Woonsocket WWTF Design-Build-Operate Project Monthly Progress Report



August 27, 2014 Project No. 439646



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August 27, 2015 Project No. 439646



Design Build Operate Project

DBO Contractor's Monthly Progress Report August 27, 2015

CH2M HILL Engineers, Inc.

Executive Summary

The City of Woonsocket has awarded the design, permitting, construction, and long-term operations of Woonsocket Wastewater Treatment Facility Improvements to CH2M HILL Engineers, Inc. on June 27nd, 2012 with the project Commencement Date (NTP) of June 2nd, 2014. CH2M HILL will be designing and constructing the treatment facility while operating and maintaining the facility for 20 years following the NTP of the project.

The monthly reports shall include what has been indicated in Section 5 of the Agreement, particularly 5.11 Monthly Progress Report, of which that content contains the following;

Engineering, Design and Permitting Summary

- Permitting submittals and compliance with Applicable Law
- > Design submittals and progress

Construction Management Summary

- Construction progress update
- Change Orders
- Payment Applications

Operations Summary

- O&M Process Control
- Discharge Monitoring Report
- Compliance Monthly Report
- Facility Operating Report
- Pump Station & Motorized Siphon Operating Report

Health and Safety Summary

- Incident Reports
- QA/QC Summary
- Schedule Summary
 - Per Section 5, "5.11 Monthly Progress Report"
- Construction Progress Photos
- Master Schedule 8 Week Look Ahead
 - > Full Schedule Included with Payment Application

Woonsocket WWTF DBO Project

DBO Contractor's Monthly Progress Report August 27, 2015 CH2M HILL Engineers, Inc.

Engineering, Design, and Permitting

Engineering Manager:
Resident Engineer:
Senior Technical Consultant:
Permitting Manager:
Design Manager:

Barb Engleson
Katie Chamberlain
Bruce Johnson
Jeff Nield
Kandi Maestri

Schedule Progression

Schedule



On Schedule.

Engineering, Design, and Permitting activities are currently on schedule.

Accomplishments and Current Activities

Engineering Management General

Deliverables	Operations Manual
Monthly Meetings	Attended meetings
Monthly Reporting and Invoicing	

Engineering Services During Construction

Submittals, RFI's, DCN's, & Record Drawings	•	3 submittals processed this month; average review time was 10 (10.00) days.
	•	5 RFI's processed this month; the average review time was 3 (3.25) days.
	•	Operation and maintenance manual is in RIDEM review.

Permitting Activities

Active Permit Matrix	Refer to the following page.
PermittingMeetings	• None

Quality Control

Quality Management Plan	•	Management review for submittals and RFIs.

Upcoming Activities

Engineering Management General

Deliverables	•	None required
Monthly Progress Meetings	•	Attend meetings.
	•	Coordination with operations staff for equipment procurement, submittals and RFIs

Engineering Services During Construction

Submittals, RFI's, DCN's, Record Drawings	•	Ongoing submittal review and RFI responses. Update record drawings.
Record Didwings		

Permitting Activities

Active Permit Matrix	•	Refer to the following page.
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Quality Control

Quality Management Plan	•	Sign-off on punch-list items
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APPLICABLE GOVERNMENTAL APPROVAL	AGENCY	APPLICATION AND ANNUAL FEES	REQUIRED FOR CONSTRUCTION COMMENCEMENT	STATUS/SCHEDULE
FEDERAL PERMITS				
SPCC	EPA Region 1, RIDEM	NA	No	Revised by CH2M HILL in 2013. Updates to existing SPCC should be completed after new oil storage is installed.
STATE PERMITS				
RIDEM Freshwater Wetlands Program Request for Preliminary Determination	RIDEM OWR Freshwater Wetlands Program	\$300.00	Yes	Submitted on 1/24/14. Agency field visit completed on 2/21/14. Anticipated agency decision issued by March 7, 2014.
RIPDES General Permit for Construction Activity	RIDEM OWR Freshwater Wetlands Program	NA	Yes	Submitted on 1/24/14. Agency field visit completed on 2/21/14. Anticipated agency decision issued by March 7, 2014.
Modular Construction Review	RI State Building Codes Commission	NA	TBD	TBD
Emergency Generator General Permit - Air	RIDEM Office of Air Resources	No fee	No	Submit General Permit Application at least 30 days prior to testing/operation of generator.
Aboveground Storage Tank Registration	RIDEM Office of Emergency Response	NA	No	Submit registration after new supplies are installed. Monthly inspections required.
Multi-Sector General Permit RIPDES Stormwater Associated with Industrial Activities (excluding Construction)	RIDEM Office of Water Resources (RIPDES)	\$400 if a revised SWPPP must be submitted.	No	Update within first year after upgrades to plant.
Asbestos Abatement Plan Approval	RI Department of Health (RIDOH)	\$300	Only related work	Received 1/8/15
LOCAL PERMITS/REVIEWS/APPROVALS				
Building, Electrical, Mechanical & Plumbing Permits	City Building Official (Chris Chianese)	City fee is waived. State levies a fee (EPC x .001) that must be paid.	Yes	Applications scheduled for submission upon completion of Fire Marshal's review/approval on 2/24/14. Anticipated city permit issuance the week of March 3, 2014.
Fire Marshal Approval	Fire Marshall (Capt Mike Morin)	NA	Yes	Application submitted to Fire Marshal on 2/12/2014. Expected approval by 2/24/2014.
City Erosion and Sedimentation Ordinance	City Engineer (Mike Debroisse)	NA	Yes	Submitted on 1/24/14. Review completed and forwarded with comments to Building Official for incorporation into Building Permit.
Fuel (Haz Materials) Storage	Fire Marshall (Capt Mike Morin)	NA	No	Captain Morin directed us to contact his office after new supply tanks are installed.

Woonsocket WWTF DBO Project

DBO Contractor's Monthly Progress Report August 27, 2015 CH2M HILL Engineers, Inc.

Construction Management

Design Build Manager: Robert Pieper
Construction Manager: Mathew Marsh
Project Controls/Schedule: Matt Troso

Schedule Progression

Schedule



Mechanical Piping, demolition, electrical works and are the primary activities.

Construction Activities

Change Orders

Change Order Number	Description	Amount	Status	
001	Pilot Testing	<\$ 295 <i>,</i> 995>	Executed	
002	AB Process	<\$ 1,344,548>	Executed	
003	Repair and Replacement	\$0.00	Executed	
004	Escalation Claim	\$ 964,899.00	Executed	
005	Hazardous Survey & Abatement	\$ 58,480	Pending Approval	
006, 007, 008	Electrical System Mapping and Study Issues	\$356,840.40	Declined	
009	Electrical Service Pole	\$21,150.32	Pending Resubmittal	

Potential Change Orders

Request Number	Description	Status

Payment Applications

Pay App #	Invoice Date	Bill Thru Date	Amount		Receipt Date
001	16-Nov-12	13-Oct-12	\$	230,065.25	8-Apr-13
002	23-Jan-13	31-Dec-12	\$	379,650.00	10-May-13
003	9-Apr-13	29-Mar-13	\$	393,589.77	1-Aug-13
004	13-May-13	26-Apr-13	\$	119,146.43	1-Aug-13
005	7-Jun-13	31-May-13	\$	248,414.74	1-Aug-13
006	9-Jul-13	28-Jun-13	\$	231,663.06	1-Aug-13
007	6-Aug-13	26-Jul-13	\$	487,199.57	13-Sep-13
008	4-Sep-13	30-Aug-13	\$	832,264.09	10-Oct-13
009	4-Oct-13	27-Sep-13	\$	821,213.71	8-Nov-13
010	14-Nov-13	25-Oct-13	\$	807,215.74	19-Dec-13
011	10-Dec-13	29-Nov-13	\$	789,941.17	14-Mar-14
012	14-Jan-14	27-Dec-13	\$	710,559.98	14-Mar-14
013	10-Feb-14	13-Jan-14	\$	508,790.96	14-Mar-14
014	21-Mar-14	28-Feb-14	\$	735,934.87	10-Apr-14
015	8-Apr-14	28-Mar-14	\$	328,420.39	22-May-14
016	13-May-14	25-Apr-14	\$	463,078.08	7-Jul-14
017	12-Jun-14	30-May-14	\$	287,336.92	31-Jul-14
018	1-Jul-14	27-Jun-14	\$	1,170,452.75	31-Jul-14
019	12-Aug-14	25-Jul-14	\$	366,803.29	11-Sep-14
020	9-Sep-14	29-Aug-14	\$	1,296,650.54	14-Oct-14
021	7-Oct-14	26-Sep-14	\$	602,874.93	7-Nov-14
022	31-Oct-14	31-Oct-14	\$	1,712,768.11	22-Dec-14
023	5-Dec-14	24-Nov-14	\$	772,854.94	15-Jan-15
024	19-Dec-14	26-Dec-14	\$	1,571,722.21	17-Feb-15
025	30-Jan-15	30-Jan-15	\$	2,360,196.31	16-Mar-15
026	27-Feb-15	27-Feb-15	\$	1,817,233.23	27-Mar-15
027	27-Mar-15	27-Mar-15	\$	997,919.00	8-May-15
028	8-May-15	24-Apr-15	\$	1,532,042.83	23-Jun-15
029	5-Jun-15	29-May-15	\$	519,595.57	20-Jul-15
030	9-Jul-15	26-Jun-15	\$	1,604,653.01	14-Aug-15
031	7-Aug-15	31-Jul-15	\$	1,147,501.85	
032					
033					
	TOTAL		\$	25,847,753.30	

Project Controls / Schedule

Per Section 5, Paragraph 5.11 UPDATED PROJECT SCHEDULE REPORT NARRATIVE August 2015

1.	Progress was taken on the Project Master Schedule, with a Data Date of August 27, 2015
2.	Design Progress:
	Nothing Significant to Report
3.	Deliverable Progress:
	Nothing Significant to Report.
4.	Critical Path Report (Longest Path)
	Critical construction schedule follows the following path:
	Modifications to Aeration Basins
	Install Switchgear Equipment
	Electrical Upgrades and Modifications including SCADA system
5.	Schedule Progress:
	Month of August
	Activities Started = 21
	 Activities Completed = 15
6.	Construction and Mobilization:
	Mobilization
	 Milton Cat – Check outs with and without power
	 Russ Electric - Check outs with and without power

7. Construction – During August 2015, the following activities took place:

➤ <u>06 - Site Electrical</u>

Ductbank

- Pull & Term Site Elec Medium Voltage
- Install New Electrical Pole/Fuses
- Pull & Term Site Elec Low Voltage

Ductbank 17, 18, 41, & 59

- Install Conduit @ DB-17, DB-18, DB-41, & DB-59
- Install bedding & concrete cap @ DB-17, DB-18, DB-41, & DB-59
- Backfill & compact @ DB-17, DB-18, DB-41, & DB-59

Ductbank 44

- Excavate @ DB-44
- Install Conduit @ DB-44
- Install Bedding Material & Concrete Cap @ DB-44
- Backfill & Compact @ DB-44

Ductbank 52 & 53

• Backfill & compact @ DB-52 & DB-53

➤ 10 - Ops/Head works

- Electrical (Conduit Installs) Headworks
- Branch (Wire Pulls, Boxes to Equip) OPS
- I&C Branch (Wire Pulls, Boxes to Equip) OPS
- Lighting OPS
- I&C Headworks
- Electrical SWBD
- Install Switchgear Equipment OPS
- I&C Odor Control System
- Check Out Influent Screen System
- Install Vent and Piping for 10 ACU01 @ Control Room
- Install 10EUH01 @ Server Room
- Install Temperature Controls @ Server Room
- Instrumentation (Fiber Pulls, Termination of Instrumentation) OPS
- Tele/Data OPS
- Remove Existing Hatch @ Screenings Bldg.
- Repair Concrete at Hatch @ Screenings Bldg.

20 - Administration Building

- New Electrical Service Connection
- Branch (Wire Pulls, Boxes to Equip) ADMIN
- Install Switchgear Equipment ADMIN
- Instrumentation (Fiber Pulls, Termination of Instrumentation) ADMIN
- Demo & Remove H&V-1 and EF-5 @ Admin Pump Room

➤ 25 - Chemical Feed

- Electrical (Conduit Installs) Chemical Systems
- Power (Energization) Chemical System
- Check Out Ferric Chloride Pumps
- I&C Chemical Systems
- Check Out Polymer Feed Pumps

➤ 29 - South Chemical Building

- Excavate for Foundation
- > 30 Primary Sludge Pump Station
 - Electrical Equipment Primary Sludge Lift Station
 - Electrical (Conduit Installs)- Primary Sludge Lift Station
 - Excavate & Install MAU Sona-tube Foundation

➤ 32 - Primary Effluent Pump Station

- Backfill & Compact Buried PE Piping/Pump Cans
- Install AG PE Piping Systems

➤ 40 - Aeration Basins

Install WAS-A Discharge Piping

Aeration Basin A3

- Install MLR Pump Platform/Handrails @ A-3
- Install RAS Pump Platforms @ A-3
- Check Out A-3
- Install Polymer Piping in Sedimentation Zone @ A-3
- Electrical Conduit and Wire @ A3
- Instrumentation Conduit and Wire @ A3
- Install Handrail & Grating @ A-3

Aeration Basin A2

- Install Rebar @ Baffle Wall @ Col 7 in A-2
- Form @ Baffle Wall @ Col 7 in A-2
- Place Concrete @ Baffle Wall @ Col 7 in A-2
- Install Plate Settler Sections @ A-2
- Install Submersible Mixers @ A-2
- Install Chain & Flight Mechanisms @ A-2
- Install Diffusers in A-2

> 50 - Return Sludge Pump Station

- I&C Return Sludge PS
- Branch (Wire Pulls, Boxes to Equip) Return Sludge PS
- I&C Branch (Wire Pulls, Boxes to Equip) Return Sludge PS
- Electrical (Conduit Installs) Return Sludge PS
- Electrical Equipment (SWBD)
- Power (Energization) Return Sludge PS

- Install New Electrical Gear
- Install Switchgear Equipment Return Sludge PS
- Lighting Return Sludge PS
- Install New Electrical Gear
- New Duct Support Structure
- Instrumentation (Fiber Pulls, Termination of Instrumentation) Return Sludge PS
- Demo & Remove H&V-3 in Pump Room
- Install SA Ductwork to Electrical Room

> 55 - Secondary Clarifiers

• Selection & Award

> 55 - ML Splitter Box

- Branch (Wire Pulls, Boxes to Equip) ML Splitter Box
- I&C Branch (Wire Pulls, Boxes to Equip) ML Splitter Box
- Electrical (Conduit Installs) ML Splitter
- Install AG ML Piping

