

PROJECT DESCRIPTION

1.1 INTRODUCTION

The City of Torrance Department of Public Works is proposing the construction of the North Torrance Wellfield (NTWF) project. The NTWF project consists of developing two (2) additional water wells, a 3-million gallon water storage reservoir, water treatment facilities, booster pump station, site access road, a total of approximately 9,000 feet of associated pipelines, and the demolition of existing, deficient water pumping/storage facilities.

This Initial Study has been prepared to determine if any significant environmental effects would be introduced with implementation of the NTWF project. This Initial Study was prepared pursuant to the requirements of Section 15063 of the California Environmental Quality Act (CEQA) Guidelines.

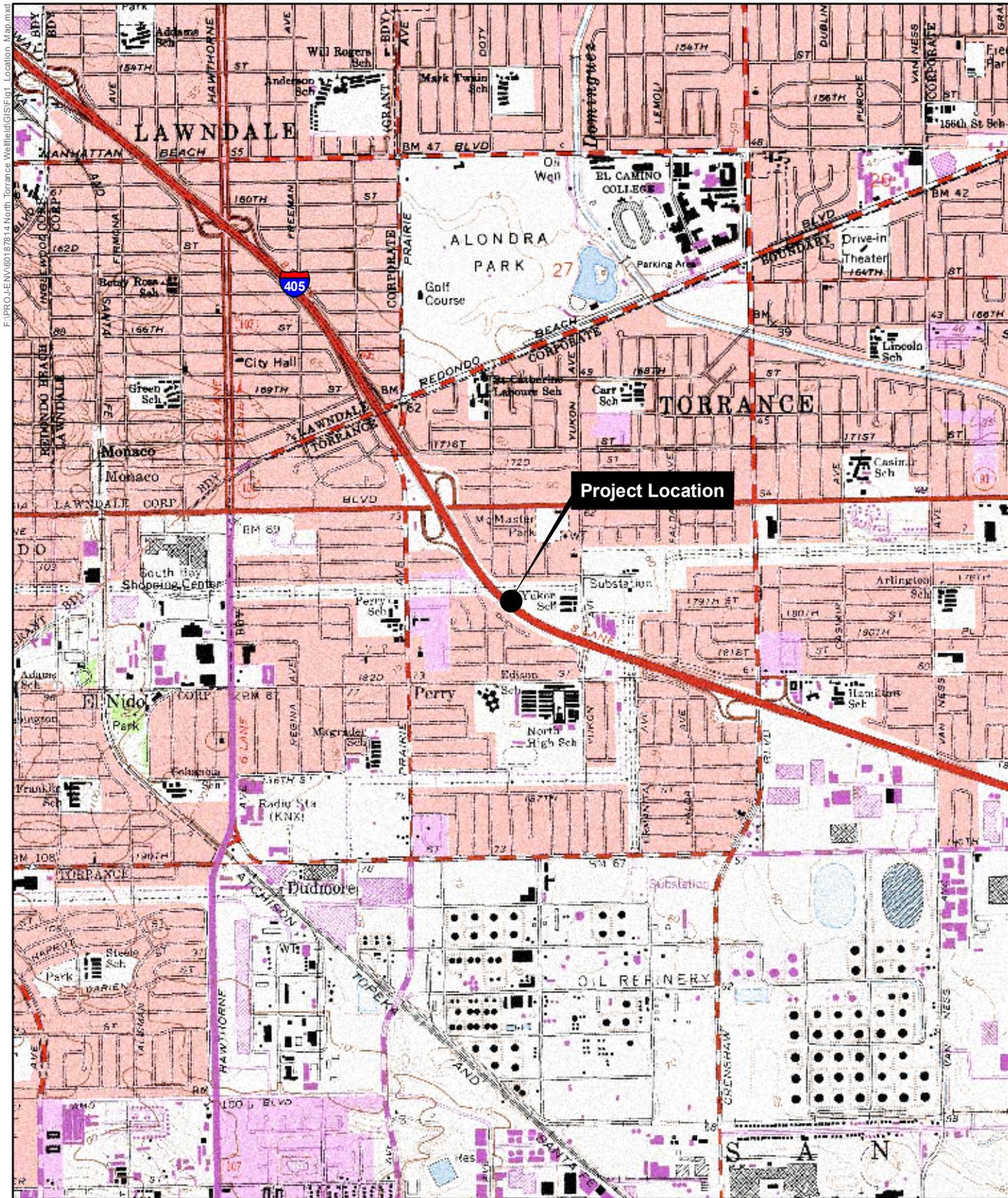
1.2 PROJECT LOCATION

The NTWF project site is located in the City of Torrance, Los Angeles County, California (see Figure 1, Location Map). More specifically, the NTWF project site is an approximate 1.5-acre undeveloped parcel (APN-4087-037-902) located directly west of Yukon Elementary School, and north of the California Department of Transportation's (Caltrans) right-of-way for Interstate 405 and the City of Torrance's 24-foot utility easement which are both along the southern boundary of Yukon Elementary School (see Figure 2, Concept Site Plan). The NTWF project site is bounded by Yukon Elementary School, I-405, and the Southern California Edison (SCE) transmission line property (which Big Seven Nursery currently leases and occupies). The NTWF project site is landlocked by the I-405. To utilize the NTWF project site, access would be obtained through the City's 24-foot utility easement from the Torrance Unified School District. There are no residences adjacent to the proposed NTWF project site.

The NTWF project also includes off-site work at the southeast corner of McMaster Park, which is located north of the project site. Other off-site work includes: a median between Yukon Avenue and Yukon Elementary School and work within Yukon Avenue, between McMaster Park and 182nd Street.

1.3 PURPOSE AND NEED

The City of Torrance (City) has annual adjudicated groundwater pumping rights of 5,640 acre feet per year (af/yr) in the local West Coast Groundwater Basin. Currently, the Torrance Municipal Water Department (TMW) has only one functional well, the recently constructed Well No. 9. The well is capable of producing 3,000 gallons per minute (gpm); however, due to discharge constraints, this flow is temporarily reduced to 2,400 gpm. When integrated into the NTWF project, the 3,000 gpm capacity would be fully usable. Considering a 90% plant factor, the well could produce 4,360 af/yr. Only 20 percent of groundwater pumping rights that is not exercised in each fiscal year can be carried forward to next year, but must be used in the next year or is lost for that year. Currently, TMW has approximately 1,280 af annually of unused groundwater rights. Groundwater from the WRD Goldsworthy Desalter (Desalter) does not



