



City of
Peterborough

TO: Members of the Waste Management Steering Committee

FROM: W. H. Jackson, Director of Utility Services

MEETING DATE: September 19, 2011

**SUBJECT: Report WMC11-006
JULY 6, 2011 Site Inspection – South and North Fill Areas**

PURPOSE

To provide the Committee with a copy of the Golder Associates July 25, 2011 report entitled July 6, 2011 Site Inspection – South and North Fill Areas Peterborough City/County Waste Management Facility (PCCWMF).

RECOMMENDATION

That the Waste Management Committee endorse the recommendation as outlined in Report WMC11-006 dated September 19, 2011, of the Director of Utility Services as follows:

That Report WMC11-006 providing the Committee with a copy of the Golder Associates July 25, 2011 report entitled July 6, 2011 Site Inspection – South and North Fill Areas Peterborough City/County Waste Management Facility (PCCWMF) be received for information.

BUDGET AND FINANCIAL IMPLICATIONS

There are no budget or financial implications as a result of this report.

BACKGROUND

At the July 12, 2011 meeting of the Peterborough County/City Waste Management Site Liaison Committee meeting, Mr. Chris Visser of Golder Associates presented the results (copy attached) of his inspection of the landfill site. Mr. Vissor found the site to be neat and tidy with little litter. It was also observed that there was a significant decrease in landfill odour. A copy of Mr. Visser's report is attached.

Submitted by,

W. H. Jackson
Director, Utility Services

Attachment:

- Golder Associates July 25, 2011 report entitled July 6, 2011 Site Inspection – South and North Fill Areas Peterborough City/County Waste Management Facility (PCCWMF)



July 25, 2011

Project No. 10-1188-0008

Ms. Christine Wright
 Township of Otonabee-South Monaghan
 Site Liaison Committee
 Peterborough City/County Waste Management Facility
 P.O. Box 70, Third Street
 Keene, Ontario
 K0L 2G0

JULY 6, 2011 SITE INSPECTION – SOUTH AND NORTH FILL AREAS PETERBOROUGH CITY/COUNTY WASTE MANAGEMENT FACILITY (PCCWMF)

Dear Ms. Wright:

This letter summarizes the observations made during a walk-over inspection of the South Fill Area (SFA) and North Fill Area (NFA) at the PCCWMF on July 6, 2011. The inspection was carried out in order to satisfy the conditions of Section 4.3 of Schedule "B" in the Provisional Certificate of Approval (C of A) No. A341508 (December 22, 1993 and subsequent amendments). The purpose of this inspection is to confirm that the site is being operated consistent with and in general compliance with the C of A.

1.0 SITE INSPECTION OBSERVATIONS

The site inspection was performed on the morning of July 6, 2011 by Mr. Chris Visser. The inspection consisted of an approximately 1.5 hour walk-over of the PCCWMF SFA (Cell 1-North, South and West), NFA (Cell 2) and the Public Drop-off area, during which observations of the site conditions and ongoing operations were noted. Mr. Visser was accompanied by the landfill site manager, Mr. Craig Simmons, who provided additional information on the current operations and recent maintenance works completed at the site. The following is a summary of the notable observations made during the walk-over inspection. Refer to the attached Site Inspection Report and Figures 1 and 2 for observation notes and general locations.

1.1 Site Operations

Mr. Simmons indicated that landfilling operations were relocated from the NFA Cell 2 to the SFA Cell 1 - West B in March 2011, following completion of the protection layer across the newly constructed NFA Cell 2 base. The City estimates that the SFA will reach capacity and the final contours in May 2012 as reflected in the SFA Closure Plan.

North Fill Area Operations: At the time of the site visit the NFA Cell 2 base had been covered with waste and interim cover material. Mr. Simmons indicated that a single 1.8 m to 2 m thick lift of waste and interim cover has been placed across the cell base. Landfilling operations in this area are expected to resume in March 2012.

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South Fill Area Operations: In general, ongoing landfilling operations in the Cell 1 – West B area generally follow the methods described/proposed in the "South Fill Area Design & Operations Report" dated January 2004, prepared by Conestoga-Rovers & Associates.

