

August 29, 2019
File No. 02219702.00

Mr. Tom Farrell, Manager (cover letter only)
Division of Solid Waste Enforcement
New Jersey Department of Environmental Protection
9 Ewing Street
Trenton, New Jersey 08625-0420

Mr. Jeffery Meyer, Manager
Division of Air Enforcement
Bureau of Air Compliance and Enforcement
New Jersey Department of Environmental Protection
7 Ridgedale Avenue
Cedar Knolls, New Jersey 07927

Subject: August Progress Report
Keegan Landfill
New Jersey Sports and Exposition Authority
EA ID#: NEA 190001-13317

Dear Mr. Farrell and Mr. Meyer:

On behalf of the New Jersey Sports and Exposition Authority (NJSEA), SCS Engineers (SCS) submits this monthly progress report as required by Section C of the Administrative Consent Order (ACO), NEA19001-13317 (executed on March 21, 2019) for the Keegan Landfill. This report summarizes the compliance status and activities performed since the previous progress report was submitted on July 29, 2019.

In an effort to streamline reporting and ensure all information is distributed to all interested parties, this report is also submitted to satisfy the requirements of Condition 14 of the Sanitary Landfill Major Disruption Approval (Disruption Approval), issued on June 27, 2019.

COMPLIANCE MEASURES AND STATUS

The work progress, summary of problems, activities planned, and required and actual completion dates for each ACO Condition is summarized in the table provided in Attachment 1. The work progress, summary of problems, activities planned, and required and actual completion dates for each Disruption Approval Condition is summarized in the table provided in Attachment 2. Further discussion of the difficulties encountered are provided below.

ACO Difficulties Encountered

Equipment maintenance is performed as needed. A summary of equipment maintenance is provided in Attachment 4.



Notifications of exceedances of the 30 ppb-for-30-minutes limit, based on monitoring station readings, were made to NJDEP as summarized in Exhibit 1 below.

Exhibit 1. Summary of End of July and August Notifications

Monitoring Station	Date
MS-1	July 30, August 1, 2, 7, 15, 19
MS-2	July 29, August 2, 5, 6, 7, 8, 9, 10, 11, 12, 14, 19, 20, 21, 22, 24, 25
MS-3	August 9, 11, 12
MS-4	August 20, 23, 24, 25
MS-5	August 2, 6, 9, 10, 14, 16, 23, 24, 27
MS-6	July 30, August 2, 4, 5, 6, 8, 10, 11, 12, 14, 16, 18, 19, 20, 23, 24, 25, 26, 27, 28, 29
MS-7	July 29, 31, August 2, 4, 6, 7, 9, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 24, 25, 26, 27, 28
MS-8	August 1, 2, 5, 6, 7, 9, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 24, 25, 26, 27, 28

Daily odor monitoring at the site, in accordance with the Monitoring Action Plan (MAP), has not detected any specific areas of odors, stressed vegetation or other specific issues at the Landfill. However, in response to high concentrations measured at the monitoring stations in late July, surface emissions monitoring (SEM) for methane and hydrogen sulfide (H₂S) was performed on August 9 and 10. The data is currently under review and a report will be provided under separate cover.

Data review letters were submitted, as follows:

- On August 5, regarding the validity of the monitoring station data exceedances from July 28 and 29 at MS-8, due to meter malfunction. Supplemental information was submitted on August 16.
- For MS-1, MS-2, and MS-3, on July 29, 30, and August 1, 2, 5, 6, 7, 8, 9, 10, 11, 12, 14, 15, 19, 20, 21, 22, 24 and 25. These letters are required to be submitted within 48-hours of the exceedance by Reference #11 of the EIP190001.

Cover soil deliveries and improvements continued throughout August.

A request for approval to relocate monitoring station MS-4 closer to the property line was sent to NJDEP on August 2. To date, we have not received a response to this request.