➤ 60 - Effluent Filter Building

- Electrical (Conduit Installs) Effluent Filter
- I&C Effluent Filter West
- I&C Effluent Filter East
- Branch (Wire Pulls, Boxes to Equip) Effluent Filter
- Startup West Side Filters
- Remove Filter Media (East Side)
- Prep Structural Steel (East Side)
- Paint Structural Steel (East Side)

➤ 68 - Chlorination Building

- Lighting Chlorination
- Electrical (Conduit Installs) Chlorination
- Power (Energization) Chlorination
- Branch (Wire Pulls, Boxes to Equip) Chlorination
- Install Switchgear Equipment Chlorination
- I&C Branch (Wire Pulls, Boxes to Equip) Chlorination
- Install EA Duct and Damper in Elec. Room
- Install SA & OSA Ductwork in Elec. Room
- Instrumentation (Fiber Pulls, Termination of Instrumentation) Chlorination
- Install Condensate Drain Line in Elec. Room
- Install 68EHU01 & 02 in Elec. Room
- Install TW Piping System in Basement

➤ 70 - Electrical Building

Install Switchgear Equipment - Electrical Building

- Repair/rework Electrical Building Slab
- Electrical Equip Install
- Instrumentation (Fiber Pulls, Termination of Instrumentation) Electrical Building
- Install Temperature Controls
- I&C Electrical Building
- Branch (Wire Pulls, Boxes to Equip) Electrical Building
- Lighting Electrical Building
- I&C Branch (Wire Pulls, Boxes to Equip) Electrical Building
- > 71 Generator
 - Install Generator Electrical Generator Set
 - Grounding Generator Set
- 7. During September 2015, the following construction activities are planned:
 - ➤ 04 Yard Pipe
 - Sawcut & Remove Paving for Site Drainage Items
 - ➤ 06 Site Electrical

Ductbank

- Pull & Term Site Elec Low Voltage
- Relocate Existing Ductbanks @ Elec. Bldg./Generator

Ductbank 44

- Excavate @ DB-44
- Install Conduit @ DB-44
- Install Bedding Material & Concrete Cap @ DB-44
- Backfill & Compact @ DB-44

Ductbank 52 & 53

• Backfill & compact @ DB-52 & DB-53

➤ 10 - Ops/Head works

- Check Out Influent Pump
- Lightning Protection OPS
- Install New 1" Gas Line to HVAC Unit @ Screenings Bldg.
- Field Test Influent Pump
- SCADA Testing Influent Pump
- Headworks MCC Mods

- Demo Existing Influent Flow Meter
- Install New Influent Flow Meter

20 – Administration Building

- New Electrical Service Connection
- Branch (Wire Pulls, Boxes to Equip) ADMIN
- Install Switchgear Equipment ADMIN
- Instrumentation (Fiber Pulls, Termination of Instrumentation) ADMIN
- Install Foul Air Ductwork
- Remove and Replace Mist Eliminator
- I&C Admin
- Mechanical (Terminations at Drive Equip.) ADMIN
- Tele/Data ADMIN

➤ 22 – Grit Chambers

- Electrical (Conduit Installs) Grit Chamber
- Branch (Wire Pulls, Boxes to Equip) GRIT CHAMBER
- I&C Grit Chamber
- Instrumentation (Fiber Pulls, Termination of Instrumentation) GRIT CHAMBER

25 - Chemical Feed

- Electrical (Conduit Installs) Chemical Systems
- Power (Energization) Chemical System
- Check Out Ferric Chloride Pumps
- I&C Chemical Systems
- Check Out Polymer Feed Pumps
- Mechanical (Terminations at Drive Equip.) Chemical System
- Instrumentation (Fiber Pulls, Termination of Instrumentation) Chemical System
- Tele/Data Chemical System

➤ 29 - South Chemical Building

- Excavate for Foundation
- Install Drain line to Nearest Manhole
- FRP Sump Slab
- FRP Base Slab
- FRP Containment Walls
- FRP Stairs
- Install Chemical Feed Pumps
- Install Handrail
- Install Sump Mud Valve
- Install Grating @ Sump

- Install Piping in and around Chemical Pumps
- Electrical (Conduit Installs) S Chemical
- Install Chemical Totes
- Install Emergency Eyewash/Shower
- Re-grade Area Around South Chemical Facility
- Install PVC GLY Piping from Discharge Point to Aeration Tanks
- Branch (Wire Pulls, Boxes to Equip) S. Chemical

➤ 30 - Primary Sludge Pump Station

- Electrical Equipment Primary Sludge Lift Station
- Electrical (Conduit Installs)- Primary Sludge Lift Station
- Install Temperature Controls
- Startup Primary Sludge Pump Station HVAC

➤ 32 - Primary Effluent Pump Station

- Install AG PE Piping Systems
- Install New PE Pumps
- Electrical (Conduit Installs) for New Pump
- Branch (Wire Pulls, Boxes to Equip) Primary Effluent Pump Station

➤ 40 - Aeration Basins

- Install WAS-A Discharge Piping
- Instrumentation (Fiber Pulls, Termination of Instrumentation) Aeration Basin
- Branch (Wire Pulls, Boxes to Equip) Aeration Basin
- Mechanical (Terminations at Drive Equip.) Aeration Basin

Aeration Basin A3

- Install MLR Pump Platform/Handrails @ A-3
- Check Out A-3
- Install Polymer Piping in Sedimentation Zone @ A-3
- Electrical Conduit and Wire @ A3
- Instrumentation Conduit and Wire @ A3
- Install Handrail & Grating @ A-3
- Equipment Terminations @ A-3
- MCOPI MLR Pump A3
- Field Test MLR Pump A3
- SCADA Test MLR Pump A3

Aeration Basin A2

- Install Rebar @ Baffle Wall @ Col 7 in A-2
- Form @ Baffle Wall @ Col 7 in A-2
- Place Concrete @ Baffle Wall @ Col 7 in A-2
- Install Plate Settler Sections @ A-2
- Install Chain & Flight Mechanisms @ A-2

- Install Diffusers in A-2
- Install Handrail & Grating @ Sedimentation Zone @ A-2
- Strip Forms @ MLR Closure in A-2
- Install 2" Fiber Reinforced Grout Infill in Sedimentation Zone @ A-2
- Install MLR Pump Platform/Handrails @ A-2
- Install PA Header in A-2 (excluding Area in Sedimentation Zone)
- Install PA Drops to Diffusers in @ A-250 Return Sludge Pump Station
- Install SA Ductwork to Electrical Room
- Install Temperature Controls @ Electrical Room
- Install SA Duct in Hallway
- Install 50EHU01 & 02 in Electric Room
- Install Temperature Controls in Pump Room
- Insulate SA Ductwork
- Startup & Test New Process Air Blower
- Startup & Test HVAC System @ RAS Building

➤ <u>55 - Secondary Clarifiers</u>

• Bid Evaluations & Selection

➤ <u>55 - ML Splitter Box</u>

- Branch (Wire Pulls, Boxes to Equip) ML Splitter Box
- I&C Branch (Wire Pulls, Boxes to Equip) ML Splitter Box
- Electrical (Conduit Installs) ML Splitter
- Install AG ML Piping
- Check Out Mixed Liquor Sample Pump ML Splitter Box
- Field Test Mixed Liquor Sample Pump ML Splitter Box
- I&C ML Splitter
- SCADA Test Mixed Liquor Sample Pump ML Splitter Box
- Mechanical (Terminations at Drive Equip.) ML Splitter Box
- Instrumentation (Fiber Pulls, Termination of Instrumentation) ML Splitter Box

➤ 60 - Effluent Filter Building

- Electrical (Conduit Installs) Effluent Filter
- I&C Effluent Filter West
- I&C Effluent Filter East
- Branch (Wire Pulls, Boxes to Equip) Effluent Filter
- Startup West Side Filters
- Remove Filter Media (East Side)
- Prep Structural Steel (East Side)
- Paint Structural Steel (East Side)
- Mechanical (Terminations at Drive Equip.) Effluent Filter

- Instrumentation (Fiber Pulls, Termination of Instrumentation) Effluent Filter
- Tele/Data Effluent Filter

➤ 68 - Chlorination Building

- Lighting Chlorination
- Electrical (Conduit Installs) Chlorination
- Power (Energization) Chlorination
- Branch (Wire Pulls, Boxes to Equip) Chlorination
- Install Switchgear Equipment Chlorination
- I&C Branch (Wire Pulls, Boxes to Equip) Chlorination
- Install EA Duct and Damper in Elec. Room
- Install SA & OSA Ductwork in Elec. Room
- Instrumentation (Fiber Pulls, Termination of Instrumentation) Chlorination
- Install Condensate Drain Line in Elec. Room
- Install 68EHU01 & 02 in Elec. Room
- Install TW Piping System in Basement
- Prep & Paint @ Bisulfite Room
- Tele/Data Chlorination
- Mechanical (Terminations at Drive Equip.) Chlorination

➤ 70 - Electrical Building

- Install Switchgear Equipment Electrical Building
- Repair/rework Electrical Building Slab
- Electrical Equip Install
- Instrumentation (Fiber Pulls, Termination of Instrumentation) Electrical Building
- Install Temperature Controls
- I&C Electrical Building
- Branch (Wire Pulls, Boxes to Equip) Electrical Building
- Lighting Electrical Building
- I&C Branch (Wire Pulls, Boxes to Equip) Electrical Building
- Power (Energization) Electrical Building
- Mechanical (Terminations at Drive Equip.) Electrical Building

> 71 - Generator

- Install Generator Electrical Generator Set
- Grounding Generator Set
- Start Up and Test Switchgear/Generator

Startup & Commissioning

- Electrical Study
- Arch Flash Study

Woonsocket WWTF DBO Project

DBO Contractor's Monthly Progress Report August 27, 2015 CH2M HILL Engineers, Inc.

Operations

Facilities Manager: Lead Operator: Jim Lauzon
Nick DeGemmis

Monthly Reporting



WOONSOCKET REGIONAL WASTEWATER COMMISSION

MONTHLY FACILITY OPERATING REPORT JULY 2015



MONTHLY FACILITY OPERATING REPORT - JULY 2015 WOONSOCKET REGIONAL WASTEWATER COMMISSION

PREPARED FOR:

Adel Banoub

City of Woonsocket

COPY TO:

Kevin Dahl

PREPARED BY:

James Lauzon

DATE:

August 15, 2015

Enclosed are the monthly operating reports for the Woonsocket Regional Wastewater Facility for the Month of July 2015.

Safety Summary

There were no injuries that occurred during the month of July. The staff receives safety training on a weekly basis. The team has gone thirty-four (34) months without an OSHA recordable injury.

TABLE 1
Woonsocket WWTP Safety Performance and Training – July 2015

Training hours, Incident Summary

	Month	Year To Date
Safety Training Hours	16.5	16.5
Reportable Incidents	0	0
OSHA Recordable Incidents	0	0

Compliance and Operations Summary

The facility had a Monthly Total Phosphorus violation in July. These were attributable to several significant temperature swings in the side stream. There was also a daily maximum fecal coliform violation. It was attributable to our inability to clean the chlorine contact tanks without shutting the Synagro facility down in the process. The monthly performance is summarized in Table 2. The Table 3 summarizes the monthly loadings.

TABLE 2
Woonsocket WWTP Wastewater Compliance – July 2015

Final Effluent, Parameter, Permit Limits Monthly Monthly Daily Daily Percent Parameter (mg/L) Average Limit Maximum Limit Removal TSS 6 30 16 50 88 Total N 6.8 10 9.5 ----Total P 2.2 1.0 **CBOD** 30 3 50 95 6.7* pH (su) 7.4 6-9 TRC ug/l 9 56 45 97 --Fecal (MPN) 200 850 400

^{*}Minimum

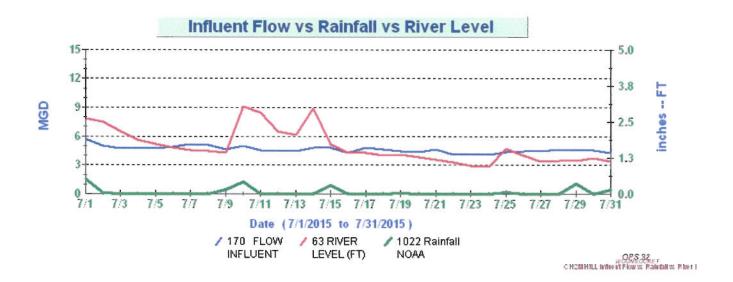
Operations Activities:

- Coordination with Engineers on upgrade design and operational impacts
- Operators collected numerous samples from Synagro's operations to test for cyanide.
- Assisting with various construction coordination issues.