Waste had been placed over the entire portion of Cell 1 - South, the southern portion of Cell1 – West A and the top of the eastern portion of Cell 1 - North, and these areas have been contoured to the design top surface mound shape. Final cover including topsoil and seed has largely been completed over Cell 1 - South including the eastern portion of Cell 1 - North. The active Cell 1 - West B area has been partially filled to about half the design elevation, and it is anticipated that this area will reach final capacity by March 2012.

The following is a summary of observations made during the site visit:

- Seagulls were observed on the active area (i.e., SFA Cell 1 - West B) of the landfill at the time of the site visit. Mr. Simmons indicated that the City has approval to continue with the culling of birds as required, in line with previous years;
- Waste was being disposed at the active face in the SFA Cell 1 - West B area;
- One (1) waste compactor (Cat 826C) was being used to spread and compact the waste in lifts. A bulldozer was on-site for site maintenance;
- Daily cover soil (sandy material) is stockpiled on site and appears to be applied to the Cell 1 – West B tipping face area on a daily basis;
- Reportedly, there have been no recent complaints from the public or residents near the landfill regarding litter or landfill odours. It is our understanding that by discontinuing the disposal of grease trappings at the site in February 2011, and the installation of 23 new landfill gas (LFG) extraction wells, odour control has improved significantly at the site;
- Final and interim cover across the top of the SFA cells have been re-instated where new LFG extraction wells and collection piping have been constructed; and
- The Public Drop-Off bins in the North Fill Area appeared to contain materials specific to the signs posted and separation of materials appeared to be evident, including separate stockpiling of white goods, tires and brush.

1.2 Litter Control

There was no litter observed in the SFA, NFA and along Bensfort Road. In the active SFA there was a litter fence (snow fence) along the top of the cell located east of the Cell 1 – West B areas still to be filled. The SFA Cell 1 - West B active tipping area is currently located in a depressed area, which reduces the potential for generation of wind borne litter.

In the NFA, a permanent litter control fence has been constructed directly south-east of Cell 2 and along the new NFA access road. It was previously indicated by the City that this permanent fence will be extended as required during the future landfilling and construction of the NFA.

It is our understanding that regular litter pick-up continues by the site operator.

1.3 Landfill Gas (LFG) Control

At the time of the site visit, 23 new LFG extraction wells have been installed in the SFA, including new lateral and header pipelines between the new wells and the existing LFG collection system. Mr. Simmons indicated that the installation of the new LFG extraction wells, and discontinuing the disposal of grease trappings at the end of February 2011, have significantly reduced off-site odour impacts. It is our understanding that the City has not received any odour complaints since stopping with the grease trappings disposal.

At the time of the site visit, landfill odour was localized to the active tipping face, and a very faint intermittent LFG odour was observed between the landfill main gate and the leachate pump station along Bensford Road. No odour was observed at the NFA.

1.4 Leachate Management

There was no leachate seeps observed during the time of the site visit.

1.5 Interim and Final Cover

Mr. Simmons indicated that interim cover have been placed across the NFA – Cell 2 base area. As previously indicated, landfilling is expected to resume at this location in March 2012.

In the SFA no new final cover placement has been completed. Interim and final cover repair were completed in the areas where new LFG wells and collection piping have been installed. Mr. Simmons indicated that final cover including topsoil and seed placement will be undertaken progressively as the SFA reaches final contour elevations.

It is anticipated that the SFA will reach it final capacity and final contours in May 2012 as shown in the SFA Closure Plan.

2.0 SUMMARY

In summary, at the time of the site inspection, the landfill operations were being implemented as prescribed in the C of A supporting documents, and in general compliance with the conditions outlined in the C of A.

The above noted site observations were discussed with the landfill site manager (Mr. Craig Simmons) who indicated that appropriate actions would continue to be taken, as required, in order to address any identified deficiencies.

3.0 SITE LIAISON COMMITTEE MEETING

The above site observations were reported by Mr. Visser at the Site Liaison Committee meeting held at Steward Hall on the evening of July 12, 2011. In addition, Golder confirmed the review and concurrence of the 2010 Annual Monitoring Report prepared by Urban & Environmental Management Inc. (UEM) and Genivar.

Ms. Christine Wright
Township of Otonabee-South Monaghan

10-1188-0008
July 25, 2011

We trust that the above details of our site inspection are sufficient for your immediate requirements. If you have any questions, please do not hesitate to contact us.

Yours truly,

GOLDER ASSOCIATES LTD.



