



MEMORANDUM

TO: MIRA South Meadows Transition Committee
FROM: Edmond Mone, Committee Chairperson
DATE: March 30, 2023
RE: Notice of Regular Telephonic Meeting

There will be a *regular telephonic* meeting of the **South Meadows Transition Committee** of the Materials Innovation and Recycling Authority's Board of Directors on *Wednesday, April 5, 2023 at 11:00 a.m.*

Members of the public may attend the meeting in person in the board room at MIRA headquarters, or may attend the meeting telephonically by calling (929) 205-6099, entering Meeting ID: 868 7923 5188 and Passcode: 030924# when prompted.

The purpose of this meeting will be:

1. Pledge of Allegiance
2. Public Comment (3 minutes per speaker)
3. Approval of Minutes of the March 1, 2023 Regular Committee Meeting (*Attachment 1*).
4. Discussion Regarding South Meadows Property Transfer, Site Assessment and Remediation (*Attachment 2*).
5. Discussion Regarding South Meadows WTE Facility Shut Down and Energy Consumption (*Attachment 3*).
6. Report on the Sale and/or Scrap of Surplus Equipment.
7. Such other items that may properly come before the Committee.

TAB 1

South Meadows Transition Committee
(Formerly the Policies and Procurement Committee)
March 1, 2023
Meeting Minutes

A Regular Meeting of the South Meadows Transition Committee of the Materials Innovation and Recycling Authority was held on March 1, 2023. Present via video or audio conferencing were:

Members Present: Ed Mone (Committee Chairman)
Richard Soderman
Leonard Assard
David Steuber

MIRA Staff Present: Mark Daley, CFO and President
Tom Gaffey, Director of Recycling and Enforcement
Roger Guzowski, Contract and Procurement Manager
David Bodendorf, Mgr. of Eng. Const. and Power Assets
Christopher Shepard, Environmental Compliance Manager

Committee Chairman Mone called the meeting to order at 11:09 a.m. Following the Pledge of Allegiance, Committee Chairman Mone invited members of the public to address the Committee. As there was no public comment, he proceeded with the agenda.

1. APPROVAL OF MINUTES OF THE FEBRUARY 1, 2023 COMMITTEE MEETING.

Committee Chairman Mone requested a motion to accept the minutes of the February 1, 2023 Policies and Procurement Committee meeting. The motion to approve was made by Director Soderman and seconded by Director Steuber. Director Assard noted that each page of the minutes was numbered "2" and that Director Steuber did not attend the meeting on February 1, 2023 and therefore should not be listed as present.

Directors Mone, Assard, and Soderman voted to approve the minutes as amended. Director Steuber abstained.

2. DISCUSSION REGARDING SOUTH MEADOWS SITE REMEDIATION BACKGROUND AND STATUS.

Mr. Daley provided a brief overview of the topic and Mr. Shepard gave a presentation and addressed associated topics and questions with the Directors.

3. DISCUSSION REGARDING HARTFORD LANDFILL SITE REMEDIATION BACKGROUND AND STATUS.

Mr. Bodendorf gave a presentation and addressed associated topics and questions with the Directors.

4. REPORT ON THE SALE AND/OR SCRAP OF SURPLUS EQUIPMENT.

Mr. Daley verified MIRA would be conducting a bid process for the sale/scrap of all surplus equipment and materials at South Meadows. Outside counsel will be advising on this process. The bids will be run through the Finance Committee.

5. EXECUTIVE SESSION

Committee Chairman Mone requested a motion to enter into Executive Session to discuss Pending RFPs and Feasibility Estimates and Evaluations relative to prospective public supply contracts, including MIRA RFP's and prospective contracts for Connecticut Solid Waste System Recycling Services and the impact of same upon MIRA's FY2024 operating and capital budgets.

The motion to enter into Executive Session was raised by Director Soderman and seconded by Director Assard.

The motion to enter into Executive Session was approved unanimously at 12:39. Executive Session ended at 12:55 and Chairman Mone indicated no votes or actions were taken during Executive Session.

