Council Meeting of
July 21, 2009

Honorable Mayor and Members
of the City Council
City Hall
Torrance, California

Members of the Council:

SUBJECT: City Manager – Water Replenishment District Monitoring Well at Madrona Marsh Nature Center Parking Lot
Expenditure: None

RECOMMENDATION
Recommendation of the City Manager that the City Council authorize a License Agreement by and between the City of Torrance and the Water Replenishment District of Southern California (WRD) to install a groundwater monitoring well in the western most portion of the parking lot at the Madrona Marsh Nature Center 3201 Plaza del Amo.

Funding
No funding is required.

BACKGROUND/ANALYSIS
The Water Replenishment District of Southern California's (WRD) is requesting approval to construct a second monitoring well in the City of Torrance. The first well was constructed in the Columbia Park parking lot along 190th Street. The well proposed this evening is to be located at the western edge of the Madrona Marsh Nature Center parking lot.

Well construction and water monitoring will help fill water quality and water level data gaps and help WRD monitor the groundwater in the West Coast Basin. The monitoring wells are an important component of WRD's Regional Groundwater Monitoring Program which can detect groundwater contamination, evaluate trends in water and basin conditions, and assure compliance with drinking water standards. Specifically, these monitoring wells will be used to track the saline plume that lies beneath large portions of the City. The well location proposed at the Nature Center and the well already constructed at Columbia Park will allow for monitoring at each edge of the saline plume.

Groundwater is the most cost effective and reliable source of water for the City of Torrance and is an important part of the City's plans to reduce dependency on expensive imported water. Protecting the quality of groundwater in the City helps to maximize the use of local water resources and to reduce our reliance on imported water from northern California and the Colorado River basin.

The site location of the Madrona Marsh Nature Center well is designed to have the least amount of impact on park operations and the surrounding residents. Well site drilling will take approximately 30 days; timing is dependent on hours of operation allowed by the City of Torrance. Because of the proximity of the well site to adjacent residents staff is

proposing that construction days be limited to Monday through Friday during the normal code authorized construction hours of 7:30am – 6:00pm.

WRD staff will send out information and is willing to meet with the local Homeowner's Association and any residents prior to commencing construction.

Respectfully submitted,

LeROY J. JACKSON
CITY MANAGER

By _____
Brian K. Sunshine
Assistant to the City Manager

CONCUR:

