



EPA

NEWMARK GROUNDWATER CONTAMINATION SUPERFUND PROJECT

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY • REGION 9 • SAN FRANCISCO, CALIFORNIA
AND THE SAN BERNARDINO MUNICIPAL WATER DEPARTMENT

OCTOBER, 2000

EPA WELL PROJECT CONSTRUCTION TO START

The EPA (United States Environmental Protection Agency) and the City (City of San Bernardino Water Municipal Water Department) will start the EPA Well Project (also known as the Muscoy Operable Unit) in November. The purpose of the project is to restore clean water to the City of San Bernardino and protect clean drinking water wells south of Baseline Street. In addition, we would like to make sure that future water needed to serve you is clean and stays affordable.

ESTIMADO RESIDENTE:
SI PREFIERE ESTE FOLLETO EN ESPAÑOL,
POR FAVOR LLAME 1-800-231-3075
Y DEJE SU NOMBRE Y DOMICILLO.
SE LO ENVIAREMOS INMEDIATAMENTE.

INTRODUCTION

The City and the State of California have taken steps to make sure your tap water meets State and Federal drinking water standards. In addition, the EPA and the City are concerned about the health risk posed to residents if the contamination in the groundwater is able to reach clean drinking water wells south of Baseline Street. The contaminants found in the groundwater are normally used as a degreaser and fluid for the dry-cleaning industry. The contaminated water will not harm you if you touch it, but it can harm your health if you were to drink it over a long period of time. The groundwater contamination covers an eight square mile area and has already affected many drinking water wells. These wells have either been shut down or the water from them is being treated (See Site Map below).

THE WELL PROJECT

The well project consists of digging trenches and laying pipelines, drilling five EPA pumping wells, five smaller test wells, building a booster pump station and expanding the 19th Street Treatment Plant. It will take approximately two years to complete the entire project (See page 7: Construction Map Schedule). This project is an extension of the existing Newmark Operable Unit near 11th Street. Both are a part of the Newmark Groundwater Contamination Superfund Project in San Bernardino, California. You can find more detailed documentation at the site's local repositories (See back page for locations).

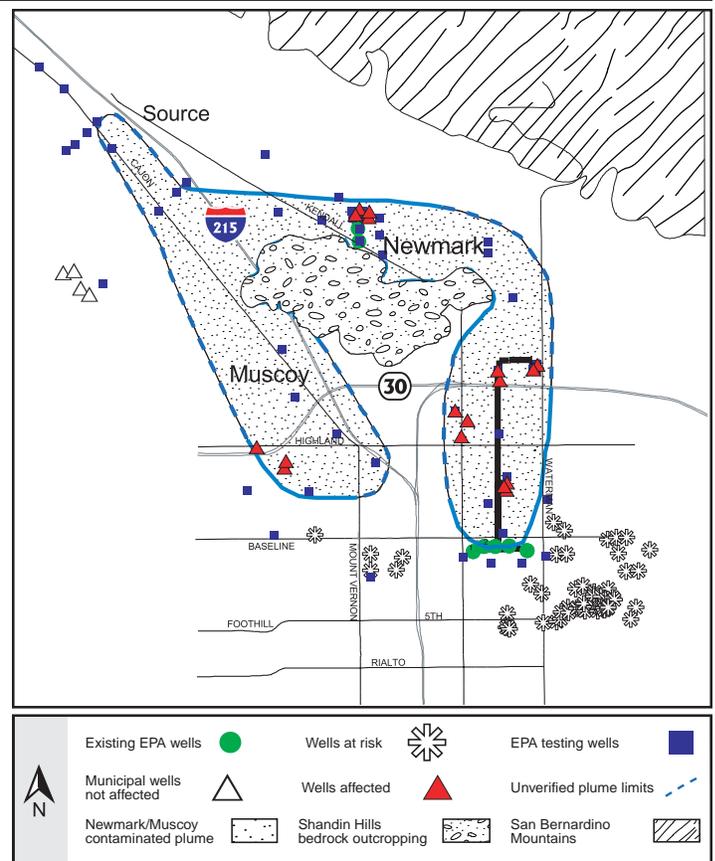


Figure 1: Site Map.

THIS FACT SHEET . . .

- The well project description: page 1.
- How the project will work: page 2.
- Pipeline and well construction: pages 3 - 5.
- 19th Street Plant expansion: page 4.
- Community notification effort: page 5.
- Job and contracting information: page 6.