6. OTHER ITEMS BROUGHT BEFORE COMMITTEE.

Committee Chairman Mone inquired if there were additional items to be brought before the Committee. There were none.

4. ADJOURNMENT.

Chairman Mone requested a motion to adjourn the meeting. The motion was made by Director Soderman and seconded by Director Assard.

The motion passed unanimously and the meeting was adjourned at 12:55.

TAB 2

Remediation Of South Meadows

Property Transfer, Site
Assessment and Remediation

April 2023



Property Transfer

- Property transferred from CL&P to CRRRA in 2001
- Real property (~80 acres), and personal property (Jet Turbine Facility and Electric Generating Facility)
- The transfer created an obligation to investigate and remediate any pollution caused by releases on the 80-acres of real property
- Due diligence - CRRRA and CL&P conducted environmental site assessment work in 1998 and 1999, prior to property transfer



Due Diligence

- CRRA and CI&P each employed independent consultants to conduct Phase I and II environmental site assessments
 - Phase I - Summarized current and historic uses of the property and surrounding properties (industrial/commercial), and identified potential releases to the environment from site uses
 - Phase II – Soil and groundwater investigations to confirm whether or not releases to the environment have occurred
 - Note: Phase II data was shared between the consultants
- Results of due diligence informed CRRA's and CI&P's decisions regarding environmental liabilities and property sale price
- Results of due diligence informed CRRA's and TRC's decisions regarding current and potential future uses, scope of remediation, applicability of industrial/commercial standards, and price for Exit Strategy contract



Site Assessment

Site assessment guided by CT-DEHP Guidance Documents for Site Assessment

- Transfer Act Site Assessment (TASA) Guidance Document – Issued 6/1989, Revised 11/1991
- Site Characterization Guidance Document (SCGD)
 - Superseded TASA
 - Draft - 6/2000, Final – 9/2007, Revised – 12/2010
- Not Prescriptive - Describes “approach and standard of care for designing, conducting, and documenting site characterization in accordance with prevailing standards and guidelines”
- Does not provide guidance on compliance with Remediation Standard Regulations



Site Assessment

Three Phases - Phases I and II completed prior to property transfer

- Phase I – Review of Current and Historical Site Uses and Activities to Identify Areas of Concern (AOOCs)
 - October 1998 by HRP Associates, Inc. for CRRRA
 - March 1999 by Metcalf & Eddy, Inc. for CL&P
- Phase II – Collection of Samples/Data from Each AOOC to Determine Whether or Not a Release to the Environment Has Occurred
 - June 1999 by HRP Associates, Inc. for CRRRA
 - July 1999 by Metcalf & Eddy, Inc. for CL&P