Chris Visser
Project Manager

CV/JMAC/cv

CC: Mr. Wayne Jackson, City of Peterborough – 10 Copies for distribution to the SLC members.

Attachments: Figure 1 - Site Observations SFA– July 6, 2011
Figure 2 – Site Observations NFA – July 6, 2011
Site Inspection Report

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SITE INSPECTION REPORT
PETERBOROUGH CITY/COUNTY WASTE MANAGEMENT FACILITY
(BENSFORT ROAD LANDFILL)

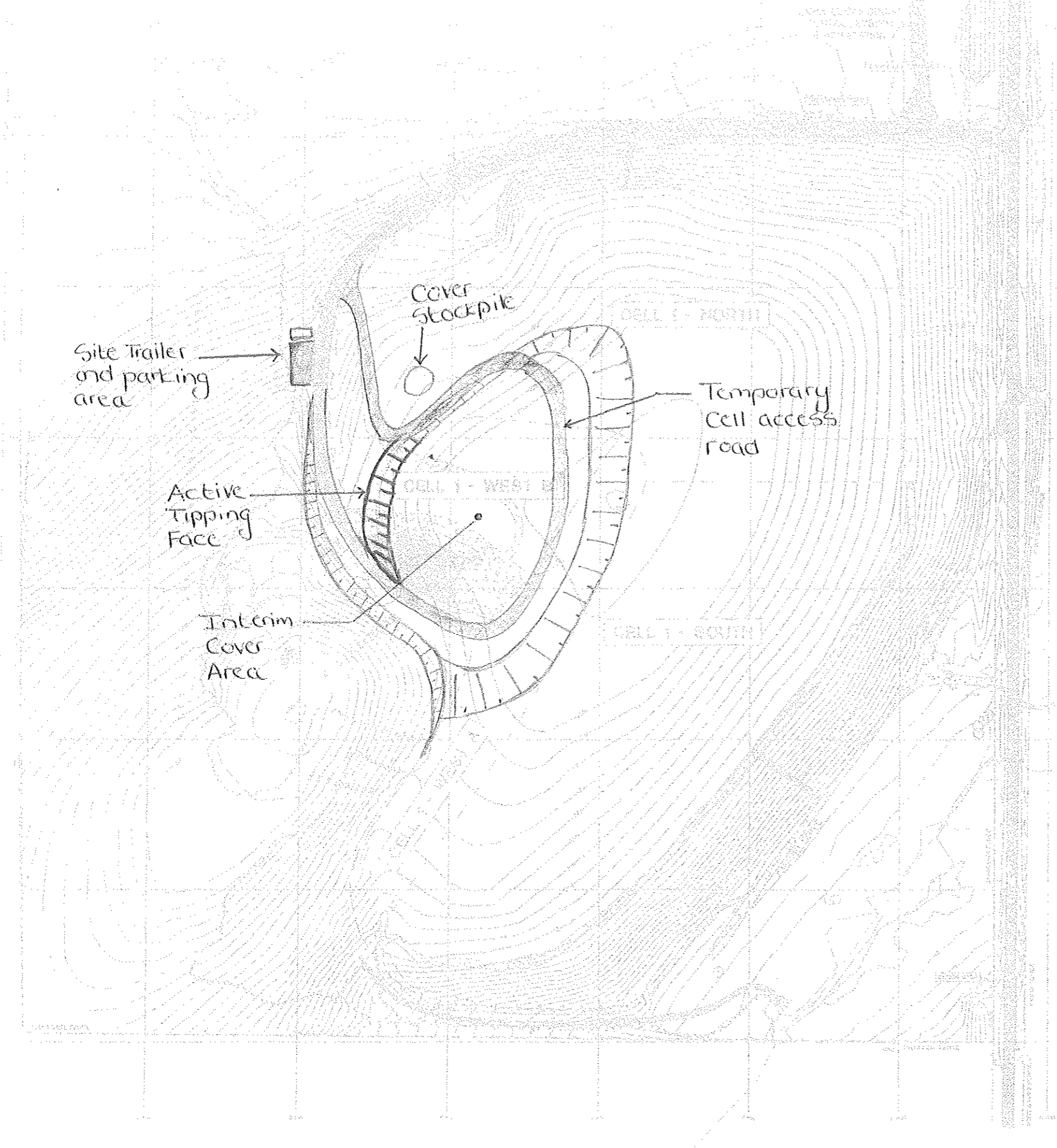
Date of Inspection: July 06 2011 **Project Number:** 10-1182-0008
Time of Inspection: 9:00 – 11:00 **Weather Conditions:** Sunny, partly cloudy
Inspected by: Chris Visser No wind,
22.5°C