_____
John Jones
Community Services Director

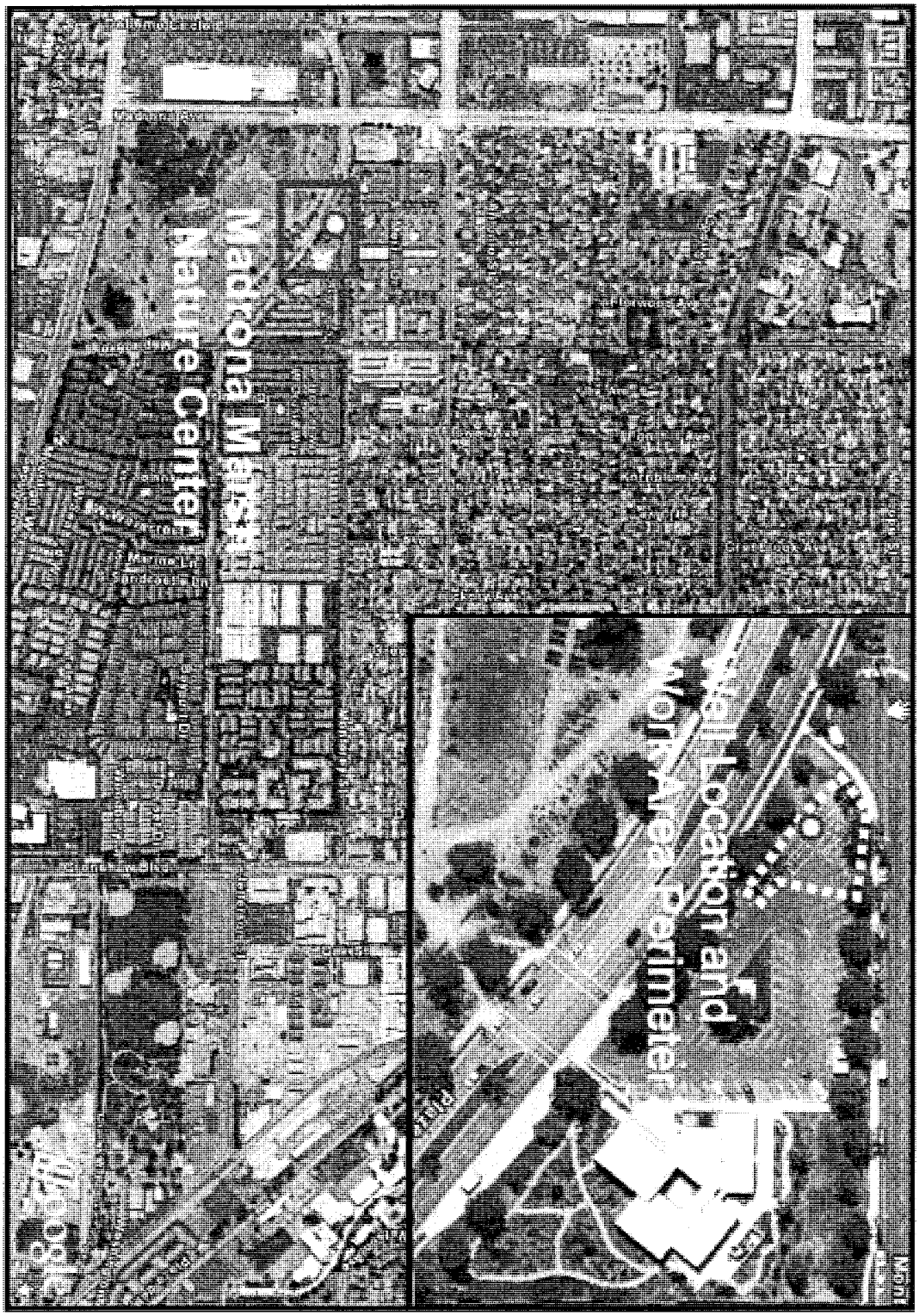
_____
Rob Beste
Public Works Director

_____
LeRoy J. Jackson
City Manager

Attachments:
A) Site map
B) License Agreement

Attachment A

SITE MAP



Attachment B

LICENSE AGREEMENT BETWEEN CITY OF TORRANCE AND WATER REPLENISHMENT DISTRICT OF SOUTHERN CALIFORNIA FOR GROUNDWATER MONITORING WELL LOCATED AT MADRONA MARSH NATURE CENTER

THIS LICENSE AGREEMENT, made and entered into in quadruplicate as of this _____ day of _____, 2009 in the City of Torrance by and between the **CITY OF TORRANCE**, a municipal corporation (hereinafter referred to as "City" or "Licensor"), and Water Replenishment District of Southern California, (hereinafter referred to as "Grantee" (collectively referred to as "Parties" or individually as "Party").

WHEREAS, Licensor is the owner of that certain real property commonly known as the Madrona Marsh Nature Center, located at 3201 Plaza Del Amo, Torrance, California, which is the subject of this License Agreement and is more particularly described and shown in Exhibit "A" attached hereto and incorporated herein by this reference (hereinafter referred as "Site"); and

WHEREAS, Grantee desires to use the Site to drill one (1) groundwater monitoring well and perform work as more particularly described in Exhibit "B", attached hereto and incorporated herein by this reference (hereinafter referred to as "Scope of Work"); and

WHEREAS, the location, general description of the well and Scope of Work is satisfactory to the City; and

WHEREAS, the Licensor desires to grant rights and privileges for the use of the Site to Grantee under this License Agreement.