Phase II Soil Samples

Table 2.1
Summary of Soil Samples Submitted for Laboratory Analysis by HRP

Sample ID	Sample Depth (ft.)	Metals (Mass Analysis)	Metals (SPLP)	VOCs EPA Method 8260B	SVOCs EPA Method 8270C	PCBs EPA Method 8081A	Pesticides EPA Method 8081A	Total Petroleum Hydrocarbons (TPH) EPA Method 418.1	Cyanide (Mass Analysis)	RCRA Metals (TCLP)	Poly-nuclear Aromatic Hydrocarbons EPA Method 8100	Aromatic and Halogenated VOCs EPA Method 8021B
ME SMD 28	(15-16')	X ⁽¹⁾	X ⁽¹⁾	X	X	X	X	X	X			
ME SMD 29	(2-4')	X ⁽¹⁾	X ⁽¹⁾	X	X	X	X	X	X			
ME SMD 29	(7-9')	X ⁽¹⁾	X ⁽¹⁾	X	X	X	X	X	X			
ME SMD 30	(0-2')	X ⁽¹⁾	X ⁽¹⁾	X	X	X	X	X	X			
ME SMD 31	(0-4')	X ⁽¹⁾	X ⁽¹⁾	X	X	X	X	X	X			
ME SMD 31	(10-12')	X ⁽¹⁾	X ⁽¹⁾	X	X	X	X	X	X			
ME SMD 32	(0-2')	X ⁽¹⁾	X ⁽¹⁾	X	X	X	X	X	X			
ME SMD 33	(0-2')	X ⁽¹⁾	X ⁽¹⁾	X	X	X	X	X	X			
ME SMD 33	(4-6')	X ⁽¹⁾	X ⁽¹⁾	X	X	X	X	X	X			
ME SMD 34	(2-4')	X ⁽¹⁾	X ⁽¹⁾	X	X	X	X	X	X			
ME SMD 35	(3-5')	X ⁽¹⁾	X ⁽¹⁾	X	X	X	X	X	X			
ME SMD 36	(3-5')	X ⁽¹⁾	X ⁽¹⁾	X	X	X	X	X	X			
ME SMD 37	(0-4')	X ⁽¹⁾	X ⁽¹⁾	X	X	X	X	X	X			
ME SMD 38	(2-4')	X ⁽¹⁾	X ⁽¹⁾	X	X	X	X	X	X			
ME SMD 39	(12-14')	X ⁽¹⁾	X ⁽¹⁾	X	X	X	X	X	X			
ME SMD 40	(10-12')	X ⁽¹⁾	X ⁽¹⁾	X	X	X	X	X	X			
ME SMD 41	(8-12')	X ⁽¹⁾	X ⁽¹⁾	X	X	X	X	X	X			
ME SMD 42	(6.2-7')	X ⁽¹⁾	X ⁽¹⁾	X	X	X	X	X	X			
Total Number of Samples												
Submitted by HRP		318	195	125	107	188	72	283	125	12	4	9
Total Number of Samples Submitted by Metcalf & Eddy ⁽⁴⁾		34	34	88	44	47	0	83	30	0	0	0
Total Number of Samples Analyzed		350	229	181	151	203	72	306	155	12	4	9

Notes:
 (1) Metals - Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Hg, Ni, Se, Ag, Tl, V, Zn
 (2) Metals - As, Cr, Pb
 (3) Select Metals - See Laboratory Report
 (4) See Table 5.1
 (5) Also run for PCBs by SPLP

Phase II Groundwater Samples

Table 2.2
Summary of Groundwater Samples Submitted for Laboratory Analysis by HRP

Sample Designation	Sample Location	Metals	Metals	VOCE	SVOCs	PCBs	Pesticides	Total Petroleum	Cyanide	Aromatic and
		(Dissolved)	(Total)	EPA Method 8260B	EPA Method 8270C	EPA Method 8081A	EPA Method 8061A	Hydrocarbon (TPH) EPA Method 418.1	(Mass Analysis)	Halogenated VOCs EPA Method 8021B
HRP SMD MW-68	HRP SMD 68	X		X	X	X		X	X	
HRP SMD GW-69 (AP)	HRP SMD 69 (AP)	X		X	X			X	X	
HRP SMD GW-70 (AO)	HRP SMD 70 (AO)	X		X	X	X		X	X	
HRP SMD MW-71	HRP SMD 71	X		X	X	X		X	X	
HRP SMD GW-100 (BC)	HRP SMD 100 (BC)	X		X	X		X	X	X	
HRP SMD GW-101 (AI)	HRP SMD 101 (AI)	X		X	X			X	X	
HRP SMD GW-103 (AK)	HRP SMD 103 (AK)	X		X	X			X	X	
HRP SMD GW-104 (AL)	HRP SMD 104 (AL)	X		X	X	X		X	X	
HRP SMD GW-105 (AN)	HRP SMD 105 (AN)	X		X	X	X		X	X	
HRP SMD GW-106 (AV)	HRP SMD 106 (AV)	X		X	X	X		X	X	
HRP SMD GW-107 (AY)	HRP SMD 107 (AY)	X	X	X	X	X		X	X	
HRP SMD GW-108 (AQ)	HRP SMD 108 (AQ)	X		X	X			X	X	
HRP SMD 116	HRP SMD 116	X		X	X			X	X	
HRP SMD 120	HRP SMD 120	X		X	X			X	X	
HRP SMD 136	HRP SMD 136	X		X	X			X	X	
HRP SMD 138	HRP SMD 138	X		X	X			X	X	
HRP SMD 144	HRP SMD 144	X		X	X			X	X	
HRP SMD 149	HRP SMD 149									X
ME SMD MW-2	Small Spill Area: MW-1	X	X	X	X	X		X	X	
ME SMD RW-2	Large Spill Area: RW-2	X	X	X	X	X		X	X	
ME SMD MW-4	Coal Pond: MW-4	X	X	X	X	X		X	X	
ME SMD GW-16	ME SMD 16	X	X	X	X	X		X	X	
ME SMD GW-18	ME SMD 18	X	X	X	X	X		X	X	
ME SMD MW-18	Large Spill Area: MW-14	X	X	X	X	X		X	X	
ME SMD MW-20	Large Spill Area: MW-15	X	X	X	X	X		X	X	
ME SMD GW-21	ME SMD 21	X	X	X	X	X		X	X	
ME SMD GW-25	ME SMD 25	X	X	X	X	X		X	X	
ME SMD MW-38	Large Spill Area: MW-3	X	X	X	X	X		X	X	
ME SMD MW-39	Large Spill Area: MW-4	X	X	X	X	X		X	X	
Total Number of Samples Submitted by HRP		73	16	89	63	42	26	73	73	1
Total Number of Samples Submitted by Metcalf & Eddy ⁽¹⁾		43	0	68	47	48	0	61	39	0
Total Number of Samples Analyzed		116	16	127	110	90	26	124	112	1