Source: Torrance & Inglewood, CA USGS Topographic Quadrangles (1981), and AECOM (2011).



Figure 1
Location Map



Source: Aerial Imagery: Digital Globe (March 1, 2008), and AECOM (2011).

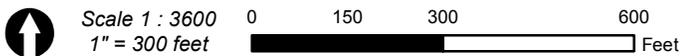


Figure 2 Concept Site Plan

usually count against the City's adjudicated pumping rights, as the plant pumps from a seawater plume trapped under Torrance. However, the Desalter is currently using 2,000 af/yr of TMW's pumping rights until legal issues are resolved.

To fully utilize its water rights, TMW would need two (2) additional production wells. This would provide enough capacity to extract all 5,640 af of the City's groundwater allotment. The combined three (3) production wells would also provide sufficient capacity to respond to peaked water system demands, and provide additional groundwater extraction during a drought or emergency.

1.4 PROPOSED PROJECT/SITE PREPARATION

The NTWF project is envisioned to include the following features:

On-site Features

- A new wellhead treatment system, a new 3-million gallon water storage reservoir, a new booster pump station, a new generator, and new Well No. 10. It should be noted that the fixed generator would only be used during an emergency.
- A new paved access road (construction/operation) from Yukon Avenue, using the existing City 24-foot utility easement and portion of the Yukon Elementary School property. This new access road would parallel the existing Caltrans right-of-way adjacent to the I-405.
- Two mobile generators will be stored on-site which will be used for Well No. 9 and 11 in case of an emergency.
- Two parking spaces will be provided (one handicap parking space).
- As part of the NTWF project, a zone change would be required to re-designate the project site so that it does not conflict with zoning (A1: Light Agriculture to PU-Public Use). The NTWF project site has been designated as Public/Quasi-Public/Open Space since the 1992 General Plan. The rezoning will allow the parcel to be in conformance with the long-term vision for the property.

Off-site Features

- A new Well No. 11, to be located in the median between Yukon Avenue and Yukon Elementary School.
- Demolition of the existing reservoir, booster pump station, Well No. 6, and pump house building at McMaster Park. Work would include grading, repair of damaged pavement and gutters, and landscape restoration, following demolition. It is estimated approximately 100 cubic yards of soil would be imported to fill the foundations to be demolished.