Ellis Williams, Water Utility Engineer,
is the community contact for the project
and can be reached at (909) 384-5391.

HOW THE PROJECT WILL WORK

Once built, each of the five EPA pumping wells (located at 1306 G. Street, 980 Home Avenue, 1335 Garner Avenue, 1580 West Virginia Street and the yet-to-be-sited Pico Street location) will quietly pump the contaminated water up and then into the underground pipeline. The water then will go through the pipeline to the 19th Street Treatment Plant. The plant will treat it with the support of 32 additional carbon filtering units that will be installed. We will build a booster pump station at Encanto Park near 9th and Garner Avenue. The booster pump will give the needed power to push the treated water through other parts of the City for residential use. Five smaller underground test wells will be drilled just south of each of the EPA pumping wells. You should not be able to see these test wells, once built. These smaller test wells will allow EPA to check that the pumping wells are catching all the contamination and stopping it from moving toward Baseline.

WHAT TO EXPECT

The construction schedule on page 3 may change as we do our work, but it will give you an idea when we will be working near your street. We will give residents a two-week notice before we start work on each street or well-drilling location. The work will be done from 7AM to 6PM Monday through Friday. At some point while drilling at each well location, we will have to drill 24 hours a day for approximately five days and at this time there will be a high noise level. This will be done to make sure the hole stays open through the process until we can place casing in it. We will then return to a regular construction schedule.

While laying the pipeline, the work crew will move from street-to-street quickly and will work with the residents to make sure there is as little disruption as possible. We will post a date-specific construction schedule (updated often) for the whole project at each of the five EPA pumping well locations at 1306 G. St.; 980 Home Ave.; 1335 Garner Ave.; 1580 West Virginia St., and at the 19th Street Treatment Plant.

The first action to take place is to start digging a trench to lay the pipeline near Pennsylvania and then at Virginia Street. At the same time, we will tear down and clear away the two homes on Virginia and G



Figure 2: Example of a pipeline.

Street where the pumping wells are to be located. The first EPA pumping well will be drilled at the Virginia Street location. We will place a temporary pump there to get an idea if it works right. For forty-five days, the temporary (somewhat noisy) well will be tested to make sure it operates correctly.

With the informa-

tion collected, we will finalize the well pump design and put in the permanent underground quiet pump well. Afterwards, we will go on to drill the next EPA pumping well on G Street.

HOW YOU CAN GIVE YOUR INPUT ABOUT HOW THE WELL LOCATION WILL LOOK

In October 2000, we will begin meeting with the residents who live near each EPA pumping well and the 19th Street Plant. These neighborhood focus groups will be formed to design how the site will look and blend into the neighborhood (i.e., landscaping, aesthetically pleasing, etc.) once the whole project is complete. If you would like to participate in a focus group, please call Ellis Williams at (909) 384-5931.

CONSTRUCTION OF THE PIPELINE

One of the major components of the EPA well project is the pipeline (See the Construction Map Schedule on page 7 for the route of the pipeline). The sizes of the pipes used for this project will vary from 12 to 30 inches in diameter and will come in 18-foot lengths. The pipes will be placed in trenches cut between 6 and 8 feet deep into the street, refilled with dirt and asphalted. On the average, approximately 300 feet of pipeline will be placed per day. The contractor will have safety workers directing traffic and pedestrians as needed.

Pipeline Route

Pipeline Phase I - Fall of 2000

Beginning at Medical Center Drive and Virginia Street, then west on Virginia Street to Flores Street, then north on Flores Street to Magnolia Avenue, then west on Magnolia Avenue to Pennsylvania Avenue, and then south on Pennsylvania to 13th St.

Pipeline Phase II - Fall of 2001

Beginning at Medical Center Drive and Virginia Street, then east on Virginia Street to Blackstone Avenue, then north on Blackstone Avenue to 14th Street, then east on 14th Street to Perris Street, then south on Perris Street to Home Avenue, then east on Home Avenue to I Street, then south on I Street to 13th Street.

Pipeline Phase III - Winter of 2002

Beginning at Perris Street and Home Avenue, then South on Perris Street to Orange Street, then east on Orange Street to Harris Street, then South on Harris Street to 11th Street, then east on 11th Street to I Street, then south on I Street to 10th Street.

Pipeline Phase IV - Winter of 2002

Beginning at Pennsylvania Avenue and Magnolia Avenue, then north on Pennsylvania to 19th Street (This includes a small section of 16th Street connecting Pennsylvania).