Disruption Permit Difficulties Encountered

There has been one exceedance of the air emission standards during construction hours on August 26 at monitoring station MS-7. MS-7 is located on the east side of the landfill and the wind was from the northeast to north-northeast at the time of the exceedance. At the time of the exceedance, the 6-inch drain line on the north side slope near EW19-20 was being backfilled. Therefore, based

on the location of the construction activity and the wind direction, the exceedance does not appear related to construction activities.

EXPLANATION OF NON-COMPLIANCE

ACO Schedule

There were no periods of non-compliance with the ACO during the period of this progress report.

Disruption Permit

There were no periods of non-compliance with the disruption permit during the period of this progress report.

EVALUATION OF CORRECTIVE MEASURES IMPLEMENTED

ACO Schedule

Since the execution of the ACO on March 21, 2019, the corrective measures implemented include actions intended to minimize intake of the waste that may contain gypsum wallboard, placement of daily cover, placement of additional intermediate cover, and minimization of the surface area of the working face. The landfill is currently not accepting any waste.

Disruption Permit Conditions

Since issuance of the Disruption Permit on June 27, 2019, there were no periods of non-compliance, therefore corrective measures have not been required.

RECORDED MONTHLY MEASUREMENTS FOR DISRUPTION PERMIT

Surface emissions monitoring (SEM) for methane and hydrogen sulfide is required to be conducted on a monthly basis upon completion of the construction of the gas collection and control system and through completion of the Environmental Improvement Pilot Test (EIPT). Results of the monthly SEM event shall be recorded and reported in this section of the Progress Report. Construction of the gas collection and control system is ongoing, therefore mandatory monthly SEM has not commenced and there are no results to report.

Mr. Tom Farrell and Mr. Jeffery Meyer

August 29, 2019

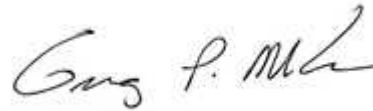
Page 4

A signed certification of information form is included in Attachment 6. The next report will be submitted on or before October 1, 2019. Please call either of the undersigned with any questions or comments.

Sincerely,



Lisa K. Wilkinson, PE
Project Director I
SCS Engineers



Gregory P. McCarron, PE
Project Director II
SCS Engineers

cc: G. Lugo, NJDEP (hardcopy and electronic copy)