Notes:
(1) See Table 5.2



TRC Remediation Obligations

Under the Exit Strategy Contract, TRC obligations pertaining to remediation goals include:

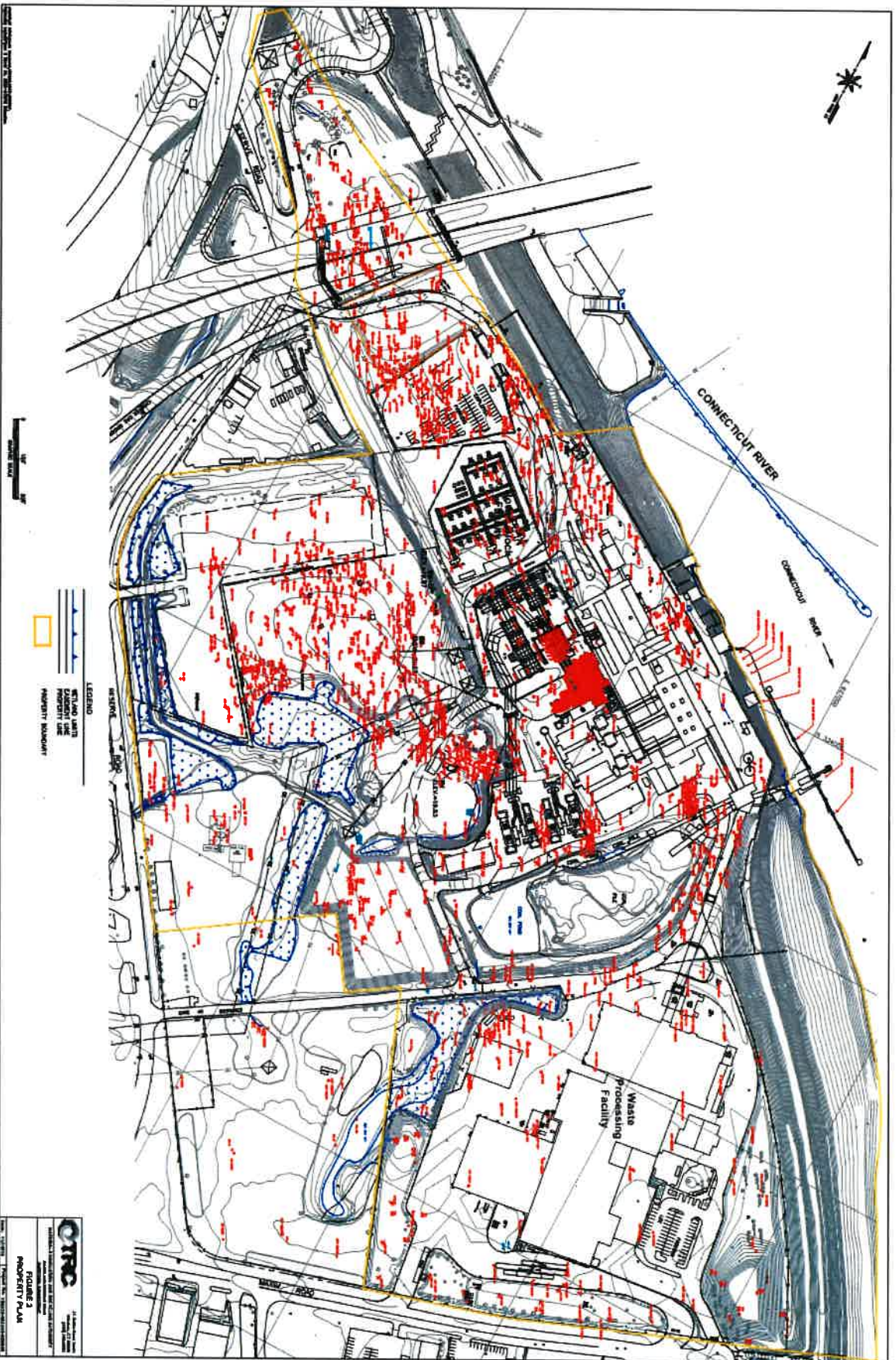
- “Selecting and utilizing Remediation methods, including but not limited to engineered controls, that will allow the fullest practicable ongoing use of the Site for electricity generation and the other uses identified in the Development Plan described in Exhibit F.”
- “Completing all activities required to obtain any necessary (ELURs), which ELURs may not materially interfere with the uses identified in the Development Plan, or with CL&P’s use of the Reserved Easements or the Retained Parcel.”