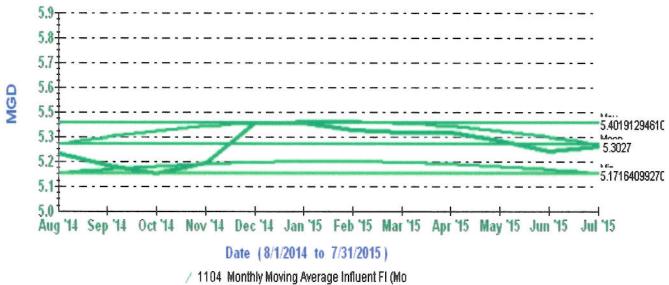
TABLE 3
Woonsocket WWTP Wastewater Loadings – July 2015
Influent, Parameter, Design and Actual Average Loadings

Parameter	Design Capacity	Actual Loadings	Percent of Design Capacity	
Flow (MGD)	16	4.6	29%	
TSS (lbs/d)	16,013	18,305	114.3%	
BOD (lbs/d)	21,350	13,797	64.6%	

Operations Graphs:



12 Month Moving Avg Flow (max-min)



Max)

OPS 32 CH2MHILL 12 Morth Morthg Aug Influent Flour in

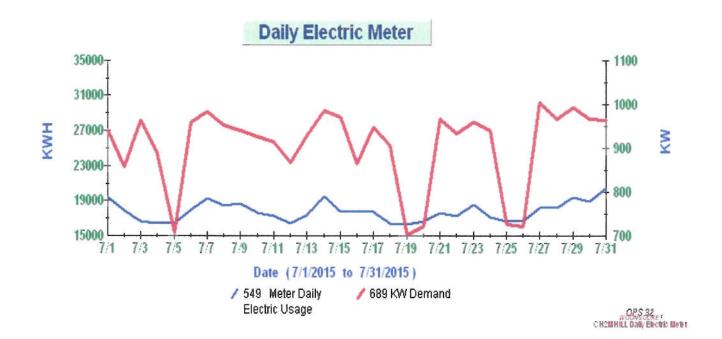


TABLE 4
Woonsocket WWTP Solids Handling – July 2015
Volume Removed or Wasted

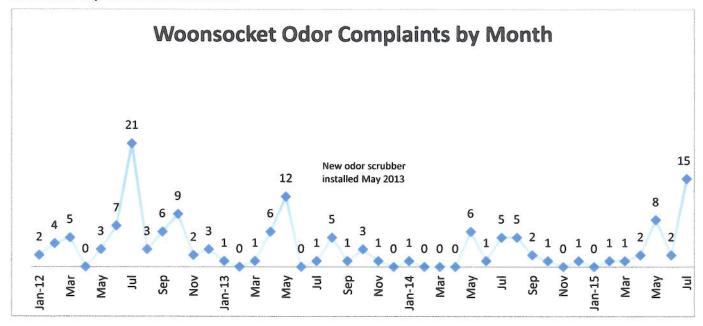
Parameter	June 2015	July 2015
Secondary Sludge (to GT) MG	2.75	3.97
Primary Sludge (to SHT) MG	3.18	2.80
Total Gallons Pumped to Synagro MG	5.93	6.77

TABLE 5
Woonsocket WWTP Chemical Management – July 2015
Quantity Used

Chemical	July 2015
Sodium Hypochlorite (disinfection), gallons	8,203
Sodium Bisulfite (dechlorination), gallons	3,972
Ferric Chloride (P removal), gallons	9,200
Lime (P removal, alkalinity), pounds	18,000
Defoamer (foam removal in effluent), gallons	419

Odor Summary

The facility received fifteen odor complaints in July. CH2M HILL meets with the City and Synagro on a weekly basis to coordinate operations and to discuss odor and noise complaints and the related causes, facility upgrade issues and any other issues that arise.





Maintenance Summary

Table 6 summarizes the completed work orders, labor hours and backlog hours. The maintenance report attachments contain more detail. Table 7 summarizes the repair and replacement activities.

Equipment Out of Service:

- Nitrate Recycle Pumps are not being run (only 2 is available)
- All equipment in Aeration Basins 4, 5 and 6 demolished for the upgrade.
- · Gravity thickener old scrubber demolished.

TABLE 6
Woonsocket WWTP Maintenance Work Orders – July 2015
Work Order Type

Summary	Reg. Emp. Hours	Overtime Emp. Hours	Total Emp. Hours	Total number of completed Work Orders	Backlog work Order Hours	Backlog Priority 1 Work Order	Ending Number of Backlog Work Orders
Totals	218.17	36.6	244.77	199	43.4	5.4	42

Maintenance Activities:

- Replaced the inner working parts on all 3 sodium hypochlorite pumps.
- Adjusted the alignment on #3 sand filter traveling bridge.
- Removed a blockage from the WAS line.
- Installed an automatic sprayer system on both primary clarifier scum troughs.
- Maintenance Activities for upcoming month:
- Replace main gate controller
- Replace motor starter for grit blower #2.
- Complete annual VFD cleaning PM.

Contract Year 03 Repair and Replacement Costs (Invoice Dates between 07/01/14-06/30/15) FINAL

Description	WO (s)	Estimated Cost	Actual Costs	Status	Completion Date	Invoice Number	Invoice Date
Diamond Hill Pumps	WOO-464255	\$ 35,000.00	\$ 29,216.73	Complete	9/15/2014	381004785	9.23.14
Plant water pump	WOO-528901	\$ 11,000.00	\$ 10,613.80	Complete	8/19/2014	381004614	09.22.14
Admin HVAC Repairs	WOO-621761	\$ 11,000.00	\$ 10,620.00	Complete	2/6/2015	381021642	03.09.15
Subtotal			\$ 50,450.53				
CY02 Carryover			\$ 66,350.56				
CY03 Budget			\$ 203,959.90				
Total Budget			\$ 270,310.46	(*************************************			
Cap Remaining			\$ 219,859.93				

Contract Year 04 Repair and Replacement Costs (Invoice Dates between 07/01/15-06/30/16)

Description	WO (s)	Estimated Cost	Status	Completed Date	Invoice Number	Invoice Date
RAS HVAC Repairs	WOO-522575	\$ 23,000.00	Completed	5/13/2015		
#4 RAS Pump Rebuild	WOO-692465	\$ 36,300.00	In Progress			
Hypochlorite skid	WOO-749150	\$ 21,264.00	Approved			
Subtotal		\$ 80,564.00				
CY03 Carryover		\$ 219,859.93				
CY04 Budget		\$ 204,843.70				
Total CY 04 Budget		\$ 424,703.63				
Cap Remaining		\$ 344,139.63				

Personnel Summary

Personnel Activities:

- Regional support (Operations, Maintenance and Laboratory) on site as needed for support.
- Fully staffed.

Community Involvement

Administrative support for RiverzEdge.

Attachments

- CH2M HILL Woonsocket Organizational Chart
- July 2015 Personnel Training Report
- July 2015 DMR / MOR
- July 2015 Odor Report
- July 2015 Completed Work Order Report

CHZMHILL®

CERTIFICATIONS/LICENSES

WW STATE CDL OTHER CERT CERTIFIED

EMPLOYEE LIST BY POSITION

REGIONAL DIRECTOR OF OPERATIONS - DBO US

REGIONAL BUSINESS MANAGER NE

ADMINISTRATION	The second secon			
REGIONAL DIRECTOR OF	DENNIS BURRELL			_
OPERATIONS - DBO US				
REGIONAL BUSINESS MANAGER - NE KEVIN DAHL	KEVIN DAHL	2	RI, CT	+
PROJECT MANAGER	JAMES LAUZON	IV, 7C	RI, MA	+
ASST PROJECT MGR, ACTING	NICHOLAS DE GEMMIS	Ξ	RI, CT	
ADMIN SPECIALIST	JOYCE SMITH-CORRENTE	-	æ	
				_

LEAD MECHANIC	KYLE ARNOLD	=	2
MECHANIC	TOM SEDERBACK	-	R
O&M TECHNICIAN	MICHAEL HODDE		R
OPERATOR	SHAWN MURPHY	=	R
OPERATOR	STEVE GAUVIN	=	RI
OPERATOR	WAYNE SANTOS	-	RI
OPERATOR	ANTHONY ROSE	-	RI
OPERATOR-IN-TRAINING	CORY SEDERBACK	-	R

SPECIALIST

ASST PROJECT MANAGER, ACTING

TECHNICAL

PROJECT MANAGER

OPERATOR

LEAD MECHANIC

OPERATOR

O&M TECHNICIAN

ADMINISTRATION	DAN STARK	2	MS	
ADMINISTRATION	KIM KILPATRICK	۸۱	AR	_
IINSTRUMENTATION	CARLOS GONZALEZ			
MAINTENANCE	PAUL HORIGAN	2C	MA	
OPERATIONS	MARIBETH WINTERCORN	N	M	
LAB	MARY ANNE ROUSH			
COMPLIANCE	IFFE HEROUX	70	MA	

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OPERATOR IN TRAINING

OPERATOR

OPERATOR

MECHANIC

Gauvin, Steven						0.00
YnortinA ,esoЯ						0.00
Sederback, Corey						0.00
DeGemmis, Nick 3776DEGE					1.00	1.00
semet ,nozus.d SUAJ0878	1.00			5.00		6.00
Sederback, Thomas 0835SEDE					1.00	1.00
Smith Corrente, Joyce 77205MIT		0.50	5.00		1.00	6.50
Santos, Wayne TNA281-00						0.00
Murphy, Shawn 4813MURP						1.00 0.00
Hodde, Michael 5745HODD					1.00	
Amold , Kyle					1.00	1.00
Training Topic/Description	Workplace Harassment	Office Safety	Envision ISI Certification Examination	1st Aid / CPR / AED	Work Alone Standard	
Location	WWTF WOO - Adm	WWTF WOO - Adm	WWTF WOO - Adm	Gano St., Providence	WWTF WOO - Break Rm	
Cross Dept Training						
OSHA/ CH2M Required Training						
Training Hours	1.00	0.50	5.00	9.00	9:00	16.50
Safety - Training Type						
Training	2 - Quality	1 - Safety	7.14.15 3 - Technical	1 - Safety	1 - Safety	Total
Date	7.6.15	7.17.15	7.14.15	7.22.15	7.31.15	

Woonsocket WWTF DBO Project

DBO Contractor's Monthly Progress Report August 27, 2015 CH2M HILL Engineers, Inc.

Health and Safety

Health and Safety Manager: Ste Safety Coordinator: Ma

Steve Wehrspann Matthew Killam

Summary

Schedule



Project Days Away / Restricted Time Incident Rate (DART) - 0.00

Project Total Recordable Incident Rate (TRIR) - 0

Industry Average DART (2014) - 2.0

Industry Average TRIR (2014) - 3.7

PJTD Man-hours -60,958 - through August 24, 2015

Accomplishments and Current Activities

Health and Safety

Safety Committee	The Safety Committee meeting was held on July 24 th .
Mass Monthly Safety Meeting	• Monthly Mass Safety Meeting is scheduled for Aug. 27, 2015, at 12:30 pm outside of the RAS building, northwest side.
Safety Orientation	• A total of 221 employees have been through the site orientation, this includes CH2MHILL Operations staff members.
Excellence in Safety Program Implementation	 The project team and subcontractors continue to implement the program. Housekeeping and general safety have continued to improve in recent months. A Value Based Safety Training for all Subcontractors Foreman and upper management was held on August 4, 2015. There was one near miss involving a driver unloading conduit from a delivery truck.
Miscellaneous Safety related Meetings	• A site safety audit was conducted on August 4, 2015. The audit was conducted by Steve Wehrspann.

Woonsocket WWTF DBO Project

DBO Contractor's Monthly Progress Report August 27, 2015 CH2M HILL Engineers, Inc.

QA Summary

QA Manager: Katie Chamberlain 3rd Party Inspector: 3rd Party Staff

Quality Assurance

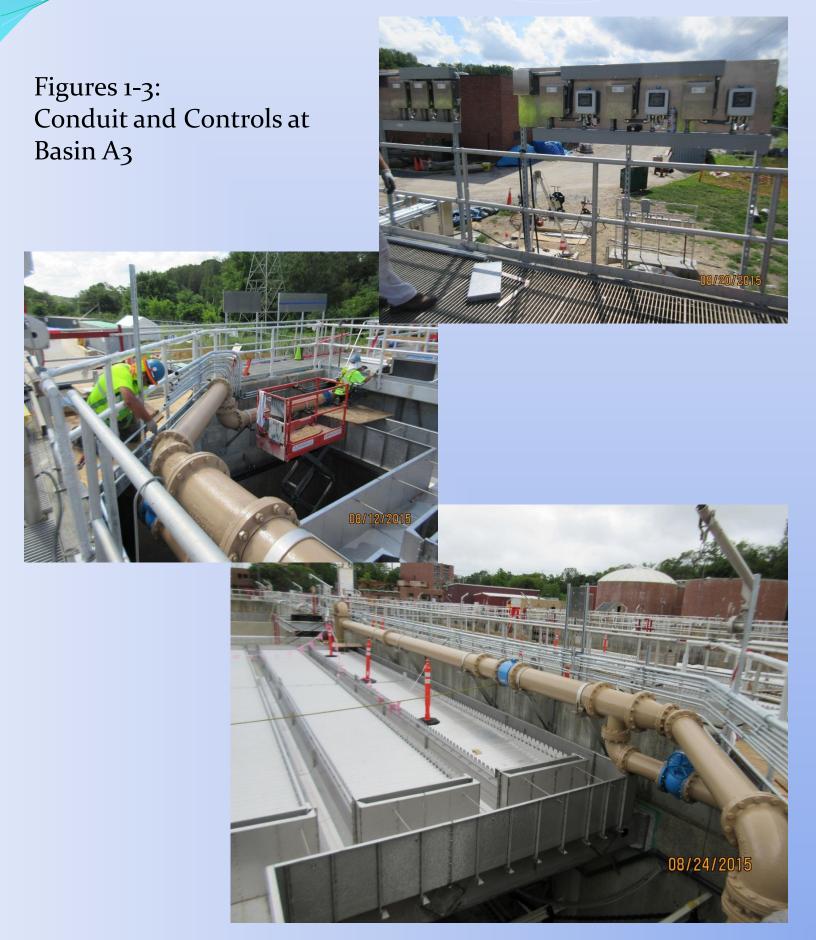
Quality Activities:

- Coordinated the following Inspections:
 - ➤ Special Inspections by 3rd Party Inspector:
 - Facility 32: compaction testing at PEPS around new wetwell (onsite sandy gravel) and compaction testing in area of slab to be poured at PEPS pump can pipe supports (dense grade) – all compaction tests were acceptable.
 - City Inspections:
 - None
- CH2M HILL Engineer Observations:
 - ➤ Facility 10/Ops and 68/Chlorination Bldg: preparing for leak testing of refrigerant piping on ACUs. Clarifications of the specification are being discussed with the engineer. Piping has held at ~500 psi for over two weeks.
 - Facility 29/South Chem: observed pour of concrete curb
 - ➤ Facility 32/PE PS after doing a final repair of the PEPS wetwell at the southeast corner by filling in the ~3" gap between new wetwell and existing concrete, the wetwell was leak tested over 5-day period; PASSED the liquid tightness test. After passing the test, pipe was connected and backfill continued in the area. Observed backfilling around wetwell and around PE pipe supports. Observed rebar and formwork for slab at PE pipe supports and concrete pour. Observed flange connections of PE piping from pump cans to basins. Observed painting of PE piping.
 - ➤ Facility 40/Aeration Basins finishing work in basins continues primarily concrete finishing work related to honeycombing, holes, cracks, smoothing out fins and removing metals. Leak tested the process air piping running in the channel between basins A2 and A3. Leak tested polymer all piping in basin A3. Leak tested all RAS piping in basin A3. Observed painting of RAS piping.

	Facility 60/Filter Building – Observed removing of old media from filter beds 1 and 2 and filling of support media in bed #1 to ensure filled to correct depth. Observed painting of metal framework inside the building.
Quality Issues:	Addressing Facility 40 Basin A3 punch structural punch list items with Carlin primarily related to finished concrete wall quality
Non-Conformances :	None issued. All previous NCRs closed.

