

**WELL REPLACEMENT UPDATE REPORT AND
WORK PLAN
Defense Fuel Support Point Norwalk
15306 Norwalk Boulevard
Norwalk, CA 90650**

04-NDLA-007

Prepared For:



Defense Logistics Agency Installation Support for Energy
8725 John J. Kingman Avenue
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SP0600-14-D-5410
Delivery Order 007

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March 14, 2017

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TABLE OF CONTENTS

| | PAGE |
|---|-------------|
| LIST OF FIGURES | ii |
| LIST OF APPENDICES | ii |
| 1.0 INTRODUCTION | 1-1 |
| 1.1 Site Location and Vicinity..... | 1-1 |
| 1.2 Objectives of the Work Plan..... | 1-2 |
| 1.3 Work Plan Outline..... | 1-2 |
| 2.0 SUMMARY OF COMPLETED WELL REPLACEMENTS | 2-1 |
| 2.1 Completed Groundwater Well Replacements..... | 2-1 |
| 2.2 Completed Remediation Well Replacements..... | 2-2 |
| 3.0 PROPOSED ADDITIONAL WELL REPLACEMENTS | 3-4 |
| 3.1 Preparatory Tasks..... | 3-4 |
| 3.2 Well Installation..... | 3-4 |
| 3.3 Groundwater Well Construction Specifications..... | 3-4 |
| 3.4 Well Development..... | 3-5 |
| 3.5 Waste Management..... | 3-5 |
| 3.6 Survey..... | 3-5 |
| 4.0 SCHEDULE AND REPORTING | 4-6 |
| 5.0 LIMITATIONS | 5-7 |
| 6.0 REFERENCES | 6-1 |

LIST OF FIGURES

- Figure 1 Site Location Map
- Figure 2 Replaced Groundwater Wells
- Figure 3 Location of 2016 Replacement Wells and Proposed Groundwater Wells
- Figure 4 2016 Completed Replacement Biosparging and SVE Well Locations

LIST OF TABLES

- Table 1 Groundwater Wells Re-Drilling Summary
- Table 2 Completed Remediation Wells Re-Drilling Summary

LIST OF APPENDICES

- Appendix A 2016 Well Permits

1.0 INTRODUCTION

On behalf of our client, Defense Logistics Agency Installation Support for Energy (DLA), The Source Group, Inc. (SGI) is submitting this Well Replacement Update Report and Work Plan (Work Plan) for the former Defense Fuel Support Point (DFSP) Norwalk facility located at 15306 Norwalk Boulevard, Norwalk, California (Site; Figure 1).

As part of the remediation of the upper 10 feet of soil across the Site and as described in the December 16, 2014 *Work Plan for Well Abandonment* (SGI, 2014c), 28 groundwater monitoring and remediation wells and 14 vapor extraction wells were abandoned:

- 8 groundwater wells that are a part of the DLA Monitoring and Reporting Program (MRP)
- 5 groundwater wells that are a part of the Santa Fe Pacific Pipeline (SFPP) MRP
- 4 groundwater wells that are not part of either DLA or SFPP MRP's.
- 1 groundwater extraction well that is part of the SFPP groundwater extraction/treatment system
- 1 groundwater well that is gauged annually
- 9 inactive sparging wells
- 14 inactive vapor extraction/monitoring wells

The abandonment of these wells was necessary to allow for the excavation of contaminated soil from the area at and surrounding these well locations.

Note that due to the protracted duration of the shallow soil remediation project and the urgency of re-establishing the groundwater monitoring well- and remediation well-network at DFSP Norwalk, a portion of the replacement wells have already been reinstalled. The early reinstallation of these wells was performed to ensure that sufficient numbers of groundwater monitoring wells were available to complete the site-wide semi-annual groundwater monitoring and sampling program.

Recent remediation at the site has focused on shallow soil remediation, with excavation and on-site treatment of approximately 65,000 cubic yards of petroleum-containing soil. This shallow soil remediation was presented in the November 2014 *Soil Remediation Action Plan* (RAP; SGI, 2014a), and in an addendum (SGI, 2014b). The RAP and addendum were approved, with conditions, by the Los Angeles Regional Water Quality Control Board (RWQCB) in a letter dated January 7, 2015 (RWQCB, 2015).

Concurrently with the evaluation and recommissioning of air sparge, biosparge and SVE at the site, DLA is preparing a light non-aqueous phase liquid (LNAPL) conceptual site model (LCSM) that will outline the proposed LNAPL remediation.

1.1 Site Location and Vicinity

The DFSP Norwalk facility is an approximately 50-acre facility that formerly included 12 aboveground storage tanks (ASTs) used for storage of jet propellant (JP-4, JP-5, and JP-8). Aviation gasoline was reportedly distributed at the truck rack, but not stored in the ASTs. SFPP, an operating partner of

Kinder Morgan Energy Partners, L.P. (KMEP), leases a 2-acre easement along the southern and eastern boundaries of DFSP for operation of its pipelines, which conveys gasoline, diesel, and jet fuel. Within the southern easement lie three active pipelines, one of which is a 16-inch diameter pipeline (designated LS-1). LS-1 bends at the southeastern corner of the facility and continues northward within the eastern easement. An abandoned pipeline also runs along the eastern boundary of the Site. The DLA has decommissioned the site, but SFPP pipelines continue to operate.

1.2 Objectives of the Work Plan

Per the RWQCB-approved *Work Plan for Well Abandonment*, the abandoned wells were to be replaced at the completion of the shallow soil remediation project. Therefore, the objective of this work plan is to provide details of well replacement and in some instances, proposes the relocation of a subset of the removed wells.