Site Assessment

- Phase III – Investigation to Determine the Nature, Degree and Extent of Contamination from Each Release
 - Completed by TRC as a requirement of the Exit Strategy contract
 - 120 soil samples, 17 groundwater samples, and 27 concrete samples
 - September 2002 report, with June 2003 Supplement
- Total samples of environmental media collected for site characterization (Phase II and III investigations):
 - 470 soil samples
 - 133 groundwater samples
- Note: Additional, “confirmatory” soil sampling was conducted following soil excavation for remediation at typical frequencies of:
 - 1 sample per 200 square feet of excavation footprint area
 - 1 sample per 20 linear feet of excavation sidewall length

Phase II and III Soil Sample Locations





South Meadows Conceptual Site Model (CSM)

CT-DEEP guidance (SCGD) promotes “Conceptual Site Model” (CSM) approach to site characterization

- Narrative description of a site’s environmental profile based on the results of the Phase I/II/III site assessments and all remediation completed
- Iterative process – CSM is adjusted and refined as more data and information becomes available
- Explains the distribution of contaminants in the context of site’s environmental setting
- Identifies potential receptors, and explains the fate, transport mechanisms and pathways of contaminants to those potential receptors



South Meadows CSM

Environmental Setting

- Connecticut River flood plain until power plant constructed early 1920s
- Historic placement of fill and other debris raised grades 20+ feet in eastern, northern and southern portions of property
- Groundwater generally flows easterly, to the Connecticut River
- Hydrologic impacts from flood control dike
 - Sheet piling of flood control dike inhibits hydraulic communication between site groundwater and River
 - Stormwater runoff from eastern portion of site re-directed to the western portion of the site where it recharges groundwater
- Industrial/commercial property and area
- Groundwater class GB – not intended for drinking water supply, and no groundwater users within 500' of property boundaries
- Public water and sewer are available



South Meadows CSM

Primary site soil contaminants encountered and addressed through remediation include:

- Arsenic from coal ash-laden fill in eastern, northern and southern portions of property (between 2' and 20' below grade)
- Other contaminants associated with historic fill
 - Lead and Asbestos in Area 3
 - Vanadium in Area 1-6
- Mercury under Mercury Boiler Building due to drain/pipe leaks
- Petroleum hydrocarbons from petroleum fuel releases during storage (fuel farm), historic road oiling
- PCBs from oil releases in switchyards, fill in Area 3-3 (upcoming remediation)
- Remediation of soil contamination has included excavation and off-site disposal, as well as rendering remaining contaminants in soil inaccessible with soil, pavement and/or engineered controls



South Meadows CSM

Contaminants associated with potential groundwater impacts encountered and addressed through remediation include:

- Petroleum hydrocarbon impacts to groundwater from fuel farm releases remediated (source removal and pump-and-treat completed)
- Engineered controls approved by CT-DEEP environmentally isolate soil contamination (prevent water infiltration) in certain areas
 - PCBs (former switchyard area PBF-3, upcoming remediation of Area 3-3)
 - Petroleum (historic underground fuel pipeline leak)
- Other groundwater contaminants evaluated include arsenic, beryllium, cadmium, lead, zinc and phenanthrene
- Contaminant concentrations in groundwater are stable and meet Surface Water Protection Criteria from the Remediation Standard Regulations



Area 3-3 Current Remediation Update

- Remedial Action Plan Consists of:
 - Soil Excavation and Off-Site Disposal
 - Engineered Control Over Eversource Duct Banks
- EPA Approved Remedial Action Plan on February 2, 2023
- CT-DEHP Approved Engineered Control on March 3, 2023
- Release of existing Environmental Land Use Restriction by CT-DEHP (to allow soil disturbance) is currently pending
- TRC Tentatively Scheduled to Mobilize to the Site During the Week of April 3, 2023
- Duration of on-site construction expected to be less than 6 months



Area 3-3 Current Remediation Update

After Remediation of Area 3-3 is Completed:

- ELUR Will Have to be Updated and Recorded on Land Records
- Verification Report Will Have to be Revised, Certified by a Licensed Environmental Professional (LEP) and Re-Submitted to DEEP
- DEEP Will Have 12 Months to Review and Issue a Verification Audit Notice