August 27, 2015 Project No. 439646









Figures 8-13: PEPS Concrete





Figures 14-16: Flow Meter Manhole

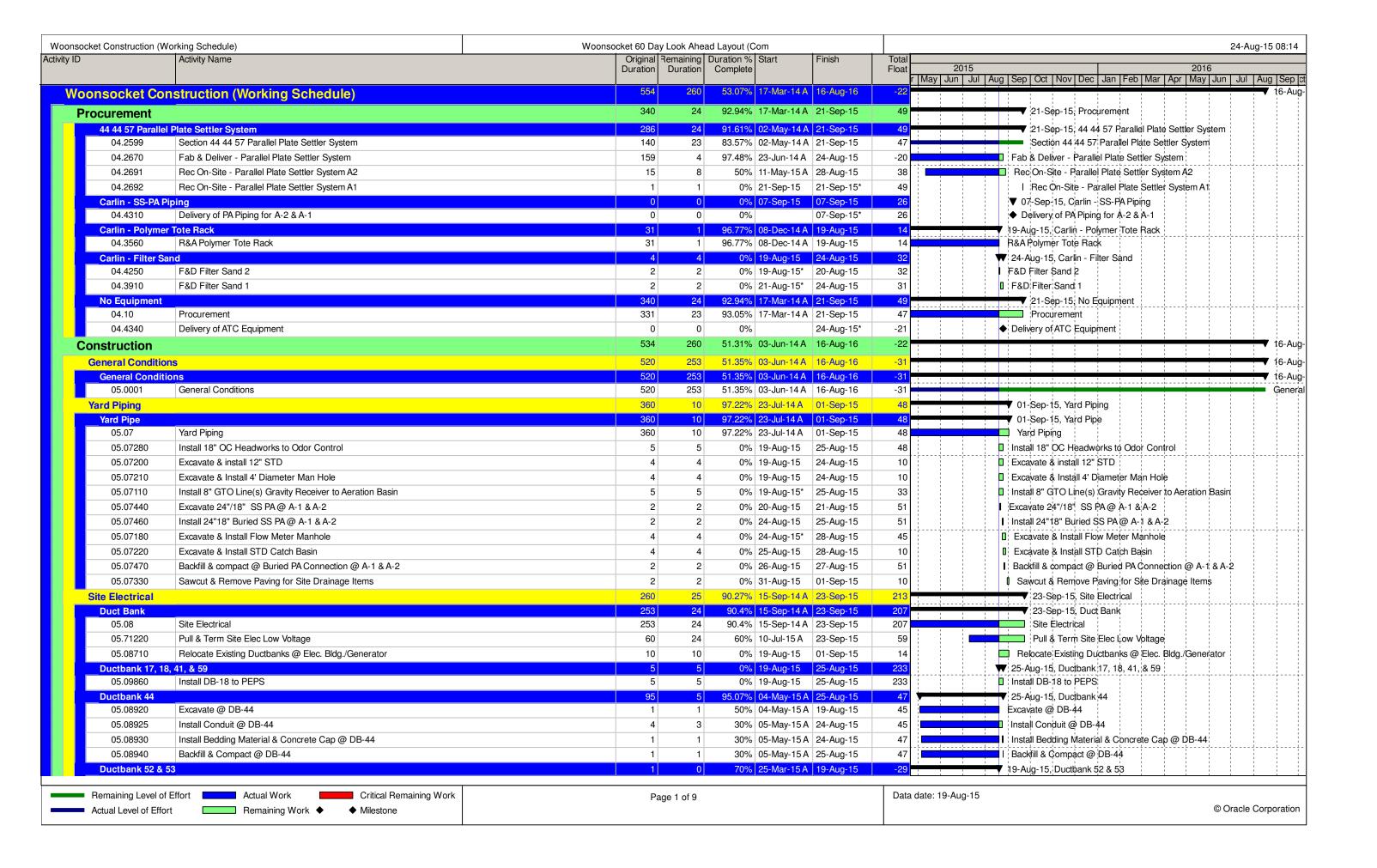




Master Schedule - Look Ahead

August 27, 2015 Project No. 439646





	Activity Name			Duration %		Finish	Total	0045
		Duration	Duration	Complete			Float	2015 2016 Jun Jul Aug Sep Oct Nov Dec Jan Feb Mar Apr May Jun Jul A
05.09660	Backfill & compact @ DB-52 & DB-53	1	0	70%	25-Mar-15 A	19-Aug-15	-29	Backfill & compact @ DB-52 & DB+53
leadworks /OPS		310	97	68.77%	18-Sep-14 A	31-Dec-15	-11	▼ 31-Dec-15, Headworks /OPS
No Equipment		310	97	68.77%	18-Sep-14 A	31-Dec-15	-11	31-Dec-15 No Fauinment
05.10	Headworks / OPS	300	93		18-Sep-14 A		-10	Headworks / OPS
05.10240	Electrical (Conduit Installs) - Headworks	25	3	89%	02-Feb-15 A	21-Aug-15	46	Electrical (Conduit Installs) - Headworks
05.10241	Branch (Wire Pulls, Boxes to Equip) - OPS	47	5	89%	16-Feb-15 A	26-Aug-15	46	Branch (Wire Pulls, Boxes to Equip) - OPS
05.10242	I&C Branch (Wire Pulls, Boxes to Equip) - OPS	35	7	80%	16-Feb-15 A	27-Aug-15	46	I&C Branch (Wire Pulls, Boxes to Equip) - OPS
05.10233	Lighting - OPS	2	0	90%	20-Apr-15 A	19-Aug-15	36	Lighting - OPS
05.10250	I&C - Headworks	15	3	80%	18-May-15 A	21-Aug-15	47	I&C - Headworks
05.10270	Electrical SWBD	15	2		18-Jun-15 A		60	Electrical SWBD
05.10234	Install Switchgear Equipment - OPS	24	3	88%	18-Jun-15 A	24-Aug-15	36	Install Switchgear Equipment - OPS
05.71780	Check Out - Influent Screen System	3	2		23-Jul-15 A	-	52	Check Out - Influent Screen System
05.10575	Install Vent and Piping for 10 ACU01 @ Control Room	3	3		24-Jul-15 A	-	8	Install Vent and Piping for 10 ACU01 @ Control Room
05.10605	Install 10EUH01 @ Server Room	1	1		24-Jul-15 A	-	6	Install 10EUH01 @ Server Room
05.10615	Install Temperature Controls @ Server Room	2	2		24-Jul-15 A	-	6	Install Temperature Controls @ Server Room
05.10237	Instrumentation (Fiber Pulls, Termination of Instrumentation) - OPS	8	2		27-Jul-15 A	-	36	Instrumentation (Fiber Pulls, Termination of Instrumentation)
05.10237	Tele/Data - OPS	2	1		30-Jul-15 A	· ·	47	I Tele/Data - OPS
05.10295	Remove Existing Hatch @ Screenings Bldg.	1	1		31-Jul-15 A	· ·	<u> </u>	Remove Existing Hatch @ Screenings Bldg.
05.10395	Repair Concrete at Hatch @ Screenings Bldg.	2	2		31-Jul-15 A	-	1	Repair Concrete at Hatch @ Screenings Bldg.
05.10200	Install HVAC Ductwork & Accessories-Screenings Bldg.	20	_		19-Aug-15	16-Sep-15	-10	Install HVAC Ductwork & Accessories-Screenings Bldg.
05.10200	Install Odor Control Ductwork	20	5		-	25-Aug-15	-10	Install Odor Control Ductwork
	Demo EF-2 and Associated Ductwork @ Boiler Room	3	3			21-Aug-15	3	Demo EF-2 and Associated Ductwork @ Boiler Room
05.10360		3	3		_	-		
05.10400	Install 10MAU01 & Ductwork @ Influent Pump Room	3	3			21-Aug-15	<u> </u>	I Install 10MAU01 & Ductwork @ Influent Pump Room
05.10440	Install grating @ Influent Pump	1	1		19-Aug-15	19-Aug-15		Install grating @ Influent Pump
05.10505	Install Temperature Controls @ Elec. Room	3	3			21-Aug-15	5	Install Temperature Controls @ Elec. Room
05.10160	Repair concrete on Underside of Concrete Stairs @ Screenings Bldg.	5	5			25-Aug-15	2	Repair concrete on Underside of Concrete Stairs @ Screenings
05.10645	Install New Glass & Glazing @ Ops. Building	2	2		-	20-Aug-15	5	Install New Glass & Glazing @ Ops. Building
05.10540	Install Inf. Pump Discharge Pipe	3	3			21-Aug-15	-15	I Install Inf. Pump Discharge Pipe
05.71760	Field Test - Influent Screen System	1	1		19-Aug-15	19-Aug-15	52	Field Test - Influent Screen System
05.71770	SCADA Testing - Influent Screen System	1	1			20-Aug-15	52	SCADA Testing - Influent Screen System
05.10445	Demo HVAC @ Control Room/Server Room	2	2		21-Aug-15		6	Demo HVAC @ Control Room/Server Room
05.10560	Shutdown Influent Pump-Meter Install	0	0	0%		21-Aug-15*	-15	♦ Shutdown Influent Pump-Meter Install
05.10410	Install 10EXF01 & Ductwork @ Influent Pump Room	3	3			26-Aug-15	4	l Install 10EXF01 & Ductwork @ Influent Pump Room
05.10450	FRP New Concrete Pump Support @ Inf. Pump Rm.	2	2			25-Aug-15	2	FRP New Concrete Pump Support @ Inf. Pump Rm.
05.10435	Demo HVAC @ Electric Room	2	2		_	25-Aug-15	5	I Demo HVAC @ Electric Room
05.10236	Mechanical (Terminations at Drive Equip.) - OPS	9	9			04-Sep-15	36	Mechanical (Terminations at Drive Equip.) - OPS
05.10415	Install Grating in Floor Opening @ Screenings Bldg.	1	1		24-Aug-15	25-Aug-15	1	I Install Grating in Floor Operling @ Screenings Bldg.
05.10420	Install 10EXF02 & Ductwork @ Boiler Room	2	2		25-Aug-15	26-Aug-15	4	I Install 10EXF02 & Ductwork @ Boiler Room
05.10570	MCOPI - Influent Pump	1	1		09-Sep-15	10-Sep-15	36	I MCOPI - Influent Pump
05.10600	Check Out - Influent Pump	3	3		09-Sep-15	14-Sep-15	36	Check Out - Influent Pump
05.10239	Lightning Protection - OPS	1	1		09-Sep-15	10-Sep-15	47	Lightning Protection - OPS
05.10300	Install New 1" Gas Line to HVAC Unit @ Screenings Bldg.	5	5		10-Sep-15	16-Sep-15	-10	☐ Install New 1" Gas Line to HVAC Unit @ Screenings Bldg.
05.10580	Field Test - Influent Pump	1	1	0%	10-Sep-15	11-Sep-15	36	I Fjeld Test - Influent Pump
05.10590	SCADA Testing - Influent Pump	1	1	0%	11-Sep-15	14-Sep-15	36	SCADA Testing - Influent Pump
05.10320	Install Structural Fame for Ext. Ductwork @ Screenings Bldg.	3	3	0%	14-Sep-15	16-Sep-15	-10	Install Structural Fame for Ext. Ductwork @ Screenings Bld
05.10390	Install Temp. Stop Plate @ AG and Drain Down Influent Line	1	1	0%	17-Sep-15	17-Sep-15	-10	I Install Temp. Stop Plate @ AG and Drain Down Influent Line
05.10460	Install Temperature Controls @ Screenings Building		5	0%	17-Sep-15	23-Sep-15	28	☐ Install Temperature Controls @ Screenings Building