	Yes	No	Comments
1. Site Appearance Neat	✓		
2. Access Roads In Good Condition	✓		
3. Waste Compactor On Duty	✓		1 (CAT) – LF Compactor and 1 – Bulldozer in South Fill Area (SFA)
4. Tipping Area Litter Fences Used		✓	not needed – depressed tipping face
5. Perimeter Litter Fences Used	✓		SFA - snow-type fence along east perimeter of Cell 1 – West B North Fill Area (NFA) – permanent litter fence along south-eastern perimeter of Cell 2
6. Litter Being Collected	✓		None visible at time of visit – litter free Site
7. Berms Around Active Area	✓		
8. Daily Cover Being Used	✓		
9. Interim Cover In Good Condition	✓		NFA and SFA
10. Final Cover In Good Condition	✓		
11. Repairs Made To Interim/Final Cover	✓		Cover repaired/re-instated along newly installed vertical LFG wells, including lateral and header pipe alignment.
12. Perimeter Ditches Unobstructed	✓		
13. Perimeter Ditches In Good Condition	✓		
14. Natural Slopes In Good Condition	✓		
15. Vegetative Cover In Good Condition	✓		Trees planted in 2010 across the east face of the SFA appeared to be well established. Vegetative cover repairs (completed Spring 2011) across the SFA eastern face appeared to be in good condition.
16. Evidence Of Surface Water Ponding		✓	
17. Evidence Of Leachate Seeps		✓	
18. Presence Of Leachate Odours		✓	
19. Presence Of LFG Odours	✓		SFA - Very faint LFG odour east of the site and along Bensford Road between the landfill main gate and leachate pump station. NFA – No odours observed
20. Evidence Of LFG Vegetation Kill		✓	
21. Borrow Area In Good Condition	✓		Material stockpiles
22. Public drop-off operated properly	✓		
23. Other Observations*	✓		Refer notation below.

Miscellaneous:

* Landfilling operations to establish a waste protection layer across the newly completed base of the NFA - Cell 2 was completed in March 2011. Interim cover has been placed over the NFA waste. Landfilling operations have moved to the western area of the SFA - Cell 1.

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Symbol	Description
(Symbol)	Proposed
(Symbol)	Existing
(Symbol)	Proposed Cell
(Symbol)	Existing Cell
(Symbol)	Proposed Road
(Symbol)	Existing Road
(Symbol)	Proposed Cover
(Symbol)	Existing Cover
(Symbol)	Proposed Slope
(Symbol)	Existing Slope
(Symbol)	Proposed Contour
(Symbol)	Existing Contour
(Symbol)	Proposed Elevation
(Symbol)	Existing Elevation



NOTES:
 1. The design of the landfill cells is based on the design of the existing cells.
 2. The design of the landfill cells is based on the design of the existing cells.
 3. The design of the landfill cells is based on the design of the existing cells.
 4. The design of the landfill cells is based on the design of the existing cells.
 5. The design of the landfill cells is based on the design of the existing cells.

EASTERN WATER DIVISION

EASTERN WATER DIVISION

Figure 1
 Pg. # 10-1188-0008
 July 6, 2011
 SFA. SITE OBSERVATIONS

COUNTY / CITY OF PORTSMOUTH
 WASTE MANAGEMENT FACILITY
 2008 ANNUAL MONITORING REPORT
 APPROVED FINAL CONTOURS

WARRINGTON-KRUMHOLTZ & ASSOCIATES

Project	WMC11-006	Client	WMC
Scale	1"=100'	Date	7/6/11
Author	JL	Checked	JL
Drawn	JL	Approved	JL