Pipeline Phase V - Spring of 2002

Beginning at 10th Street and Temple Street, then east on 10th Street to Stoddard Avenue, then North on Stoddard Avenue to 11th Street. Also beginning at 10th and G Street, north on G Street to 13th Street.

What you may see:

1. A street area will be marked with paint to show the pipe alignment.
2. Next, the pipe route will be cut through the asphalt in preparation for the contractor to dig it up (this may stay this way up to a month before the next step).
3. The trenches will be dug up using a back hoe and dump truck and the pipes will be placed alongside the trench line in the street parking area.
4. As the pipe layers move along the trench, they are followed by an earth mover that puts the dirt back in the hole and compacts it in place at the end of each work day (installing approximately 300' a day).
5. Each day, after pipeline is installed, the area will be backfilled and compacted to a rough driveable surface.
6. All of the installed-pipeline areas will be paved with asphalt at the same time.

FIVE TEST WELLS

We will install five small test wells between Baseline and 11th Street (See page 7: Construction Map Schedule). Each test well will be located just south of an EPA pumping well. Once completed, the test wells will be sampled to measure the effectiveness of the EPA pumping wells. The test sampling at each well will begin on a weekly basis for a few months, then taper off to once-a-month for a year, and then every three months thereafter. These test wells will be permanent fixtures. From start to finish, it will take about two months to construct a test well.

What you may see:

- The test well location area will be marked with spray paint to show the proper location for drilling, and to avoid any water or gas mains or buried electrical lines.
- The drill rig equipment and street traffic controls will be set up. This will take about three days to complete.
- It will take about two weeks of actual drilling to get the diameter and depth of the hole for the test well.
- After drilling is complete, smaller support equipment will be installed temporarily until the permanent test well equipment can be installed (approximately 4-6 weeks).
- A secured cover and underground two-foot by four-foot vault will encase the test well. It will look similar to an underground water meter.
- The area will then be paved and landscaped.

BOOSTER PUMP STATION AT ENCANTO PARK

The new booster pump station will be located behind the existing hand ball courts at the park. The construction will begin by removing the existing asphalt paving in the area. We will dig a trench, install pipes and pour concrete pads to support the above ground piping. At this point, the pumps and motors will be installed. A wall will be built around the pump station. Construction will take about four months.

A pipeline will be installed from 10th Street between the ball diamonds to the new pump station and from the pump station to 9th Street. The pipeline construction will take about one month.

DURING CONSTRUCTION OF THE 19th STREET TREATMENT PLANT EXPANSION

The 19th Street Water Treatment plant will be expanded to treat the additional 11,000 gallons per minute of contaminated ground water that is pumped from the EPA wells. The expansion includes: adding 32 steel granular-carbon filters to the present plant, sound-insulating the present pump station to minimize noise, moving the main entrance of the plant from 19th

Avenue to Highland Avenue to reduce truck traffic, and building a new plant enclosure that will blend in with the neighborhood and create a noise barrier between the plant and the neighborhood streets.

At the beginning of construction, the contractor will tear down the existing fenced area and install a shield and sound barrier wall around the plant site area to minimize exiting plant noise. Next, a temporary construction fence will be installed. It will extend around the new expansion area.

After the site is secure, the general contractor will place temporary storage trailers and offices onto the expansion area. They will grade the new area including some parts of the existing plant area. At this point, on-site underground piping and valves will be installed.

Once the new pipes are installed, we will place two concrete foundations down and install the empty filter vessels using a large crane. The vessels will be secured and painted. The area will be graded, paved and landscaped. This process will take approximately seven months.

EPA WELL CONSTRUCTION

Site Demolition and Grading

Using a bulldozer and dump truck, it will take approximately two weeks to tear down the structures and remove utilities from the well site. The site area is watered throughout the process to keep the dust down. The area is smoothed out and graded to ensure water used throughout construction drains properly.

Set Casing

In order to prepare the area for actual well drilling, a small drill machine (size of a dump truck) will drill a 60-foot deep hole. This smaller drill rig makes less noise and this part will happen in one day. A large steel pipe is then cemented in place (set casing). At this point, the contractor will bring in the large drill rig (50-foot tall), trucks, water tanks, equipment and set up the site for drilling. A 30-foot sound curtain is placed around the site to minimize the noise. This set up will take four days.