h. ID	et Construction (Wo	. • '	Woonsocket 60 Da		, ,		Tiniah	Total	24-Aug-15 08
y ID		Activity Name	Original Duration		Duration % Complete	Start	Finish	Total Float	2015 2016
									ın Jul Aug Sep Oct Nov Dec Jan Feb Mar Apr May Jun Jul Aug S
	05.10230	Headworks MCC Mods	25	25		18-Sep-15		-10	Headworks MCC Mods
	05.10370	Demo Existing Influent Flow Meter	1	1		18-Sep-15	· ·	30	Demo Existing Influent Flow Meter
	05.10380	Install New Influent Flow Meter	1	1	0%	21-Sep-15	22-Sep-15	30	I Install New Influent Flow Meter
A	dmin		251	33	86.71%	07-Oct-14 A	06-Oct-15	30	▼ 06-Oct-15, Admin
	No Equipment		251	33		07-Oct-14 A		30	
	05.20	Admin	251	33	86.71%	07-Oct-14 A	06-Oct-15	30	Admin
	05.20130	New Electrical Service Connection	2	1	45%	08-Apr-15 A	16-Sep-15	20	I New Electrical Service Connection
	05.20125	Branch (Wire Pulls, Boxes to Equip) - ADMIN	15	5	64%	08-Apr-15 A	22-Sep-15	20	☐ Branch (Wire Pulls, Boxes to Equip) - ADMIN
	05.20121	Install Switchgear Equipment - ADMIN	3	1	80%	17-Jun-15 A	19-Aug-15	42 I	Install Switchgear Equipment - ADMIN
	05.20123	Instrumentation (Fiber Pulls, Termination of Instrumentation) - ADMIN	4	1	85%	30-Jul-15 A	22-Sep-15	29	I Instrumentation (Fiber Pulls, Termination of Instrumentation) - A
	05.20190	Excavate for PVC Ductwork	2	2	0%	19-Aug-15	20-Aug-15	53	Excavate for PVC Ductwork
	05.20240	Install 20MAU01 & Assoc. Ductwork & piping @ Admin Pump Room	3	3	0%	19-Aug-15*	21-Aug-15	47	Install 20MAU01 & Assoc. Ductwork & piping @ Admin Pump Room
	05.20250	Install 20EXF01 & Assoc. Ductwork @ Admin Pump Room	3	3	0%	19-Aug-15*	21-Aug-15	47	I Install 20EXF01 & Assoc. Ductwork @ Admin Pump Room
	05.20300	Demo & Remove all items 42" in front of 20MCC01	2	2	0%	19-Aug-15*	20-Aug-15	53	Demo & Remove all items 42" in front of 20MCC01
	05.20220	Disconnect & Abandon HVAC Ductwork/Equipment @ Generator Room	3	3			24-Aug-15	51	Disconnect & Abandon HVAC Ductwork/Equipment @ Generator Roo
	05.20230	Repair Split Supply Air Duct and replace insulation @ Generator Room	3	3			26-Aug-15	49	Repair Split Supply Air Duct and replace insulation @ Generator Roo
	05.20260	Install Temperature Controls @ Admin Pump Room	3	3				47	I Install Temperature Controls @ Admin Pump Room
	05.20270	Re-balance Existing AC-1 System in Admin Building	2	2		27-Aug-15	28-Aug-15	49	Re-balance Existing AC-1 System in Admin Building
	05.20280	Re-balance Heating Water System in Admin Building	2	2		27-Aug-15	28-Aug-15	47	I Re-balance Heating Water System in Admin Building
	05.20290	Modify Existing Metal Door w/ 24" x 24" Transfer Grilles		1		27-Aug-15 27-Aug-15	27-Aug-15	48	I Modify Existing Metal Door w/ 24" x 24" Transfer Grilles
		Install Foul Air Ductwork	- I	7					
	05.20110	211 11 11 11 11 11 11 11 11 11 11 11 11	/	/		31-Aug-15	09-Sep-15	47	☐ Install Foul Air Ductwork
	05.20200	Remove and Replace Mist Eliminator	1	1		10-Sep-15	10-Sep-15	47	Remove and Replace Mist Eliminator
	05.20150	I&C - Admin	10	-		22-Sep-15	06-Oct-15	20	□ I&C - Admin
	05.20122	Mechanical (Terminations at Drive Equip.) - ADMIN	2	2			24-Sep-15	28	Mechanical (Terminations at Drive Equip.) - ADMIN
	05.20124	Tele/Data - ADMIN	1	1		22-Sep-15	23-Sep-15	29	I Tele/Data - ADMIN
	rit Chambers		26	26		19-Aug-15		27	24-Sep-15, Grit Chambers
	No Equipment		26			19-Aug-15	24-Sep-15	27	24-Sep-15, No Equipment
	05.22110	Electrical (Conduit Installs) - Grit Chamber	10	10	0%	19-Aug-15	01-Sep-15	-31	Electrical (Conduit Installs) - Grit Chamber
	05.22140	Take AG Chamber 1 Offline	1	1	0%	19-Aug-15	19-Aug-15	45	Take AG Chamber 1 Offline
	05.22150	Install PO Diffuser & Piping in AG Chamber 1	2	2	0%	20-Aug-15	21-Aug-15	45	I Install PO Diffuser & Piping in AG Chamber 1
	05.22160	Bring AG Chamber 1 Back Online	1	1	0%	24-Aug-15	24-Aug-15	45	I Bring AG Chamber 1 Back Online
	05.22170	Take AG Chamber 2 Offline	1	1	0%	25-Aug-15	25-Aug-15	45	I Take AG Chamber 2 Offline
	05.22180	Install PO Diffuser & Piping in AG Chamber 2	2	2	0%	26-Aug-15	27-Aug-15	45	I Install PO Diffuser & Piping in AG Chamber 2
	05.22190	Bring AG Chamber 2 Back Online	1	1	0%	28-Aug-15	28-Aug-15	45	I Bring AG Chamber 2 Back Online
	05.22112	Branch (Wire Pulls, Boxes to Equip) - GRIT CHAMBER	6	6	0%	02-Sep-15	10-Sep-15	-31	☐ Branch (Wire Pulls, Boxes to Equip) - GRIT CHAMBER
	05.22120	I&C - Grit Chamber	10	10		11-Sep-15		-31	I&C + Grit Chamber
	05.22111	Instrumentation (Fiber Pulls, Termination of Instrumentation) - GRIT CHAMBER	2	2	0%	11-Sep-15	14-Sep-15	-23	Instrumentation (Fiber Pulls, Termination of Instrumentation) - GP
	hemical Feed		336			29-Aug-14 A	-	1 1	
	No Equipment		336			29-Aug-14 A		9	1/4 Dog 15 No Equipment
	05.25	Chemical Feed	326			29-Aug-14 A		3	Chemical Feed
	05.25160	Electrical (Conduit Installs) - Chemical Systems	52			21-Oct-14 A		18	Electrical (Conduit Installs) - Chemical Systems
	05.25162	Power (Energization) - Chemical System	20			17-Nov-14 A	· ·	3	Power (Energization) - Chemical System
	05.71840	Check Out - Ferric Chloride Pumps	20	1		26-Mar-15 A		63	Check Out + Ferric Chloride Pumps
	05.25170	I&C - Chemical Systems	20	15		18-May-15 A		3	I&C - Chemical Systems
		·	20			-		61	
	05.71880	Check Out - Polymer Feed Pumps	3	3		20-May-15 A		61	Check Out - Polymer Feed Pumps
	05.71790	MCOPI - Phosphoric Acid Pumps	1	1		19-Aug-15	-	61	MCOPI - Phosphoric Acid Pumps
	05.71800	Check Out - Phosphoric Acid Pumps	3	3	0%	19-Aug-15	21-Aug-15	61	Check Out - Phosphoric Acid Pumps

)	onstruction (Wo	Activity Name	Woonsocket 60 Da		Duration %		Finish	Total	24-Aug-15
		, with the second secon	Duration			Clart	1 111011	Float	2015 2016
					·				Jun Jul Aug Sep Oct Nov Dec Jan Feb Mar Apr May Jun Jul Aug
	05.71860	SCADA Testing - Ferric Chloride Pumps	1	1		19-Aug-15	19-Aug-15	63	SCADA Testing Ferric Chloride Pumps
	05.25161	Lighting - Chemical System	2	2	0%	20-Aug-15	21-Aug-15	14	Lighting - Chemical System
	05.71810	Field Test - Phosphoric Acid Pumps	1	1	0%	20-Aug-15	20-Aug-15	61	Field Test - Phosphoric Acid Pumps
	05.71890	Field Test - Polymer Feed Pumps	1	1	0%	20-Aug-15	20-Aug-15	61	Field Test - Polymer Feed Pumps
	05.71820	SCADA Testing - Phosphoric Acid Pumps	1	1	0%	21-Aug-15	21-Aug-15	61	I SCADA Testing - Phosphoric Acid Pumps
	05.71900	SCADA Testing - Polymer Feed Pumps	1	1	0%	21-Aug-15	21-Aug-15	61	I SCADA Testing - Polymer Feed Pumps
	05.25163	Install Switchgear Equipment - Chemical System	2	2	0%	24-Aug-15	26-Aug-15	3	I Install Switchgear Equipment - Chemical System
	05.25164	Mechanical (Terminations at Drive Equip.) - Chemical System	4	4	0%	26-Aug-15	01-Sep-15	3	■ Mechanical (Terminations at Drive Equip.) - Chemical System
	05.25165	Instrumentation (Fiber Pulls, Termination of Instrumentation) - Chemical System	5	5	0%	01-Sep-15	09-Sep-15	3	☐ Instrumentation (Fiber Pulls, Termination of Instrumentation) - Ch
	05.25166	Tele/Data - Chemical System	1	1		09-Sep-15	10-Sep-15	3	I Téle/Data - Chemical System
	05.25180	Chemical Systems Start Up and Testing	30	30		01-Oct-15	12-Nov-15	3	Chemical Systems Start Up and Testing
	h Chemical Fa		184			23-Mar-15 A		-3	21-Dec-15 South Chemical Facility
	Equipment	Cincy	184			23-Mar-15 A		-3	✓ 21-Dec-15, South Chemical Facility ✓ 21-Dec-15, No Equipment
		S Chemical	184			23-Mar-15 A		-3	21-Dec-15, No Equipment S Chemical
	05.29100	Excavate for Foundation	20			24-Mar-15 A		20	Excavate for Foundation
	05.29100	Install Chemical Feed Pumps	20	2			03-Sep-15	10	I Install Chemical Feed Pumps
		Install Handrail	2	2		· ·	· ·	40	Install Chemican eeu Puliips Install Handrail
	05.29300					· ·	03-Sep-15		
	05.29330	Install Sump Mud Valve	1	1		·	02-Sep-15	41	I Install Sump Mud Valve
	05.29340	Install Grating @ Sump	1	1		03-Sep-15	03-Sep-15	41	Install Grating @ Sump
	05.29150	Install Piping in and around Chemical Pumps	5	5		04-Sep-15	11-Sep-15	26	☐ Install Piping in and around Chemical Pumps
	05.29160	Electrical (Conduit Installs) - S Chemical	15	15		04-Sep-15	25-Sep-15	10	Electrical (Conduit Installs) - S Chemical
	05.29310	Install Chemical Totes	1	1	0%	04-Sep-15	04-Sep-15	40	I Install Chemical Totes
	05.29320	Install Emergency Eyewash/Shower	3	3	0%	04-Sep-15	09-Sep-15	46	■ Install Emergency Eyewash/Shower
	05.29350	Re-grade Area Around South Chemical Facility	2	2	0%	10-Sep-15	11-Sep-15	46	Re-grade Area Around South Chemical Facility
	05.29190	Install PVC GLY Piping from Discharge Point to Aeration Tanks	10	10	0%	14-Sep-15	25-Sep-15	26	Install PVC GLY; Piping from Discharge; Point; to Aeration; Tanks
	05.29165	Branch (Wire Pulls, Boxes to Equip) - S. Chemical	5	5	0%	28-Sep-15	02-Oct-15	10	■ Branch (Wire Pulls, Boxes to Equip) - S. Chemical
	05.29166	I&C Branch (Wire Pulls, Boxes to Equip) - S. Chemical	1	1	0%	05-Oct-15	05-Oct-15	10	I I&C Branch (Wire Pulls, Boxes to Equip) - S. Chemical
	05.29170	I&C - S Chemical	10	10	0%	06-Oct-15	19-Oct-15	10	■ l&C - S Chemical
	05.29161	Lighting - S. Chemical	2	2	0%	06-Oct-15	07-Oct-15	25	Lighting - S. Chemical
	05.29162	Mechanical (Terminations at Drive Equip.) - S. Chemical	1	1		06-Oct-15	06-Oct-15	26	Mechanical (Terminations at Drive Equip.) - S. Chemical
	05.29163	Instrumentation (Fiber Pulls, Termination of Instrumentation) - S. Chemical	2	2		06-Oct-15	07-Oct-15	25	Instrumentation (Fiber Pulls, Termination of Instrumentation
	05.29164	Lightning Protection - S. Chemical		4			09-Oct-15	23	□ Lightning Protection - S. Chemical
	ary Sludge Pu	0 0	307	100		15-Sep-14 A		10	▼ 14-Jan-16, Primary Sludge Pump Station
	, ,	mp Station	307			15-Sep-14 A		40	da lat de Na Estimata
	Equipment 05.30	Primary Sludge Lift Station	307			15-Sep-14 A		-19	Primary Sludge Lift Station
		, ,	507	4		· ·			Electrical Equipment - Primary Sludge Lift Station
	05.30110	Electrical Equipment - Primary Sludge Lift Station	3			29-Jul-15 A	-	-19	
	05.30120	Electrical (Conduit Installs)- Primary Sludge Lift Station	40			29-Jul-15 A		-19	Electrical (Conduit Installs)- Primary Sludge Lift Station
	05.30180	Install MAU Support Frame	2	2		19-Aug-15	_	34	Install MAU Support Frame
	05.30270	Disconnect Unit Heaters & Demo Piping/flues	1	1		19-Aug-15		37	Disconnect Unit Heaters & Demo Piping/flues
	05.30280	Demo OSA Louver	1	1		19-Aug-15	19-Aug-15	41	Demo OSA Louver
	05.30290	Demo EF-6 and Controls	2	2		19-Aug-15	20-Aug-15	37	Demo EF-6 and Controls
	05.30111	Demolition - Primary Sludge Pump Station	1	1	0%	19-Aug-15	19-Aug-15	46	Pemolition - Primary Sludge Pump Station
	05.30190	Install 20MAU01 on Support Frame	2	2			24-Aug-15	34	☐ Install 20MAU01 on Support Frame
	05.30240	Install 20EXF01	1	1	0%	21-Aug-15	21-Aug-15	40	l Install 20EXF01
	05.30200	Install NG to 20MAU01	5	5	0%	25-Aug-15	31-Aug-15	34	☐ Install NG to 20MAU01
	05.30210	Install Condensate Drain Line & Nuetralizing Unit	5	5	0%	25-Aug-15	31-Aug-15	39	Install Condensate Drain Line & Nuetralizing Unit
	05.30220	Install Exterior Ductwork/Plenum	3	3	0%	25-Aug-15	27-Aug-15	34	I Install Exterior Ductwork/Plenum
	05.30220	mistali Extendi Bactworld Icham	3	0	0 70	_0 / tag . 0	_, , lag 10	0-1	

