

Technical Memorandum

DATE: March 20, 2023

TO: Suki Janssen, Athens-Clarke County Solid Waste Director

FROM: Charles Adams, Atlantic Coast Consulting, Inc.

SUBJECT: Athens-Clarke County Dunlap Road Landfill – Surface Water Results Summary

Atlantic Coast Consulting, Inc. (ACC) is providing this updated technical memorandum in response to your data request for sampling results for the landfill surface water points SWC-1 and Outfall 1, and Compost Pond E. Attached is a map focusing on the two surface water points of interest and Pond E. These two points are sampled semi-annually as part of the landfill permit requirements. The Outfall 1 location is sampled and analyzed for Georgia surface water parameters that includes: ten metals, chloride, chemical oxygen demand, cyanide, and total organic carbon. A summary of parameters detected between 2008 and 2022 is provided on the attached Table 1. These dates are ACC's readily available data included in the monitoring program database. Of the detections summarized in Table 1 for Outfall 1, no concentrations are above instream water quality standards¹ (for those constituents with established standards). Surface water point SWC-1 is currently sampled for 40 Code of Federal Regulations 258 Appendix I volatile organic compounds (VOCs). There have been no detections of VOCs at SWC-1 between 2008 and 2022. Surface water point SWC-1 was sampled for the Georgia surface water parameter list October 2013, May 2014, and October 2014 and a summary of those detected parameters is provided in Table 1. Surface water point SWC-1 receives surface drainage from the Site, except for Pond E which is a self-contained pond for the Compost Facility.

The compost facility and composting areas were designed in accordance with the June 2007 *Athens Clarke-County Municipal Solid Waste Landfill Major Modification, Classic City Compost Operations*². As mandated in that plan, all storm water from compost operations is captured by drainage that flows to a separate compost pond (Pond E). The pond drains to a pump station, where the storm water can be recirculated back to the compost pad. There is no storm water, or other surface water flow from the compost pond to Big Creek.

¹ Georgia Rule 391-3-6-.03 Water Use Classifications and Water Quality Standards.

² The compost requirements were incorporated into the December 2021 *Athens-Clarke County MSW Landfill Design & Operational Plan Five Year Permit Review* conditionally approved by EPD March 28, 2022.

ATTACHMENTS

FIGURE



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- NOTES:
1. TOPOGRAPHIC MAP BY PHOTO SCIENCE DEVELOPED FROM AERIAL PHOTOGRAPHY, DATED MAY 20, 2014.
 2. BOUNDARY SURVEY OF EXPANSION PARCEL BY BEN MCLEROY & ASSOCIATES, INC., DATED MARCH 5, 2009.



