10:11	29.78	0.0	0.0	4.8	14.4	0	0.6
	post		10:14	29.78	0.0	0.0	5.0	14.1	0	1.0
GV-3	pre	Auburn Road	10:17	29.78	0.0	0.0	5.0	15.3	0	0.9
	post		10:20	29.78	0.0	0.0	1.1	19.5	0	0.9
GV-4	pre	Auburn Road	10:27	29.78	0.0	0.0	2.0	18.9	0	0.8
	post		10:30	29.78	0.0	0.0	2.5	18.6	0	0.8
GV-5	pre	Town Dump	10:34	29.78	3.9	78.0	5.2	1.0	0	0.7
	post		10:37	29.78	4.0	80.0	5.1	0.1	0	1.3
GV-6	pre	Town Dump	10:50	29.78	61.0	1220.0	27.0	0.3	6	0.5
	post		10:53	29.78	61.5	1230.0	27.1	0.0	7	0.6
GV-7	pre	Tire Dump	11:54	29.37	0.0	0.0	0.0	20.5	0	1.5
	post		11:57	29.37	0.0	0.0	0.0	20.5	0	1.3
GV-8	pre	Tire Dump	11:45	29.38	0.0	0.0	0.0	20.5	0	1.8
	post		11:48	29.38	0.0	0.0	0.0	20.5	0	1.5
GV-9	pre	SWL	12:38	29.33	62.9	1258.0	34.2	0.4	1	0.5
	post		12:41	29.33	64.3	1286.0	34.6	0.1	9	1.5
GV-10	pre	SWL	12:28	29.33	0.0	0.0	0.1	20.4	0	1.4
	post		12:31	29.33	0.0	0.0	0.0	20.4	0	1.3
Background		Town Dump Gate	9:30	29.78	0.0	0.0	0.0	20.5	0	0.0

NOTES:

1. Weather: Overcast to P. Cloudy, 72°F; Last precipitation: 0.43 inches on 11/14/2013 (overnight) and 0.29 inches on 11/13/2013 Source: www.wunderground.com
2. Pressure Trend: Relatively Steady between 9:30 a.m. and 1:00 p.m. (based on recorded weather data from www.wunderground.com; pressure listed in above table is as recorded by the LandGEM 2000)
3. A pre-purge sample is collected from each well to identify gas build-up inside the well.
4. Equipment: Landtec GEM-2000+; MiniRAE 2000 PID
5. Monitoring performed by Ron St. Michel

ATTACHMENT D

PHOTOGRAPHS

Auburn Road Landfill Superfund Site
Operation and Maintenance Site Visit 38 – June 14, 2013

Photo No. 1: Swale E

Photo No. 2: Swale E – Beaver Dam

Auburn Road Landfill Superfund Site
Operation and Maintenance Site Visit 38 – June 14, 2013

Photo No. 3: Swale H

Photo No. 4: Swale F

Photo No. 5: Swale B

Photo No. 6: Swale C

Auburn Road Landfill Superfund Site
Operation and Maintenance Site Visit 38 – June 14, 2013

