



Union Park CSO Facility

A publication of the Massachusetts Water Resources Authority

2004 PRODUCED STEADY PROGRESS AT UNION PARK

Approaching the two-year mark, construction of the Union Park CSO Detention Treatment Facility (Union Park DTF) continues to move along steadily. The contractor, Barletta Engineering, remains on schedule to begin erecting the steel frame for the building in the new year.

Neighbors will see some significant changes as the structure rises and masons begin placing concrete block walls and a brick facade this spring. Soon afterwards, much of the construction will move inside as the contractor shifts to interior work.

The new facility, next to the existing Union Park Pump Station, will house screening equipment and odor control filters above 2.2 million gallon concrete detention basins. The Union Park DTF is one of 25 projects in the MWRA's long-term CSO Control Plan. The facility is required by the federal Court Order that guided the Boston Harbor Project.

More Change to Come

The tower crane that once marked the site has been removed. Barletta



A new stack for the BWSC pump station (far right) was put into position in September 2004.

will be using a variety of mobile cranes placed in the basin area for the remaining work. The tower crane was used because of site space constraints. The 112-foot high crane picked up and moved equipment at any angle, from one location to another.

A large crane was on site for a day to deliver the new emergency back-up generator for the pump station. The generator will keep the treatment equipment operating in case of a power failure, which can occur during a heavy rainstorm or severe winter weather. This will ensure improved water quality of the discharge to Fort Point Channel even in power outages.

The generator will be located outside on the west side of the existing

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About the Project

The Massachusetts Water Resources Authority (MWRA) owns and operates five facilities that treat Combined Sewer Overflows (CSOs) during wet weather to improve water quality in Boston Harbor and its tributary rivers. As part of the Federal Court Order guiding the restoration of Boston Harbor, the Authority has upgraded all five existing facilities. The \$38.4 million Union Park CSO Detention/Treatment Facility will detain and treat wet weather flows from the South End neighborhood of Boston that pass through the existing Union Park Pump Station (operated by the Boston Water and Sewer Commission). The facility will include underground detention tanks, screens to remove floating material, disinfection and dechlorination systems and a surface building adjacent to BWSC's Union Park Pump Station that will include odor control.

The new Union Park facility will substantially improve the quality of wet weather overflows reaching the Fort Point Channel. A similar facility at Cottage Farm near the B.U. Bridge on the Charles River has been operated since 1971, first by MDC, then by MWRA, since 1985.



A crane prepares to lift the emergency backup generator into position.

Steady Progress / cont.

pump station. It will be operated briefly once a week to ensure that it is in working order. Landscaping will be provided around the generator in a small parking area for the operations staff.

The fourth stack for the pump station arrived in late September. This stack serves the new turbine that drives a fourth pump added to the pump station under this construction project. It provides standby capacity in the event one of the three existing pumps is out of service. The stack, currently grey in color, will be painted red to match the other stacks. (The three existing stacks will also be repainted.) The generator is also red to match the stacks.

What to Look for

In late March 2005, Barletta expects to begin erecting the steel frame of the new building above the tanks. The exterior block concrete walls will begin to rise next, closing in the structure. Masons will put the block and brick trim finish in place. Some exterior work will continue, such as work on the roof of the existing and new buildings on items such as the HVAC units. Later this spring the construction focus will shift to the building's interior, out of sight. Facility equipment placement and installation are expected to take about 8 months.

This Spring, the Boston Parks Department will begin construction of a new park next to St. Helena's House on Union Park St. The final design of this project is underway, with the construction contract going out to bid this winter. The MWRA committed \$500,000 toward enhancing the small park next to St. Helena's and replacing the original park, which will now stretch from Union Park St. to Malden St. along Albany St. The St. Helena's park will include a walkway, benches and landscaping.

Concrete Placement and Earth Moving

Concrete placement has been a large element of the work for the last few months. Barletta has constructed exterior basin walls and interior divider and baffle walls that are part of the tank construction. The basin roof decks were first reinforced with steel so the concrete slabs could be poured. To date, Barletta has placed more than 9,000 cubic yards of concrete, about 70% of the project total. Concrete placements will be completed in late spring.

By mid-December, Barletta had removed over 60,000 tons of contaminated soil, approximately 90% of the total quantity. This includes contaminated debris that was discovered in the 1914 abandoned pump station located near the corner of Union Park St. and Albany St. Some of this material was beneath the playground on Union Park St. The playground that will be built at the completion of construction will be placed on clean fill.

Construction Challenges Remain

A number of challenges have slowed progress on the site, extending the construction duration. First, the discovery of the foundation of an abandoned Boston Redevelopment Authority Pump Station filled with oil-covered debris and equipment prompted additional site remediation, delaying the project for three months. This was slow but important work. Next, construction was halted for five days due to enhanced security around the summer Democratic Convention.

The tight work space and need to work around an operating pump station also slow construction progress. Improvements to the pumps, installation of a sluice gate on Malden and Albany Streets and working around current operations add to the challenges.