Disable Disa	ID .	Activity Name	Original	Remaining	Duration %	Start	Finish	Total	24-Aug-15
Section Decision Decision Decision Decision (1997) Brand Interest Decision (1997) Brand Int								Float	
Intelligent part part of the control of the contr	05 30230	Install Interior Ductwork	2	2	0%	28-Δυσ-15	31-Aug-15		
1.5 1.5			2				-		
Solicito Santap Prinary Stuppe Pump Station PMAD 5 5 6 0% Go-Star-15 15-Star-15 -15							-		
Branch (Wee Pulls, Sover to Exurp - Primary Studge Purp Studge Purp States 14		'	5	5					
Primary Efficient Lift Station			5	5			· ·		
Primary Estimate Lift Section Se									Branch (Wire Pulls, Boxes to Equip) - Primary Sludge Pu
Philary Efficient In Station Sale Philary Efficient Projections Sale								-23	02-Mar-16, Primary Effluent Lift
Section Content to 24 Proping Systems 20 0 88% (2-May) 15.4 15-May 15.4 15-M									▼ 02-Mar-16, Primary Effluent Lift
5.52895 Connect to 4" PE HOPE Line 5 5 0" 19-Aug-16 25-Aug-16 -16 16 16 16 16 16 16		·							Primary Effluent Lift Station
Besize Bestz Bes			20				-		
65.52276 Shorting (Contact Installs) for Now Pump Station 10 10 10 15 15 15 15 15			5	-			-	i i	
5.52275 Branch (Wire Puls, Boxes to Equip) - Primary Effuent Pump Station 10 10 10 10 10 10 10 1		· ·	3	-					
65.02290 GC for Now Pumps Filter Pump Station 1 0% in 20.04.15 0.00 c4.15 0.00 c4.		· · · ·		-		·			Electrical (Conduit Installs) for New Pump
Power (Emergization - Primary Effluent Fump Station 1	05.32275	Branch (Wire Pulls, Boxes to Equip) - Primary Effluent Pump Station	10	10	0%	18-Sep-15	01-Oct-15	-54	Branch (Wire Pulls, Boxes to Equip) - Primary Effluent Pump
65.92273 Machanical (Terminations at Drive Equip.) - Primary Effluent Pump Station 5 5 0% (02-Oct-15 08-Oct-15	05.32290	'	5	5	0%	02-Oct-15	08-Oct-15	-49	
1 1 1 1 1 1 1 1 1 1	05.32272	Power (Energization) - Primary Effluent Pump Station	1	1	0%	02-Oct-15	02-Oct-15	-45	Power (Energization) - Primary Effluent Pump Station
Agrantion Basins	05.32273	Mechanical (Terminations at Drive Equip.) - Primary Effluent Pump Station	5	5	0%	02-Oct-15	08-Oct-15	-49	Mechanical (Terminations at Drive Equip.) - Primary Effluer
Acration Basins	05.32276	I&C Branch (Wire Pulls, Boxes to Equip) - Primary Effluent Pump Station	5	5	0%	02-Oct-15	08-Oct-15	-54	1&C Branch (Wire Pulls, Boxes to Equip) - Primary Effluent
Section Research Section Res	05.32274	Instrumentation (Fiber Pulls, Termination of Instrumentation) - Primary Effluent Pump Station	5	5	0%	09-Oct-15	15-Oct-15	-54	■ Instrumentation (Fiber Pulls, Termination of Instrumentation
Section Sect	Aeration Basins		467	202	56.75%	23-Jun-14 A	26-May-16	-32	
65.40 Aerston Basins 455 197 56.7% 23-Jun-11A 26-May-16 32 1.52 1.	Aeration Basin		467	202	56.75%	23-Jun-14 A	26-May-16	-32	▼ 26-May-16, Aer
Demo & Remove Grating/Handrail @ Tanket5 3 3 0% 19-Aug-15 21-Aug-15 -31 1 Demo & Remove Grating/Handrail (9-Tanket5) 10-Aug-15 1	05.40	Aeration Basins	455	197	56.7%	23-Jun-14 A	26-May-16		Aeration Basins
Copt McOP - Vertical Mixer 1 1 0% 19-Aug-15 18 0.5.71920 Check Out - Vertical Mixer	05.41990	Install WAS-A Discharge Piping	3	1	75%	05-Jun-15 A	19-Aug-15	16	Install WAS-A Discharge Piping
Copt McOP - Vertical Mixer 1 1 0% 19-Aug-15 18 0.5.71920 Check Out - Vertical Mixer	05.41090	Demo & Remove Grating/Handrail @ Tank#5	3	3	0%	19-Aug-15	21-Aug-15	-31	Demo & Remove Grating/Handrail @ Tank#5
05.71920 Check Out - Vertical Mixer 05.71920 Field Test - Vertical Mixer 05.71930 Field Test - Vertical Mixer 1 1 0 0 0 20-Aug-15 21-Aug-15 18 Field Test - Vertical Mixer 05.71940 SCADA Testing - Vertical Mixer 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	05.71910	·	1	1			-	18	
1 1 0% 20-Aug-15 20-Aug-15 18 Field Test - Vertical Mixer 1 1 0% 20-Aug-15 21-Aug-15 31 Install Switchgear Equipment - Aeration Basin 1 1 0% 21-Aug-15 21-Aug-15 31 Install Switchgear Equipment - Aeration Basin 1 1 0% 21-Aug-15 21-Aug-15 31 Install Switchgear Equipment - Aeration Basin 1 1 0% 21-Aug-15 21-Aug-15 18 Install Switchgear Equipment - Aeration Basin 1 1 0% 21-Aug-15 21-Sep-15 -6 Install Switchgear Equipment - Aeration Basin 20 20 0% 24-Aug-15 21-Sep-15 -6 Install Switchgear Equipment - Aeration Basin 18 18 0% 24-Aug-15 21-Sep-15 -6 Install Switchgear Equipment - Aeration Basin 18 18 0% 24-Aug-15 29-Oct-15 -31 Install Switchgear Equipment - Aeration Basin 20 20 0% 24-Aug-15 29-Oct-15 -31 Install Switchgear Equipment - Aeration Basin 20 24-Aug-15 29-Oct-15 -31 Install Switchgear Equipment - Aeration Basin 20 24-Aug-15 29-Oct-15 -31 Install Switchgear Equipment - Aeration Basin 20 24-Aug-15 29-Oct-15 -31 Install Switchgear Equipment - Aeration Basin 20 24-Aug-15 29-Oct-15 -31 Install Switchgear Equipment - Aeration Basin 20 24-Aug-15 29-Oct-15 -31 Install Switchgear Equipment - Aeration Basin 20 29-Oct-15 -31 Install Switchgear Equipment - Aeration Basin 20 29-Oct-15 -31 Install Switchgear Equipment - Aeration Basin 20 29-Oct-15 -31 Install Switchgear Equipment - Aeration Basin 20 29-Oct-15 -31 Install Switchgear Equipment - Aeration Basin 20 29-Oct-15 -31 Install Switchgear Equipment - Aeration Basin 20 29-Oct-15 -31 Install Switchgear Equipment - Aeration Basin 20 29-Oct-15 -31 Install Switchgear Equipment - Aeration Basin 20 29-Oct-15 -31 Install Switchgear Equipment - Aeration Basin 20 29-Oct-15 -31 Install Switchgear Equipment - Aeration Basin 20 29-Oct-15 -31 Install Switchgear Equipment - Aeration Basin 20 29-Oct-15 -31 Install Switchgear Equi	05.71920	Check Out - Vertical Mixer	3	3				18	
05.40181 Install Switchgear Equipment - Aeration Basin 1 1 0% 21-Aug-15 21-Aug-15 31 Install Switchgear Equipment - Aeration Basin 05.40183 Instrumentation (Fiber Pulls, Termination of Instrumentation) - Aeration Basin 05.40184 Branch (Wire Pulls, Boxes to Equip) - Aeration Basin 18 18 0% 24-Aug-15 29-Oct-15 -31 Instrumentation (Fiber Pulls, Boxes to Equip) - Aeration Basin 05.40186 Permit Set New Branch - Aeration Basin 05.40186 Pe		1 11 11 11 11 11 11	1	1					
05.71940 SCADA Testing - Vertical Mixer 1 1 0% 21-Aug-15 21-Aug-15 18 05.40183 Instrumentation (Fiber Pulls, Termination of Instrumentation) - Aeration Basin 20 20 0% 24-Aug-15 21-Sep-15 -6 -6 -6 -6 -6 -6 -6 -			1	1				-31	I Install Switchgear Equipment - Aeration Basin
D5.40183 Instrumentation (Fiber Pulls, Termination of Instrumentation) - Aeration Basin 20 20 0% 24-Aug-15 21-Sep-15 -6 5.401811 5.40181 5.40181 5.40181 5.40181 5.40181 5.40181 5.401811 5.401811 5.4			1	1				18	
05.40184 Branch (Wire Pulls, Boxes to Equip) - Aeration Basin 18 18 0% 24-Aug-15 17-Sep-15 -31 05.40185 I&C Branch (Wire Pulls, Boxes to Equip) - Aeration Basin 48 48 0% 24-Aug-15 29-Oct-15 -31 05.40182 Mechanical (Terminations at Drive Equip.) - Aeration Basin 13 13 0% 18-Sep-15 06-Oct-15 -17 05.43780 Check Out - WAS Pump 05.43780 Check Out - WAS Pump 05.43780 Check Out - WAS Pump 05.43770 SCADA Testing - WAS Pump 05.42070 Install MLR Pump Platform/Handrails @ A-3 05.42070 Install Polymer Piping in Sedimentation Zone @ A-3 05.40180 Electrical Conduit and Wire @ A3 05.40180 Install RAS Pumps @ A-3 05.40200 Install Mixed Liquor Pump @ A-3		<u> </u>	30				-	-6	Instrumentation (Fiber Pulls, Termination of Instrumentation) -
18C Branch (Wire Pulls, Boxes to Equip) - Aeration Basin		· · · · · · · · · · · · · · · · · · ·					·	21	
05.40186 Permit Set New Branch - Aeration Basin 48 48 0% 24-Aug-15 29-Ct-15 -31 05.40182 Mechanical (Terminations at Drive Equip.) - Aeration Basin 13 13 0% 18-Sep-15 06-Ct-15 -17 07-Ct-15 -17 05.43780 McOPI - WAS Pump 1 1 0% 07-Ct-15 09-Ct-15 -17 05.43780 Filed Test - WAS Pump 1 1 0% 09-Ct-15 09-Ct-15 -17 09-Ct-15 -17 1 Filed Test - WAS Pump 1 1 0% 09-Ct-15 09-Ct-15 -17 1 Filed Test - WAS Pump 1 1 0% 09-Ct-15 09-Ct-15 -17 1 SCADA Testing - WAS Pump 1 1 0% 09-Ct-15 09-Ct-15 -17 1 SCADA Testing - WAS Pump 1 Filed Test - WAS Pump 1 1 0% 09-Ct-15 09-Ct-15 -17 1 SCADA Testing - WAS Pump 1 Filed Test - WAS P		, , , , , , , , , , , , , , , , , , , ,		-					
05.40182 Mechanical (Terminations at Drive Equip.) - Aeration Basin 13 13 0% 18-Sep-15 06-Oct-15 -17 05.43750 MCOPI - WAS Pump 1 1 1 0% 07-Oct-15 07-Oct-15 -17 05.43750 MCOPI - WAS Pump 0.543760 Check Out - WAS Pump 1 1 1 0% 07-Oct-15 07-Oct-15 07-Oct-15 17 09-Oct-15 17 09-Oct-15 17 09-Oct-15 17 09-Oct-15 17 09-Oct-15 07-Oct-15 07-Oc									I&C Branch (Wire Pulls, Boxes to Equip) - Aeration Bas
1 1 0% 07-Oct-15 07-									
05.43780 Check Out - WAS Pump 05.43760 Field Test - WAS Pump 05.43760 Field Test - WAS Pump 05.43770 SCADA Testing - WAS Pump 05.43770 SCADA Testing - WAS Pump 05.43770 Install MLR Pump Platform/Handrails @ A-3 05.40260 Check Out A-3 05.40170 Install MLR Pump Ping in Sedimentation Zone @ A-3 05.40210 Install Handrail & Grating @ A-3 05.40220 Install Handrail & Grating @ A-3 05.40240 Install MLR Pump @ A-3 05.40240 Install Mixed Liquor Pump @ A-3 05.40250 Install Mixed Liquor Pump @ A-3 05.40260 Check Out - WAS Pump 1 1 1 0 0 08-Oct-15 08-Oct-15 09-Oct-15 09-Oct-1		, , , , , , , , , , , , , , , , , , , ,	13	13					Mechanical (Terminations at Drive Equip.) - Aeration Basin
1 1 0% 08-Oct-15 08-Oct-15 08-Oct-15 08-Oct-15 08-Oct-15 08-Oct-15 09-Oct-15 09-		·	1	1					
1 1 0% 09-Oct-15 09-Oct-15 -17 1 SCADA Testing - WAS Pump 1 1 0% 09-Oct-15 09-Oct-15 -17 1 SCADA Testing - WAS Pump 1 1 0% 09-Oct-15 09-Oct-15 -17 1 SCADA Testing - WAS Pump 1 1 0% 09-Oct-15 09-Oct-15 -17 1 SCADA Testing - WAS Pump 1 07-Oct-15 09-Oct-15 09-O	05.43780	2 22 22 2 P	3	3				-17	
Aeration Basin A3 80 36 55% 28-May-15 A 07-Oct-15 -41 ▼ 07-Oct-15, Aeration Base 05.42070 05.42070 Install MLR Pump Platform/Handrails @ A-3 3 1 65% 28-May-15A 20-Aug-15 -9 Install MLR Pump Platform/Handrails @ A-3 Install MLR Pump Platform/Handrails @ A-3 -9 Install MLR Pump Platform/Handrails @ A-3 -9 Install MLR Pump Platform/Handrails @ A-3 -9 Install MLR Pump Platform/Handrail Base 05.42150 -9 Install Polymer Piping in Sedimen 25.42150 -9 -9 Install Polymer Piping in Sedimen 25.42150 -9 -9 -9 -9 -9 -9 -9 -9 -9 -9 -9 -9 -9 -9 -9 -1 -9 -1 -9 -9 -9 -9 -9 -9 -9	05.43760	Field Test - WAS Pump	1	1	0%	08-Oct-15	08-Oct-15	-17	
05.42070 Install MLR Pump Platform/Handrails @ A-3 1 65% 28-May-15A 20-Aug-15 -9 05.40260 Check Out A-3 8 35 0% 14-Jul-15A 07-Oct-15 -40 05.40260 Check Out A-3 05.42150 Install Polymer Piping in Sedimentation Zone @ A-3 1 75% 20-Jul-15A 24-Aug-15 -24 1 Install Polymer Piping in Sedimentation Zone @ A-3 1 75% 29-Jul-15A 16-Sep-15 -40 1 Install Polymer Piping in Sediment Piping in Se	05.43770	SCADA Testing - WAS Pump	1	1				-17	I SCADA Testing - WAS Pump
05.40260 Check Out A-3 05.42150 Install Polymer Piping in Sedimentation Zone @ A-3 05.40180 Electrical Conduit and Wire @ A3 05.40170 Instrumentation Conduit and Wire @ A3 05.42140 Install Handrail & Grating @ A-3 05.40220 Install RAS Pumps @ A-3 05.40240 Install Mixed Liquor Pump @ A-3 8 35 0% 14-Jul-15 A 07-Oct-15 -40 20-Jul-15 A 24-Aug-15 -24 20-Jul-15 A 16-Sep-15 -40 21 Install Polymer Piping in Sedimentation Conduit and Wire @ A3 27.78% 29-Jul-15 A 04-Sep-15 -33 3 27.78% 29-Jul-15 A 04-Sep-15 -33 4 Install Handrail & Grating @ A-3 5 10 1 1 Install Handrail & Grating @ A-3 5 2 2 0% 19-Aug-15 20-Aug-15 -22 6 1 Install RAS Pumps @ A-3 6 1 Install RAS Pumps @ A-3 6 1 Install RAS Pumps @ A-3 7 20 25.93% 29-Jul-15 A 16-Sep-15 -40 8 2 2 0% 19-Aug-15 20-Aug-15 -22 8 2 2 0-Aug-15 -22 8 3 3 1 1 75% 20-Aug-15 -22 9 3 3 3 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Aeration Basin A3		80	36				-41	▼ 07-Oct-15, Aeration Basin A3
05.40260 Check Out A-3 8 35 0% 14-Jul-15 A 07-Oct-15 -40 Check Out A-3 05.42150 Install Polymer Piping in Sedimentation Zone @ A-3 3 1 75% 20-Jul-15 A 24-Aug-15 -24 Install Polymer Piping in Sedimer Piping in Se	05.42070	Install MLR Pump Platform/Handrails @ A-3	3	1	65%	28-May-15 A	20-Aug-15	-9	Install MLR Pump Platform/Handrails @ A-3
05.40180 Electrical Conduit and Wire @ A3 27 20 25.93% 29-Jul-15 A 16-Sep-15 -40 Electrical Conduit and Wire @ A0 05.40170 Instrumentation Conduit and Wire @ A3 18 13 27.78% 29-Jul-15 A 04-Sep-15 -33 Instrumentation Conduit and Wire @ A0 05.42140 Install Handrail & Grating @ A-3 12 6 50% 12-Aug-15 A 26-Aug-15 -26 Install Handrail & Grating @ A-3 05.40220 Install RAS Pumps @ A-3 3 3 0% 19-Aug-15 21-Aug-15 -23 Install RAS Pumps @ A-3 05.40240 Install Mixed Liquor Pump @ A-3 2 2 0% 19-Aug-15 20-Aug-15 -22 Install Mixed Liquor Pump @ A-3	05.40260	Check Out A-3	8	35	0%	14-Jul-15 A	07-Oct-15	-40	Check Out A-3
05.40170 Instrumentation Conduit and Wire @ A3 18 13 27.78% 29-Jul-15 A 04-Sep-15 -33 Instrumentation Conduit and Wire @ A3 05.42140 Install Handrail & Grating @ A-3 12 6 50% 12-Aug-15 A 26-Aug-15 -26 Install Handrail & Grating @ A-3 05.40220 Install RAS Pumps @ A-3 3 0% 19-Aug-15 21-Aug-15 -23 Install RAS Pumps @ A-3 05.40240 Install Mixed Liquor Pump @ A-3 2 2 0% 19-Aug-15 20-Aug-15 -22 Install Mixed Liquor Pump @ A-3	05.42150	Install Polymer Piping in Sedimentation Zone @ A-3	3	1	75%	20-Jul-15 A	24-Aug-15	-24	Install Polymer Piping in Sedimentation Zone @ A-3
05.42140 Install Handrail & Grating @ A-3 12 6 50% 12-Aug-15 A 26-Aug-15 -26 Install Handrail & Grating @ A-3 05.40220 Install RAS Pumps @ A-3 3 3 0% 19-Aug-15 21-Aug-15 -23 1 Install RAS Pumps @ A-3 05.40240 Install Mixed Liquor Pump @ A-3 2 2 0% 19-Aug-15 20-Aug-15 -22 1 Install Mixed Liquor Pump @ A-3	05.40180	Electrical Conduit and Wire @ A3	27	20	25.93%	29-Jul-15 A	16-Sep-15	-40	Electrical Conduit and Wire @ A3
05.40220 Install RAS Pumps @ A-3 3 3 0% 19-Aug-15 21-Aug-15 -23 I Install RAS Pumps @ A-3 05.40240 Install Mixed Liquor Pump @ A-3 2 2 0% 19-Aug-15 20-Aug-15 -22 I Install Mixed Liquor Pump @ A-3	05.40170	Instrumentation Conduit and Wire @ A3	18	13	27.78%	29-Jul-15 A	04-Sep-15	-33	Instrumentation Conduit and Wire @ A3
05.40240 Install Mixed Liquor Pump @ A-3 2 0% 19-Aug-15 20-Aug-15 -22 I Install Mixed Liquor Pump @ A-3	05.42140	Install Handrail & Grating @ A-3	12	6	50%	12-Aug-15 A	26-Aug-15	-26	Install Handrail & Grating @ A-3
	05.40220	Install RAS Pumps @ A-3	3	3	0%	19-Aug-15	21-Aug-15	-23	Install RAS Pumps @ A-3
	05.40240	Install Mixed Liquor Pump @ A-3	2	2			-	-22	Install Mixed Liquor Pump @ A-3
	05.40250	·	12	12			_	-40	Equipment Terminations @ A-3
		· · · · · · · · · · · · · · · · · · ·	1			'		L ' '	