Photo No. 7: Swale C

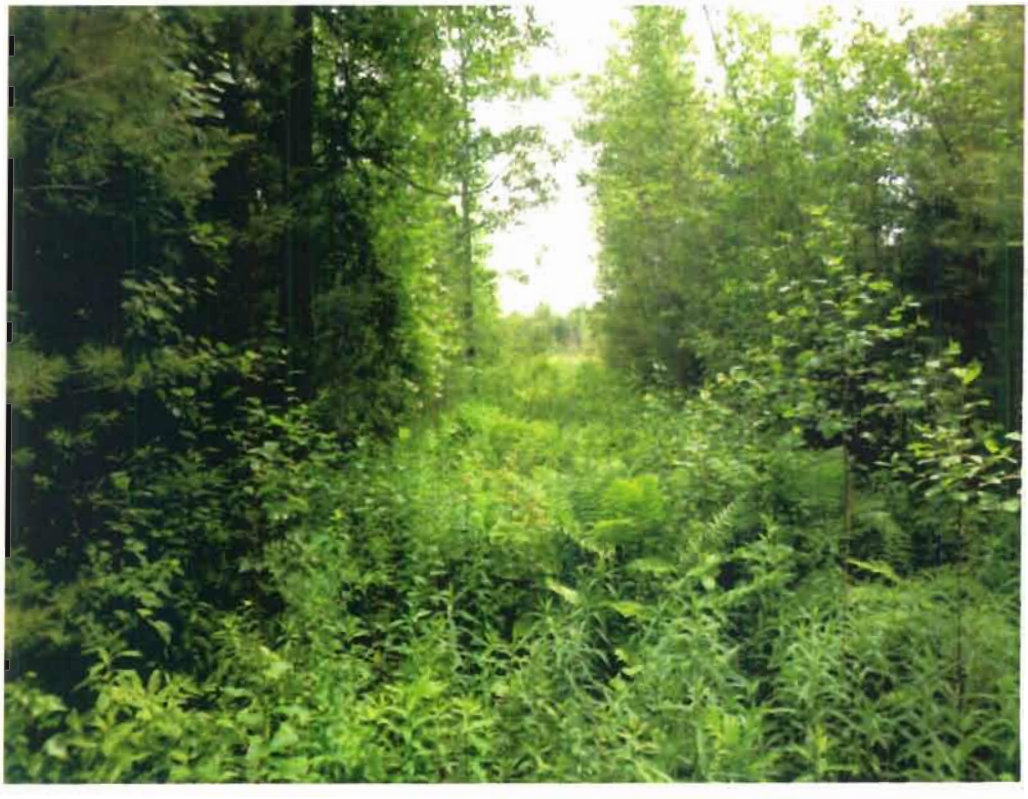


Photo No. 8: Swale A

Photo No. 9: Swale A

Photo No. 10: Town Dump Entrance Gate

Auburn Road Landfill Superfund Site
Operation and Maintenance Site Visit 38 – June 14, 2013

Photo No. 11: Town Dump Fence

Photo No. 12: Town Dump Western Surface

Photo No. 13: Town Dump – Town Dump Western Surface & Toe-of-Slope

Photo No. 14: Town Dump – Northwestern Corner

Photo No. 15: Town Dump – Western Surface

Photo No. 16: Town Dump – Northern Surface

Photo No. 17: Town Dump Northern Toe-of-Slope

Photo No. 18: Town Dump – Northern Toe-of-Slope

Photo No. 19: Town Dump – Northeastern Toe-of-Slope

Photo No. 20: Town Dump – Northern Surface

Photo No. 21: Town Dump – Eastern Toe-of-Slope

Photo No. 22: Town Dump – Central Toe of Slope

Photo No. 23: Town Dump – Central Surface

Photo No. 24: Town Dump – Eastern Surface

Photo No. 25: Access Road

Photo No. 26: Access Road

Auburn Road Landfill Superfund Site
Operation and Maintenance Site Visit 38 – June 14, 2013

Photo No. 27: Access Road

Photo No. 28: Access Road

Photo No. 29: Tire Dump Northern Toe-of-Slope & Fence

Photo No. 30: Tire Dump Western Fence

Photo No. 31: Tire Dump Western Surface, Toe-of-Slope & Fence

Photo No. 32: Tire Dump Western Surface, Toe-of-Slope & Fence

Photo No. 33: Tire Dump Southern Toe-of-Slope & Fence Line

Photo No. 34: Tire Dump – Eastern Toe-of-Slope

Photo No. 35: Tire Dump – Eastern Surface

Photo No. 36: Tire Dump – Eastern Toe-of-Slope

Photo No. 37: Tire Dump – Eastern Surface

Photo No. 38: Tire Dump – Eastern Top Surface

Photo No. 39: Tire Dump – Eastern Surface

Photo No. 40: Tire Dump – Eastern Toe-of-Slope & Snapping Turtle

Photo No. 41: Tire Dump – Eastern Surface

Photo No. 42: Tire Dump – Eastern Surface

Photo No. 43: Tire Dump – Eastern Surface

Photo No. 44: Tire Dump – Eastern Surface

Photo No. 45: Tire Dump – Eastern Surface

Photo No. 46: Swale D Ponded Area (South)

Photo No. 47: Swale D – Rip-Rap Area (South)

Photo No. 48: Swale D – Inlet Culvert (South)

Photo No. 49: Swale D (North)