1.3 Work Plan Outline

This Work Plan includes the following sections: Section 1 – Introduction; Section 2 – Summary of Completed Well Replacements; Section 3 – Wells to be Replaced; Section 4 – Schedule and Reporting; Section 5 – Limitations; and Section 6 – References.

2.0 SUMMARY OF COMPLETED WELL REPLACEMENTS

As described in the introduction, a portion of the wells abandoned prior to the start of the shallow soil treatment project have been replaced. This section describes the replacement of those critical wells.

2.1 Completed Groundwater Well Replacements

Eleven groundwater monitoring wells (among the 19 groundwater monitoring wells to be replaced) have been replaced to provide representative groundwater monitoring points (Table 1). Drilling permits were obtained from the County of Los Angeles Department of Health Services (Appendix A). The replacement groundwater monitoring wells were located at the surveyed location of the corresponding abandoned former well (e.g. GMW-4R replaces GMW-4), as shown on Figure 2:

- Following completion of shallow soil remediation in the northeastern part of the site, one well (GW-66R) was replaced in April 2016.
- Ten groundwater monitoring wells (GMW-4R, GMW-14R, GMW-17R, GMW-32R, GMW-35R, GW-5R, GW-14R, GWR-1R, MW-15R, and TF-20R) were replaced in October and November 2016.

Table 1 presents a list of wells replaced in 2016 as part of the groundwater monitoring and remediation system recommissioning, with completed drilling date, depth, diameter, and screened interval.

The groundwater wells were constructed in general accordance with the June 2014 CalEPA guidance manual *Well Design and Construction for Monitoring Groundwater at Contaminated Sites* with the following the following specifications:

- Borehole diameter: 10.25 inches.
- 30-foot long screens set between 20 and 45-50 feet bgs, total depth 45-50 feet bgs.
- Casing four-inch PVC Schedule 40 flush thread.
- Screen slot size 0.020".
- #2/12 sand the filter pack.
- Well hydrated medium bentonite chips placed above the filter pack.
- Cement/bentonite grout placed above the bentonite seal up to approximately 1.5 feet bgs.
- Stick-up steel monuments installed and set in concrete with protective bollards.

The wells were drilled by hollow stem auger rigs operated by BC2 Environmental Drilling.

Investigation-derived soil cuttings generated during drilling were placed into lined stockpiles, consolidated and treated on site along with the shallow soil excavation and treatment operations. Development fluids were contained in drums and will be added to the on-site treatment system for treatment and disposal, similarly to the well water purged during groundwater monitoring events.

Three of the completed replacement groundwater wells (MW-15R, GMW-4R and GMW-14R) are located in the southern area targeted for additional remediation via biosparging and SVE and are clustered near wells that will be used during future performance optimization testing.

As described in Section 4, a comprehensive report on groundwater monitoring well replaced and development will be submitted separately following LARWQCB approval and completion of the well replacement proposed in this Work Plan.

2.2 Completed Remediation Well Replacements

Well drilling conducted in 2016 also included installation of 11 biosparge wells (BSP-10 to BSP-20) and three SVE wells (VEW-38 to VEW-40). These well locations are illustrated on Figure 3 and listed on Table 2. In the eastern area, five biosparge wells BSP-10 to BSP-14 were installed in the area of nine former biosparge points that had been constructed of ¾-inch diameter PVC wells that were found to be inoperable and plugged during recent gauging. The five biosparge wells will be used in conjunction with the existing SVE wells in the eastern part of the site for optimization testing. Six biosparge wells (BSP-15 to BSP-20) were drilled in the southern part of the site, in the area of the former truck loading racks, and three SVE wells (VEW-38 to VEW-40) were also constructed in that area to be used as optimization test wells. The remediation wells were constructed in general accordance with the June 2014 CalEPA guidance manual *Well Design and Construction for Monitoring Groundwater at Contaminated Sites*.

All replacement biosparge wells were constructed with the following specifications:

- Borehole diameter 8.25 inches.
- 2-foot long screens set a minimum of 4 feet below the deepest impacted interval, typically between 48 and 50 feet bgs.
- Casing: two-inch PVC Schedule 40 flush thread.
- Screen slot size 0.010".
- Pre-pack filter with #2/16 sand and 60-mesh screen.
- Approximately 1 foot of #30 transition sand placed above the top of screen, and approximately 3 feet of bentonite time-release pellets placed above the filter pack.
- Cement/bentonite grout placed above the bentonite seal up to approximately 5 feet bgs.
- After the current temporary completion with the well casing extended above ground and marked with protection posts and caution tape, flush-mount street boxes will be installed and set in concrete at grade surface as part of system recommissioning after the performance optimization tests are completed and prior to the remediation system re-start.

All replacement SVE wells were constructed with the following specifications:

- Borehole diameter 10.25 inches.
- 10-foot long screens set between 20 and 30 feet bgs.

- Casing: four-inch PVC Schedule 40 flush thread.
- Screen slot size 0.050”.
- #3 sand used for the filter pack.
- Approximately 1 foot of #30 transition sand placed above the top of screen and approximately 3 feet of well-hydrated bentonite chips placed above the filter pack.
- Cement/bentonite grout placed above the bentonite seal up to approximately 5 feet bgs.

After the current temporary completion with the well casing extended above ground and marked with protection posts and caution tape, flush-mount street boxes will be installed and set in concrete at grade surface as part of system recommissioning after the performance optimization tests are completed and prior to the remediation system re-start.