Despite these difficulties, the MWRA and its contractors remain committed to the practices that are intended to lessen the impact of construction on the neighboring residents and businesses. Street sweeping continues to control dust and groundwater observation wells are being monitored to ensure that dewatering does not affect off-site groundwater levels. Decibel meters monitor noise levels. A licensed rodent contractor maintains and monitors rodent control efforts and continues to report that there have been no problems to date. MWRA monitors the detour that sends trucks and deliveries to Malden and Albany Streets. Trucks that leave the site with debris or other materials turn on to Malden St., then Albany St., which leads to the Expressway.

Contacts

Residents and businesses can reach the MWRA 24 hours a day with problems or complaints. During the work

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COMMUNITY CONCERNS ADDRESSED AT FALL MEETING

On September 13, the project team met with representatives of the Union Park St. Neighborhood Association and residents of St. Helena's House to review construction progress and address problems and concerns. Gary Webster, MWRA Public Affairs, Eleanor Duffy, MWRA's Construction Manager, Jim Russell, Barletta's Construction Supervisor and Ray Snyder, from the design engineer, Metcalf & Eddy, presented an update.

Ms. Duffy used a PowerPoint presentation to review construction progress and the MWRA's commitments to the neighborhood. She said that many neighbors had participated in pre-construction surveys to confirm the conditions of their property. Other mitigation is ongoing. Fortunately, there has been no rodent activity associated with the construction. No adverse impact has been seen on groundwater levels, which are being monitored.

The participants raised issues about the existing and future buildings:

- The MWRA understands that the residents would prefer not to have different kinds of fencing surrounding the new facilities. Ms. Duffy said that once security issues have been addressed, she believes that the final fencing and landscaping screening will enhance the new parks and facilities and be consistent.
- The new fourth stack for the Boston Water and Sewer Commission (BWSC) Pump Station was placed in position the week of the meeting. Ms. Duffy explained that the new stack and the old ones will be painted the same color. In response to questions, she noted that BWSC is now using ultra low sulphur diesel fuel to run the turbines and the station. She explained that these pumps will run less frequently in the future when wet weather flow does not exceed 2.2 million gallons. The MWRA will use different kinds of pumps, called dewatering pumps, that run on electricity and will not be heard outside the building. The turbines will activate during large storms or during high-intensity rainfall over a short period of time. The end result will be fewer minutes of turbine operation, less volume pumped to Fort Point Channel and better quality flow when the discharge has to be pumped to the channel.
- Dan Loughlin, representing the Union Park St. Neighborhood Association, asked for information about similar CSO facilities. Ms. Duffy wrote to him after the meeting, describing the MWRA's other CSO treatment facilities at Cottage Farm (Cambridge); Prison Point, Fox Point and Commercial Point



Looking east, this view of the basin construction shows interior concrete divider walls and temporary earth support framing.



The photo above shows a mockup of the wall materials that masons will place on the exterior of the new building.

(Boston); and Somerville/Marginal. The MWRA will build smaller facilities in South Boston and Charlestown in the next few years. There are more details on the MWRA's program in the CSO Annual Progress Report, March 2004, which is on the website at www.MWRA.com.

- In response to questions about the appearance of the completed building, Barletta ordered a mockup showing the wall materials. It was not available at the meeting, but was constructed on site by masons afterwards and is shown in the photo above.

Gary Webster, MWRA Director of Community Affairs, thanked the neighbors for their patience during the construction. He said that the MWRA will continue to reach out to businesses and residents during construction, and he welcomed their calls.

day, Gary Webster, in MWRA Public Affairs (617-788-1170), responds to project concerns. Mr. Webster has met with residents and businesses as construction has advanced to deal with their concerns. Between 5 PM and 9 AM, emergency calls can be placed to the MWRA's Operations Control Center at 617-305-5950. (This information is in the box below and can be clipped to place in a phone book or on a refrigerator.)

Project Contacts

Gary Webster
Public Affairs, MWRA
617-788-1170

Eleanor Duffy
Construction Manager, MWRA
617-788-4906

Nancy Farrell
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Regina Villa Associates*
617-357-5772



How Can I Get Involved

To add your name to the project mailing list to receive meeting notices, newsletters and other information, call Gary Webster at MWRA Public Affairs, 617-788-1170.

Project documents will be made available to the public for review at the following location:

Boston Public Library
South End Branch
685 Tremont Street

You can also visit the MWRA web site at www.mwra.com, for project updates.

Construction Contacts

During construction, neighbors and businesses can contact Gary Webster, MWRA Public Affairs, with any problems or questions during business hours. After hours, please contact the MWRA's Operations Control Center at the number below. If you do not have an emergency but want to get information, please leave a message at MWRA Public Affairs, and Mr. Webster will contact you or address the issue during the next business day.

MWRA Public Affairs
Gary Webster
617-788-1170

MWRA Operations Control Center (after hours)
617-305-5950

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