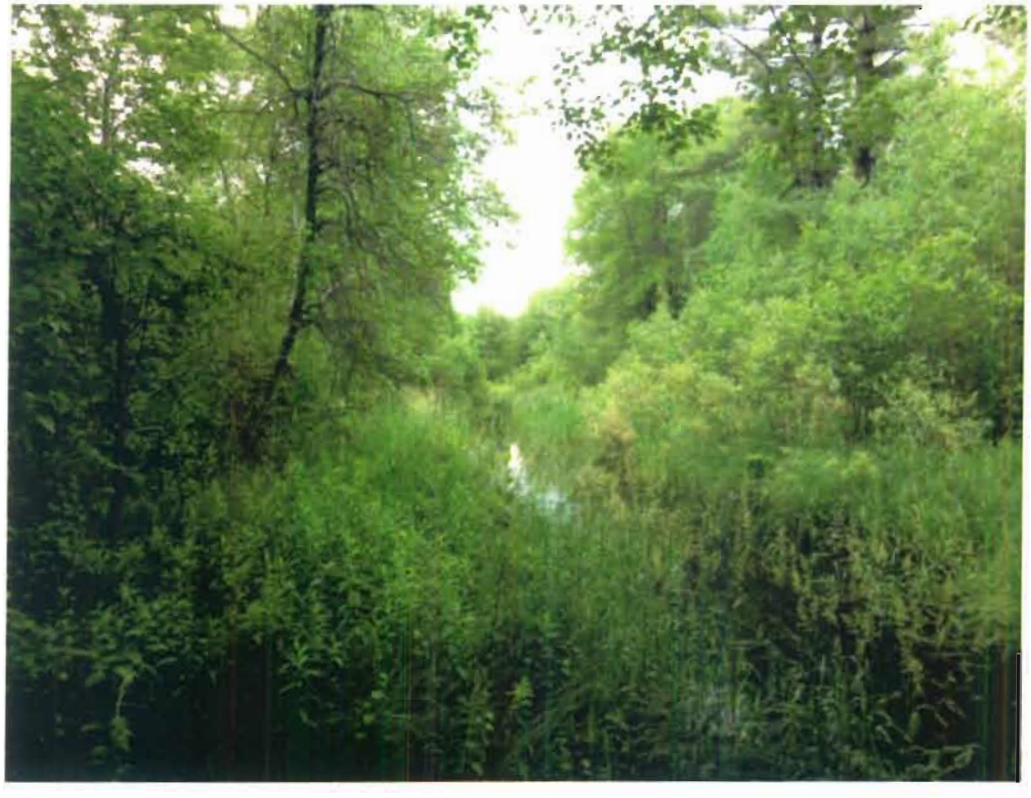


Photo No. 50: Swale D (North)

Auburn Road Landfill Superfund Site
Operation and Maintenance Site Visit 38 – June 14, 2013

Photo No. 51: Swale D (North)

Photo No. 52: SWLF – Northern Toe-of-Slope & Fence

Photo No. 53: SWLF – Western Toe-of-Slope

Photo No. 54: SWLF – Mid-Slope Swale

Photo No. 55: SWLF – Western Surface

Photo No. 56: SWLF – Western Stormwater Basin

Photo No. 57: SWLF – Southern Toe-of-Slope & Surface

Photo No. 58: SWLF – Southern Toe-of-Slope & Surface

Photo No. 59: SWLF - Southern Toe-of-Slope & Surface

Photo No. 60: SWLF – Southwestern Surface

Photo No. 61: SWLF – Eastern Toe-of-Slope

Photo No. 62: SWLF – Northeastern Surface

Photo No. 63: SWLF Top Northern Surface

Photo No. 64: SWLF Northern Toe-of-Slope

Photo No. 65: SWLF Top-Western Surface

Photo No. 66: SWLF – Northern Toe-of-Slope

Appendix B
December 2013 Site Visit Report

KLEINFELDER
Bright People. Right Solutions.

December 31, 2013

Mr. Kevin Smith
Town Manager
268B Mammoth Road
Londonderry, New Hampshire 03053

RE: Auburn Road Landfill Superfund Site
Site Inspection Number 39
Kleinfelder Reference No.: 20140159.001A

Dear Mr. Smith:

Enclosed please find the most recent site examination report for the Auburn Road Landfill, which was performed on Thursday, December, 5, 2013. The purpose of the exam was to monitor the Operations and Maintenance (O&M) activities for the three landfills and the site in general. This O&M Report is being submitted in accordance with the Record of Decision (ROD) and applicable federal regulations.

The following paragraphs provide a brief summary of our observations.

Drainage Swales

Swale	Observations	Action to be Taken
A	This swale is operating as designed and is well maintained.	None.
B	This swale is operating as designed and is well maintained	None.
C	This swale is operating as designed and is well maintained.	None.
D	Two (2) beaver dams were observed; one on the southern side of the access road and one on the northern side of the access road. The southernmost dam has been breached and water does not pond adjacent to the Tire Dump toe-of-slope as reported previously.	Continue to trap and remove the beaver(s) from the area and monitor the dams for new dam construction. Additional breaching efforts may be warranted of the northernmost beaver dam.
E	The two beaver dams previously reported have been removed. This swale is operating as designed and is well maintained.	Monitor swale for new beaver activity.
F	This swale is operating as designed and is well maintained.	Monitor swale for flow restrictions and development of hearty vegetation. The previously reported fallen tree has been removed.
H	This swale is operating as designed and is well maintained.	None.

KLEINFELDER
Bright People. Right Solutions.

Landfill Gas Monitoring

Landfill gas monitoring was conducted on Thursday, December 5, 2013. Ambient air, four perimeter soil gas monitoring wells (GV-1 through GV-4) along Auburn Road and six interior landfill gas sampling wells (GV-5 through GV-10) were monitored using a Landtec GEM-2000+ and a Photo-Ionization Detector (PID). The gas monitoring results indicate that presently there is no significant threat to the environment and/or human health due to landfill gas migration. The landfill gas monitoring results are summarized in greater detail in Item 8 of the attached report.