NOW, THEREFORE, Licensor, for and in consideration of the faithful performance by Grantee of the terms, covenants and agreement hereinafter set forth to be kept and performed by Grantee, does hereby grant Grantee a license to enter onto the Site, solely for the purposes specified in this License agreement, upon and subject to the terms, reservation, covenants and conditions set forth as follows:

I. **GRANT OF LICENSE; TERM**: The City hereby grants to Grantee for the term of twenty (20) years from the effective date of this License Agreement, subject to extensions at the discretion of the City, subject, further, to all the special and general provisions attached hereto and made a part hereof, the right and privilege to construct, erect, maintain, operate, repair, renew, remove and abandon groundwater monitoring well, as described in the Scope of Work, attached hereto as Exhibit "B" at the Site, as shown in the attached Exhibit "A".

GENERAL PROVISIONS

II. **LOCATION OF WELLS** - The groundwater monitoring well shall be located at the Site, as shown in Exhibit "A".

III. CONSTRUCTION OF WELLS

A. Time of Construction. The Grantee, in good faith, shall commence the work of constructing the well within ninety (90) days from the date of this License Agreement and shall complete such construction within forty five (45) days after commencing construction.

B. As-Built Drawings and Maps. Within ninety (90) days following the date that construction is completed, the Grantee shall provide the City with the well construction log and the surveyed coordinates of the monitoring well location.

C. Installation and Testing of Well. The well shall be installed, sampled and tested in substantial accordance with the Scope of Work, attached hereto as Exhibit "B".

IV. CONFORMANCE REQUIREMENTS

A. Conformance with State Codes. The well and appurtenances shall be constructed in accordance with all applicable State of California Standards for the construction of well as set forth in State laws, rules or regulations.

B. Conformance with City Ordinances and Permits. The well and appurtenances shall be constructed in conformity with all applicable City ordinances, rules or regulations in effect at the time of construction, or as prescribed by the City.

C. Conformance with Regulations and Requirements of Boards and Agencies. The well shall be constructed and maintained in accordance with applicable standards, regulations, or existing requirements of the Los Angeles Regional Water Quality Control Board and the State of California Department of Health Services.

D. In the event Grantee assumes control of the Site, Grantee will maintain the grounds and improvements on the Site in a safe, clean and neat manner to the reasonable satisfaction of the Environmental Division of the Community Development Department of the City. Any containers stored on the Site must be screened from public view.

V. CLEANUP OF BREAKS AND LEAKS

If any portion of the Site shall be damaged by reason of Grantees' construction, operation or maintenance of any facility constructed or maintained under this License Agreement, or if any street, sidewalk, sewer, storm drain or other facility be contaminated with waste water, gasoline or other substance due to operations by the Grantee, the Grantee shall, at its own expense, immediately repair or clean up or cause to be repaired or cleaned up any such damage or contamination and put such street, sidewalk, sewer, storm drain or other facility in substantially as

good condition as it was before such contamination, to the reasonable satisfaction of the City. Such cleanups shall be accomplished in a timely manner, with as little public disruption as possible.

VI. EMERGENCY CREWS

During the term of this Agreement, the Grantee shall provide within a twenty-four (24) hour notification, crews for the purpose of repairs, cleanup, preventing or minimizing serious immediate damage or the threat of damage to people or the environment in the event of an emergency resulting from an earthquake, act of war, civil disturbance, flood, leakage or other cause.

VII. REARRANGEMENT OF FACILITIES

A. Expense of Grantee. Whenever, during the existence of this Agreement, the City shall undergo any construction that shall, in the opinion of the City, render necessary any change in the position or location of any facilities of the Grantee, the Grantee shall, at its own cost and expense, do any and all things to effect such change in position or location, in conformity with the written notice of the Community Development Director as provided in Section (D) of this Article, below.

