Hartland Landfill

Public Meeting

Town of Hartland

September 19, 2018

Meeting Outline

- Why does the Town have a Landfill?
- Ownership and Permitting History
- Landfill Design
- Groundwater Monitoring
- Recent Activity
- Odor Concerns & Implemented Control Provisions
- Where does the Town go from here?

Why does the Town have a Landfill?

1. **Hartland is home to a Tannery** – generator of high quality leather products, but also residuals (including hides, buffing dust, and industrial wastewater).

   A. Located at Downtown Mill Site, and

   B. Former Tannery Annex

Why does the Town have a Landfill?

2. **Tanneries Need Treatment Facilities**

A. Industrial Pre-Treatment Facility

Pre-treats industrial waste water and generates sludge.

B. Hartland Publicly Owned Treatment Works (POTW)

Treats wastewater; loadings into POTW in 2017 – 2018 average 94% industrial and 6% residential.

Why does the Town have a Landfill?

3. **Tanneries and Treatment Facilities create solid waste that need to be disposed of at Landfill Site(s)**

   A. Sludge Attenuation Landfill (6 acres);

   B. Secure Landfill (currently 3.87 acres out of 8 acres permitted).

Tannery Ownership

Main Tannery Site

1942 to 1962:

- Hartland Tanning Company, Incorporated

1962:

- Deeded to Irving Tanning (Massachusetts corporation) December 31, 1962 (Max Kirsten signs)

1998:

- Internal reorganization-- Irving Tanning Company (established a Maine corporation in 1998 with a group of private investors that bought out the Tannery)

2011:

- Tasman bought the Irving Tanning Facility (February)

Tannery Annex

1969:

- Deed to Annex property to Irving Tanning, Delaware corporation;
- Irving Tanning owns Annex until 2017

Waste Management Facilities Ownership

Publicly Owned Treatment Works (POTW)

1976 -2018:

- Town of Hartland;
- Predominant loadings (90-98%) are from Tannery

Landfill

1976:

- Irving Tanning established a trench landfill;

1977:

- Town Permits a Sludge Landfill (sludge is from POTW plant);

1977-2005:

- Town leases landfill property from Irving Tanning; and

2005 – Present:

- Irving Tanning transfers Landfill Site to Town of Hartland.

Landfill Ownership

On January 1, 1977, Irving Tanning Company entered into a lease agreement, whereby among other things, the Town agreed to:

- use the land as disposal site for sludge and waste media from the waste-treatment facilities of the Town of Hartland and Irving Tanning. *See*, Paragraph 4 of Lease Agreement (handout).

- the Town will indemnify Irving Tanning from and against any and all claims, liabilities, damages, losses and judgments, including costs and expenses, arising out of or in any way connected to Irving's use or maintenance of the landfill. *See*, Paragraph 7 of Lease Agreement (handout).

Deed to the Landfill Property

QUITCLAIM DEED WITHOUT COVENANT (Maine Statutory Short Form)

IRVING TANNING COMPANY, a Maine corporation having a place of business and mailing address of 9 Main Street, P.O. Box 400, Hartland, Maine 04943 (the "Grantor"), for consideration paid, releases to the INHABITANTS OF THE TOWN OF HARTLAND, a municipal corporation and body politic created, organized and existing in accordance with the laws of the State of Maine, having a place of business and mailing address of 21 Academy Street, Hartland, Maine 04943 (the "Grantee), the real property, together with any buildings and improvements thereon, situated in the Town of Hartland, County of Somerset and State of Maine, more particularly **described in Schedule A** attached hereto and made a part hereof **[Schedule A is the landfill property.]**

The Grantor, by its execution and delivery of this Deed, and the Grantee, by its acceptance of this Deed, hereby acknowledge and agree that the Grantee's leasehold rights as set forth in a certain letter agreement between the Grantor and the Grantee dated January 1977, as amended by letter agreement between the Grantor and the Grantee dated May 28, 1986, are hereby terminated and of no further force and effect.

IN WITNESS WHEREOF, IRVING TANNING COMPANY has caused this instrument to be executed by Richard C. Larochelle, its Chief Executive Officer, **thereunto duly authorized,** this 16th of September, 2005.

WITNESS:

IRVING TANNING COMPANY

Its Chief Executive Officer

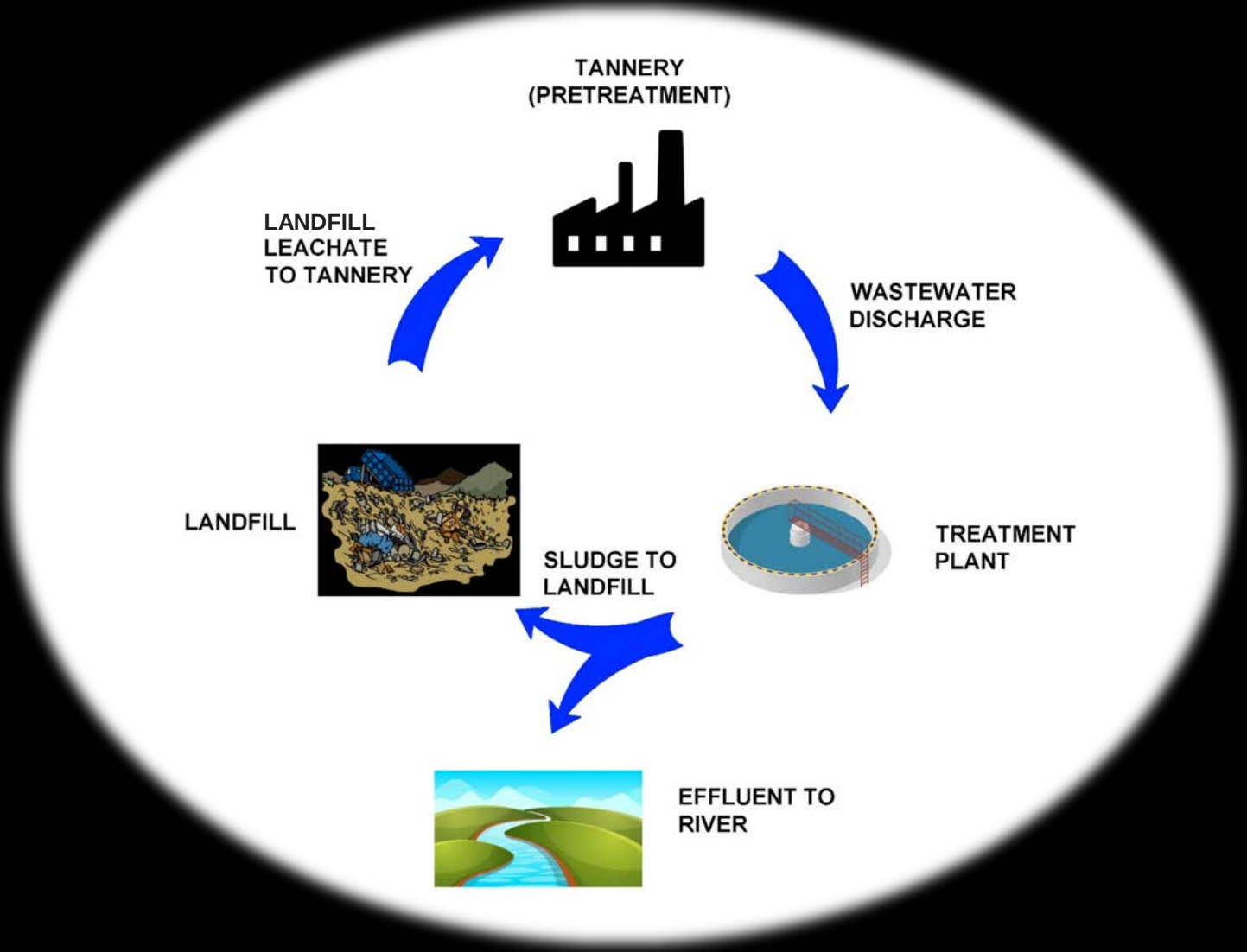
STATE OF MAINE

COUNTY OF CUMBERLAND, ss. September 16, 2005

Then personally appeared the above-named Richard C. Larochelle, Chief Executive Officer of Irving Tanning Company, *and* acknowledged the foregoing instrument to be his free act and deed in his said capacity and the free act and deed of said Irving Tanning Company.

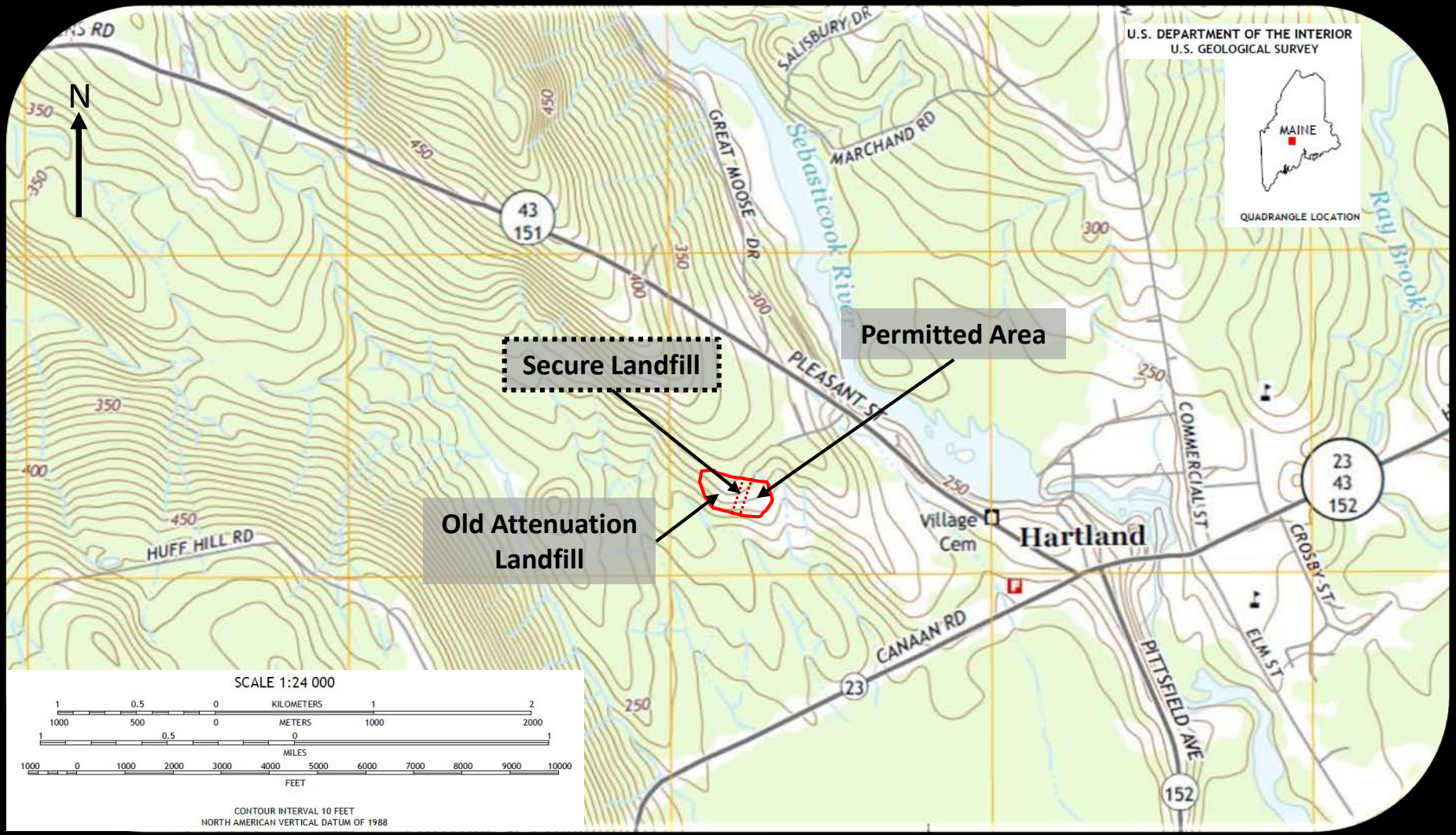
Before me,
Attorney At Law
Benjamin Marcus

Tannery/POTW/Landfill “Loop” Diagram



Now introduce Amanda Wade

3 Landfill Areas



Landfill Operating and Permitting History

1976:

- Operation of the Hartland POTW began as the secondary treatment for the Tannery's waste water

1977:

- Original Lease with Irving Tanning for use of the Landfill Property for disposal of sludge from the POTW

1977:

- Conditional DEP Approval for operation of the Attenuation Landfill

Landfill Operating and Permitting History (Cont'd)

1986:

- **Permit issued for the Secure Landfill**
- First rounds of groundwater monitoring data collected around the attenuation landfill
- First record of public notification
- Established a reduced property line set-back
- Approved the disposal of paint chips, blue hide, and buffing dust from the tannery
- Licensed the first secure landfill cells (Phase I- approximately 1.75 acres) and the lined leachate pond

1988:

- **Closure of the Attenuation Landfill**
- Addition of the leachate collection toe drains

Landfill Operating and Permitting History (Cont'd)

1985-1992:

- Public Water Supply was Installed

1992:

- Permit Renewal Application was submitted to MDEP
- Conditions were identified that prevented immediate re-licensure, facility continues to operate under the 1986 permit

1995: Phase II was permitted

- Approximately 1.25 acres
- Closure of the eastern slope of the Attenuation Landfill
- Intermediate cover placement on the eastern slope of Phase I

Landfill Operating and Permitting History (Cont'd)

2010:

- Leachate Pond Replacement Project and Closed Landfill Project were permitted
- Included a composite liner system with leak detection for the pond
- Addressed seeps on the attenuation landfill (collection into the leachate management system)
- Included replacement and addition of intermediate cover on Phase I
- Funded by a $300,000 USDA Loan and $778,174 EDA Grant

Landfill Operating and Permitting History (Cont'd)

2015:

- Town Landfill Account was established
- Phase III was permitted
- Record of public notice (not required by DEP)
- Addition of other municipal waste water treatment plant sludges
- Addressed seeps on the attenuation landfill
- Funded by a $250,000 Northern Border Regional Commission Grant and an approximate $120,000 match from the POTW/Landfill Budget with some reimbursement from the MDEP Landfill Closure Program (only available to landfills originally closed under the closure program in the 1980s-90s)

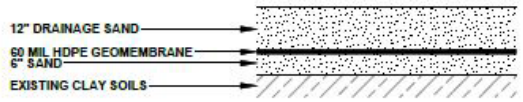
Landfill Operating and Permitting History (Cont'd)

2016:

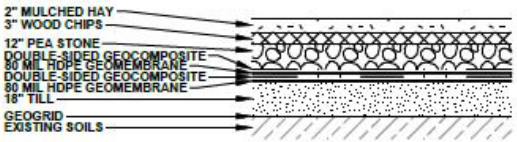
- Special Waste Permit was issued
- Included public notice
- Allowed additional special wastes including paper mill sludge, Short Paper Fiber, Ash, Construction & Demolition Debris, non-friable asbestos, non-hazardous contaminated soils, shredder residue, etc.
- Town Reserve Account for maintenance and landfill closure was established
- Liability Insurance was obtained for the landfill
- Pollution Control Insurance was obtained for the landfill

Landfill Design

Landfill Design



PHASE I LINER DETAIL
NOT TO SCALE



PHASE II LINER DETAIL
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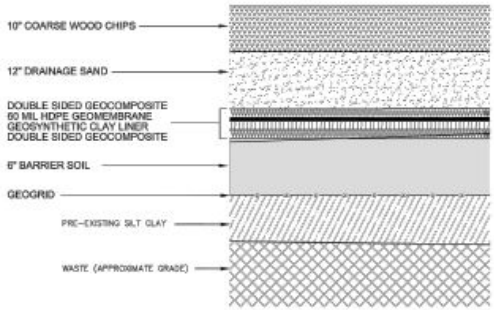

PHASE III LINER DETAIL
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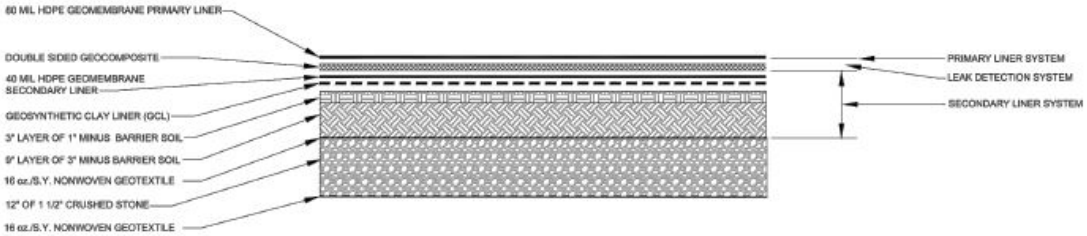


LEACHATE LAGOON LINER DETAIL
NOT TO SCALE

NOTES

1. PHASE I DETAIL FROM MAINE BOARD OF ENVIRONMENTAL PROTECTION LETTER DATED 10-8-1986.
2. PHASE II DETAIL FROM HARTLAND, ME SECURE SLUDGE LANDFILL PHASE II / 1995 CONSTRUCTION CONTRACT B - LANDFILL, SHEET 6, BY ACHERON ENGINEERING SERVICES DATED 2-7-1996.
3. PHASE III DETAIL FROM PHASE III LANDFILL LINER AND REMEDIATION PROJECT, SHEET RD-C501 BY CES INC., DATED 2015-10-02.
4. LEACHATE LAGOON DETAIL FROM LEACHATE LAGOON AND DRAINAGE IMPROVEMENTS SET, SHEET C6, BY CES INC., DATED 7-19-2010.

PROJECT:
HARTLAND SECURE LANDFILL

TITLE:
LINER DETAILS

DRAWN BY:	JMM	PROJ NO.:	295493
CHECKED BY:			
APPROVED BY:			
DATE:	2018.09.18		

TRC
650 Suffolk Street
Suite 200
Lowell, MA 01854
Phone: 978.970.5600

Groundwater Monitoring

1985:

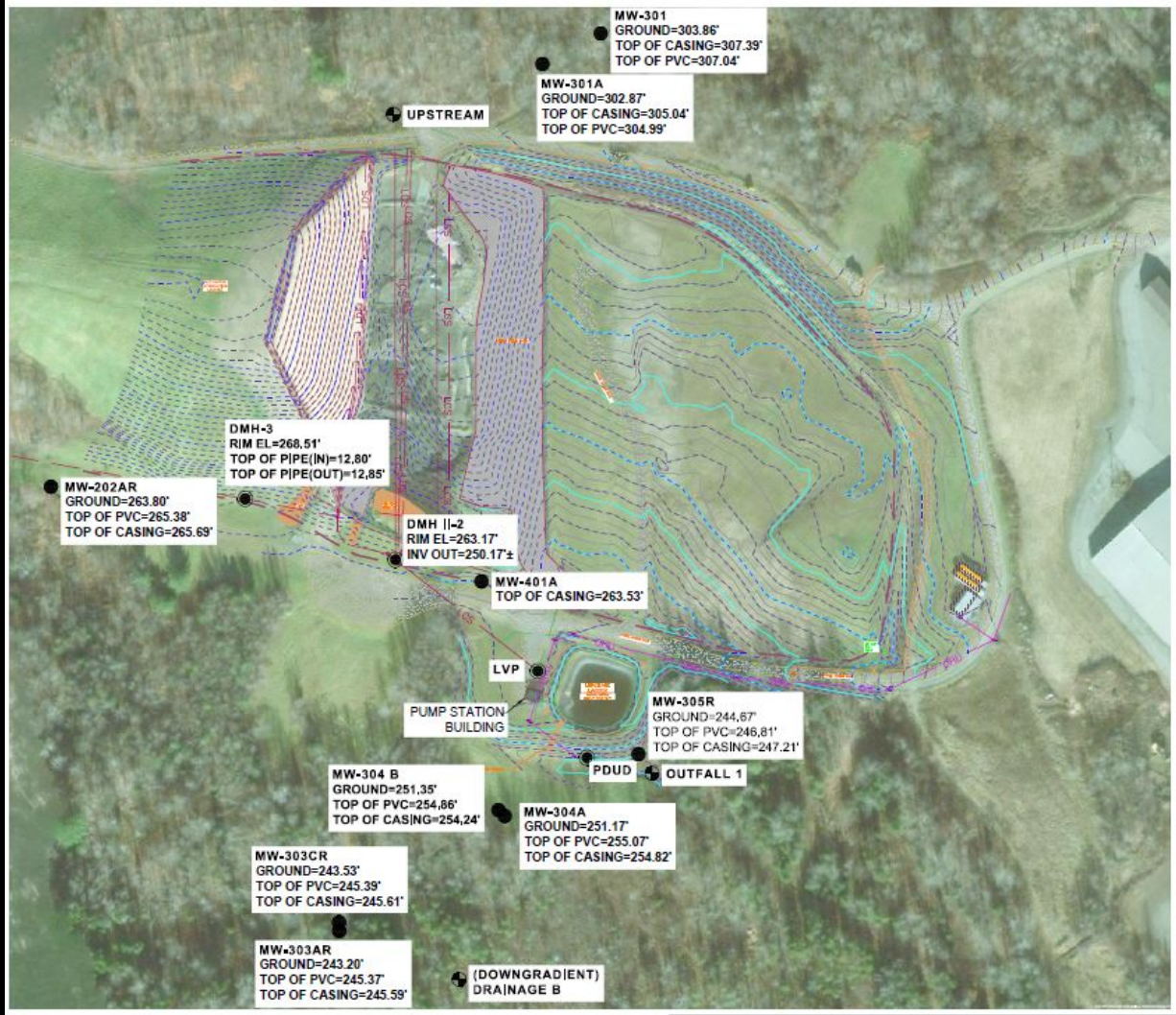
- Groundwater Monitoring Wells were installed as part of the expansion application process

- Groundwater impacts were identified downgradient of the existing attenuation landfill

1986-Present:

- Groundwater Monitoring continues 3 times per year

Groundwater Monitoring



LEGEND

MW-305R	MONITORING WELL LOCATION
DMH II-2	LEACHATE SAMPLE LOCATION
OUTFALL 1	SURFACE WATER MONITORING LOCATION

GAS MONITORING LOCATIONS

DMH-3, DMH II-2, LVP, UPSTREAM SURFACE LOCATION, FACILITY GATE, PUMP STATION BUILDING

LEACHATE SAMPLING LOCATIONS

PDUD, LVP, DMH II-2 PIPE 2, DMH3 (E/W TOE DRAIN)

NOTES

1. DRAWN FROM RANSOM CONSULTING, INC. SITE PLAN - STORMWATER POLLUTION PREVENTION PLAN DRAWN FEBRUARY 2017

N

0 150 300

SCALE IN FEET

TRC
14 Gabriel Drive
Augusta, ME 04330
Phone: 207.620.3800
www.trcsolutions.com

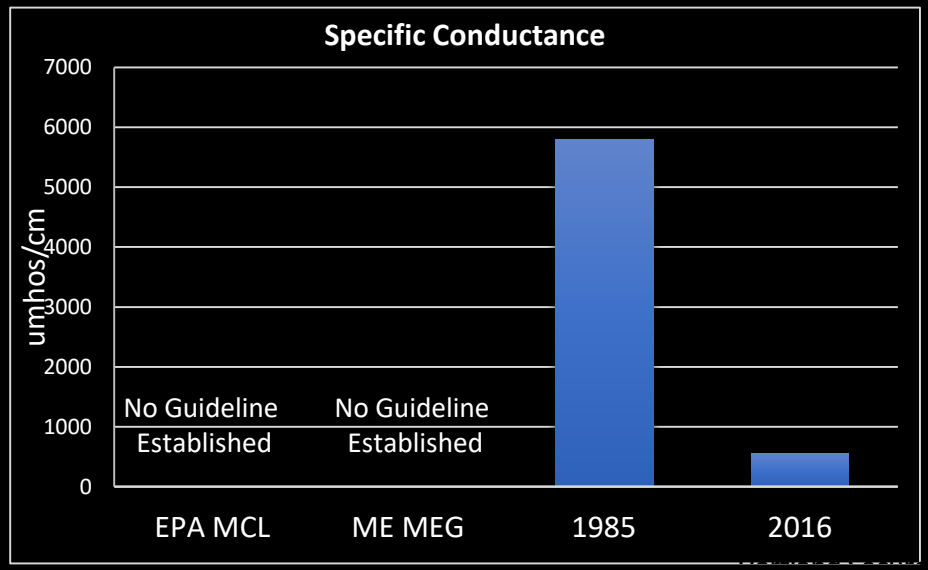
PROJECT: HARTLAND SECURE SLUDGE LANDFILL