- A new 16-inch/20-inch discharge pipeline from Well No. 9 to the proposed wellhead treatment system on the NTWF project site. This line would extend a total of approximately 2,500 feet within Yukon Avenue and the utility easement.
- A new discharge pipeline from the NTWF project site through the utility easement to the existing water distribution system in Yukon Avenue. The first branch of the discharge pipeline would be a 24-inch line, approximately 1,000 feet in length, to tie into an existing 12-inch water main in Yukon Avenue in front of Yukon Elementary School. The second branch would be reduced to an 18-inch line, which would extend south, approximately 800 feet within Yukon Avenue, from the tie-in point in front of Yukon Elementary School to an existing 12-inch water line in 182nd Street at Yukon Avenue.
- New drain system piping from the NTWF project site through the utility easement to existing City sewer and County of Los Angeles storm drain in Yukon Avenue. This would involve approximately 1,500 feet of new, 6-inch sewer line to be tied into the existing sewer line in Yukon Avenue in front of Yukon Elementary School, and approximately 1,700 feet of new 30-inch and 24-inch drain line to be tied into an existing storm drain manhole in Yukon Avenue, just north of 182nd Street.

1.4.1 PROPOSED WELLS, TREATMENT, AND STORAGE

The piping at existing Well No. 9 is currently routed to the reservoir at McMaster Park. The recently constructed discharge piping was designed to allow for new discharge piping to be connected from Well No. 9 to the NTWF project. Additionally, the recently constructed discharge piping installed with Well No. 9 was laid out so that it can be reused in the new configuration. This would be accomplished through the decommissioning and demolition of existing McMaster Park water facilities. In conjunction with demolition of existing water facilities, existing Well No. 6 would need to be properly destroyed in accordance with State Department of Public Health guidelines.

In addition to the use of Well No. 9, implementation of the NTWF project would add new Wells Nos. 10 and 11. Well No. 10 would be located at the site of the treatment facilities and new storage reservoir. Well No. 11 would be located in the median between Yukon Avenue and Yukon Elementary School. The existing Well No. 9 has a capacity of 3,000 gpm and is outfitted with a variable frequency drive which allows reduction of the flow rate in an energy-efficient manner. If the two proposed wells are to have the same capacity, a total of 9,000 gpm would be produced. The two new well buildings would be approximately 10 feet high.

The discharge from Well Nos. 9 and No. 11 would be combined and piped to the NTWF project site, to be joined by discharge from Well No. 10, where it would then be treated and stored. The NTWF project wellhead treatment system includes the capability for reverse osmosis (RO) treatment, should it be needed. The RO system would remove dissolved minerals from the water which would be discharged to the sewer. Should it be needed, RO treatment would be conducted prior to water entering the reservoir. Also prior to entering the reservoir, water would be chloraminated. Water would flow into the reservoir through spray nozzles, which would also be used for the removal of hydrogen sulfide should it be encountered in the groundwater. Water would ultimately be pumped from the storage reservoir to the distribution system through the use

of a booster pump. The storage reservoir would be approximately 50 feet high and the structures associated with the wellhead treatment and pump station would be approximately 12 feet high.

1.4.2 24-FOOT UTILITY EASEMENT

The construction area within the City's 24-foot utility easement (paralleling the proposed access road) will be fenced off for safety purposes as this area will be dug up to accommodate the new discharge pipelines. Once construction is complete, the 24-foot utility easement will be returned to its previous condition.

1.4.3 ACCESS ROAD

The City must develop a new point of access to the NTWF project site. Currently, the City has access to the NTWF project site via the SCE property to the north. At this location, SCE has leased the property to a nursery operation, so City staff currently traverses the nursery to reach the NTWF project site. As part of the NTWF project, the City would develop a new access road directly from Yukon Avenue and the Yukon Elementary School parking area. The City currently has a 24-foot utility easement along the south boundary of the Elementary School site. A new paved access road would be constructed within the City's 24-foot utility easement and within a portion of the Yukon Elementary School property.

1.4.4 CONSTRUCTION

It is estimated that a construction crew of up to 30 workers would be working on the project during the construction phase. Equipment that will be used includes excavator, bulldozer, backhoe/front end loader, crane, compactor, drill rig, grader, scraper, concrete truck, steam roller, and water trucks for dust control.

Work will include clearing and grubbing of both the access road location and Well 10/treatment plant site prior to construction. Construction is anticipated to occur from May 2013 through March 2015.

1.4.5 GENERAL OPERATION

After the facilities are constructed, it is estimated that the site will be staffed by one person an average of four (4) hours per day on weekdays. This will vary, and on some days, additional personnel will be at the site. It is estimated that an average of two maintenance trips per month will be required. Therefore, operation of the project site will result in approximately 389 annual trips.

The site will include area and task lighting over much of the site controlled by motion sensor, photocell, or both.