	Construction (We	Activity Name	Woonsocket 60 D Origina		Duration %		art Finish	Total	24-Aug-15
			Duration					Float	2015 2016
								$\overline{}$	May Jun Jul Aug Sep Oct Nov Dec Jan Feb Mar Apr May Jun Jul Aug
	05.43690	MCOPI MLR Pump - A3	1	1		17-Sep-15	17-Sep-15	-29	I MCOPI MLR Pump - A3
	05.71230	Field Test MLR Pump - A3	1	1	-	18-Sep-15	18-Sep-15	-29	I Field Test MLR Pump - A3
	05.71290	SCADA Test MLR Pump - A3	1	1		· ·	21-Sep-15	-29	I SCADA Test MLR Pump - A3
	05.43700	MCOPI RAS Pump - A3	1	1			05-Oct-15	-41	I MÇOPI RAS Pump - A3
	05.43710	MCOPI Submersible Mixer - A3	1	1	0%	05-Oct-15	05-Oct-15	-41	I MCOPI Submersible Mixer - A3
	05.43720	MCOPI Diffusers - A3	1	1	0%	05-Oct-15	05-Oct-15	-41	I MCOPI Diffusers - A3
	05.71270	Field Test Chain and Flight - A3	1	1	0%	05-Oct-15	05-Oct-15	-40	I Field Test Chain and Flight - A3
	05.71280	Field Test Plate Settler - A3	1	1	0%	05-Oct-15	05-Oct-15	-39	I Field Test Plate Settler - A3
	05.71240	Field Test RAS Pump - A3	1	1	0%	06-Oct-15	06-Oct-15	-41	I Field Test RA\$ Pump - A3
	05.71250	Field Test Submersible Mixer - A3	1	1	0%	06-Oct-15	06-Oct-15	-41	I Field Test Submersible Mixer - A3
	05.71260	Field Test Diffusers - A3	2	2 2	0%	06-Oct-15	07-Oct-15	-41	☐ Field Test Diffusers - A3
	05.71330	SCADA Test Chain and Flight - A3	1	1	0%	06-Oct-15	06-Oct-15	-40	SCADA Test Chain and Flight - A3
	05.71300	SCADA Test RAS Pump - A3	1	1	0%	07-Oct-15	07-Oct-15	-41	I SCADA Test RAS Pump - A3
	05.71310	SCADA Test Submersible Mixer - A3	1	1			07-Oct-15	-41	I SCADA Test Submersible Mixer - A3
	Aeration Basin A		197	112		23-Apr-15 A	21-Jan-16	-58	21-Jan-16 Aeration Basin A2
	05.42250	Install Rebar @ Baffle Wall @ Col 7 in A-2	2			23-Apr-15 A		25	Install Rebar @ Baffle Wall @ Col 7 in A-2
	05.42260	Form @ Baffle Wall @ Col 7 in A-2	5	5 2		23-Apr-15 A	-	25	Form @ Baffle Wall @ Col 7 in A-2
	05.42270	Place Concrete @ Baffle Wall @ Col 7 in A-2	2	2 1		07-May-15 A		25	I Place Concrete @ Baffle Wall @ Col 7 in A-2
	05.42560	Install Plate Settler Sections @ A-2		5 1	-	10-Jun-15 A	-	37	Install Plate Settler Sections @ A-2
	05.40490	Install Chain & Flight Mechanisms @ A-2	15			29-Jun-15 A	-	37	Install Chain & Flight Mechanisms @ A-2
	05.42510	Install Diffusers in A-2	20	-		21-Jul-15 A	· ·	32	Install Diffusers in A-2
	05.42310	Install Handrail/Grating @ Channel in A-2	20	3 3		19-Aug-15	· ·	21	I Install Handrail/Grating @ Channel in A-2
	05.42440	-	3				-		
		Install MLR Pump Can @ A-2		2 2			20-Aug-15	28	Install MLR Pump Can @ A-2
_	05.42470	Install MLR Piping @ A-2		2 2			20-Aug-15	28	Install MLR Piping @ A-2
	05.42480	Dowel and install Rebar @ MLR Opening in A-2	2	2 2			24-Aug-15	28	Dowel and install Rebar @ MLR Opening in A-2
	05.42590	Install Mixed Liquor Pump @ A-2	1	1			21-Aug-15	47	I Install Mixed Liquor Pump @ A-2
	05.42220	Repair Lower Portion of Baffle Walls (Col 5 & 6) @ A-2	5	5 5			28-Aug-15	21	Repair Lower Portion of Baffle Walls (Col 5 & 6) @ A-2
	05.42570	Install Plate Settler Effluent Troughs @ A-2	5	5 5		24-Aug-15	0	42	☐ Install Plate Settler Effluent Troughs @ A-2
	05.42490	Form & Place Concrete @ Opening for MLR in A-2	2	2 2		25-Aug-15	-	28	Form & Place Concrete @ Opening for MLR in A-2
	05.42380	Install Handrail & Grating @ Sedimentation Zone @ A-2	5	5 5		31-Aug-15		21	Install Handrail & Grating @ Sedimentation Zone @ A-2
	05.42500	Strip Forms @ MLR Closure in A-2	1	1	0%	08-Sep-15	08-Sep-15	21	I Strip Forms @ MLR Closure in A-2
	05.40510	Install 2" Fiber Reinforced Grout Infill in Sedimentation Zone @ A-2	2	2 2	0%	08-Sep-15	10-Sep-15	38	Install 2" Fiber Reinforced Grout Infill in Sedimentation Zone @
	05.42450	Install MLR Pump Platform/Handrails @ A-2	3	3	0%	09-Sep-15	11-Sep-15	21	■ Install MLR Pump Platform/Handrails @ A-2
	05.42540	Install PA Header in A-2 (excluding Area in Sedimentation Zone)	10	10	0%	14-Sep-15	25-Sep-15	21	Install PA Header in A-2 (excluding Area in Sedimentation Zo
	05.42550	Install PA Drops to Diffusers in @ A-2	5	5 5	0%	28-Sep-15	02-Oct-15	21	Install PA Drops to Diffusers in @ A-2
	05.42160	Check Out A-2	73	3 73	0%	07-Oct-15	21-Jan-16	-54	Check Out A-2
	05.71340	MCOPI MLR Pump - A2	1	1	0%	07-Oct-15	07-Oct-15	16	I MCOPIMLR Pump - A2
	05.71380	MCOPI Submersible Mixer - A2	1	1	0%	07-Oct-15	07-Oct-15	16	I MCOPI Submersible Mixer - A2
	05.71390	MCOPI Diffusers - A2	1	1		07-Oct-15	07-Oct-15	16	I MCOPI Diffusers - A2
	05.71400	MCOPI Chain and Flight - A2	1	1	-		07-Oct-15	16	I MCOPI Chain and Flight - A2
	05.71410	MCOPI Plate Settler - A2	1	1		07-Oct-15	07-Oct-15	17	I MCOPI Plate Settler - A2
	05.71350	Field Test MLR Pump - A2	1	1		08-Oct-15	08-Oct-15	16	I Field Test MLR Pump - A2
	05.71430	Field Test Submersible Mixer - A2	1	1			08-Oct-15	16	I Field Test Submersible Mixer - A2
	05.71440	Field Test Diffusers - A2		2 2	-	08-Oct-15	09-Oct-15	16	Field Test Diffusers - A2
	05.71440	Field Test Chain and Flight - A2	1			08-Oct-15	08-Oct-15	16	Field Test Chain and Flight - A2
_	05.71460	Field Test Plate Settler - A2		1		08-Oct-15	08-Oct-15	17	I Field Test Plate Settler - A2
_				1	-			16	
	05.71360	SCADA Test MLR Pump - A2		1	0%	09-Oct-15	09-Oct-15	101	SCADA Test MLR Pump - A2