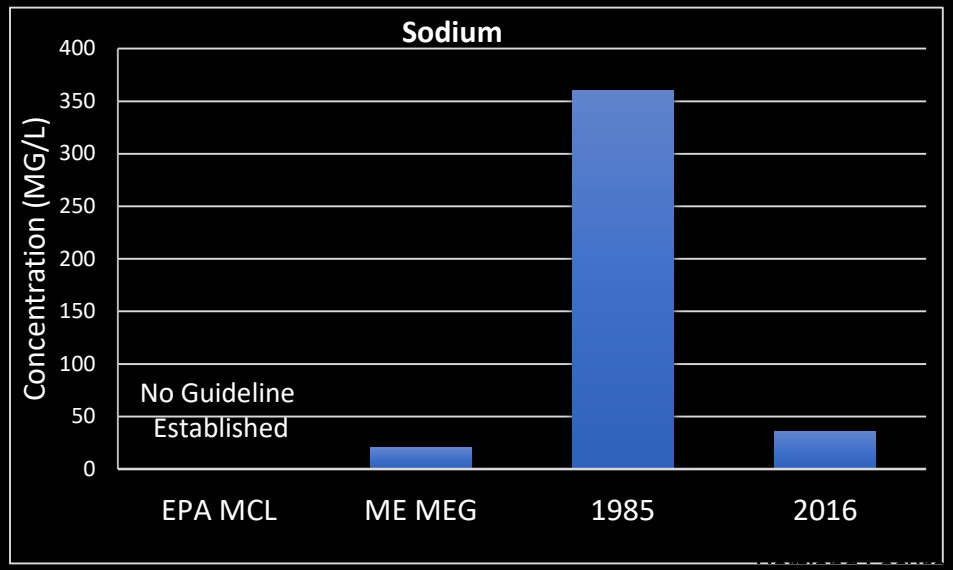
TITLE: SITE PLAN - MONITORING LOCATIONS

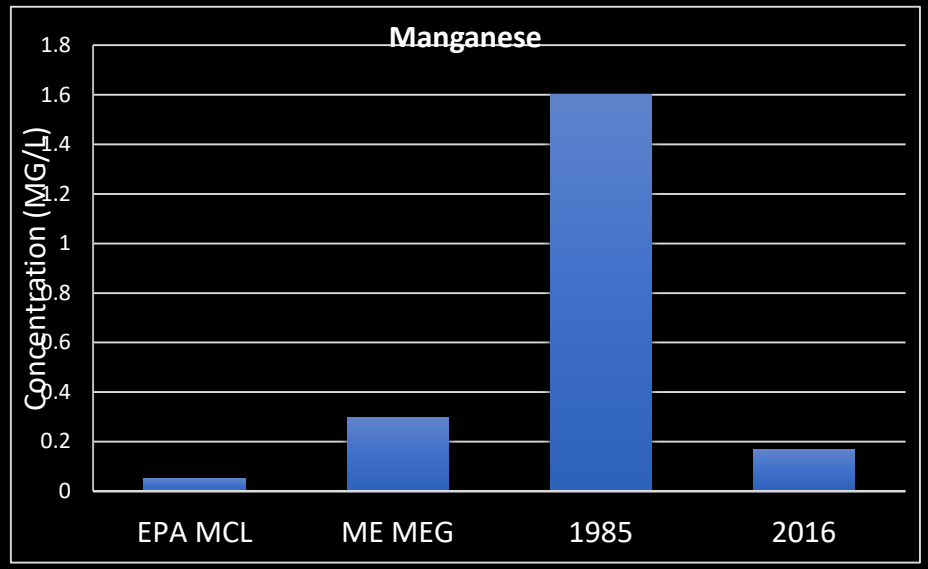
DRAWN BY:	JMM
CHECKED BY:	ASW
APPROVED BY:	ASW
DATE:	MARCH 2018
PROJ. NO.:	295493
FILE:	SitePlan-MonitoringLocations.DWG