A. Fontana (electronic copy)

M. Gerchman (electronic copy)

S. Shah (electronic copy)

V. Prieto, NJSEA (electronic copy)

T. Marturano, NJSEA (electronic copy)

A. Levy, NJSEA (electronic copy)

C. Sanz, NJSEA (electronic copy)

J. Stewart, Lowenstein (electronic copy)

G. Castano (electronic copy)

Attachment 1

**August 2019 Progress Report Summary
Keegan Landfill (NEA190001-13317)**

No.	ACO Condition Description	B. Status of permitting, planning approvals and work progress	C. Difficulties Encountered	D. Activities Planned for next reporting period	E. Required and Actual Completion date
7.a	Submit Monitoring Action Plan (MAP)	On April 1, 2019, MAP was submitted to NJDEP; NJDEP Conditional Approval was received on April 8, 2019; Revised MAP was submitted on April 15, 2019.	None	None; activity is complete	Required: April 1, 2019 Actual: April 1, 2019
7.b	Install/operate continuous H ₂ S Ambient Air Monitoring System	Eight (8) monitoring stations have been installed and are operational as of May 8th as required. The 85 percent valid data was met for all stations for the weeks starting July 28, August 4, 11, and 18 (see Attachment 3)	High concentrations were measured at the some monitoring stations in late July. Surface emissions monitoring was performed on August 9 and 10.	Continue operation of monitoring stations.	Required: May 8, 2019 Actual: May 8, 2019
7.c	Notify NJDEP of exceedances or potential to cause odor complaint or air pollution	Notifications were made on July 27, 28, 29, 30, 31 and August 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29 of exceedances of the 30 ppb for 30 minutes based on monitoring station readings.	Data review letters were submitted regarding the exceedances reported on July 27, 28, 29, 30 and August 1, 2, 5, 6, 7, 8, 9, 10, 11, 12, 14, 15, 19, 20, 21, 22, 24 and 25.	Continue operation of monitoring stations and reporting of exceedances.	Required: upon completion of 7.b above Actual: on-going
7.d	Take measures to control or eliminate emissions	NJSEA has decided to design, permit and install GCCS; Disruption Permit was issued on June 27 and EIPT was issued on June 28. Contractor has mobilized to the site and excavation commenced on July 1. The following work has been completed; installation of six horizontal collectors, 28 vertical wells drilled, all the main header installed, majority of laterals installed (progress drawing is included in Attachment 5.	None	Installation of remaining laterals, condensate sump at flare station, wellheads and flare station. Startup of the GCCS is planned for September 16, 2019.	Required: upon exceedance of Condition 7.c level Actual: TBD
7.e	Submit estimate of generation of emission rates for H ₂ S and other air contaminants	Letter report was submitted on May 29, 2019	None	None; activity is complete	Required: May 30, 2019 Actual: May 29, 2019
7.f	Immediately implement measures to maintain compliance	In accordance with NJSEA letter dated March 29, 2019 to NJDEP, wallboard restrictions have been enforced, additional intermediate soil cover has been placed on the western sideslopes, daily cover has been placed and compacted, and active face is minimized.	Due to Landfill shutdown, soil deliveries were not allowed from June 13 through June 21.	Wallboard restrictions will continue to be enforced should operation be allowed; additional intermediate soil cover will be placed; daily cover will continue to be placed and compacted.	Required: N/A Actual: In progress

**August 2019 Progress Report Summary
Keegan Landfill (NEA190001-13317)**

No.	ACO Condition Description	B. Status of permitting, planning approvals and work progress	C. Difficulties Encountered	D. Activities Planned for next reporting period	E. Required and Actual Completion date
7.g	If compliance not achieved by September 1, 2019, submit proposal for GCCS	<p>In advance of this requirement, NJSEA has decided to design, permit and install GCCS; Disruption Permit was issued on June 27 and EIPT was issued on June 28. Contractor has mobilized to the site and excavation commenced on July 1. See item 7.d above for work progress.</p>	None	See item 7.d above for planned activities. Startup of the GCCS is planned for September 16, 2019.	<p>Required: 30 days from NJDEP notification</p> <p>Actual: GCCS startup is planned for September 16, 2019.</p>