B. Expense of Others. When such change in construction or work is done for the accommodation of any person, firm or corporation, the cost of such rearrangement shall be borne by the accommodated party. Such accommodated party, in advance of such rearrangement, shall: (a) deposit with the Grantee either cash or a corporate surety bond in an amount, as in the reasonable discretion of the Grantee shall be required to pay the costs of such change in work; and (b) shall execute an instrument agreeing to indemnify, defend and hold harmless the Grantee from any and all damages or claims caused by such rearrangement.

C. Rearrangement of the Facilities of Others. Nothing contained in this License Agreement shall be construed to require the City to move, alter or relocate any of its facilities on the Site, at its own expense, for the convenience, accommodation or necessity of any other public utility, person, firm or corporation, or to require the City or any person, firm or corporation now or hereafter owning a public utility system of any type or nature, to move, alter or relocate any part of its system for the convenience, accommodation or necessity of the Grantee. If the well cannot be located at the Site, as described in Exhibit "A", the Licensor shall furnish Grantee with another reasonable acceptable location for such well in the immediate vicinity.

D. Notice. The Grantee shall be given not less than ten (10) days prior written notice of any change or relocation of facilities which the Grantee is required to make hereunder. Such notice shall specify in reasonable detail the work to be done by the Grantee and shall specify the time that such work is to be accomplished. In

the event that the City shall change the provisions of any such notice given to the Grantee, the Grantee shall be given an additional period not less than forty five (45) days to accomplish such work

VIII. REMOVAL OR ABANDONMENT OF FACILITIES

A. Application to City. At the expiration, revocation or termination of this Agreement or of the permanent discontinuance of the use of the well or its facilities or any portion thereof, the Grantee shall, within thirty (30) days thereafter, make a written application to the City for authority (as determined by the Grantee) either: (a) to abandon all, or a portion, of such facilities in place; or (b) to remove all, or a portion, of such facilities. Such application shall describe the facilities desired to be abandoned or removed by reference to the map or maps required by Article III, Section B, of this License Agreement and shall also describe with reasonable accuracy the relative physical condition of such facilities.

B. Determination of City. The City shall determine whether such abandonment or removal which is thereby proposed may be effected without detriment to the public interest or under what conditions such proposed abandonment or removal may be safely effected. The City shall then notify the Grantee in writing within thirty (30) days following its receipt of Grantee's application, and according to such reasonable conditions as shall be specified that the Grantee may either effect such abandonment or such removal shall, as appropriate, within ninety (90) days thereafter, either:

1. Remove all or a portion of such facilities; or

2. Abandon in place all or a portion of such facilities, as set forth in the Community Development Director's order.

C. Failure to Properly Abandon. If any facilities to be abandoned in place subject to prescribed conditions shall not be abandoned in accordance with all such conditions, then the City may make additional appropriate orders, including, if deemed desirable, an order that the Grantee shall remove all such facilities in accordance with applicable requirements. In the event the Grantee shall fail to remove any facilities which the Grantee is obligated to remove in accordance with this License Agreement within such time as may be prescribed by the City, then the City, upon written thirty (30) day notice may remove or cause to be removed such facilities at the Grantee's expense and the Grantee shall pay to the City the actual cost thereof plus the current rate of overhead being charged by the City for reimbursable work.

IX. INDEMNIFICATION BY GRANTEE

A. Grantee agrees to indemnify, defend and hold the City (its agents, employees, officers, assigns, representatives) harmless from and against any and all claims, demands, actions