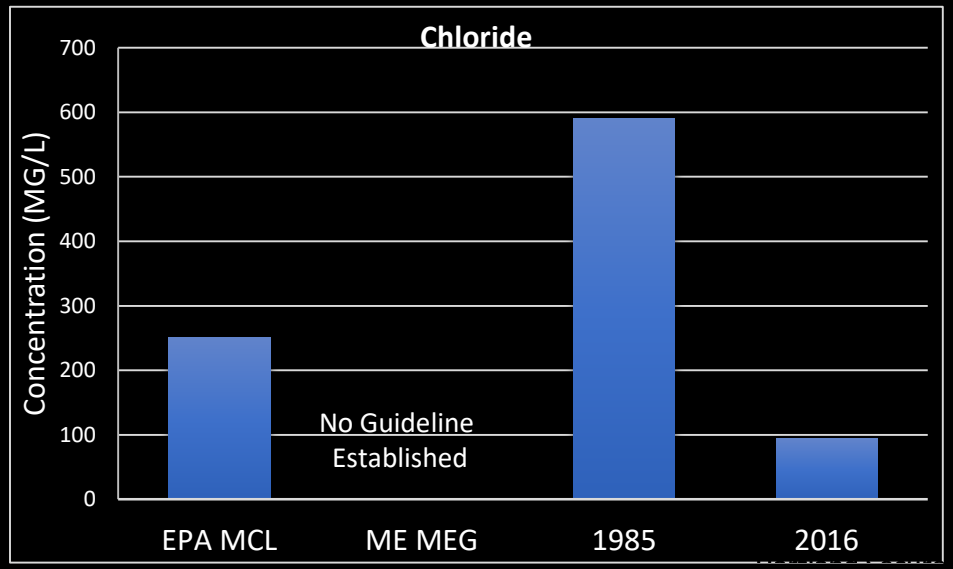
1

Groundwater: MW-102A / MW-202AR

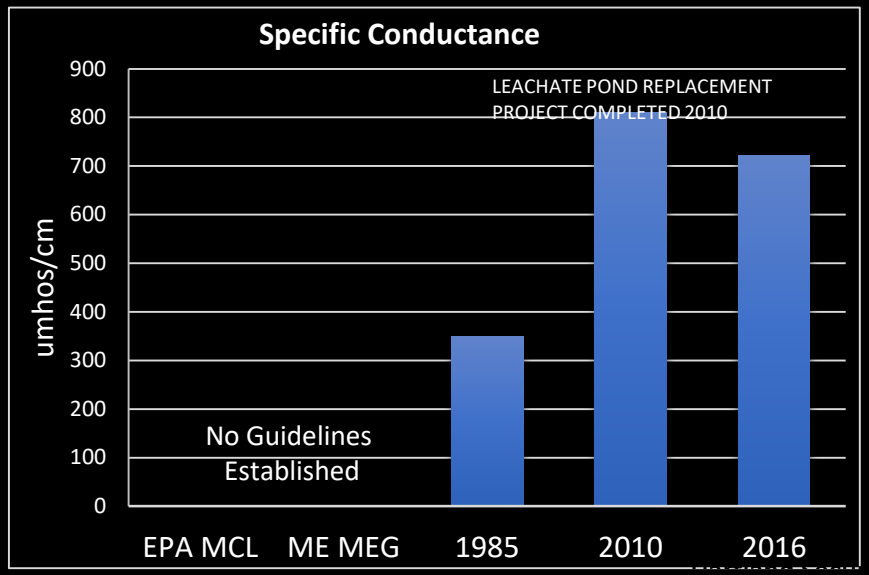


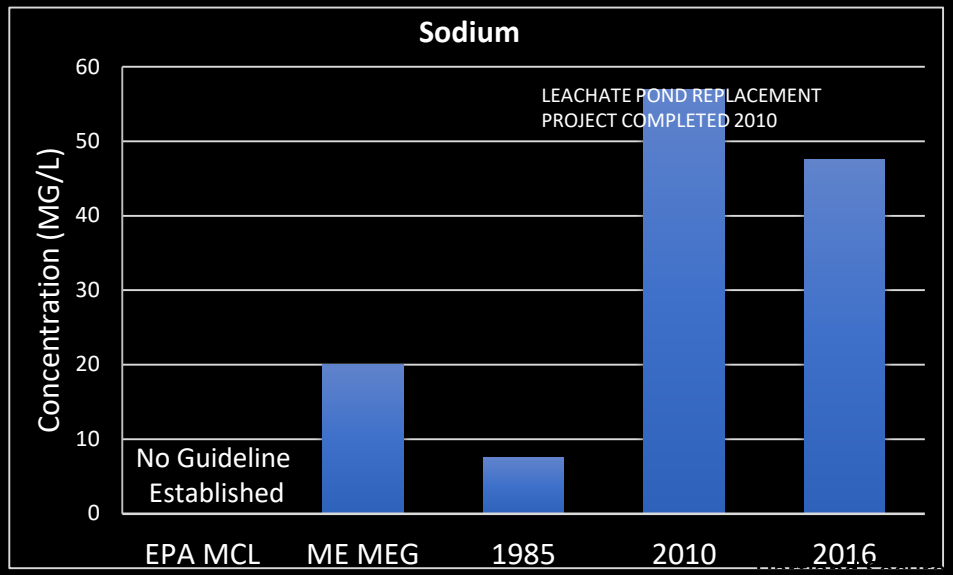


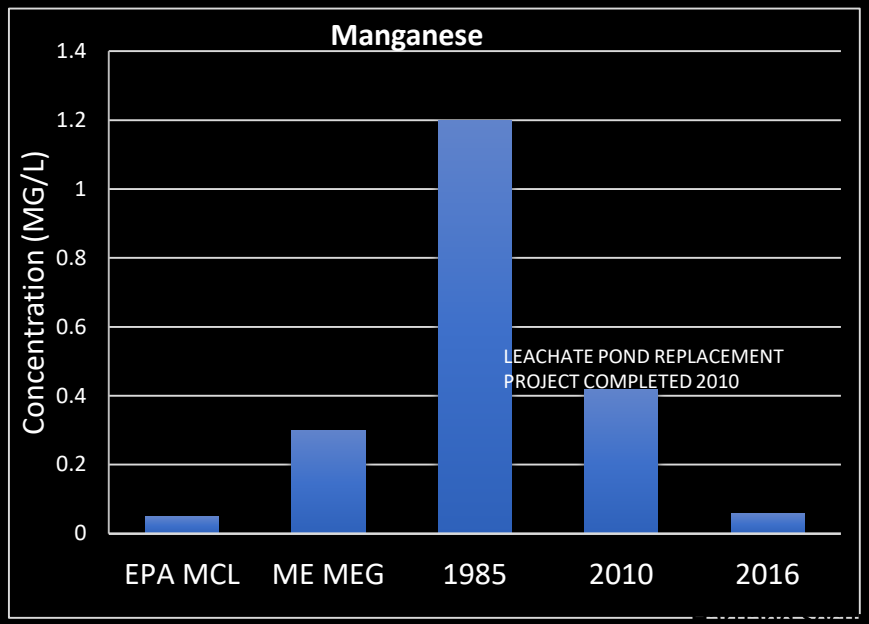


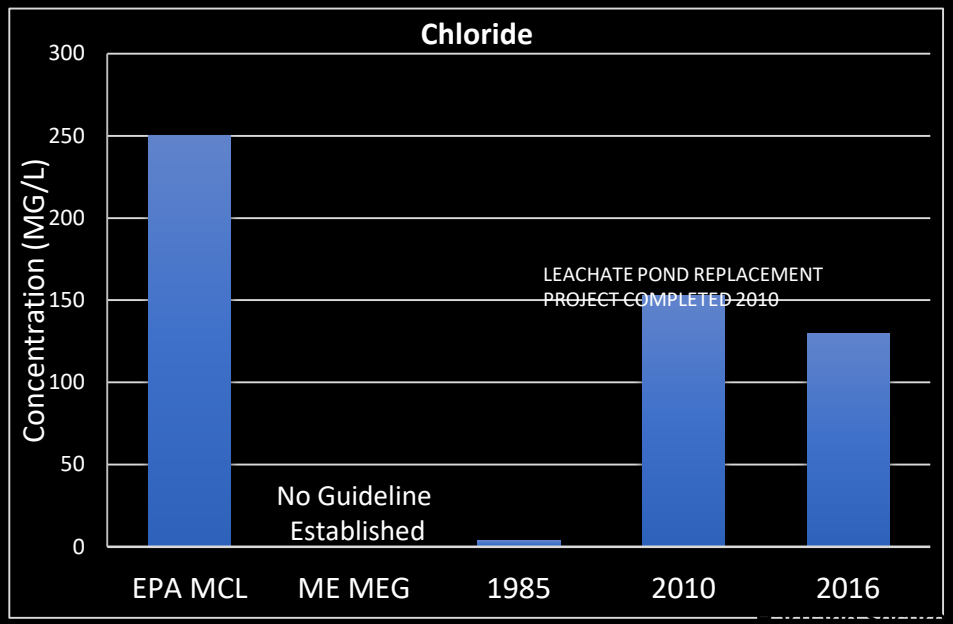


Groundwater: MW-103A / MW-303AR

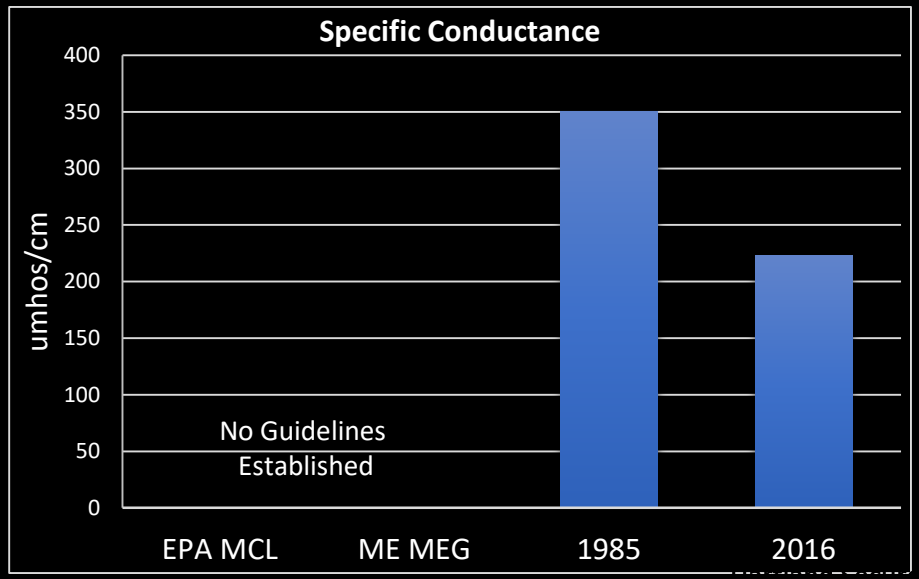


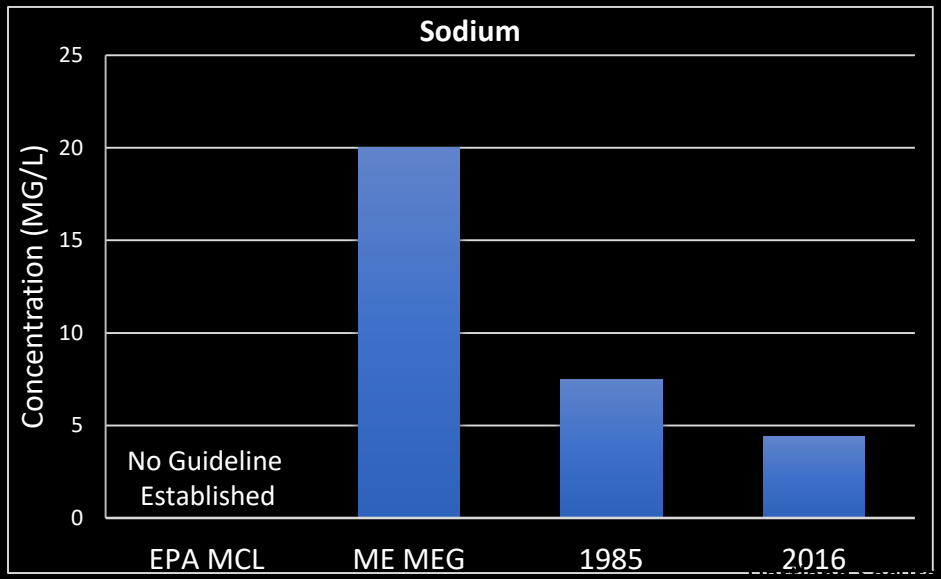


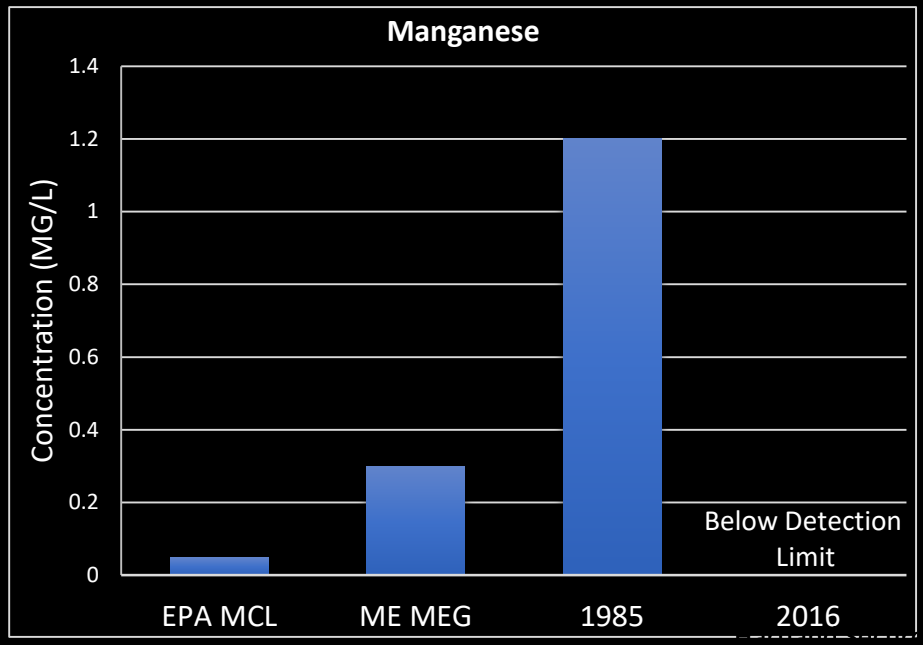


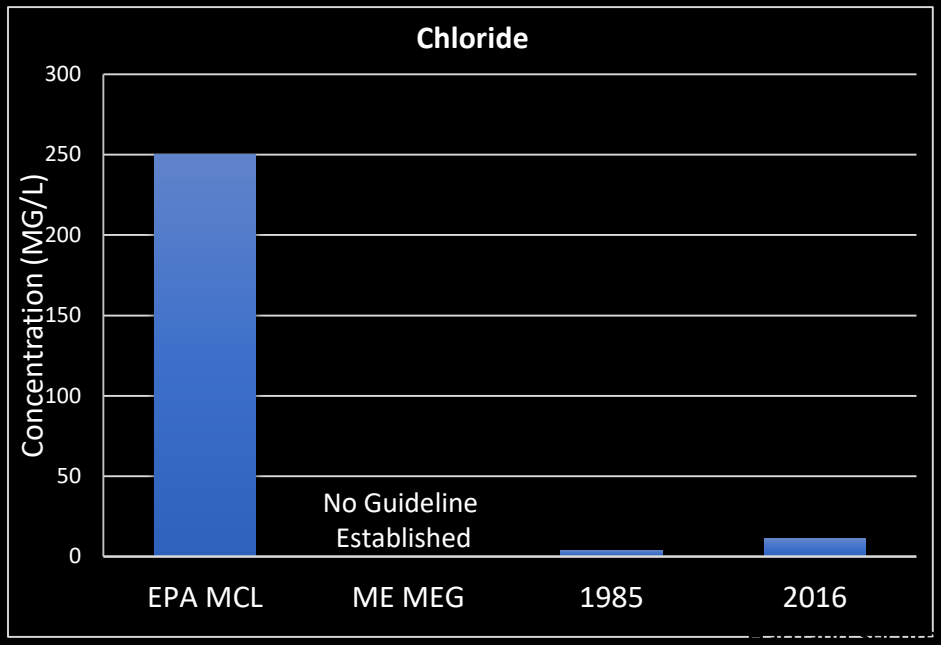


Groundwater: MW-101A / MW-301AR









Recent Operations

2015:

- **Needed upgrades and repairs were initiated at the POTW**
- Funded by a $250,000 NBRC Grant
- 1,000 cy of sludge was cleaned out of the lagoons and brought to the landfill, bulked with 4,000 cy of sand
- Sludge was more than 90% water
- Waste was allowed to dewater for approximately 1 year; operations shifted to the northern half of the landfill
- Operations resumed above the sludge late in 2016
- New Equipment was purchased for proper waste placement to support landfill operations

Recent Operations (Cont'd)

2017:

- Waste shifting occurred in July
- Waste was fully contained within the liner system
- Town could not place daily cover on unstable waste
- Operations shifted to the northern end of the operating cell
- Town sought assistance from various consultants to address stability issues on the site
- Odors from exposed wastes were observed offsite