Attachment 2

**August 2019 Progress Report Summary
Keegan Landfill (Disruption Permit-13317)**

No.	Permit Condition Description	B. Status of permitting, planning approvals and work progress	C. Difficulties Encountered	D. Activities Planned for next reporting period	E. Required and Actual Completion date
1	Approval limited to installation and operation of 28 vertical gas extraction wells, six horizontal collectors, skid-mounted blower/flare system, condensate management system; approval need for other disruptions	Disruption Permit was issued on June 27 and EIPT was issued on June 28. Contractor has mobilized to the site and excavation commenced on July 1. The following work has been completed; installation of six horizontal collectors, 28 vertical wells drilled, all the main header installed, majority of laterals installed (progress drawing is included in	None	Installation of remaining laterals, condensate sump at flare station, wellheads and flare station. Startup of the GCCS is planned for September 16, 2019.	Required: Ongoing Actual: Ongoing
2	All odorous waste shall be loaded directly onto trucks and delivered to working face (at least 2x per day). Non-odorous waste may be placed on grade.	Condition has been complied with. Additionally, spray-applied neutralizer has been applied to trenches and waste.	None	Continue to place odorous excavated waste directly onto trucks and deliver to working face at least 2x/day.	Required: Ongoing Actual: Ongoing
3	Immediate placement of 6 inches of soil over odorous waste at working face; non-odorous waste covered at end of work day, no boring or trench left open overnight	Condition has been complied with. Additionally, spray-applied neutralizer has been applied to trenches and waste.	None	Continue cover of odorous and non-odorous waste as required.	Required: Ongoing Actual: Ongoing
4	Dust Control measures shall be implemented.	Dust control measures have been implemented.	None	Continue to implement dust control measures.	Required: Ongoing Actual: Ongoing
5	Noise control measures shall be implemented.	Noise control measures have been implemented.	None	Continue to implement noise control measures.	Required: Ongoing Actual: Ongoing
6	Comply with air emission standards during disruption activities. Comply with GCCS Construction Odor Control Plan.	The Odor Control Plan has been implemented.	There has been one exceedance of the air emission standards during construction hours based on the monitoring station data. Based on the location of the construction activities, the exceedance does not appear related to construction.	Continue to comply with the emission standards and the Odor Control Plan during construction.	Required: Ongoing Actual: Ongoing
7	Vectors shall be controlled by application of cover soil.	No vectors have been observed. Cover soil is applied.	None	Continue to control vectors.	Required: Ongoing Actual: Ongoing
8	Adequate water supply and adequate fire-fighting equipment shall be maintained at the facility.	Adequate water supply and fire-fighting equipment is readily available as appropriate.	None	Continue to have adequate water and fire-fighting equipment available.	Required: Ongoing Actual: Ongoing
9	Cease operations and contact Department should hazardous materials be encountered	No hazardous materials have been encountered during disruption activities.	None	Cease operations and notify Department if hazardous materials are encountered	Required: Ongoing Actual: Ongoing
10	Follow OSHA standards and HASP; perform on-site air monitoring	OSHA standards have been observed.	None	Continue to follow OSHA standards and HASP and perform on-site air monitoring	Required: Ongoing Actual: Ongoing
11	Allow Department Inspectors to enter and inspect the facility	Department Inspectors are allowed to enter and inspect the facility	None	Continue to allow Department Inspectors to enter and inspect the facility	Required: Ongoing Actual: Ongoing
12	Notify Department 72-hours prior to initiation of disruption activities.	Department was notified on June 28 of trench excavation activities to start on July 1. Department was notified on July 25 of well drilling activities to start on July 30	None	None; activity is complete	Required: 72-hours prior to start Actual: June 28 and July 25

**August 2019 Progress Report Summary
Keegan Landfill (Disruption Permit-13317)**

No.	Permit Condition Description	B. Status of permitting, planning approvals and work progress	C. Difficulties Encountered	D. Activities Planned for next reporting period	E. Required and Actual Completion date
13	Install and operate GCCS by September 17, 2019	Construction has commenced as discussed above.	None	Construction will continue.	Required: 9/17/2019 Actual: TBD
14	Submit Monthly Progress Reports	This report satisfies this requirement for August 2019	None	Continue to submit monthly progress reports as required	Required: First of Month Actual: Ongoing
15	Submit a report of Construction Activities at completion of construction	Documentation is ongoing during construction to prepare report following construction completion	None	Continue to document construction activities	Required: 30 days after completion Actual: TBD
16	Certify Progress Reports by NJ licensed professional engineer	This report is certified by a NJPE	None	Continue to certify progress reports	Required: Monthly Actual: Ongoing
20	Apply Neutraline or equivalent during disruption activities; data sheet shall be provided prior to use	Documentation on Neutraline product was provided in permit application. Neutraline was applied as indicated above.	None	Continue to apply spray-applied neutralizer.	Required: Ongoing Actual: Ongoing
21	Upon completion of construction, perform SEM for methane and H2S on a monthly basis along western slopes and plateau area	Construction is ongoing. SEM not required until after construction completion.	None	NA	Required: Monthly, after construction is completed Actual: start in September
21	Upon completion of EIPT, submit an application for construction and operation of a GCCS for entire landfill	Construction is ongoing. Application not required until completion of EIPT.	None	NA	Required: Within 14 days after EIPT is completed Actual: Ongoing

Note: Conditions 17, 18 and 19 are general conditions.

