WRRF Complex II Fire Remediation Update

GLWA Board of Directors February 28, 2018



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Introduction Biosolids Handling Before the Fire

- 1) Two Dewatering Complexes
 - Complex I 10 Belt Filter Presses
 - Complex II 12 Belt Filter Presses, 4 Centrifuges
- 2) Two Incineration Complexes
 - Complex I 6 Incinerators Scheduled to be Decommissioned in March 2016
 - Complex II 8 Incinerators In Process of Being Upgraded to Meet New Air Emission Standards
- 3) Newly Constructed Biosolids Dryer Facility (BDF)
 - In Performance Testing Phase with Partial Capacity to Process
 - Issues with Reliability and Throughput Identified



Introduction Biosolids Handling Before the Fire





March 4, 2016 The Fire





The Fire Brief Overview

- Early morning of March 4, 2016 fire broke out on a sludge conveyor belt
- Two fire departments responded
- Hot spots/flare ups continued to develop
- Fire was extinguished
- No injuries were sustained
- Much building and equipment damage occurred
- Biosolids continued to be processed



The Fire Brief Overview





Damaged Equipment and Facilities Initial Identification of Damage

- 7 Sludge Conveyors
- Catwalks
- Structural Steel Roof Support
- Roof
- Wall Panels
- Crane Monorail System

- Elevator
- Lighting
- Fire and Soot Damage
- Electrical Wiring
- Control Systems
- Piping



Damaged Equipment and Facilities Location of Fire Damage



Great Lakes water Autnority

Damaged Equipment and Facilities Northside Conveyors



Damaged Equipment and Facilities





Damaged Equipment and Facilities Concrete Roof Slab Replacement Areas

Roof Damage





Damaged Equipment and Facilities Concrete Roof Structural Steel Replacement



ROOF FRAMING PLAN

NOT TO SCALE





Damaged Equipment and Facilities





Damaged Equipment and Facilities North Wall Siding Damage



HEAT AFFECTED SIDING AT INTERIOR

SECTION LOOKING NORTH ALONG Ga

Damaged Equipment and Facilities Soot and Damaged Paint on Walls





Post-Fire Operational Status

- All of the Complex I dewatering equipment and conveyors were undamaged and continued to be operable.
- The Complex I incinerators were undamaged and continued to operate, however they were aged and out of compliance with current air emission standards.
- Complex II dewatering area sustained some damage and was inoperable initially.
- Several of the conveyors that feed Complex II incinerators were severely damaged and inoperable
- Much of Complex II incinerators' control systems, electrical system, elevator, catwalks and monorail crane were damaged and unable to be utilized and the area was uninhabitable due to soot.
- BDF remained unaffected, in testing phase with throughput and reliability issues.
- Offloading and landfilling were unaffected and remained as options for solids disposal.



Remediation Effort





Remediation Effort Cross-Functional Team Was Key

- Ad Hoc Fire Remediation Team Was Formed
 - \checkmark Decision process and authority
 - ✓ Insurer's requirements
 - ✓ Execute recovery work
 - ✓ Review progress
 - ✓ Address issues
 - ✓ Weekly progress meetings
- Cross Functional Team Members
 - ✓ Construction Engineering Group Engineers and Inspectors
 - ✓ Operations
 - ✓ Procurement
 - ✓ Financial Reporting and Analysis
 - ✓ Legal
 - ✓ Enterprise Risk Management
 - ✓ Consultants
 - ✓ Contractors
 - ✓ Insurance Companies



Remediation Effort Progressive Discovery of Damage

As detailed inspections were conducted, observations identified additional damage and added equipment and facility needs

- Complete monorail system replacement
- Numerous incinerator burner actuators replacement
- Burner control cabinet repairs
- Extensive conveyor frame repairs
- Aged motor control center determined to be inadequate for new equipment
- Structural steel and bolts in the roofing system needing attention outside the fire-effected area
- Changes in building codes since the original equipment installation, i.e. steel bracing, monorail, fire protection piping



Remediation Effort

Damaged Facility and Equipment Work

- 1 Building steel replacement
- 2 Siding and roofing replacement
- 3 Wiring repairs and replacement
- 4 Burner control cabinets repaired
- 5 Piping repaired
- 6 Control system equipment replaced
- 7 Incinerator hydraulic skids rebuilt
- 8 Catwalks repaired
- 9 Air emissions equipment replaced
- 10 Complex II dewatering restored to service
- 11 Equipment inspection, troubleshooting and repair
- 12 Office equipment and furniture
- 13 Fire detection system repairs
- 14 North conveyors removed, and readied for replacements



Remediation Effort

Damaged Facility and Equipment Work Enhanced Due to Opportunity

- 1 Full replacement of north conveyors
- 2 Cleanup and repainting
- 3 Elevator replaced
- 4 Monorail system entirely replaced and extended
- 5 Instruments and controls checked and repaired as necessary
- 6 Burner actuators replacements
- 7 LED lighting instead of replacement of only damaged fixtures



Remediation Effort

Not Damaged Facility and Equipment Work Due to Opportunity

- 1 Rehabilitate south conveyors for reliability until N. Conveyors are replaced
- 2 New south conveyors control panel and motor control center
- 3 Building steel and siding repairs outside fire area
- 4 Spare sludge pump purchased to ensure reliability of BDF operations
- 5 Critical outage work (process valves, louvers, clearing drains, floor grating)
- 6 New fire pump and pump room
- 7 Fire header upgraded and standpipes cleared
- 8 Fire hose cabinets replaced
- 9 Fall protection handrails at building roof perimeters



Current Status Post-Remediation





Current Status Post-Remediation





Current Status Post-Remediation





Current Status

- Complex II is fully operational with the exception of the north side conveyors.
- Upgrades to fire protection system (required by current fire code) are underway with expected completion by June of 2018 (waiting delivery of long lead electrical and HVAC equipment).
- Remediation of damaged north side conveyor system is planned to be completed as part of a larger conveyor replacement project that has been designed and the construction contract is pending award.