Drill the Pilot Hole for the Well

We begin to drill twelve hours a day for about a week until we reach the desired depth of 1000 feet. At this point, there will be two to three days when work will stop to test and measure the hole.

Constructing the Well

Constructing the well is a twenty-four (24) hour a day process and will take approximately one week. First we will drill the hole out to make it large enough to fit the steel tube. We will then place lengths of the steel tube into the well hole and weld it in place. We will backfill the space between the tube and the dirt with gravel, clay and cement to hold it upright.

Pump Testing and Development

After the well hole is complete, construction work hours will return to regular hours. The driller will pump water and mud out of the well steel tube. The driller will place a test pump on the well and take measurements under various pumping conditions to see how the well performs. The temporary pumping equipment for the test will make noise. Once the testing is complete, the permanent well equipment will be put underground and it will not make noise. The well equipment is brought in on a truck and installed with a crane.

Well Site Design Implemented

Once the well is constructed, the site will be developed according to the design that the community focus group develops. The building of the site design will take about 6 months. This will involve a number of subcontractors including electricians, plumbers, landscapers, and roofers.

HOW CAN I FIND OUT WHAT IS HAPPENING AND WHEN?

- BULLETIN BOARDS

At each EPA well location, we will post a bulletin board that will give you current information about site activities. The boards will be updated weekly. There will also be copies of this fact sheet, current construction updates, contractor and job information for the project.

- MEDIA

We will give updates on Channel 3 about the project and bid information.

- RESIDENT NOTIFICATION

We will give residents a two-week notice before starting work on their street or in their area. We want people with disabilities or health problems to contact us as soon as possible, so arrangements can be made to accommodate your needs.

- CITY COUNCIL MEETING UPDATE

At council meetings, Councilwomen Betty Anderson and/or Susan Lien will provide project updates.

JOBS / CONTRACT / SUBCONTRACTING OPPORTUNITIES

Notices will be placed in local papers (Sun, Black Voice, Westside Story and Precinct Reporter) about the different contract opportunities for this project. We will advertise this information on Channel 3 as well. Once a bid is awarded, we will post what company receives the contract, what employment is available and how people can apply for a job at each site bulletin location.

TYPES OF CONTRACT OPPORTUNITIES:

- 19th Street Expansion: General labor, masonry, electrical, piping, landscaping, sanitary services
- Pipeline: Saw cutting of street, street sweeper, traffic control, pipeline disinfection/testing, sanitary services, and food vendors
- Well Drilling: Demolition, electrical, grading, well head assembly, drilling, site restoration, sanitary services and food vendors
- Tunnel Boring: Grading/paving, pipe installation, directional boring, jack pit construction, traffic control, sanitary services and food vendors

POSSIBLE TYPES OF JOBS THROUGH CONTRACTORS:

EPA is not authorized to tell a subcontractor or a contractor to hire anyone, but we can find out their hiring procedure and share that with the community. Contractors may be hiring equipment operators for loaders, backhoes, rollers, borers, drillers, pavers, bulldozers and cranes, as well as general laborers, plumbers, pipe fitters/welders, truck drivers, foremen, electricians, and technicians.

HOW TO GET IN TOUCH WITH US

Ellis Williams, Engineer, Community Contact
San Bernardino Municipal Water Department
195 D Street, San Bernardino, CA
(909) 384-5931
Email Address: Williams_El@ci.san-bernardino.ca.us

Jackie Lane, Community Involvement
US EPA Region 9 (SFD-3)
75 Hawthorne Street
San Francisco, CA
Toll-free: (800) 231-3075 or (415) 744-2267 direct
Email Address: lane.jackie@epamail.epa.gov



Figure 3: Example of a drilling rig.



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EPA WELL PROJECT DOCUMENT INFORMATION

EPA and the City of San Bernardino keep complete project reports and information at the following locations:

The San Bernardino County Public Library (909/387-5718).
The San Bernardino Valley Municipal Water District Office (909/384-9211)
The Superfund Record Center in San Francisco, CA (415/536-2000).

We encourage you to review these documents to gain a more complete understanding of activities at the
Newmark Contamination Superfund Project site.

Estimado residente:
Si prefiere este folleto en Espanol, por favor llame
1-800-231-3075 y deje su nombre y domicilio.
Se lo enviaremos inmediatamente.

United States Environmental Protection Agency
Region 9
75 Hawthorne Street (SFD-3)
San Francisco, CA 94105
Attn: Jacqueline Lane

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