Brush and Vegetation Control

The Town completed an extensive amount of brush and vegetation clearing in the drainage swales, along fence lines and at the rip rap toe-of-slope areas since the last inspection (June 2013). No additional clearing efforts required at this time.

Landfill Vegetated Surface

Bare spots on the vegetated landfill caps are noted in this inspection report in generally the same areas as previously reported. These areas are identified on Figure 1 and are generally located on shallow sloped areas. These areas should reseeded and fertilized.

The following attachments are provided to document our observations and the work performed:

Attachment A:	Site Plan
Attachment B:	Site Visit Report
Attachment C:	Landfill Gas Monitoring Data
Attachment D:	Inspection Photographs

Please feel free to call me at 603.227.2316 with any questions you may have regarding this O&M Report.

Respectfully yours,

KLEINFELDER

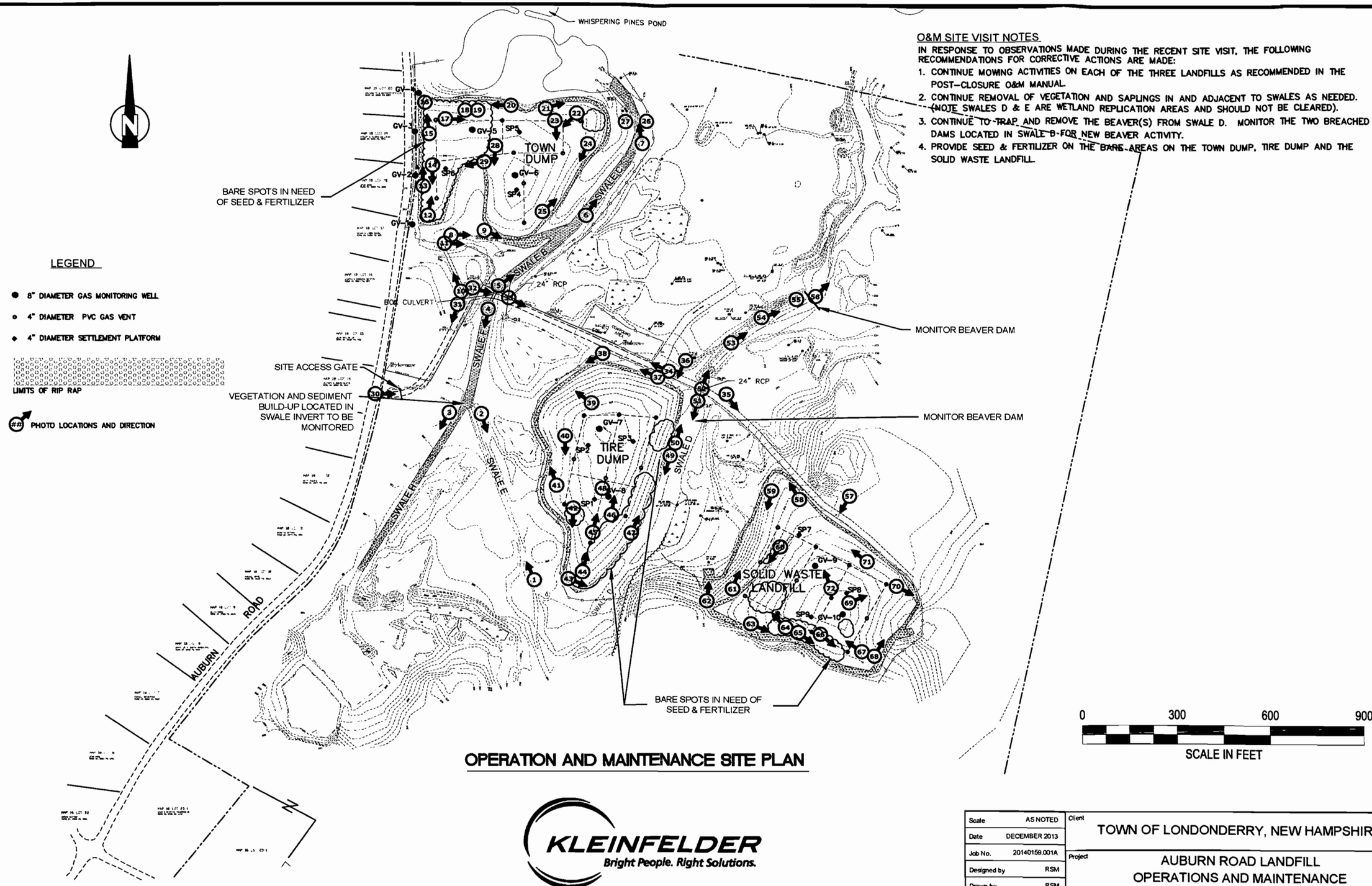
Ronald St. Michel, P.E.
Principal Engineer