Recent Operations (Cont'd)

2018:

- **Waste Relocation and Stabilization Project was completed**
- Construction and Demolition Debris (CDD) was taken to blend with the unstable waste
- Additional drainage piping was installed
- Waste placement began in the Phase III area
- Ground CDD was taken as daily cover
- An odor neutralizing spray system was installed on the northern end of the landfill

Odor Concerns

- Since the completion of the waste relocation project, offsite odors have been observed in the surrounding neighborhood

- Complaints have been received from residents on Martin Street and Pleasant Street

Operational Improvements at the Landfill for Odor Management

- Odorous waste (treatment plant sludge) is spread and covered as soon as possible
- Daily cover is placed
  - Ground CDD
  - Auto Shredder Fluff
  - Woodyard Material
- Lime is utilized for spot odor management
- Odor neutralizer spray is utilized

Additional Odor Minimizing Efforts

- Coordination of delivery times to ensure ample time for waste and cover placement before the end of the day
- Ensure waste delivery vehicles are covered
- Work with City of Brewer to improve odors from their sludge, wastes are amended at the treatment plant to minimize odor production

Additional Site Investigation

- Odor monitoring round was completed by MDEP utilizing the n-Butanol scale

- Gas sampling was conducted on and off site to identify any potential releases
  - 8-hour Summa Canisters were collected
  - A 4-Gas Meter with Photo Ionization Detector was utilized to measure methane, hydrogen sulfide, carbon monoxide, and oxygen levels on site
  - A Single Point Monitor was installed on Martin Street to determine the presence of offsite hydrogen sulfide

Gas Monitoring Results - Onsite (Summa Canisters)

	Southern Sample	Northern Sample	Monitoring Well Headspace	Permissible Exposure Limit
Dichlorodifluoromethane	.466 ppb	.503 ppb	.462 ppb	1000 ppm
Chloromethane	.455 ppb	.483 ppb	.442 ppb	100 ppm
Acetone	3.4 ppb	2.84 ppb	2.86 ppb	1000 ppm
Trichlorofluoromethane	.217 ppb	.369 ppb	.205 ppb	1000 ppm
Toluene	Non-detect	.245 ppb	Non-detect	200 ppm

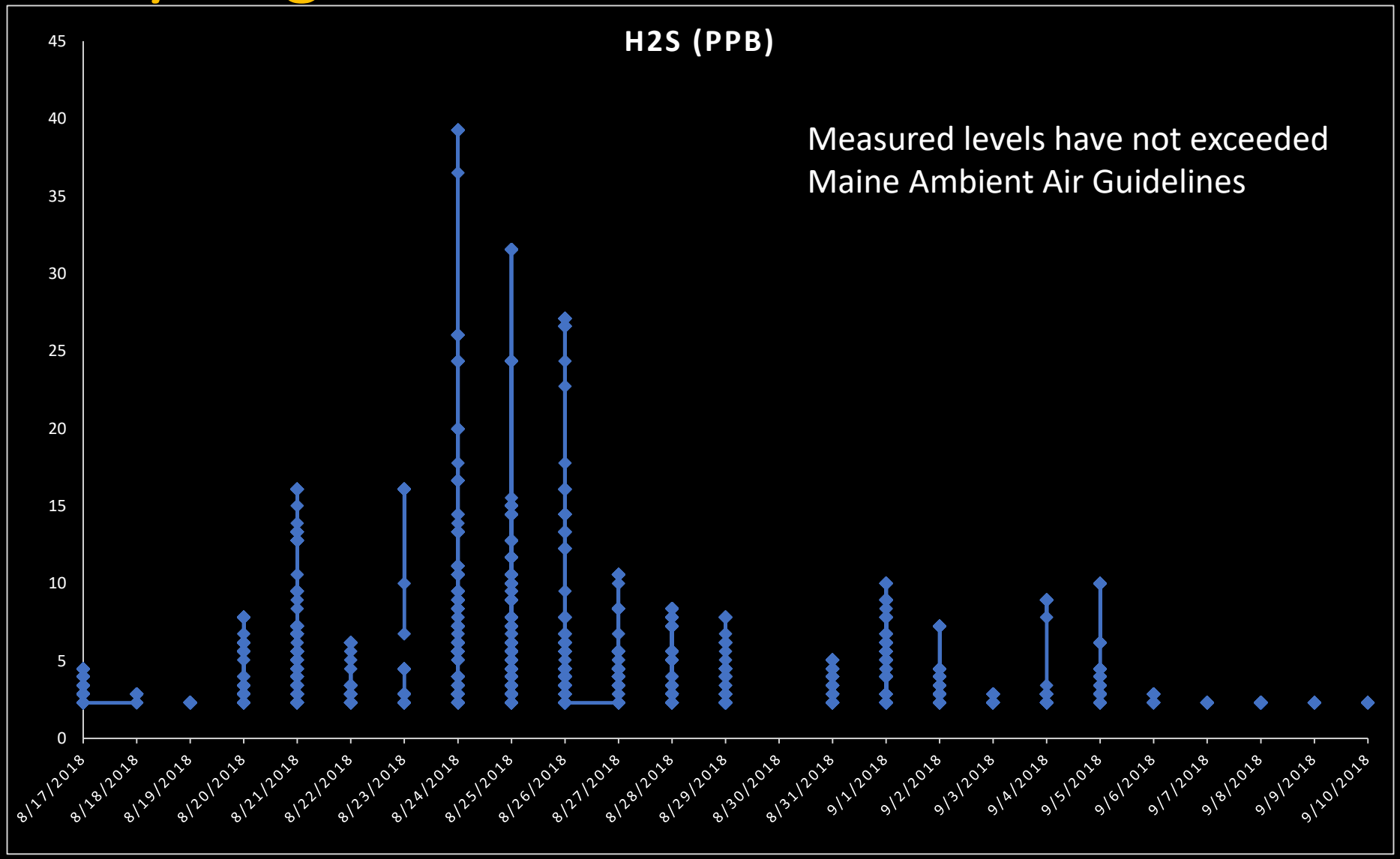
No levels were detected that pose a risk to worker safety

Gas Monitoring Results (4-Gas Meter)

- Methane and hydrogen sulfide were measured within the leachate collection manholes but not within the ambient air on site.

- No gas levels were detected off-site.

Gas Monitoring Results - Hydrogen Sulfide



Where do we go from here? - Capacity

- The landfill has a remaining capacity of approximately 480,000 cubic yards.

- At current waste acceptance rates the landfill will provide disposal capacity for the Tannery and the Town for 19 years.

Questions?