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REVISIONS

Drawn by: CA Checked by: CH

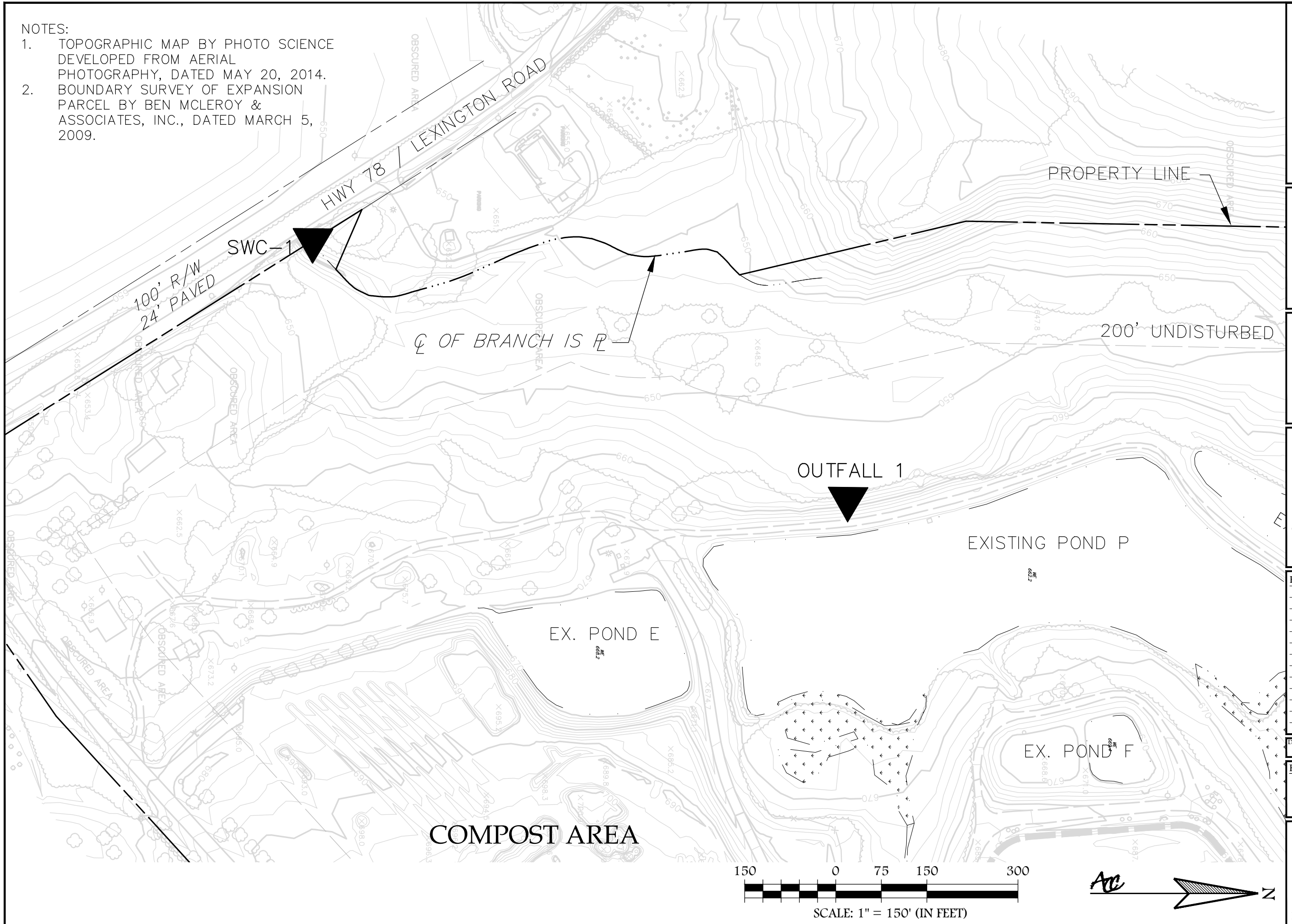
PROJECT NUMBER:

G017-101

March 2023

SURFACE WATER
LOCATIONS -
SWC-1 AND
OUTFALL 1

FIGURE 1



TABLE

Table 1
Summary of Detections for SWC-1
Athens-Clarke County Dunlap Road MSWLF

Sample Date	Location ID	Parameter Name	Concentration (mg/L)
5/21/2014	SWC-1	Chemical Oxygen Demand	38
10/15/2013	SWC-1	Chloride	7.8
10/7/2014	SWC-1	Chloride	6.9
5/21/2014	SWC-1	Total Arsenic	0.00094
10/15/2013	SWC-1	Total Barium	0.0526
5/21/2014	SWC-1	Total Barium	0.0895
10/7/2014	SWC-1	Total Barium	0.0380
5/21/2014	SWC-1	Total Beryllium	0.00023
5/21/2014	SWC-1	Total Chromium	0.0044
5/21/2014	SWC-1	Total Cobalt	0.0036
5/21/2014	SWC-1	Total Copper	0.0037
5/21/2014	SWC-1	Total Lead	0.0049
10/7/2014	SWC-1	Total Lead	0.00025
5/21/2014	SWC-1	Total Nickel	0.0019
10/15/2013	SWC-1	Total Organic Carbon	2.3
5/21/2014	SWC-1	Total Organic Carbon	11.1
10/7/2014	SWC-1	Total Organic Carbon	6
5/21/2014	SWC-1	Total Vanadium	0.093
5/21/2014	SWC-1	Total Zinc	0.0141

Table 1
Summary of Detections for Outfall 1
Athens-Clarke County Dunlap Road MSWLF