Attachment 3

Attachment 3
Keegan Landfill
Monitoring Station Availability

7/28/19 - 8/3/19	
Station	Percent Valid Data
MS1	93.6%
MS2	94.0%
MS3	90.3%
MS4	97.1%
MS5	96.6%
MS6	95.2%
MS7	93.2%
MS8	90.0%

8/4/19 - 8/10/19	
Station	Percent Valid Data
MS1	94.9%
MS2	93.7%
MS3	90.6%
MS4	86.3%
MS5	90.5%
MS6	95.0%
MS7	96.7%
MS8	92.9%

8/11/19 - 8/17/19	
Station	Percent Valid Data
MS1	95.6%
MS2	95.1%
MS3	92.9%
MS4	97.1%
MS5	96.5%
MS6	90.6%
MS7	96.0%
MS8	92.8%

8/18/19 - 8/24/19	
Station	Percent Valid Data
MS1	92.5%
MS2	89.4%
MS3	92.7%
MS4	95.0%
MS5	91.7%
MS6	94.9%
MS7	95.2%
MS8	89.1%

Attachment 4

Keegan Landfill Monitoring Station Equipment Maintenance		
Date	# of Hours	Description of Work Done
Saturday August 3, 2019	2.5	Went to site and zeroed the Jerome at MS-3 and fixed power outage at MS-7. Had to reset the inverter and charger to get station to power back on.
Monday, August 5, 2019	3	Restored power to MS-4 & MS-5, zeroed Jerome in MS-6. Outlet at station 4 was tripped, surge protector in station 5 was tripped.
Monday, August 5, 2019	2	Power issues at MS-8. Reset inverter and charger.
Friday, August 9, 2019	2	Power check at all stations. Reset any chargers that needed reset. Power issues at MS-4. Reset inverter and charger
Monday, August 12, 2019	2	Power check at all stations. Reset any chargers that needed reset. Checked Jeromes at stations that read high. Ran regen as necessary.
Friday, August 16, 2019	1	Power check at all stations. Reset any chargers that needed reset. Checked Jeromes at stations that read high. Ran regen as necessary.
Saturday August 17, 2019	1	MS-6 lost power. Inverter tripped and needed manual reset.
Saturday August 17, 2019	2	Manually zeroed Jerome in MS-3
Monday, August 19, 2019	2	Power check at all stations. Reset any chargers that needed reset. Checked Jeromes at stations that read high. Ran regen as necessary.
Friday August 23, 2019	2	Power check at all stations. Reset any chargers that needed reset. Checked Jeromes at stations that read high. Ran regen as necessary.
Monday, August 26, 2019	2	Power check at all stations. Reset any chargers that needed reset. Checked Jeromes at stations that read high. Ran regen as necessary.
Tuesday, August 27, 2019	2	Performed a zero check on all stations after reporting high readings and resampled at all stations to check for accuracy.

Attachment 5

LEGEND:

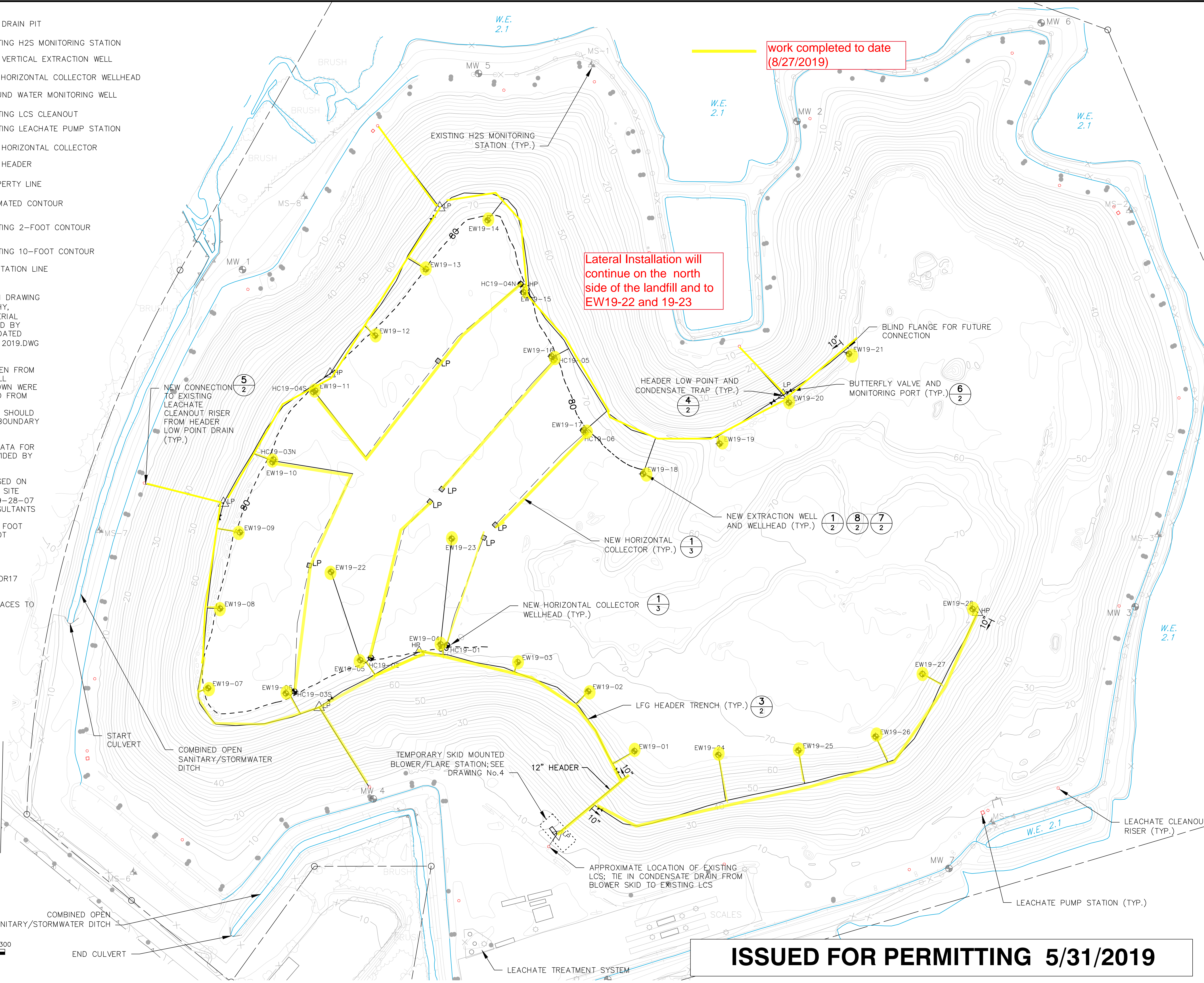
- NEW DRAIN PIT
- EXISTING H2S MONITORING STATION
- NEW VERTICAL EXTRACTION WELL
- NEW HORIZONTAL COLLECTOR WELLHEAD
- GROUND WATER MONITORING WELL
- EXISTING LCS CLEANOUT
- EXISTING LEACHATE PUMP STATION
- NEW HORIZONTAL COLLECTOR
- NEW HEADER
- PROPERTY LINE
- ESTIMATED CONTOUR
- EXISTING 2-FOOT CONTOUR
- EXISTING 10-FOOT CONTOUR
- VEGETATION LINE