3.0 PROPOSED ADDITIONAL WELL REPLACEMENTS

Eight additional groundwater wells described in the 2014 Work Plan remain to be replaced (reference Table 1). The locations of these wells (TF-9, TF-11, TF-17, TF-22, BW-5, GMW-52, GMW-27, and HL-4) are illustrated on Figure 3. As indicated on the figure, the locations of three of the proposed wells (TF-11R, TF-22R and GMW-52R) are adjacent to existing groundwater wells. Therefore, to provide a more uniform coverage of monitoring points within the tank farm, these three wells are proposed to be relocated approximately 100 feet from the original location (reference Figure 3 and Table 1.)

The replacement of these wells will include the following tasks.

3.1 Preparatory Tasks

The site- and task-specific health and safety plan (HASP) will be updated prior to field work, if necessary. Drilling permits will be obtained from the Los Angeles County Department of Health Services. Underground Services Alert will be contacted prior to drilling, and a geophysical clearing company will conduct a survey of potential buried utilities at each well replaced location.

3.2 Well Installation

SGI personnel will supervise the drilling, installation, and development of all the wells. The wells will be installed by hollow-stem auger rigs.

During the drilling, the soil types will be logged every five feet, screened for hydrocarbon impacts, and blow counts recorded from the ground surface to the total depth. In addition to photoionization detector (PID) measurements during drilling, two soil samples will be collected from the replacement groundwater monitoring wells for laboratory analysis, typically from 25 feet and 35 feet. The results of these analyses will be included in the final well re-installation report.

3.3 Groundwater Well Construction Specifications

The proposed groundwater wells will be constructed in general accordance with the June 2014 CalEPA guidance manual *Well Design and Construction for Monitoring Groundwater at Contaminated Sites* with the following the following specifications:

- Borehole diameter: 10.25 inches.
- 30-foot long screens set between 20 and 50 feet bgs, total depth 50 feet bgs.
- Casing four-inch PVC Schedule 40 flush thread.
- Screen slot size 0.020".
- #2/12 sand the filter pack.
- Well hydrated medium bentonite chips placed above the filter pack.
- Cement/bentonite grout placed above the bentonite seal up to approximately 1.5 feet bgs.
- Stick-up steel monuments installed and set in concrete with protective bollards.

3.4 Well Development

Following a 48-hour period, each well will be developed to remove fine particles/debris, and increase the fluid flow from or into the surrounding formation.

The wells will be developed with a surge block and pump, and the developed water monitored using a multi-parameter water quality meter. Water quality parameters (pH, conductivity, dissolved oxygen, temperature, and salinity) will be monitored at regular intervals until the parameters stabilize, within 10% of previous readings for each parameter. Stabilization provides an indication that representative groundwater is entering the screen and is being sampled. During development, measurements and observations of general fluid character including the potential presence of hydrocarbons including LNAPL will be recorded.

3.5 Waste Management

Investigation-derived soil cuttings generated during drilling will be placed into a lined bin, and the soil will be hauled off-site for disposal pending characterization and profiling. Development fluids will be contained in drums and will be added to the on-site treatment system for treatment and disposal, similarly to the well water purged during groundwater monitoring events.

3.6 Survey

SGI will coordinate the surveying of all well locations and top-of-casing elevations of all groundwater monitoring wells after site re-grading and final well head construction.

4.0 SCHEDULE AND REPORTING

After the completion, development, and surveying of all replacement groundwater monitoring wells, a detailed report on groundwater monitoring well replacement will be prepared, which will include well logs, development records, analytical results and surveying data. The replacement groundwater wells will also be incorporated into the semi-annual groundwater monitoring program. The groundwater well replacement program is expected to be complete in the first half of 2017.