Enclosures

cc: Mr. John Trottier, P.E., Assistant Director of Public Works and Engineering
Mr. Stephen E. Wright, P.E., Kleinfelder
file

ATTACHMENT A

SITE PLAN



O&M SITE VISIT NOTES

IN RESPONSE TO OBSERVATIONS MADE DURING THE RECENT SITE VISIT, THE FOLLOWING RECOMMENDATIONS FOR CORRECTIVE ACTIONS ARE MADE:

1. CONTINUE MOWING ACTIVITIES ON EACH OF THE THREE LANDFILLS AS RECOMMENDED IN THE POST-CLOSURE O&M MANUAL.
2. CONTINUE REMOVAL OF VEGETATION AND SAPLINGS IN AND ADJACENT TO SWALES AS NEEDED. (NOTE SWALES D & E ARE WETLAND REPLICATION AREAS AND SHOULD NOT BE CLEARED).
3. CONTINUE TO TRAP AND REMOVE THE BEAVER(S) FROM SWALE D. MONITOR THE TWO BREACHED DAMS LOCATED IN SWALE D FOR NEW BEAVER ACTIVITY.
4. PROVIDE SEED & FERTILIZER ON THE BARE AREAS ON THE TOWN DUMP, TIRE DUMP AND THE SOLID WASTE LANDFILL.

LEGEND

- 8" DIAMETER GAS MONITORING WELL
- 4" DIAMETER PVC GAS VENT
- 4" DIAMETER SETTLEMENT PLATFORM
- LIMITS OF RIP RAP
- (##) PHOTO LOCATIONS AND DIRECTION

0 300 600 900

SCALE IN FEET

OPERATION AND MAINTENANCE SITE PLAN

KLEINFELDER
Bright People. Right Solutions.

Scale	AS NOTED
Date	DECEMBER 2013
Job No.	20140159.001A
Designed by	RSM
Drawn by	RSM
Checked by	SEW
Approved by	SEW

Client: TOWN OF LONDONDERRY, NEW HAMPSHIRE

Project: AUBURN ROAD LANDFILL OPERATIONS AND MAINTENANCE

Drawing: FIGURE 1 - SITE VISIT NUMBER 39

ATTACHMENT B

SITE VISIT REPORT

Auburn Road Landfill Superfund Site
Londonderry, New Hampshire
Operation and Maintenance Site Inspection 39

GENERAL INFORMATION:

Project Name: Auburn Road Landfill Superfund Site

Project Location: Londonderry, New Hampshire

Facility Operator: Town of Londonderry, New Hampshire

Previous O&M Site Inspection:

Number: 38

Date: June 14, 2013

Time: 9:30 a.m. to 2:00 p.m.

Current O&M Site Inspection:

Number: 39

Date: December 5, 2013

Time: 8:15 a.m. to 11:30 a.m.

On-Site Personnel:

Ron St. Michel, P.E. - Kleinfelder

Weather (for Manchester, NH from www.wunderground.com):

December 5, 2013
The temperature ranged between 35 and 37°F, cloudy/fog and light rain, wind speed was 2-mph NNW. Barometric pressure was relatively steady.
Last Precipitation was 0.03 inches on December 1, 2013.

Kleinfelder Project Number: 20140159.001-A

SITE VISIT OBSERVATIONS:

The following table summarizes the observations made during the site visit. Refer to the site plan provided in Attachment A for a summary of recommendations based on recent site observations.

ITEM	SIGNIFICANT COMMENTS	CORRECTIVE ACTION REQUIRED?	
		YES	NO
(1.) General	The Remedial Action Construction (LRDIRA and LCRA) was performed in 1993 and 1994, respectively, and included the construction of three earthen swales (A, D, and E); four rip-rap swales (B, C, F, and H); two 24-inch concrete pipe culverts; one 3-foot by 8-foot concrete box culvert; the capping of three landfill areas (Town Dump, Tire Dump, and Solid Waste Landfill), and subsequent construction of nine wetland replication areas (R-1 through R-6, R-9, R-11, and R-12) in 1995.	N/A	N/A
(2.) Supervision	The operations and maintenance of the landfill is under the supervision of the Town of Londonderry. Currently, Mr. John Trottier, P.E., Assistant Director of Public Works and Engineering, is supervising operations and maintenance for the site.	N/A	N/A
(3.) Current Use	The Town is performing maintenance activities at the site, which consist of mowing the landfill areas, clearing vegetation from drainage swales, beaver control, repairing fences and gates and maintaining access roads. The Management of Migration Potentially Responsible Parties (MOM-PRPs) is continuing to perform surface and groundwater sampling on a periodic basis.	N/A	N/A

Auburn Road Landfill Superfund Site
Londonderry, New Hampshire
Operation and Maintenance Site Inspection 39