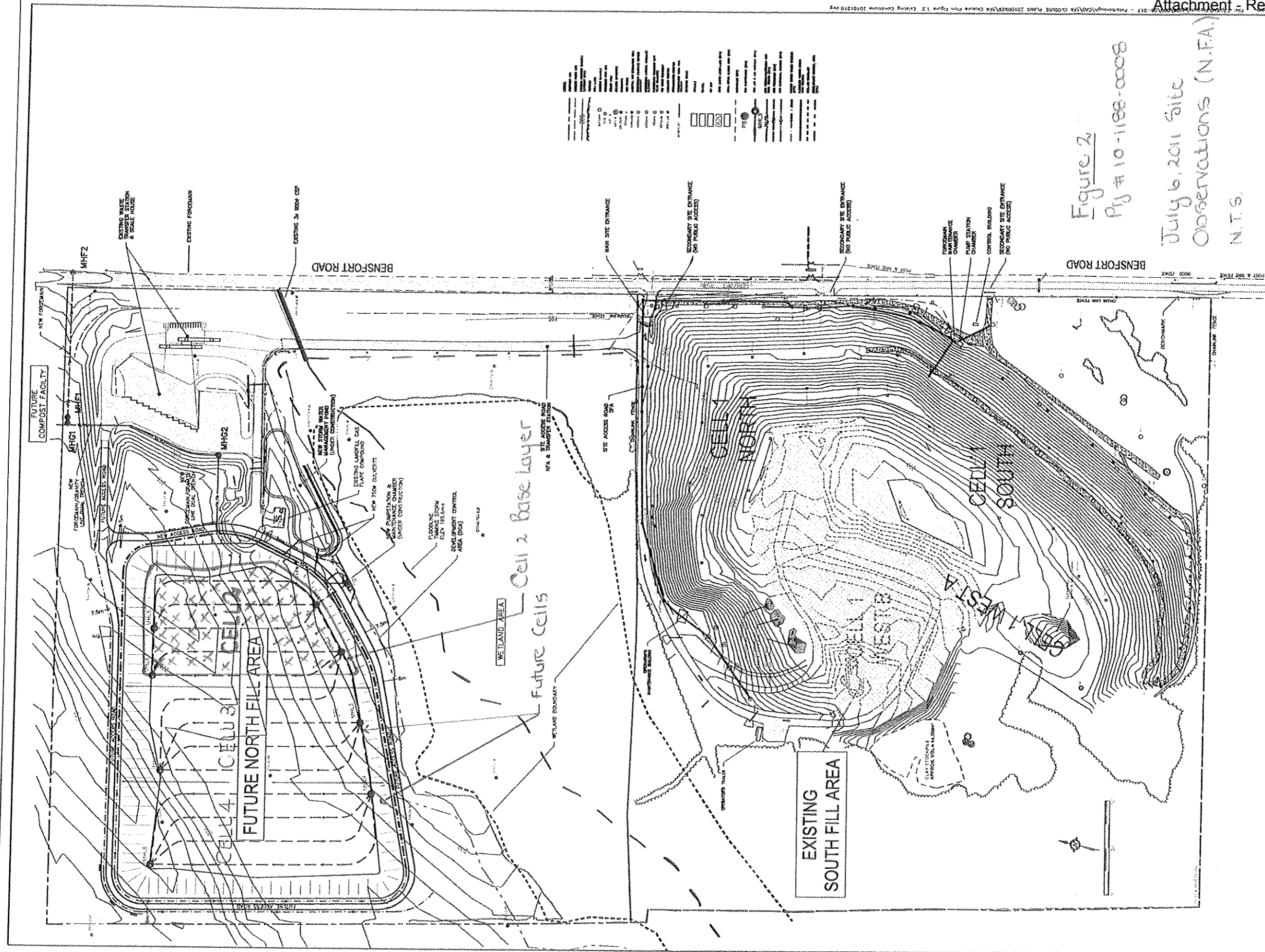


Figure 2
 Pj # 10-1188-0008
 July 6, 2011 Site
 Observations (N.F.A.)
 N.T.S.

DR	AK	NO.	DATE	REVISION	COUNTY OF PETERBOROUGH CITY OF PETERBOROUGH	FIGURE 1.2 EXISTING CONDITIONS SFA (2010) AND FUTURE NFA LAYOUT SOUTH FILL AREA CLOSURE PLAN PETERBOROUGH COUNTY CITY WASTE MANAGEMENT FACILITY	U.E. CONSULTANTS INC.	DEM. NO.	88-017
DR	AK	NO.	DATE	REVISION				SCALE	N.T.S.
CHK	AK	NO.	DATE	REVISION				FIG. NO.	Fig 1.2
APV	AK	NO.	DATE	REVISION				MUN. REF. NO.	