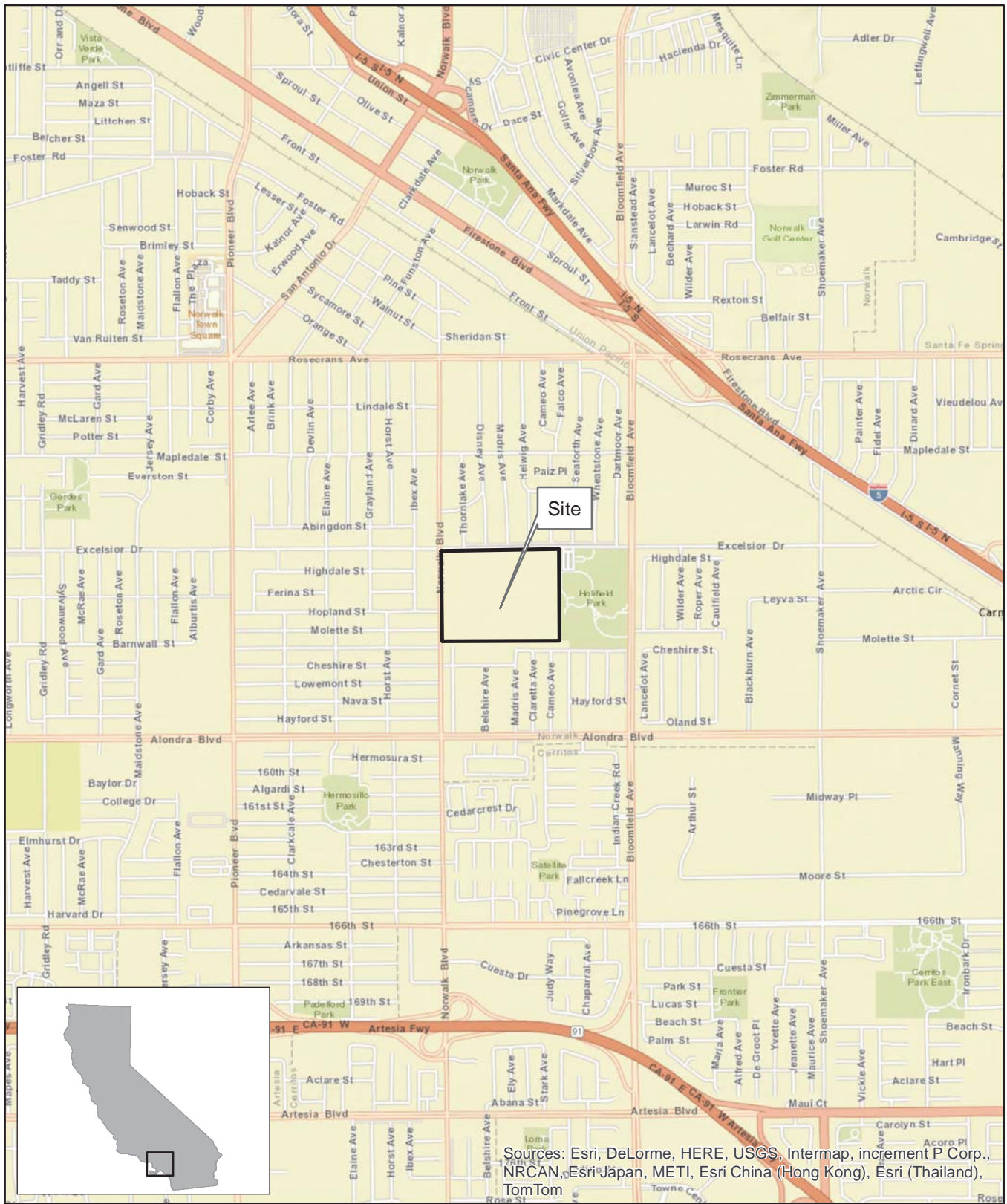
5.0 LIMITATIONS

This Work Plan was prepared for the exclusive use of Defense Logistics Agency Installation Support for Energy (DLA) for the express purpose of complying with regulatory directives for environmental investigation, in accordance with the scope of work, methodologies, and assumptions outlined in SGI's contract with DLA and as applicable to the location of the proposed investigation. Any re-use of this work product, in whole or in part, for a different purpose, or by others must be approved by SGI and DLA in writing. If any such unauthorized use occurs, it shall be at the user's sole risk without liability to SGI. To the extent that this plan is based on information provided to SGI by third parties, including DLA, their direct-contractors, previous workers, and other stakeholders, SGI cannot guarantee the completeness or accuracy of this information, even where efforts were made to verify third-party information. SGI has exercised professional judgment to collect and present a scope of work and opinions of a scientific and technical nature. The opinions expressed are based on the conditions of the site existing at the time of this plan preparation, current regulatory requirements, and any specified assumptions. Findings or conclusions presented in this plan are intended to be taken in their entirety to assist DLA and regulatory personnel in applying their own professional judgment in making decisions related to the property. SGI cannot provide conclusions on environmental conditions outside the completed scope of work. SGI cannot guarantee that future conditions will not change and affect the validity of the presented scope of work and any conclusions presented. No warranty or guarantee, whether expressed or implied, is made with respect to the data, observations, recommendations, and conclusions.

6.0 REFERENCES

- The Source Group, Inc. (SGI), 2014a. *Soil Remedial Action Plan, Defense Fuel Support Point Norwalk, 15306 Norwalk Boulevard*. November 30, 2014.
- SGI, 2014b. *Addendum to the Soil Remedial Action Plan (Description of F4 Bioremediation), Defense Fuel Support Point Norwalk, 15306 Norwalk Boulevard*. December 10, 2014.
- SGI, 2014c. *Work Plan for Well Abandonment*. December 16, 2014.
- SGI, 2015. *Well Removal Letter Report*. February 2, 2015.
- SGI, 2016. *Work Plan for Optimization Testing Prior to Remediation System Recommissioning, Eastern and Southern Areas*. December 14 2016.
- Los Angeles Regional Water Quality Control Board (RWQCB), 2015. *Review of Remedial Action Plan and Soil Management Plan, Defense Fuel Support Point Norwalk, 15306 Norwalk Boulevard*. January 7, 2015.

FIGURES



Sources: Esri, DeLorme, HERE, USGS, Intermap, increment P Corp., NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), TomTom

SOURCE:
ESRI 7.5 MINUTE TOPOGRAPHIC MAP.
<http://resources.esri.com/arcgisonline/services>

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| PROJECT NO.: | DATE: | DR. BY: | APP. BY: |
| 04-NDLA-001 | 5/28/2014 | JK | PP |

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SGI THE SOURCE GROUP, INC.
environmental
1962 FREEMAN AVENUE
SIGNAL HILL, CA 90755
(562) 597-1055

**DEFENSE FUEL SUPPORT POINT
NORWALK**
15306 NORWALK BOULEVARD
NORWALK, CALIFORNIA

SITE LOCATION MAP

FIGURE
1



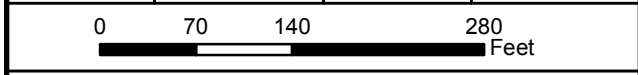
Legend

- Former Above Ground Storage Tanks
- Removed Groundwater Well Replaced
- 2016 Redrilled Groundwater Monitoring Wells
- Existing Soil Vapor Extraction System
- 15 Acre Expanded Holifield Park Area