ITEM	SIGNIFICANT COMMENTS	CORRECTIVE ACTION REQUIRED?	
		YES	NO
(4.) Ground Conditions	No earthen depressions were observed on the landfill surfaces.		√
(5.) Health and Safety	Activities at the site were performed in Level D personal protective equipment and in accordance with the provisions of the Site-Specific Health and Safety Plan.	N/A	N/A
(6.) LRDIRA	Comments on the LRDIRA are provided in items (6a) through (6h).		
(a.) Swale A (Town Dump)	This swale appears to be operating as designed.		√
(b.) Swale B (Town Dump)	This swale is operating as designed. Brush has been cut back within the swale and on the banks. Town crews on-site during inspection.		√
(c.) Swale C (Town Dump)	This swale is operating as designed. Brush has been cut back within the swale and on the banks. Town crews on-site during inspection.		√
(d.) Swale D (Tire Dump)	Two (2) beaver dams were observed; one on the southern side of the access road and one on the northern side of the access road. Both dams have been breached to permit stream flow. Continue to trap and remove the beaver(s) from the area and then breach the beaver dams as necessary. The southern beaver dam has been breached; alleviating ponded water. The northern beaver dam has not been breached but water levels were low.		√
(e.) Swale E (Tire Dump)	The Town has removed the beaver dam. The swale appears to be operating as designed. No standing water was observed during this site visit.		√
(f.) Swale F	In general the swale appears to be operating as designed. In the invert of Swale F near the confluence of Swale E and H, a pocket of sediment and grass build up was found. No standing water was observed, however this area could pose as a restriction to flow from swale H. Sediment build up in this area should be monitored and removed if ponded water is observed in Swale H. The fallen tree reported in the previous report has been removed.		√
(g.) Swale H	The swale is functioning as designed. Sediment build up in the swale should be monitored and removed if ponded water is observed.		√
(h.) Concrete Culverts	The concrete culverts were observed to be in good condition.		√
(7.) LCRA	Comments on the LCRA are provided in items (7a) through (7c).		
(a.) Town Dump	**The vegetation on western lobe of the landfill needs to be re-seeded and fertilized. There are large areas of sparse grass**. The Town has ce cleared of vegetation to reveal gas monitoring well GV-4 which was overgrown. The eastern lobe of the landfill appears to have better vegetation since the last inspection. No depressions or obvious erosions channels were observed. The gas monitoring wells, and settlement platforms were intact. The security fence around the Town Dump appeared to be in good condition.	√	
(b.) Tire Dump	**The vegetation on eastern slope of the landfill needs to be re-seeded and fertilized. There are large areas of sparse grass**. No depressions or obvious erosion channels were observed. The gas vents and settlement	√	

Auburn Road Landfill Superfund Site
Londonderry, New Hampshire
Operation and Maintenance Site Inspection 39

ITEM	SIGNIFICANT COMMENTS	CORRECTIVE ACTION REQUIRED?	
		YES	NO
	platforms were intact. The security fencing around the Tire Dump appeared to be in good condition.		
(c.) Solid Waste Landfill	**The vegetation on the southern edge of the landfill needs to be re-seeded and fertilized.** No depressions or obvious erosion channels were observed. The gas vents and settlement platforms were intact. The security fence around the solid waste landfill appeared to be in good condition.	√	
(8.) Landfill Gas Screening	Ambient air, four perimeter landfill gas monitoring wells (GV-1 through GV-4) and six interior landfill gas sampling wells (GV-5 through GV-10) were field-screened during the site visit using a Landtec GEM-2000+ and a Photo-Ionization Detector (PID). The gas monitoring results indicate no significant threat to the environment and/or human health due to landfill gas migration. The results are summarized below. Attachment C contains a table that summarizes the monitoring results. • No methane was detected at any of the following monitoring locations: GV-1 through GV-4 located along Auburn Road and in GV-10 on the Solid Waste Landfill. Methane was detected in monitoring locations GV-5 and GV-6 located on the Town Dump, GV-7 and GV-8 on the Tire Dump and GV-9 located on the Solid Waste Landfill. • Hydrogen sulfide was detected at monitoring wells GV-6 and GV-9. • Volatile organic compounds (VOCs) were detected at low levels at GV-5, GV-6, GV-8 and GV-10. There were no nuisance odors detected at the site.		√
(9.) Wetlands	Wetland species have developed within the wetland replication areas and earthen swales.		√
(10.) General			
(a.) Settlement	No settlement survey was conducted. The next settlement platform survey is due in November 2014.		√
(b.) Boundary Markers	Boundary markers exist around the perimeter of the site. Permanent elevation markers appear to be intact along the access road.		√
(c.) Access Roads	The main access road starting off Auburn Road is paved for a majority of the road leading into the site. The eastern end of the access road is gravel. Roadway appears to be in good condition. The Town has trimmed the vegetation on the northern side of the access road east of Swale B.		√
(d.) Security	The gate on the main access road along Auburn Road was secure. Off-road vehicular traffic (dirt bikes) appears to be present in the areas east of the Town Dump and the to east of the Solid Waste Landfill. No damage was observed in the landfill areas.		√
(e.) Posting	Visible signage was posted at the main entrance to the site.		√
(f.) Leachate	Leachate was not observed seeping from any of the three landfills.		√