- REFERENCES:
1. FEATURES DEPICTED BASED ON DRAWING ENTITLED 'EXISTING TOPOGRAPHY, KEEGAN LANDFILL' DATE OF AERIAL FLIGHT IS 03-18-19, PREPARED BY KUCERA INTERNATIONAL INC., DATED 3-18-19. (FILENAME: KEEGAN 2019.DWG FILE DATE 4-10-2019)
 2. BOUNDARY DEPICTED WAS TAKEN FROM BEST AVAILABLE SOURCES. ALL BEARINGS AND DISTANCES SHOWN WERE DERIVED FROM OR CALCULATED FROM DATA FURNISHED KUCERA INTERNATIONAL BY NJSEA AND SHOULD NOT BE USED AS THE LEGAL BOUNDARY OF RECORD.
 3. COORDINATE AND ELEVATION DATA FOR MONITORING WELLS WERE PROVIDED BY NJSEA.
 4. LCS CLEANOUT LOCATIONS BASED ON DRAWING ENTITLED "PROPOSED SITE IMPROVEMENTS PLAN" DATED 9-28-07 PREPARED BY CONVERSE CONSULTANTS
 5. FINAL CONTOUR BASED ON 30 FOOT OFFSET FROM EXISTING 70 FOOT CONTOUR.

CONSTRUCTION NOTES:

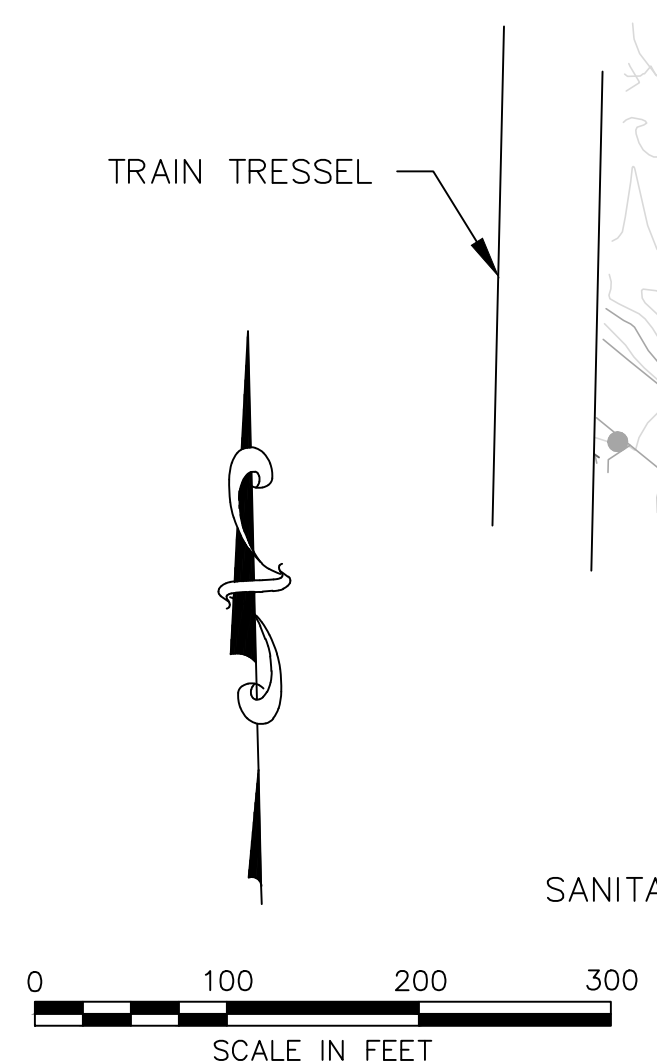
1. ALL LATERALS SHALL BE 4" SDR17 HDPE PIPE
2. RESTORE ALL DISTURBED SURFACES TO ORIGINAL CONDITIONS

I:\PROJECTS\20219702\DRAWINGS\2019 LFG SYSTEM\2019 SITE PLAN_5.31.19.DWG layout: SP plotted on: 5/31/2019 12:49 PM Agents: Corina



work completed to date
(8/27/2019)

Lateral Installation will
continue on the north
side of the landfill and to
EW19-22 and 19-23