Current Status North Side Conveyor Replacement Project

- Capital project to replace the sludge conveyors was being planned before the fire.
- Fire damage to the north conveyors in Complex II required expedited conveyor replacement.
- Insurer agreed to full replacement of conveyors H & K and repairs of conveyors E, G, L, P-7/8 and P-9/10.
- Due to the age and pre-fire condition of the conveyors full replacement was decided upon under separate contract CON-197.
- Initial funding for CON-197 is included in the currently approved Capital Improvement Plan as project 213007.



Insurance Related Matters



Division	Name	GLWA	XL Catlin	Diff.	Remarks
1	General Conditions	\$ 1,533,837	\$ 1,420,926	\$ 112,911	1.50 - 3% of Div 1-17 to PMA
2	Site Work/Demolition	5,835,256	4,559,867	1,275,389	2.09 - Cleaning and painting
3	Concrete	63,374	63,374	-	
4	Masonry	-	-	-	
5	Metals	435,681	435,681	-	
6	Wood and Plastic	-	-	-	
7	Thermal/Moisture Protection	320,000	80,000	240,000	7.01 - Damaged roofing (\$320,000 per PMA)
8	Doors and Windows	12,000	12,000	-	
9	Finishes	-	-	-	
10	Specialties (elevator, signs)	113,500	113,500	-	
11	Equipment	1,507,934	1,010,531	497,403	11.01 - Crane replace vs repair
12	Furnishings	25,000	25,000	-	
13	Special Construction	262,000	262,000	-	
14	Conveying Systems	3,679,000	1,900,000	1,779,000	14.01 - North side system; agreed-upon scope* (Slide 6)
15	Mechanical \ HVAC	227,170	227,170	-	
16	Electrical	1,875,000	1,875,000	-	
17	Instrumentation and Controls	627,640	627,640	-	
18	Extra Expenses	1,786,175	1,786,175	-	
	TOTALS:	\$ 18,303,567	\$ 14,398,864	\$ 3,904,703	



	GLWA	XL Catlin ¹	Diff
TOTALS (carried over):	\$ 18,303,567	\$ 14,398,864	\$ 3,904,703
Less: Deductible	(1,000,000)	(1,000,000)	-
Less: Advances from XL Catlin	(12,886,400)	(12,886,400)	-
REMAINDER TO BE NEGOTIATED:	\$ 4,417,167	\$512,464	\$3,904,703

¹ XL figures based on their latest update received 9/7/2017; XL's last offer to settle stands at \$16.2 million.



APPRAISAL PROCESS

GLWA and XL Catlin have worked cooperatively throughout the claim adjustment process, however they have not reached agreement of the final adjusted value for the fire damage claim.

GLWA will use the appraisal process provided for in its policy, to reach resolution on the final adjusted amount of its claim.

The following are the policy provisions addressing appraisal:

3. APPRAISAL

In case the "Insured" and the "Company" fail to agree as to correct adjusted amount of any covered claim under this policy then, on the written demand of either, the "Insured" and the "Company" each shall select a competent and disinterested appraiser and notify the other of the person selected within thirty (30) days of such demand. **GLWA selected PMA as our appraiser. XL Catlin has named theirs.**

The appraiser shall first select a competent and disinterested umpire, and failing for fifteen (15) days after consulting to agree upon such umpire, then, on request of the "Insured" or the "Company", such umpire shall be selected by a judge of a court of record in the state in which the INSURED PROPERTY sustaining "damage" is located. Umpire has been selected and agreed upon. Actual mediation date has not yet been established.



Financial Information



Expenditure Summary

Summary GL Expenditure by Fiscal Year					
CWIP Balance as of February 28, 2018 (I&E Fund)	\$	17,877,973.62			
Expenses by Fiscal Year					
Fiscal Year 2016 (O&M Fund)		4,146,472.00			
Fiscal Year 2017 (O&M Fund)		1,753,220.11			
Fiscal Year 2018 (O&M Fund)		492,901.25			
Total Expenditures through February 28, 2018	\$	24,270,566.98			
The Fire remediation project is currently being capitalized. O&M expenses will be finalized during					
Fire Remediation Expenditure Summary					
Fire Remediation Expenditures through February 28, 2018	\$	24,270,566.98			
Estimated expenditures through completion					
PMA/Walsh (work completed, awaiting invoice)		462,344.09			
PMA/Walsh (work in progress, anticipated complete by end of FY18		509,742.00			
Total Estimated Fire Remediation Expenditures through June 30,2018	\$	25,242,653.07			
Insurance Proceeds Received by Fiscal Year					
Fiscal Year 2016	\$	4,000,000.00			
Fiscal Year 2017		5,000,000.00			
Fiscal Year 2018		3,886,400.00			
Total Proceeds Received	\$	12,886,400.00			
Net Estimated Expenditure (prior to conclusion of insurance negotiations)	\$	12,356,253.07			



Questions?