causes of action, losses or liabilities for injury to or death of persons, or for damage to or destruction of real or personal property, or for civil penalty (but not criminal penalty), including injury to or death of any personnel of Licensor or of any other persons, and including damage to or destruction of the groundwater monitoring well or Site , the Licensor or other parties, arising out of (1) the intentional, willful, reckless or negligent acts, errors or omissions of the Grantee (its agents, employees, officers, assigns, representatives, contractors or subcontractors) in connection with the construction, operation, monitoring and maintenance of the groundwater monitoring well, or (2) the use of the Site by the Grantee (its agents, employees, officers, assigns, representatives, contractors or subcontractors) for purposes of construction, monitoring and maintenance of the groundwater monitoring well. In the event any claim, demand loss or liability is asserted or action instituted against City (its agents, employees, officers, assigns, representatives), the Grantee shall, upon receipt of notice of such claim, demand, loss, liability or action, defend the City at Grantee's expense. In the event of damage to or destruction of City property arising out of (1) the intentional, willful, reckless or negligent acts, errors or omissions of the Grantee (its agents, employees, officers, assigns, representatives, contractors or subcontractors) for purposes of construction, monitoring and maintenance of the groundwater monitoring well, the Grantee shall forthwith restore the property.

Grantee shall not, however, indemnify the City for any acts of negligence or willful misconduct of the City (its agents, employees, officers, assigns, representatives, contractors or subcontractors) which is not directly caused by the Grantee. Further, Grantee shall not, by operation of this License Agreement, be obligated to defend, indemnify or hold harmless the City for any remediation, costs or damages arising from any type of contamination of the Site soil, subsurface and/or groundwater not caused by Grantee.

This indemnity shall continue in full force and effect, and shall survive the termination of this agreement.

B. In the event, City conveys its fee interest in the Site where the groundwater monitoring well will be located to a third party such fee owner shall become an Indemnitee under this License Agreement and assume all of the obligations of the Agreement.

X. INSURANCE REQUIREMENTS

A. INSURANCE

Grantee shall procure and maintain for the duration of the contract insurance against claims for injuries to persons or damages to property which may arise from, or in connection with, the use of the Site thereunder by the Grantee, its' agents, representatives, employees or subcontractors. The insurance must be full coverage, or if self-insured, such self insurance must be approved by the City's Risk Manager.

1. Automobile Liability, including owned, non-owned and hired vehicles, with at least the following limits of liability.

   a. Primary Bodily Injury with limits of at least Two Hundred and Fifty Thousand Dollars ($250,000) per person, Five Hundred Thousand Dollars ($500,000) per occurrence and;

   b. Primary Property Damage with limits of at least One Hundred Thousand Dollars ($100,000)per occurrence: or

   c. Combined single limits of at least Five Hundred Thousand Dollars ($500,000) per occurrence.

2. General Liability including coverage for premises, products and completed operations, independent contractors/vendors, explosion, collapse and underground hazards, and contractual obligations with combined single limits of at least One Million Dollars ($1,000,000) per occurrence.

3. Workers' Compensation with limits as required by the State of California and Employers Liability with limits of at least Five Hundred Thousand Dollars ($500,000).

B. ADDITIONAL INSURED

The City of Torrance, Los Angeles County-Torrance Civic Center authority, Torrance Public Facilities Building Corporation, Torrance Transit System, Redevelopment Agency of the City of Torrance, Torrance Municipal Water Department, elected officials, officers, agents, employees, volunteers, and members of boards and commissions must be named as additional insureds with respect to liability arising out of the operation or property of Grantee.

C. SUFFICIENCY OF INSURERS

Insurance required by this contract/purchase order will be satisfactory only if issued by companies rated **"B+"** or better in the most recent edition of Best's Key Rating Guide, and only if they are of a financial category of a **"VII"** or better.

D. INCREASE IN REQUIREMENTS

Such insurance shall be maintained by the Grantee for the life of this License Agreement, and each year on the anniversary of this License Agreement , Grantee will provide updated evidence that such insurance is in force. The City has the right during the term of this License Agreement to amend the insurance requirements to increase the amount and scope of coverage. The City covenants that it will not exercise such right in an unreasonable manner.

XI. DEFAULT

A. Effect of Default. In the event that the Grantee shall default in the performance of any of the terms, covenants and conditions herein and such default is curable, the City shall give written notice to the Grantee of such default. In the event that the Grantee does not commence the work necessary to cure such default within thirty (30) days after such notice is sent or prosecute such work diligently to completion, the City may declare this Agreement forfeited. Upon giving at least thirty (30) days written notice thereof to the Grantee, this Agreement shall be void and the rights of the Grantee hereunder shall terminate and the Grantee shall execute an instrument of surrender and deliver same to the City.