DFSP Norwalk
 15306 Norwalk Boulevard
 Norwalk, California

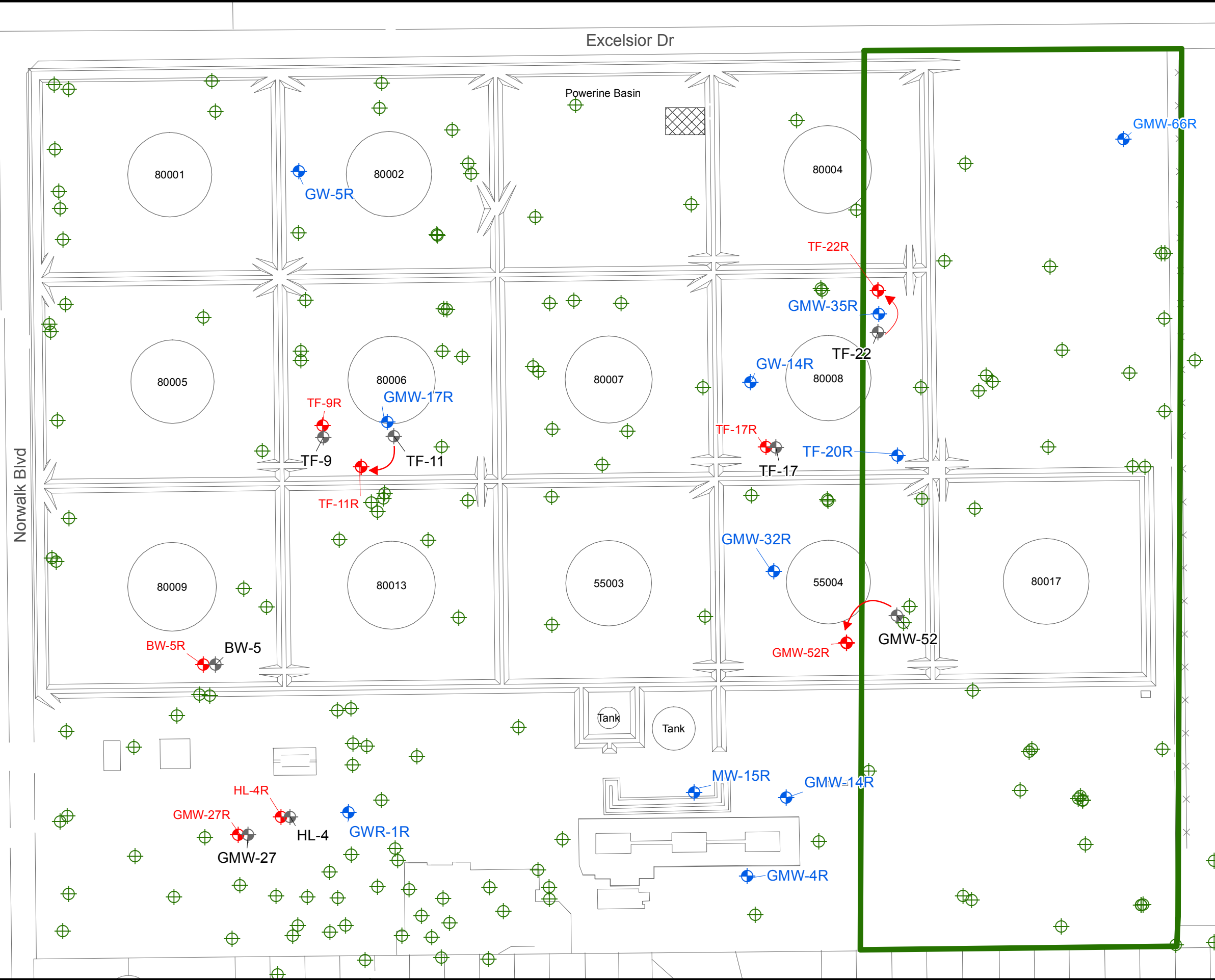
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Re-Drilled Groundwater Wells

| | |
|--|---------------|
| <p>THE SOURCE GROUP, INC. 1962 Freeman Avenue Signal Hill, CA 90755 (562) 597-1055</p> | Figure |
| | 2 |
| | |

Document Path: R:\DLA-Norwalk\GIS_Maps\GWM_Well_Map\Fig-3_DFSPN_All&Redrilling_Wells_012017.mxd



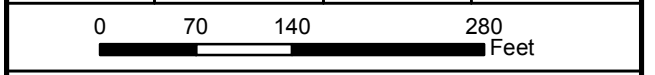
Legend

- Former Above Ground Storage Tanks
- Pre-2016 Existing Groundwater Monitoring Wells
- 2016 Redrilled Groundwater Monitoring Wells
- Initial Location of Remaining Replacement Groundwater Wells
- 2017 Proposed Replacement Groundwater Monitoring Wells
- Existing Soil Vapor Extraction System
- 15 Acre Expanded Holifield Park Area



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Norwalk, California

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Locations of 2016 Re-Drilled Groundwater Wells and Proposed Groundwater Wells

| | |
|---|-----------------------------------|
| <p>THE SOURCE GROUP, INC. 1962 Freeman Avenue Signal Hill, CA 90755 (562) 597-1055</p> | <p>Figure 3</p> |
|---|-----------------------------------|