Auburn Road Landfill Superfund Site
Londonderry, New Hampshire
Operation and Maintenance Site Inspection 39

RECOMMENDATIONS FOR CORRECTIVE ACTIONS

In response to observations made during the recent site visit, the following recommendations are made:

1. Continue mowing activities on each of the three landfills as recommended in the post-closure O&M manual.
2. Continue removal of vegetation and saplings located in and adjacent to swales as needed. (Note Swales D & E are wetland replication areas and should not be cleared)
3. Continue to trap and remove the beaver(s) from Swale D. Monitor the two breached dams located on the southern and northern side of the access road in Swale D for new beaver activity.
4. Provide seed and fertilizer to the bare areas on the Town Dump, Tire Dump and the Solid Waste Landfill surfaces.

ATTACHMENT C

LANDFILL GAS MONITORING RESULTS

AUBURN ROAD LANDFILL
LONDONDERRY, NEW HAMPSHIRE
OPERATION AND MAINTENANCE
SOIL GAS MONITORING ROUND 41

December 5, 2013
Kleinfelder Project No. 20140159.001-A

MONITORING RESULTS										
Well ID		**LOCATION**	**TIME**	**Pressure (in Hg)**	**CH_4 (%)**	**LEL (%)**	**CO_2 (%)**	**O_2 (%)**	**H_2S (ppm)**	**PID (ppm)**
GV-1	pre	Auburn Road	11:29	29.68	0.0	0.0	0.3	21.5	0	0.0
	post		11:32	29.68	0.0	0.0	0.1	21.7	0	0.0
GV-2	pre	Auburn Road	11:23	29.68	0.0	0.0	0.9	21.1	0	0.0
	post		11:25	29.68	0.0	0.0	0.9	20.8	0	0.0
GV-3	pre	Auburn Road	11:17	29.70	0.0	0.0	1.3	20.8	0	0.0
	post		11:20	29.70	0.0	0.0	1.5	20.6	0	0.0
GV-4	pre	Auburn Road	11:11	29.68	0.0	0.0	1.2	20.9	0	0.0
	post		11:14	29.70	0.0	0.0	0.1	21.7	0	0.0
GV-5	pre	Town Dump	11:06	29.68	**4.4**	88.0	5.2	4.9	0	1.8
	post		11:08	29.68	**4.9**	98.0	5.6	1.7	0	2.0
GV-6	pre	Town Dump	10:58	29.68	**30.3**	606.0	14.9	11.3	4	0.6
	post		11:01	29.68	**19.4**	388.0	9.6	14.6	3	1.1
GV-7	pre	Tire Dump	10:35	29.68	**43.0**	860.0	34.2	1.0	0	0.0
	post		10:38	29.68	**45.2**	904.0	36.1	0.1	0	0.0
GV-8	pre	Tire Dump	10:44	29.68	**28.1**	562.0	26.6	4.6	0	0.0
	post		10:47	29.68	**29.0**	580.0	26.9	3.6	0	0.3
GV-9	pre	SWL	10:25	29.68	**62.7**	1254.0	34.1	1.0	15	0.0
	post		10:28	29.68	**63.8**	1276.0	34.8	0.0	16	0.0
GV-10	pre	SWL	10:31	29.68	0.0	0.0	0.1	21.5	0	1.2
	post		10:34	29.68	0.0	0.0	0.1	21.6	0	1.1
Background		Town Dump Gate	10:10	29.68	0.0	0.0	0.0	21.2	0	0.0

NOTES:

1. Weather: Light Rain/Rain, 36°F; Last precipitation: 0.03 inches on 12/1/2013.
   Source: www.wunderground.com
2. Pressure Trend: Relatively Steady between 8:15 a.m. and 11:30 a.m. (based on recorded weather data from www.wunderground.com; pressure listed in above table is as recorded by the LandGEM 2000)
3. A pre-purge sample is collected from each well to identify gas build-up inside the well.
4. Equipment: Landtec GEM-2000+; MiniRAE 2000 PID
5. Monitoring performed by Ron St. Michel

ATTACHMENT D

PHOTOGRAPHS

Auburn Road Landfill Superfund Site
Operation and Maintenance Site Visit 39 – December 5, 2013