B. Force Majeure. In the event Grantee is unable to perform any of the terms of this License Agreement by reason of strikes, riots, acts of God, acts of public enemies or other such cause beyond its control, it shall not be deemed to be in default or have forfeited its rights hereunder if it shall commence and prosecute such performance with reasonable promptness as soon as possible to do so.

C. Cumulative Remedies. No provision herein made for the purpose of securing the enforcement of the terms and conditions of this License Agreement shall be deemed an exclusive remedy, or to afford the exclusive procedure, for the enforcement of said terms and conditions, but the remedies and procedures herein provided, in addition to those provided by law, shall be deemed to be cumulative.

XII. SCOPE OF RESERVATION

The enumeration herein of specific rights reserved shall not be construed as exclusive or as limiting and general reservation herein made or as limiting such rights as the City may now or hereafter have in law.

XII. NOTICE

All notices, requests, demands, or other communications under this License Agreement must be in writing. Notice will be sufficiently given for all purposes as follows:

A. **Personal delivery**. When personally delivered to the recipient: notice is effective on delivery.

B. **First-class mail.** When mailed first class to the last address of the recipient known to the party giving notice: notice is effective three mail delivery days after deposit in a United States Postal Service office or mailbox.

C. **Certified mail**. When mailed certified mail, return receipt requested: notice is effective on receipt, if delivery is confirmed by a return receipt.

D. **Overnight delivery**. When delivered by an overnight delivery service, charges prepaid or charged to the sender's account: notice is effective on delivery, if delivery is confirmed by the delivery service.

E. **Facsimile transmission.** When sent by fax to the last fax number of the recipient known to the party giving notice: notice is effective on receipt, provided that (i) a duplicate copy of the notice is promptly given by first-class or certified mail or by overnight delivery, or (ii) the receiving party delivers a written confirmation of receipt. Any notice given by fax will be deemed received on the next business day if it is received after 5:00 p.m. (recipient's time) or on a nonbusiness day. Addresses for purpose of giving notice are as follows:

Grantee:

General Manager
4040 Paramount Boulevard
Lakewood, CA 90712
Fax:(562) 921-6101

City of Torrance:

City Clerk
3031 Torrance Boulevard
Torrance, CA 90503
Fax: (310) 618-2931

Any correctly addressed notice that is refused, unclaimed, or undeliverable because of an act or omission of the party to be notified will be deemed effective as of the first date the notice was refused, unclaimed or deemed undeliverable by the postal authorities, messenger or overnight delivery service.

Any party may change its address or fax number by giving the other party notice of the change in any manner permitted by this Agreement.

XIV. SUCCESSORS

The terms herein shall inure to the benefit of or shall bind, as the case may be, the successors and assigns of the parties hereto.

XV. ACCEPTANCE OF AGREEMENT

This License Agreement is entered and shall be held and enjoyed only upon the terms and conditions herein contained.

XVI. AGREEMENT TO BE STRICTLY CONSTRUED AGAINST GRANTEE

The License Agreement is granted upon each and every condition herein contained and shall ever be strictly construed against Grantee. Nothing shall pass hereby unless it is

granted in plain and unambiguous terms. Each of said conditions is a material and essential condition to the granting of this Agreement.

XVII. SPECIAL PROVISIONS

A. Fees. Because the Grantee is a Public Agency doing work that will benefit the City, all fees for installation of the monitoring well are waived. As reimbursement for administrative costs in the execution of this Agreement, the Grantee shall pay to the City in lawful money of the United States a fee of Four Hundred and Seventy Dollars ($470) and Fifty-Nine Dollars ($59) for each additional well. This payment shall be made to the City prior to the signing of this License Agreement and if made by check shall be made payable to the City of Torrance.