Legend

-  Former Above Ground Storage Tanks
-  Biosparging Wells (Drilled 2016)
-  SVE Wells (Drilled 2016)
-  Existing Soil Vapor Extraction System
-  15 Acre Expanded Holifield Park Area

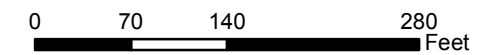
Note

SVE = Soil Vapor Extraction



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2016 Completed Biosparging and SVE Well Locations

SGI environmental
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1962 Freeman Avenue
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Figure
4

TABLES

TABLE 1
Groundwater Wells Re-Drilling Summary
Defense Fuel Support Point, Norwalk, California

| Area | Wells Abandoned as Proposed in 2014 | Total Depth (ft bgs) | Diameter | Screen Interval (ft bgs) | Wells Proposed in 2014 to be Re-drilled | Well Re-Drilling Date | Well Depth (ft bgs) | Well Diameter (inches) | Screen Interval (ft bgs) | Comments |
|-------------------|-------------------------------------|----------------------|-----------|--------------------------|--|--------------------------------------|---------------------|------------------------|--------------------------|---|
| AST 80002 | GW-5 | 63 | 1 and 4 | 25.5 - 60.5 | GW-5R | 11/9/2016 | 50 | 4 | 20 - 50 | |
| AST 80006 | SP-08 | 50 | 2 | 48 - 50 | - | - | - | - | - | |
| | SP-09 | 50 | 2 | 48 - 50 | - | - | - | - | - | |
| | SP-11a | 50 | 2 | 48 - 50 | - | - | - | - | - | |
| | GMW-17 | 50 | 4 | 25 - 50 | GMW-17R | 11/10/2016 | 50 | 4 | 20 - 50 | |
| | TF-9 | 63 | 4 | 25-60 | TF-9R | PENDING | - | - | - | |
| | TF-11 | 63 | 1.5 and 4 | 25 - 60 | TF-11R | PENDING | - | - | - | TF-11R location proposed 100ft Southwest of initial TF-11 location |
| AST 80008 | SP-17 | 50 | 2 | 48 - 50 | - | - | - | - | - | |
| | SP-17a | 50 | 2 | 48 - 50 | - | - | - | - | - | |
| | SP-20 | 50 | 2 | 48 - 50 | - | - | - | - | - | |
| | SP-20a | 50 | 2 | 48 - 50 | - | - | - | - | - | |
| | SP-21 | 50 | 2 | 48 - 50 | - | - | - | - | - | |
| | SP-23 | 50 | 2 | 48 - 50 | - | - | - | - | - | |
| | TF-17 | 63 | 2 | 25 - 60 | TF-17R | PENDING | - | - | - | |
| | TF-20 | 63 | 2 | 25 - 60 | TF-20R | 11/7/2016 | 50 | 4 | 20 - 50 | |
| | TF-22 | 63 | 2 | 25 - 60 | TF-22R | PENDING | - | - | - | TF-22R location proposed 100ft North of initial TF-22 location |
| | GW-14 | 67 | 1 | 25 - 65 | GW-14R | 11/8/2016 | 50 | 4 | 20 - 50 | |
| | GMW-35 | 50 | 4 | 20 - 50 | GMW-35R | 11/8/2016 | 50 | 4 | 20 - 50 | |
| AST 80009 | BW-5 | 52.5 | 5 | 27 - 45.5 | BW-5R | PENDING | - | - | - | |
| AST 55004 | GMW-32 | 50 | 4 | 20 - 50 | GMW-32R | 11/9/2016 | 50 | 4 | 20 - 50 | |
| | GMW-52 | 41.5 | 4 | 15 - 40 | GMW-52R | PENDING | - | - | - | GMW-52R location proposed 100ft Southwest of initial GMW-52 locations |
| South West corner | GWR-1 | 50 | 4 | 25 - 50 | GWR-1R | 11/10/2016 | 50 | 4 | 20 - 50 | |
| | GMW-27 | 50 | 4 | 25 - 50 | GMW-27R | PENDING | - | - | - | |
| | HL-4 | 39 | 4 | 18 - 38.5 | HL-4R | PENDING | - | - | - | |
| Truck Yard | MW-15 | 50 | 4 | 18-48 | MW-15R | 10/31/2016 | 50 | 4 | 20 - 50 | |
| | GMW-4 | 50 | 4 | 20-50 | GMW-4R | 11/1/2016 | 50 | 4 | 20 - 50 | |
| | GMW-14 | 50 | 4 | 20 - 50 | GMW-14R | 10/31/2016 | 50 | 4 | 20 - 50 | |
| North East | GMW-66 | 40.5 | 4 | 20-40 | GMW-66R | 4/7/2016 | 45 | 4 | 20-45 | |
| Summary / Total | 28 Wells Abandoned Site Wide | - | - | - | 19 Wells Due to be Re-Drilled per 2014 Work Plan | 11 Wells Re-Drilled, 8 wells pending | - | - | - | |

