

City of San Diego
Miramar Water Treatment Plant Upgrade and Expansion

Contract B Information Updated September 29, 2009 (2 pages)

Project Background

The Miramar Water Treatment Plant is the largest of the three water treatment facilities owned by the City of San Diego. It began operation in 1962. The treatment plant is the sole provider of drinking water to an estimated 500,000 customers in the northern section of the City. Currently the plant produces 140 million gallons of drinking water a day (mgd). The upgrade will increase treatment capacity to 215 million gallons per day.

The need to upgrade and expand the existing plant is primarily due to the area's rapid population growth, the obsolescence of the facility's controls and equipment, and recent changes in state and federal drinking water standards. The treatment plant will remain in full operation throughout the expansion and upgrade. The project is expected to be completed in 2010.

The upgrade and expansion project began in summer 1998 with two initial phases of construction starting in April 2001 and ending in February 2005. Following the early phase work, the construction work was divided into four components, identified as Contracts A, B, C and D. Currently, Contracts B and C are ongoing. Contract C work is almost all inside structures and generally does not create noticeable noise or dust. Contract D will begin in 2010 and includes landscaping and paving.

Project information is available at www.sandiego.gov/water/cip/miramar.shtml

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Contract B Construction Update

- Construction began in November 2007 and is estimated to be completed in January 2010. The work is on schedule and is 95 percent complete. The contractor is Western Summit Constructors, Inc. Contract B work has had an excellent safety record.
- A key component of Contract B was constructing the four new flocculation/sedimentation basins (floc-sed basins). The floc-sed basins are a critical part of water treatment. In the basins, particles in the water are forced to clump together (flocculation) to form larger particles and then settle to the bottom of a tank (sedimentation). The unwanted particles are then removed.
- The four existing flocculation/sedimentation basins are numbered 1, 2, 3 and 4. The new basins are numbered 5, 6, 7 and 8. Both the old and new basins are made of reinforced concrete. The dimensions of the new basins are 550 feet by 260 feet and 19 feet deep.
- Three of the four new floc-sed basins have been operational and processing water for treatment since July. The fourth new basin was operational in late September.
- The old basins must be demolished now, rather than left in place and filled with dirt. The reason for the demolition is to clear the area of all underground structures and piping, etc. so that any future construction for further plant expansion will not encounter underground barriers that must be dug up and demolished. Any plant expansion must occur within existing site "footprint."

Photo:

New sedimentation basin 6 is in the central foreground of this photo. New sedimentation basins 7 and 8 are visible in the upper middle and right side of the photo. (Photo July 14, 2009)



Demolition Phase

- The work now involves demolishing the old floc-sed concrete basins and old chlorine building. The demolition work began August 31 and is expected to be completed on approximately October 31. On September 10, the work hours were temporarily revised to 7:00 a.m. to 6:00 p.m., Monday through Friday. This extra hour – from 5:00 p.m. to 6:00 p.m. hour – is only for the duration of the demolition work. The extra hour is expected to reduce the overall demolition timeframe by almost one week, creating the anticipated October 31 completion date.



- The demolition activities use equipment with a hydraulic attachment, called a “ho-ram,” to break up the reinforced concrete structures in the old floc-sed basins. The “ho-ram” pounds holes into the reinforced concrete. It has broken apart the exterior and inner walls of the four old basins and is now working on the floor areas.

Photo: “Ho-ram” work in old floc-sed basins area. (Photo Sept. 11, 2009)

- Large trucks are hauling out the concrete rubble and other materials from the demolition. The concrete and steel are being delivered to recycling centers. There is no rock crushing on site.
- The contractor monitors the sound levels along the perimeter of the job site to ensure that the noise generated is within the environmental guidelines for the construction project. The contractor is also required to provide dust control on-site by water spraying and other measures.
- Rattler plates are in place inside of the entry gate to minimize trucks tracking dirt onto surface streets while the demolition work is occurring. Scripps Lake Drive is swept of dust and debris on a regular basis.
- The large pile of earth visible at the west end of the plant property will be used to fill in the holes where the old floc-sed basins were located, once the concrete is removed. Crews will begin relocating the earth pile in October. The earth pile should not be visible after December 2009.
- The City staff and project team realize that the demolition work is creating a significant noise and dust impact to the neighborhood. Please contact the project team at the information on this Construction Update with any concerns.