et Construction (Wo	Activity Name						Total			
		Duration Dura		Finish	Float	t 2015 2016				
05.74.400	COADAT LO L. TLAF		4	20/ 20 0 1 15	22 2 1 15		r May Jun Jul Aug Sep Oct Nov Dec Jan Feb Mar Apr May Jun Jul Au			
05.71480	SCADA Test Submersible Mixer - A2	1	1	111 111 111	09-Oct-15	16				
05.71490	SCADA Test Chain and Flight - A2	1	1	111 111 111	09-Oct-15	16				
eturn Sludge PS		310	74	76.19% 23-Jun-14 A		12	2			
No Equipment	Deture Cludes DC	310	74	كالمتحالية بالمنافق المتحالة		12	30-Nov-15, No Equipment			
05.50	Return Sludge PS	301	71	76.47% 23-Jun-14 A		12				
05.50160	I&C - Return Sludge PS	10	3	72% 02-Feb-15 A		-29				
05.50161	Branch (Wire Pulls, Boxes to Equip) - Return Sludge PS	40	14	65% 02-Feb-15 A		-37				
05.50162	I&C Branch (Wire Pulls, Boxes to Equip) - Return Sludge PS	10	3	68% 02-Feb-15 A		-29				
05.50150	Electrical (Conduit Installs) - Return Sludge PS	60	7	88% 26-Mar-15 A	·	-37				
05.50180	Electrical Equipment (SWBD)	20	2	90% 01-Apr-15 A	· ·	5	Electrical Equipment (SWBD)			
05.50155	Power (Energization) - Return Sludge PS	1	0	65% 01-Apr-15 A		-37				
05.50256	Install New Electrical Gear	20	2	90% 01-Apr-15 A	_	22				
05.50156	Install Switchgear Equipment - Return Sludge PS	21	3	88% 03-Apr-15 A			The state of the s			
05.50154	Lighting - Return Sludge PS	1	0	55% 20-Apr-15 A		-37	7 I Lighting - Return Sludge PS			
05.50260	Install New Electrical Gear	15	3	80% 01-Jul-15 A	-	-29				
05.50680	Install SA Ductwork to Electrical Room	5	5	10% 03-Aug-15 A	28-Aug-15	57				
05.50280	Demo & Remove Existing Control Panel	2	2	0% 19-Aug-15	-	15	Demo & Remove Existing Control Panel			
05.50350	Relocate Electrical Panels & conduits on Int. Wall	5	5	0% 19-Aug-15	25-Aug-15	13	□ Relocate Electrical Panels & conduits on Int. Wall			
05.50430	Demo & Remove Electrical Room Exhaust Fan	1	1	0% 19-Aug-15	19-Aug-15	63	Demo & Remove Electrical Room Exhaust Fah			
05.50470	Install Fire Extinguishers	1	1	0% 19-Aug-15	19-Aug-15	77	7 Install Fire Extinguishers			
05.50610	Install SA & OSA Ductwork in Pump Room	5	5	0% 19-Aug-15	25-Aug-15	59	I Install SA & OSA Ductwork in Pump Room			
05.50620	Reconnect HWS & HWR to 50MAU01	2	2	0% 19-Aug-15	20-Aug-15	62	Reconnect HWS & HWR to 50MAU01			
05.50640	Install 50EXF01 on Roof	2	2	0% 19-Aug-15	20-Aug-15	62	2			
05.50760	Demo & Remove Existing Hoffman Blower No. 2	3	3	0% 19-Aug-15	21-Aug-15	16	Demo & Remove Existing Hoffman Blower No. 2			
05.50550	Demo & Remove Blower Control Panel Pad	1	1	0% 21-Aug-15	21-Aug-15	15	Demo & Remove Blower Control Panel Pad			
05.50710	Install Temperature Controls @ Electrical Room	5	5	0% 21-Aug-15	28-Aug-15	62	Install Temperature Controls @ Electrical Room			
05.50630	Install Temperature Controls in Pump Room	5	5	0% 26-Aug-15	01-Sep-15	59	Install Temperature Controls in Pump Room			
05.50740	Install SA Duct in Hallway	1	1	0% 27-Aug-15	28-Aug-15	62	I Install SA Duct in Hallway			
05.50690	Install 50EHU01 & 02 in Electric Room	2	2	0% 28-Aug-15	01-Sep-15	60				
05.50700	Insulate SA Ductwork	5	5		04-Sep-15	57				
05.50590	Startup & Test New Process Air Blower	5	5	0% 31-Aug-15		10				
05.50750	Startup & Test HVAC System @ RAS Building	5	5		14-Sep-15	57				
05.50720	Re-balance HW System	2	2		16-Sep-15	57				
05.50730	Re-balance H&V-2 System	2	2	·	18-Sep-15	57				
05.50157	Mechanical (Terminations at Drive Equip.) - Return Sludge PS	9	9		21-Oct-15	-37				
L Splitter Box	Modification of State Equip., Trotain Glodge 10	176	95	46.08% 28-Apr-15 A		-9	29-Dec-15, ML Splitter Box			
No Equipment		176	95			-9	29-Dec-15, No Equipment			
05.55	Mixed Liquor Splitter box	170	91	46.53% 28-Apr-15 A		-8	Mixed Liquor Solitter box			
05.55123	Branch (Wire Pulls, Boxes to Equip) - ML Splitter Box	3	2	35% 28-Apr-15 A		16				
05.55124	I&C Branch (Wire Pulls, Boxes to Equip) - ML Splitter Box	2	1	35% 28-Apr-15 A		11	 			
05.55120	Electrical (Conduit Installs) - ML Splitter	10	7	35% 28-Apr-15 A		11				
05.55110	Install AG ML Piping	3	0	90% 04-Aug-15 A	-	-43				
05.55150	ML Return Core Hole	1	1		19-Aug-15	11				
05.71950	MCOPI Mixed Liquor Sample Pump - ML Splitter Box	5	5		25-Aug-15	14				
05.71960	Check Out Mixed Liquor Sample Pump - ML Splitter Box	15	15		08-Sep-15	14				
05.71960	Field Test Mixed Liquor Sample Pump - ML Splitter Box	5	5		00-Sep-15 01-Sep-15	14				
05.71970	I&C - ML Splitter	5	5		· ·					
	IαU - IVIL OPIILLEI	5	5	0% 31-Aug-15	08-Sep-15	11	. ιας - ινήμ δριίπει			

)	/orking Schedule) Activity Name	Woonsocket 60 Da	<u>, </u>	Duration % Start	Finish	Total	Total 24-Aug-15 08			
,	Activity Ivame	Duration	Complete	1 11 11511	Float	Float 2015 2016				
						Ī	r May Jun Jul Aug Sep Oct Nov Dec Jan Feb Mar Apr May Jun Jul Au			
05.71980	SCADA Test Mixed Liquor Sample Pump - ML Splitter Box	5	5	0% 02-Sep-15	08-Sep-15	14	SCADA Test Mixed Liquor Sample Pump - ML Splitter Box			
05.55121	Mechanical (Terminations at Drive Equip.) - ML Splitter Box	2	2	0% 08-Sep-15	10-Sep-15	11	Mechanical (Terminations at Drive Equip.) - ML Splitter Box			
05.55122	Instrumentation (Fiber Pulls, Termination of Instrumentation) - ML Splitter Box	1	1	0% 10-Sep-15	11-Sep-15	11				
Effluent Filter Bld	lg	236	121	48.78% 16-Feb-15 A	10-Feb-16	-38	10-Feb-16, Effluent Filter Bldg			
No Equipment		236	121	48.78% 16-Feb-15 A	10-Feb-16	-38	10-Feb-16, No Equipment			
05.60	Effluent Filter Bldg	236	121	48.78% 16-Feb-15 A	10-Feb-16	-38				
05.60110	Electrical (Conduit Installs) - Effluent Filter	15	8	45% 09-Apr-15 A	31-Aug-15	20				
05.60116	Branch (Wire Pulls, Boxes to Equip) - Effluent Filter	4	2	50% 14-Apr-15 A	02-Sep-15	20				
05.60580	Remove Filter Media (East Side)	20	10	50% 05-Aug-15 A	24-Sep-15	20	Remove Filter Media (East Side)			
05.60570	Paint Structural Steel (East Side)	5	5	0% 12-Aug-15 A	01-Oct-15	20	Paint Structural Steel (East Side)			
05.60111	Demolition - Effluent Filter	1	1	0% 19-Aug-15	19-Aug-15	28	Demolition - Effluent Fifter			
05.60112	Install Switchgear Equipment - Effluent Filter	1	1	0% 20-Aug-15	20-Aug-15	28	Install Switchgeat Equipment - Effluent Filter			
05.60113	Mechanical (Terminations at Drive Equip.) - Effluent Filter	2	2	0% 02-Sep-15	04-Sep-15	20	Mechanical (Terminations at Drive Equip.) - Effluent Filter			
05.60114	Instrumentation (Fiber Pulls, Termination of Instrumentation) - Effluent Filter	1	1	0% 04-Sep-15	08-Sep-15	20	Instrumentation (Fiber Pulls, Termination of Instrumentation) -			
05.60115	Tele/Data - Effluent Filter	2	2	0% 08-Sep-15	10-Sep-15	20				
05.60590	Replace Filter Components (East Side)	5	5	0% 01-Oct-15	08-Oct-15	20				
05.60600	Install New Media (East Side)	3	3	0% 08-Oct-15	13-Oct-15	20				
05.60610	Startup East Side Filters	5	5	0% 13-Oct-15	20-Oct-15	20				
Chlorination		351	75			8	04 Doo 15 Obloringtion			
No Equipment		351	75			8	OALDON TO NI FORMANIA			
05.68	Chlorination	351	75			8	Chlorination			
05.68125	Lighting - Chlorination	5	0			34	Lighting Chlorination			
05.68150	Electrical (Conduit Installs) - Chlorination	60	19	68% 17-Feb-15 A	· ·	8	Electrical (Conduit Installs) - Chlorination			
05.68126	Power (Energization) - Chlorination	10	3		· ·	34				
05.68132	Branch (Wire Pulls, Boxes to Equip) - Chlorination	25	10		· ·	17	<u>- </u>			
05.68127	Install Switchgear Equipment - Chlorination	31	2		· ·	34				
05.68133	I&C Branch (Wire Pulls, Boxes to Equip) - Chlorination	19	11		·	8	I&C Branch (Wire Pulls, Boxes to Equip) - Chlorination			
05.68370	Install EA Duct and Damper in Elec. Room	2	0	-		53				
05.68390	Install SA & OSA Ductwork in Elec. Room	3	0			48				
05.68129	Instrumentation (Fiber Pulls, Termination of Instrumentation) - Chlorination	1	0		-	23	4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			
05.68400	Install Condensate Drain Line in Elec. Room	2	0	90% 04-Aug-15 A	· ·	53				
05.68410	Install 68EHU01 & 02 in Elec. Room	3	0	90% 04-Aug-15 A	_	48				
05.68480	Install TW Piping System in Basement	5	1	80% 04-Aug-15 A	-	49	4			
	Demo & Remove Bisulfite Room Exhaust Fan/Wall	2								
05.68280	Demo & Remove Bisulfite Room Demo & Remove RA Grill @ Bisulfite Room	2	2		-	43				
05.68290	-	2	1		21-Aug-15	43	4: : : : : : : : : : : : : : : : : : :			
05.68310	Install 68EXF01 @ Bisulfite Room	2	- 2	0% 21-Aug-15	-					
05.68300	Infill RA Grill Opening @ Bisulfite Room		- 2	0% 24-Aug-15	-	43				
05.68430	Install Temperature Controls for Chlorine Bldg.	5	5	0% 25-Aug-15	_	44				
05.68460	Prep & Paint @ Bisulfite Room	5	5		01-Sep-15	43	4: : : : : : : : : : : : : : : : : : :			
05.68131	Tele/Data - Chlorination	1	1	0% 02-Sep-15	03-Sep-15	42				
05.68128	Mechanical (Terminations at Drive Equip.) - Chlorination	3	3	0% 10-Sep-15	15-Sep-15	34	- - - - - - - - - - - - - - - - -			
05.68160	I&C - Chlorination	20	20	<u>'</u>	28-Oct-15	8	I&C - Chlorination			
05.68350	Startup & Test Chlorine Bldg. HVAC	5	5	0% 30-Sep-15		23				
Electrical Bldg		251	36			-46	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			
No Equipment	Flashing Did.	251	36			-46	08-Oct-15, No Equipment			
05.70	Electrical Bldg	244	35		-	-45				
05.70156	Install Switchgear Equipment - Electrical Building	10	1	88% 26-Mar-15 A	15-Sep-15	-45	Install Switchgear Equipment - Electrical Building			

	t Construction (Wo	orking Schedule)	Woonsocket 60 Da	ay Look Ahe	ad Layout (C	om				24-Aug-15
ID		Activity Name			Duration %	Start	Finish	Total _ Float	2015	2016
			Duration	Duration	Complete			rioat		Oct Nov Dec Jan Feb Mar Apr May Jun Jul Aug
	05.70166	Repair/rework Electrical Building Slab	15	3	80%	13-May-15 A	21-Aug-15	-13		r/rework Electrical Building Slab
	05.70140	Electrical Equip Install	20	3	85%	22-Jul-15 A	21-Aug-15	-41	Electri	cal Equip Install
	05.70167	Instrumentation (Fiber Pulls, Termination of Instrumentation) - Electrical Building	5	1	85%	27-Jul-15 A	30-Sep-15	-45	i i	Instrumentation (Fiber Pulls, Termination of Instrumentation)
	05.70230	Install Temperature Controls	2	0	90%	04-Aug-15 A	19-Aug-15	-17	nstall n	Temperature Controls
	05.70310	I&C - Electrical Building	10	4	64.5%	10-Aug-15 A	24-Aug-15	-19	I&C -	Electrical Building
	05.70169	Branch (Wire Pulls, Boxes to Equip) - Electrical Building	10	8	25%	10-Aug-15 A	28-Aug-15	-45	■ Bran	ch (Wire Pulls, Boxes to Equip) - Electrical Building
	05.70145	Lighting - Electrical Building	2	1	45%	11-Aug-15 A	31-Aug-15	-45	■ 🛭 Ligḥ	ting - Electrical Building
	05.70171	I&C Branch (Wire Pulls, Boxes to Equip) - Electrical Building	10	4	60%	11-Aug-15 A	24-Aug-15	-21	I&C E	Branch (Wire Pulls, Boxes to Equip) - Electrical Building
	05.70240	Install Condensate Drains for ACU's	2	2	0%	19-Aug-15	20-Aug-15	-29	I Install	Condensate Drains for ACU's
	05.70260	Install Splash Blocks	1	1	0%	19-Aug-15	19-Aug-15	-28	Install	Splash Blocks
	05.70320	Permanent Power Available	0	0	0%		28-Aug-15*	-37	◆ Perm	nanent Power Available
	05.70155	Power (Energization) - Electrical Building	10	10	0%	31-Aug-15	15-Sep-15	-45	□ P	Power (Energization) - Electrical Building
	05.70157	Mechanical (Terminations at Drive Equip.) - Electrical Building	10	10	0%	15-Sep-15	29-Sep-15	-45		Mechanical (Terminations at Drive Equip.) - Electrical Buildir
	05.70168	Lightning Protection - Electrical Building	1	1	0%	30-Sep-15	01-Oct-15	-45	<u> </u>	Lightning Protection - Electrical Building
	05.70180	SCADA Upgrade and Test - Electrical Building	5	5	0%	01-Oct-15	08-Oct-15	-45		SCADA Upgrade and Test - Electrical Building
Ge	enerator Set		201	18	91.19%	27-Oct-14 A	14-Sep-15	-37	▼ 1/	4-Sep-15, Generator Set
	No Equipment		201	18		27-Oct-14 A		-37	1	4-Sep-15, No Equipment
	05.71	Generator	201	18		27-Oct-14 A	· ·	-37	G	enerator
	05.71112	Install Generator Electrical - Generator Set	12	1	95%	03-Feb-15 A	19-Aug-15	-31	Install	Generator Electrical - Generator Set
	05.71113	Grounding - Generator Set	8	0	97.99%	18-May-15 A	20-Aug-15	-31	Groun	ding - Generator Set
	05.71114	Lightning Protection - Generator Set	1	1		20-Aug-15		-31		ing Protection - Generator Set
	05.71140	Start Up and Test - Switchgear/Generator	10	10	0%	31-Aug-15*	14-Sep-15	-37	□ S	tart Up and Test - Switchgear/Generator
Star	tup & Comm	nissioning	238	238	0%	19-Aug-15	17-Jul-16	-32	T	▼ 17-J
	No Equipment		238	238	0%	19-Aug-15	17-Jul-16	-32		1 7-Jı
	0610030	Plant Wide Startup and Testing	334	334	0%	19-Aug-15	17-Jul-16	-46		Plan
	0610070	Electrical Study	30	30	0%	19-Aug-15	29-Sep-15	98		Electrical Study
	0610080	Arch Flash Study	30	30	0%	19-Aug-15	29-Sep-15	98		Arch Flash Study

Data date: 19-Aug-15