TABLE 2
Completed Remediation Wells Re-Drilling Summary
Defense Fuel Support Point, Norwalk, California

| Well | Drilling Date | Total Depth (feet bgs) | Casing Diameter (inches) | Screen Interval (feet bgs) | Slot Size (inches) |
|-------------|----------------------|-----------------------------------|-------------------------------------|---------------------------------------|-------------------------------|
| BSP-10 | 11/04/16 | 46.5 | 2 | 44-46 | 0.010 |
| BSP-11 | 11/04/16 | 50 | 2 | 38-40 | 0.010 |
| BSP-12 | 11/04/16 | 46.5 | 2 | 44-46 | 0.010 |
| BSP-13 | 11/07/16 | 46.5 | 2 | 44-46 | 0.010 |
| BSP-14 | 11/07/16 | 46.5 | 2 | 44-46 | 0.010 |
| BSP-15 | 11/02/16 | 50.5 | 2 | 48-50 | 0.010 |
| BSP-16 | 11/03/16 | 50.5 | 2 | 48-50 | 0.010 |
| BSP-17 | 11/03/16 | 50.5 | 2 | 48-50 | 0.010 |
| BSP-18 | 11/03/16 | 50.5 | 2 | 48-50 | 0.010 |
| BSP-19 | 11/02/16 | 50.5 | 2 | 48-50 | 0.010 |
| BSP-20 | 11/01/16 | 50.5 | 2 | 48-50 | 0.010 |
| VEW-38 | 11/02/16 | 30.5 | 4 | 20-30 | 0.050 |
| VEW-39 | 11/03/16 | 30.5 | 4 | 20-30 | 0.050 |
| VEW-40 | 11/02/16 | 30.5 | 4 | 20-30 | 0.050 |

Notes:

feet bgs = feet below ground surface

APPENDIX A

Well Permits



ENVIRONMENTAL HEALTH

Drinking Water Program



5050 Commerce Drive, Baldwin Park, CA 91706
 Telephone: (626) 430-5420 • Facsimile: (626) 813-3013 • Email: waterquality@ph.lacounty.gov
http://publichealth.lacounty.gov/eh/ep/dw/dw_main.htm

Well Permit Approval

TO BE COMPLETED BY APPLICANT:

| | | | |
|--|------------------------|---------------------|---|
| WORK SITE ADDRESS <i>15306 Norwalk Blvd</i> | CITY <i>Norwalk</i> | ZIP <i>90650</i> | EMAIL ADDRESS FOR WELL PERMIT APPROVAL <i>nirish@thesourcegroup.net</i> <i>dswensson@thesourcegroup.net</i> |
|--|------------------------|---------------------|---|

NOTICE:

- WORK PLAN APPROVALS ARE VALID FOR 180 DAYS. 30 DAY EXTENSIONS OF WORK PLAN APPROVALS ARE CONSIDERED ON AN INDIVIDUAL (CASE-BY-CASE) BASIS AND MAY BE SUBJECT TO ADDITIONAL PLAN REVIEW FEES (HOURLY RATE AS APPLICABLE).
- WORK PLAN MODIFICATIONS MAY BE REQUIRED IF WELL AND GEOLOGIC CONDITIONS ENCOUNTERED AT THE SITE INSPECTION ARE FOUND TO DIFFER FROM THE SCOPE OF WORK PRESENTED TO THE DEPARTMENT OF PUBLIC HEALTH—DRINKING WATER PROGRAM.
- THIS WELL PERMIT APPROVAL IS LIMITED TO COMPLIANCE WITH THE CALIFORNIA WELL STANDARDS AND THE LOS ANGELES COUNTY CODE AND DOES NOT GRANT ANY RIGHTS TO CONSTRUCT, RENOVATE, OR DECOMMISSION ANY WELL. THE APPLICANT IS RESPONSIBLE FOR SECURING ALL OTHER NECESSARY PERMITS SUCH AS WATER RIGHTS, PROPERTY RIGHTS, COASTAL COMMISSION APPROVALS, USE COVENANTS, ENCROACHMENT PERMISSIONS, UTILITY LINE SETBACKS, CITY/COUNTY PUBLIC WORKS RIGHTS OF WAY, ETC.
- ALL FIELD WORK MUST BE CONDUCTED UNDER THE DIRECT SUPERVISION OF A PROFESSIONAL GEOLOGIST LICENSED IN THE STATE OF CALIFORNIA.
- THIS PERMIT IS NOT COMPLETE UNTIL ALL OF THE FOLLOWING REQUIREMENTS ARE SIGNED BY THE DEPUTY HEALTH OFFICER. WORK SHALL NOT BE INITIATED WITHOUT A WORK PLAN APPROVAL STAMPED BY THE DEPARTMENT OF PUBLIC HEALTH—DRINKING WATER PROGRAM.
- NOTIFY THE DRINKING WATER PROGRAM BY EMAIL 3 BUSINESS DAYS BEFORE WORK IS SCHEDULED TO BEGIN.

Juan Rodriguez 626-430-5386 or Juanrodriguez@ph.lacounty.gov

TO BE COMPLETED BY DEPARTMENT OF PUBLIC HEALTH—DRINKING WATER PROGRAM:

| | | |
|---|--|--|
| <input type="checkbox"/> WORK PLAN INCOMPLETE; SUBMIT THE FOLLOWING: | <input checked="" type="checkbox"/> WORK PLAN APPROVED | DATE: <i>11-24-15</i> |
| | Los Angeles County Drinking Water stamp | ADDITIONAL APPROVAL CONDITIONS: |
| | | <i>on 11/20/15 \$519.00 was paid for Permit # SR0052413 to install a ground water monitoring well at above site.</i> |
| | <i>Juan Rodriguez</i> | |

| | |
|---|--|
| <input type="checkbox"/> ANNULAR SEAL FINAL INSPECTION REQUIRED | <input type="checkbox"/> WELL COMPLETION LOG REQUIRED |
| DATE ACCEPTED: _____ REHS signature _____ | DATE ACCEPTED: _____ REHS signature _____ |
| <input type="checkbox"/> WATER QUALITY—BACTERIOLOGICAL STANDARDS REQUIRED | <input type="checkbox"/> WATER QUALITY—CHEMICAL STANDARDS REQUIRED |
| DATE ACCEPTED: _____ REHS signature _____ | DATE ACCEPTED: _____ REHS signature _____ |
| <input type="checkbox"/> WATER SUPPLY YIELD REQUIRED | <input type="checkbox"/> OTHER REQUIREMENT |
| DATE ACCEPTED: _____ REHS signature _____ | DATE ACCEPTED: _____ REHS signature _____ |