Photo No. 1: Swale E

Photo No. 2: Swale E

Photo No. 3: Swale H

Photo No. 4: Swale F

Photo No. 5: Swale B

Photo No. 6: Swale C

Photo No. 7: Swale C

Photo No. 8: Swale A

Photo No. 9: Swale A

Photo No. 10: Town Dump Entrance

Auburn Road Landfill Superfund Site
Operation and Maintenance Site Visit 39 – December 5, 2013

Photo No. 11: Town Dump Fence

Photo No. 12: Town Dump Western Surface

Auburn Road Landfill Superfund Site
Operation and Maintenance Site Visit 39 – December 5, 2013

Photo No. 13: Town Dump – Town Dump Western Surface & Toe-of-Slope

Photo No. 14: Town Dump – Western Surface

Auburn Road Landfill Superfund Site
Operation and Maintenance Site Visit 39 – December 5, 2013

Photo No. 15: Town Dump – Northwestern Corner

Photo No. 16: Town Dump – Gas Vent GV-4

Photo No. 17: Town Dump Northern Surface

Photo No. 18: Town Dump – Northern Surface

Photo No. 19: Town Dump – Northern Surface

Photo No. 20: Town Dump – Northern Toe-of-Slope

Photo No. 21: Town Dump – Northern Toe-of-Slope

Photo No. 22: Town Dump – Northern Surface

Photo No. 23: Town Dump – Eastern Surface

Photo No. 24: Town Dump – Eastern Surface and Toe-of-Slope

Auburn Road Landfill Superfund Site
Operation and Maintenance Site Visit 39 – December 5, 2013

Photo No. 25: Town Dump – Eastern Toe-of-Slope

Photo No. 26: Town Dump – Fence

Photo No. 27: Town Dump – Northeastern Groundwater Monitoring Wells

Photo No. 28: Town Dump – Central Surface & Toe-of-Slope

Photo No. 29: Town Dump – Central Toe-of-Slope

Photo No. 30: Access Road – Site Entrance Gate

Photo No. 31: Access Road

Photo No. 32: Access Road

Auburn Road Landfill Superfund Site
Operation and Maintenance Site Visit 39 – December 5, 2013

Photo No. 33: Access Road

Photo No. 34: Access Road

Photo No. 35: Access Road

Photo No. 36: Tire Dump – Entrance Gate

Photo No. 37: Tire Dump – Northern Toe-of-Slope & Fence

Photo No. 38: Tire Dump - Western Toe-of-Slope & Fence

Photo No. 39: Tire Dump - Western Fence

Photo No. 40: Tire Dump – Western Surface & Fence Line

Photo No. 41: Tire Dump – Western Surface & Toe-of-Slope

Photo No. 42: Tire Dump – Western Surface, Toe-of-Slope & Fence

Photo No. 43: Tire Dump – Southern Toe-of-Slope & Fence

Photo No. 44: Tire Dump – Southern Surface

Auburn Road Landfill Superfund Site
Operation and Maintenance Site Visit 39 – December 5, 2013

Photo No. 45: Tire Dump – Top Surface

Photo No. 46: Tire Dump – Top Surface

Auburn Road Landfill Superfund Site
Operation and Maintenance Site Visit 39 – December 5, 2013

Photo No. 47: Tire Dump – Eastern Toe-of-Slope

Photo No. 48: Tire Dump – Top Surface

Photo No. 49: Tire Dump – Eastern Toe-of-Slope

Photo No. 50: Tire Dump – Eastern Toe-of-Slope

Auburn Road Landfill Superfund Site
Operation and Maintenance Site Visit 39 – December 5, 2013

Photo No. 51: Swale D – Breached Beaver Dam (South)

Photo No. 52: Swale D – Outlet Culvert (North)

Photo No. 53: Swale D (North)

Photo No. 54: Swale D – Beaver Dam (North)

Photo No. 55: Swale D – Beaver Dam (North)

Photo No. 56: Swale D (North)

Auburn Road Landfill Superfund Site
Operation and Maintenance Site Visit 39 – December 5, 2013

Photo No. 57: SWLF – Entrance Gate

Photo No. 58: SWLF – Northern Toe-of-Slope

Photo No. 59: SWLF – Western Surface & Toe-of-Slope

Photo No. 60: SWLF – Mid-Slope Swale

Photo No. 61: SWLF – Western Surface

Photo No. 62: SWLF – Western Stormwater Basin

Photo No. 63: SWLF – Southern Toe-of-Slope & Surface

Photo No. 64: SWLF – Southern Surface

Photo No. 65: SWLF - Southern Toe-of-Slope & Surface

Photo No. 66: SWLF – Southeastern Surface

Photo No. 67: SWLF – Southeastern Surface

Photo No. 68: SWLF – Eastern Toe-of-Slope

Photo No. 69: SWLF - Top Northeastern Surface

Photo No. 70: SWLF - Northeastern Toe-of-Slope

Photo No. 71: SWLF – Northern Toe-of-Slope

Photo No. 72: SWLF – Top Surface