Sample Date	Location ID	Parameter Name	Concentration (mg/L)
10/9/2014	Outfall 1	Chemical Oxygen Demand	28
4/22/2015	Outfall 1	Chemical Oxygen Demand	67
10/8/2015	Outfall 1	Chemical Oxygen Demand	123
4/27/2016	Outfall 1	Chemical Oxygen Demand	30
12/21/2016	Outfall 1	Chemical Oxygen Demand	24
4/25/2017	Outfall 1	Chemical Oxygen Demand	52
11/2/2017	Outfall 1	Chemical Oxygen Demand	90
4/26/2018	Outfall 1	Chemical Oxygen Demand	69.8
10/24/2018	Outfall 1	Chemical Oxygen Demand	239
10/29/2020	Outfall 1	Chemical Oxygen Demand	32.1
4/29/2021	Outfall 1	Chemical Oxygen Demand	20.8
10/22/2021	Outfall 1	Chemical Oxygen Demand	51.2
4/21/2022	Outfall 1	Chemical Oxygen Demand	86.6
10/14/2022	Outfall 1	Chemical Oxygen Demand	51.4
10/9/2014	Outfall 1	Chloride	8.7
4/22/2015	Outfall 1	Chloride	15.2
10/16/2015	Outfall 1	Chloride	22
4/27/2016	Outfall 1	Chloride	8
10/19/2016	Outfall 1	Chloride	8.7
4/25/2017	Outfall 1	Chloride	18
11/2/2017	Outfall 1	Chloride	21
4/26/2018	Outfall 1	Chloride	15.2
10/24/2018	Outfall 1	Chloride	17.5
4/17/2019	Outfall 1	Chloride	12.4
10/30/2019	Outfall 1	Chloride	24
4/16/2020	Outfall 1	Chloride	11.5
10/29/2020	Outfall 1	Chloride	23.7
4/29/2021	Outfall 1	Chloride	21.2
10/22/2021	Outfall 1	Chloride	26.8
4/21/2022	Outfall 1	Chloride	18.4
10/14/2022	Outfall 1	Chloride	17.1
10/9/2014	Outfall 1	Total Barium	0.0341
4/22/2015	Outfall 1	Total Barium	0.0485
10/8/2015	Outfall 1	Total Barium	0.0706
4/27/2016	Outfall 1	Total Barium	0.0463
10/19/2016	Outfall 1	Total Barium	0.0612
4/25/2017	Outfall 1	Total Barium	0.0517
11/2/2017	Outfall 1	Total Barium	0.0524
4/26/2018	Outfall 1	Total Barium	0.0503
10/24/2018	Outfall 1	Total Barium	0.13

Table 1
Summary of Detections for Outfall 1
Athens-Clarke County Dunlap Road MSWLF

Sample Date	Location ID	Parameter Name	Concentration (mg/L)
4/17/2019	Outfall 1	Total Barium	0.052
10/30/2019	Outfall 1	Total Barium	0.042
4/16/2020	Outfall 1	Total Barium	0.044
10/29/2020	Outfall 1	Total Barium	0.062
4/29/2021	Outfall 1	Total Barium	0.0396
10/22/2021	Outfall 1	Total Barium	0.0592
4/21/2022	Outfall 1	Total Barium	0.0463
10/14/2022	Outfall 1	Total Barium	0.111
10/9/2014	Outfall 1	Total Cobalt	0.00062
10/9/2014	Outfall 1	Total Lead	0.0002
10/9/2014	Outfall 1	Total Organic Carbon	9.2
4/22/2015	Outfall 1	Total Organic Carbon	26.1
10/8/2015	Outfall 1	Total Organic Carbon	11.7
4/27/2016	Outfall 1	Total Organic Carbon	5.4
10/19/2016	Outfall 1	Total Organic Carbon	6.1
4/25/2017	Outfall 1	Total Organic Carbon	11.1
11/2/2017	Outfall 1	Total Organic Carbon	13.3
4/26/2018	Outfall 1	Total Organic Carbon	10.8
10/24/2018	Outfall 1	Total Organic Carbon	10.6
4/17/2019	Outfall 1	Total Organic Carbon	5
10/30/2019	Outfall 1	Total Organic Carbon	12.2
4/16/2020	Outfall 1	Total Organic Carbon	5.9
4/16/2020	Outfall 1	Total Organic Carbon	5.8
10/29/2020	Outfall 1	Total Organic Carbon	9.65
4/29/2021	Outfall 1	Total Organic Carbon	10.1
10/22/2021	Outfall 1	Total Organic Carbon	16.4
4/21/2022	Outfall 1	Total Organic Carbon	19.2
10/14/2022	Outfall 1	Total Organic Carbon	16.2
10/14/2022	Outfall 1	Total Zinc	0.0368