TAB 3

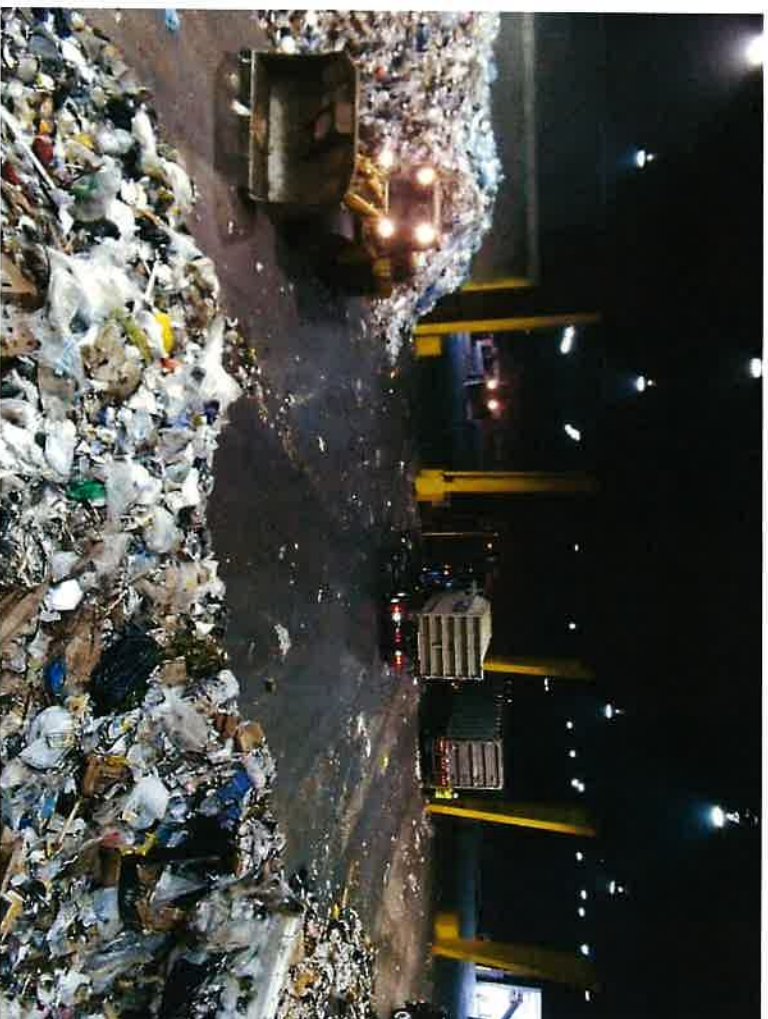
South Meadows

Status of WtE Facility Shutdown & Energy Consumption

April 2023

Cessation of PBF/WPF Operations

- Final Load of Waste Delivered July 11, 2022
- Processing of Waste into RDF ended July 11, 2022



Cessation of PBF/WPF Operations

- Combustion of RDF in Boilers ended July 19, 2022
- Final Load of Ash Shipped to Putnam August 5, 2022
- All Waste, RDF, and Ash has been Removed from Facility





Tasks Completed Post Shutdown

- Cleaning
- Removal of Lubricants
- Removal of Radioactive Devices
- Isolation of PBF Control Room
- Energy Consumption Minimization



Tasks Completed Post Shutdown

- **Cleaning**
 - Explosive Blasting of Boilers
 - Air heaters and Spray Dryer Absorbers
 - ID and FD Fans
 - Baghouse Filter Bags
 - Bottom and Fly Ash Conveyors
 - Ash Loadout Building
 - Slaker Building and Additive Feed Rooms
 - Boiler house
 - RDF Conveyors and Storage Area
 - MSW Receiving and Processing Areas and Equipment



Tasks Completed Post Shutdown

- Removal of Lubricants
 - Turbine Lube Oil
 - Auger Hydraulic Oil
 - Misc Gearbox Oil
 - Waste Oil



Tasks Completed Post Shutdown

- Removal of Radioactive Devices (Pending)
 - Used to Measure Material Levels in Hoppers
 - 26 Total
 - 19 Difficult to Access
 - Contractor Lined-Up by NAES to Remove
 - NAES Working to Procure Man Lift for Difficult Access



Tasks Completed Post Shutdown

- Isolation of Control Room
 - Control Room Operations Must Continue through May 31, 2023 (Jets)
 - Personnel Required to Staff Control Room 24/7
 - MIRA Requested and Received Approval From Fire Marshal to Limit Fire Suppression System Operation to PBF Control Room
 - New Valve Installed
 - New Small Compressor Installed
 - New Small Heat Source (no more parasitic heat from boilers)
 - Minimal Lighting Maintained for Control Room Access