ENVIRONMENTAL HEALTH

Drinking Water Program



COUNTY OF LOS ANGELES
Public Health

5050 Commerce Drive, Baldwin Park, CA 91706

Telephone: (626) 430-5420 • Facsimile: (626) 813-3013 • Email: waterquality@ph.lacounty.gov
http://publichealth.lacounty.gov/eh/ep/dw/dw_main.htm

Well Permit Approval

TO BE COMPLETED BY APPLICANT:


| | | | |
|--------------------|---------|-------|---|
| WORK SITE ADDRESS | CITY | ZIP | EMAIL ADDRESS FOR WELL PERMIT APPROVAL |
| 15306 Norwalk Blvd | Norwalk | 90650 | Pianpian.wu@apescos.com paul.parmenier@apescos.com |

NOTICE:

- WORK PLAN APPROVALS ARE VALID FOR 180 DAYS. 30 DAY EXTENSIONS OF WORK PLAN APPROVALS ARE CONSIDERED ON AN INDIVIDUAL (CASE-BY-CASE) BASIS AND MAY BE SUBJECT TO ADDITIONAL PLAN REVIEW FEES (HOURLY RATE AS APPLICABLE).
- WORK PLAN MODIFICATIONS MAY BE REQUIRED IF WELL AND GEOLOGIC CONDITIONS ENCOUNTERED AT THE SITE INSPECTION ARE FOUND TO DIFFER FROM THE SCOPE OF WORK PRESENTED TO THE DEPARTMENT OF PUBLIC HEALTH—DRINKING WATER PROGRAM.
- THIS WELL PERMIT APPROVAL IS LIMITED TO COMPLIANCE WITH THE CALIFORNIA WELL STANDARDS AND THE LOS ANGELES COUNTY CODE AND DOES NOT GRANT ANY RIGHTS TO CONSTRUCT, RENOVATE, OR DECOMMISSION ANY WELL. THE APPLICANT IS RESPONSIBLE FOR SECURING ALL OTHER NECESSARY PERMITS SUCH AS WATER RIGHTS, PROPERTY RIGHTS, COASTAL COMMISSION APPROVALS, USE COVENANTS, ENCROACHMENT PERMISSIONS, UTILITY LINE SETBACKS, CITY/COUNTY PUBLIC WORKS RIGHTS OF WAY, ETC.
- ALL FIELD WORK MUST BE CONDUCTED UNDER THE DIRECT SUPERVISION OF A PROFESSIONAL GEOLOGIST LICENSED IN THE STATE OF CALIFORNIA.
- THIS PERMIT IS NOT COMPLETE UNTIL ALL OF THE FOLLOWING REQUIREMENTS ARE SIGNED BY THE DEPUTY HEALTH OFFICER. WORK SHALL NOT BE INITIATED WITHOUT A WORK PLAN APPROVAL STAMPED BY THE DEPARTMENT OF PUBLIC HEALTH—DRINKING WATER PROGRAM.
- NOTIFY THE DRINKING WATER PROGRAM BY EMAIL 3 BUSINESS DAYS BEFORE WORK IS SCHEDULED TO BEGIN.

Juan Rodriguez 626-430-5386 or JuanRodriguez@ph.lacounty.gov

TO BE COMPLETED BY DEPARTMENT OF PUBLIC HEALTH—DRINKING WATER PROGRAM:

| | | |
|--|---|--|
| <input type="checkbox"/> WORK PLAN INCOMPLETE; SUBMIT THE FOLLOWING: | <input checked="" type="checkbox"/> WORK PLAN APPROVED | DATE: 10/28/16 |
| | Los Angeles County Drinking Water stamp | ADDITIONAL APPROVAL CONDITIONS: |
| |  | <i>on 10/26/16 \$5,190.00 was paid for Permit # SR 0087010 to install 10 groundwater monitoring wells at above-mentioned site.</i> |
| | <i>Juan Rodriguez</i> | |

ANNULAR SEAL FINAL INSPECTION REQUIRED

WELL COMPLETION LOG REQUIRED

| | | | |
|----------------------|----------------------|----------------------|----------------------|
| DATE ACCEPTED: _____ | REHS signature _____ | DATE ACCEPTED: _____ | REHS signature _____ |
|----------------------|----------------------|----------------------|----------------------|

WATER QUALITY—BACTERIOLOGICAL STANDARDS REQUIRED

WATER QUALITY—CHEMICAL STANDARDS REQUIRED

| | | | |
|----------------------|----------------------|----------------------|----------------------|
| DATE ACCEPTED: _____ | REHS signature _____ | DATE ACCEPTED: _____ | REHS signature _____ |
|----------------------|----------------------|----------------------|----------------------|

WATER SUPPLY YIELD REQUIRED

OTHER REQUIREMENT

| | | | |
|----------------------|----------------------|----------------------|----------------------|
| DATE ACCEPTED: _____ | REHS signature _____ | DATE ACCEPTED: _____ | REHS signature _____ |
|----------------------|----------------------|----------------------|----------------------|