ISSUED FOR PERMITTING 5/31/2019

SITE PLAN	
PROJECT TITLE	2019 LFG COLLECTION SYSTEM KEEGAN LANDFILL
CLIENT	NEW JERSEY SPORTS & EXHIBITION AUTHORITY 1 DE KORTE PARK PLAZA, POB 640 LYNDHURST, NJ 07071
CADD FILE:	2019 Site Plan_5.31.19
DATE:	5/31/2019
SCALE:	1"=100'
DRAWING NO.	1 of 4
DATE	5/22/2019
REVISION	ISSUED FOR PERMITTING
NO.	1
NO.	2
NO.	3
NO.	4
NO.	5
NO.	6
NO.	7
NO.	8
NO.	9
NO.	10
NO.	11
NO.	12
NO.	13
NO.	14
NO.	15
NO.	16
NO.	17
NO.	18
NO.	19
NO.	20
NO.	21
NO.	22
NO.	23
NO.	24
NO.	25
NO.	26
NO.	27
NO.	28
NO.	29
NO.	30
NO.	31
NO.	32
NO.	33
NO.	34
NO.	35
NO.	36
NO.	37
NO.	38
NO.	39
NO.	40
NO.	41
NO.	42
NO.	43
NO.	44
NO.	45
NO.	46
NO.	47
NO.	48
NO.	49
NO.	50
NO.	51
NO.	52
NO.	53
NO.	54
NO.	55
NO.	56
NO.	57
NO.	58
NO.	59
NO.	60
NO.	61
NO.	62
NO.	63
NO.	64
NO.	65
NO.	66
NO.	67
NO.	68
NO.	69
NO.	70
NO.	71
NO.	72
NO.	73
NO.	74
NO.	75
NO.	76
NO.	77
NO.	78
NO.	79
NO.	80
NO.	81
NO.	82
NO.	83
NO.	84
NO.	85
NO.	86
NO.	87
NO.	88
NO.	89
NO.	90
NO.	91
NO.	92
NO.	93
NO.	94
NO.	95
NO.	96
NO.	97
NO.	98
NO.	99
NO.	100

Attachment 6

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
CERTIFICATION OF INFORMATION

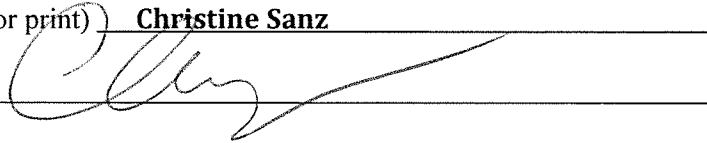
Facility ID Keegan Landfill, NEA190001-13317; SW Facility ID No. 133571
COMPANY New Jersey Sports & Exposition Authority

1. Responsible Official - This first tier of this certification is to be signed by the responsible official as defined at N.J.A.C 7:27-1.4

"I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attached documents and, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate and complete. I am aware that there are significant civil and criminal penalties, including the possibility of fine or imprisonment or both, for submitting false, inaccurate or incomplete information."

Name (type or print) Christine Sanz

Title Senior Vice President/ Chief Operating Officer

Signature 

Date 8/29/2019

2. Individual(s) with direct knowledge of and responsibility for the information contained in the certified document (N.J.A.C. 7:27-1.39(a)1)

A. "I certify under penalty of law that I believe the information provided in this document is true, accurate and complete. I am aware that there are significant civil and criminal penalties, including the possibility of fine or imprisonment or both, for submitting false, inaccurate or incomplete information."

Name (type or print) Lisa K. Wilkinson

Title SCS Engineers Project Director (Consultant)

Signature 

Date 8/29/2019

3. Individual(s) with direct knowledge of and responsibility for the information contained in the certified document (N.J.A.C. 7:27-1.39(a)1)

A. "I certify under penalty of law that I believe the information provided in this document is true, accurate and complete. I am aware that there are significant civil and criminal penalties, including the possibility of fine or imprisonment or both, for submitting false, inaccurate or incomplete information."

Name (type or print) Marcus M. Scrimgeour, PE

Title SCS Engineers Project Manager (Consultant)

Signature 

Date 8/29/2019