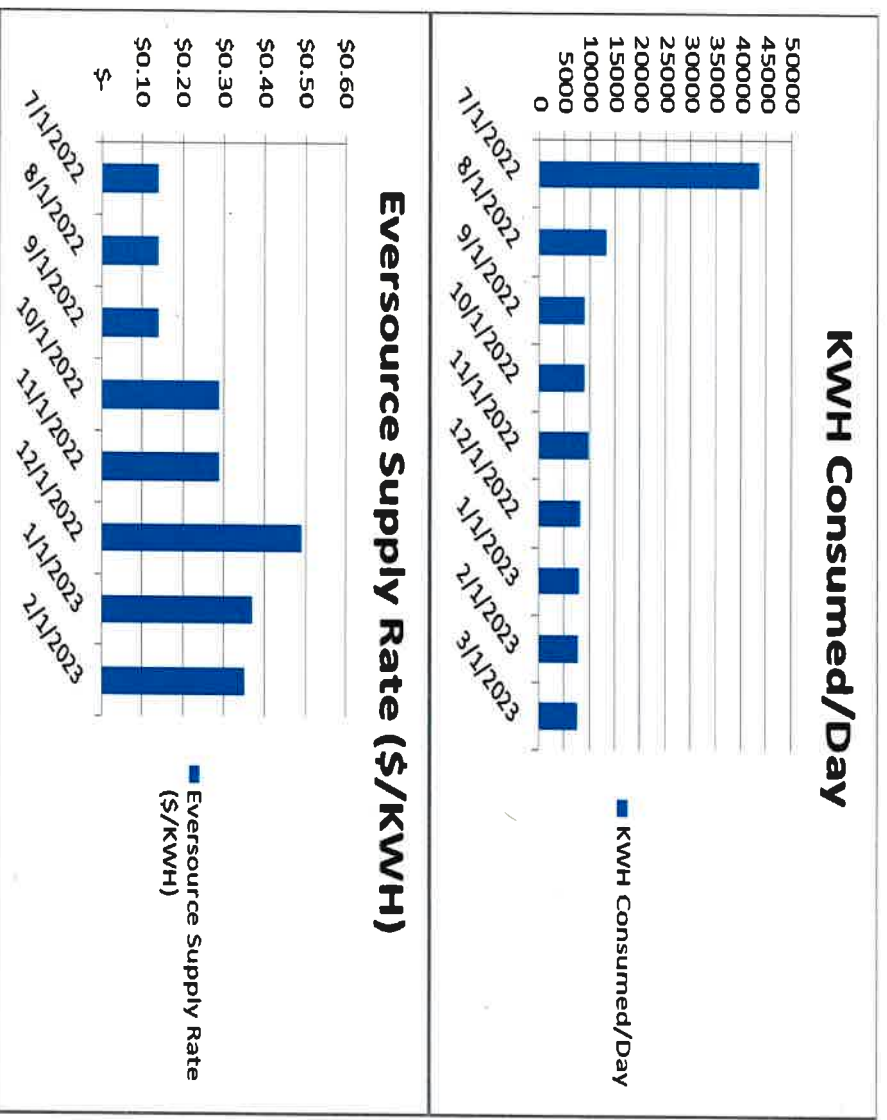


Tasks Completed Post Shutdown

- Energy Consumption Minimization
 - Maintain Only Required Transformers/Circuits
 - De-energize Everything Else
 - Explore if New Service Can Further Minimize Power Use
 - Now Oversized Equipment Likely Inefficient

Tasks Completed Post Shutdown

- Energy Consumption Minimization





Tasks Completed Post Shutdown

- Energy Consumption Minimization
- Required Transformers/Circuits (Spread Across Site)
 - Fire Suppression System Coverage Reduced with Approval of Fire Marshal
 - Only Cover Currently Occupied Areas
 - Relocate Remaining NAES Staff to Jet Shop
 - Some Sump Pumps and Wastewater Discharge Pumps
 - Lights on Two Stacks (FAA Requirement)
 - Security Lighting and Security Gates
 - MIRA Admin Office and Warehouse (WPF Side)

Required Circuit Locations



Stacks Requiring Lights





Tasks Completed Post Shutdown

- Energy Consumption Minimization
- De-energize Everything Else
 - Motors
 - Fans
 - Compressors
 - Lights
 - Pumps



Tasks Completed Post Shutdown

- Energy Consumption Minimization
- Explore if New Service Can Further Minimize Power Use
 - Existing Distribution Service Significantly Oversized for Current Power Requirements
 - Step Down 115KV to 11KV to 4KV to 480V
 - Power for PBF/WPF is Fed Through Single Distribution Service on North Side of Property
- Met with Eversource in January 2023 to Discuss Initial Ideas
 - 54 Week Lead Time for New Equipment
- Identification of Critical Circuits Completed By NAFS March 2023



Next Steps

- Explore if New Service Can Further Minimize Power Use
 - Scheduled to Meet Eversource Again in Early April to Discuss Options
- Engage Engineering Consultant
 - Estimate Expected Savings from New Service
 - Estimate Cost of New Service
 - How Costly to Feed Remote Circuits?
 - If Cost Effective - Provide Design Drawings and Specifications for New Service and Construct New Service