B. Independent Laboratory Analysis. Grantee agrees to have all chemical analyses of samples taken from the well, which are the subject of this License Agreement, performed by qualified independent laboratories which are mutually acceptable to the Grantee and to the City. Grantee also agrees to provide, on request, copies of all analytical test reports to the City as soon as said reports are available.

XVIII. GOVERNING LAW

This Agreement shall be governed by the laws of the State of California and action brought relating to this Agreement shall be brought solely in a court of competent jurisdiction in the county of Los Angeles, California.

XIX. ENTIRE AGREEMENT

This writing constitutes the entire License Agreement between the parties. No modification shall be effective unless the modification is in writing and signed by all parties to the Agreement.

XX. ATTORNEYS' FEES

Each right, power and remedy provided for herein or now or hereafter existing at law, in equity, by statute, or otherwise shall be cumulative and shall be in addition to every other right, power, or remedy provided for herein or now or hereafter existing at law, in equity, by statute, or otherwise. The exercise, the commencement of the exercise, or the forbearance of the exercise by any party of any one or more of such rights, powers or remedies shall not preclude the simultaneous or later exercise by such party of any of all of such other rights, powers or remedies. In the event legal action shall be necessary to enforce any term, covenant or condition herein contained, the party prevailing in such action, whether reduced to judgment or not, shall be entitled to its reasonable court costs, including accountants' fees, if any, and attorneys' fees expended in such action.

XXI. SEVERABILITY

In the event that any provision herein is held to be invalid by any court of competent jurisdiction, the invalidity of any such provision shall not affect the validity of the remaining provisions of this Agreement, which shall remain in full force and effect.

TO EFFECTUATE THIS LICENSE AGREEMENT, the Parties have caused their duly authorized representatives to execute this agreement on the dates set forth below.

CITY OF TORRANCE

A Municipal Corporation

By _____
Frank Scotto
Mayor of the City of Torrance

ATTEST:

_____
Sue Herbers
City Clerk of City of Torrance

APPROVED AS TO FORM:

JOHN L. FELLOWS III
City Attorney

By_____
Deputy City Attorney

Attachments: Exhibit A
Exhibit B

Water Replenishment District of Southern California

By _____
Robb Whittaker
General Manager

APPROVED AS TO FORM:

MEYERS, NAVE, RIBACK, SILVER & WILSON

_____
James M. Casso
Attorneys for the Water Replenishment District of Southern California

1218158.1

EXHIBIT A
LOCATION FOR GROUNDWATER MONITORING WELL
MADRONA MARSH NATURE CENTER, TORRANCE, CALIFORNIA

A nested monitoring well will be drilled, constructed, and used for long-term groundwater level and groundwater quality observations **in the parking lot of the Madrona Marsh Nature Center, 3201 Plaza Del Amo, Torrance, California 90503-7137**. The following figure shows the proposed general location. The precise location of the well can be altered based on discussions with City staff. Exhibit B provides a detailed work plan for the drilling, construction, and monitoring of the well.

EXHIBIT B
GENERAL SCOPE OF WORK
GROUNDWATER MONITORING WELL IN THE PARKING LOT OF THE MADRONA MARSH NATURE CENTER, TORRANCE

A nested monitoring well will be drilled, constructed, and used for long-term groundwater level and groundwater quality observations **in the parking lot of the Madrona Marsh Nature Center, 3201 Plaza Del Amo, Torrance, California 90503-7137 (see Exhibit A)**. A nested monitoring well refers to a single borehole drilled into the ground in which up to 6 small diameter wells will be constructed to different depths so that the individual aquifers or zones of interest can be tapped. The information will be used as part of the Water Replenishment District of Southern California's (WRD) Regional Groundwater Monitoring Program, of which we currently have over 250 wells at 50 locations throughout our service area.

This is research drilling that is being performed to provide data on the saltwater intrusion that exists in the potable aquifers in the Torrance area and the information from the wells will be used to better understand the intrusion and plan for future water supplies for the City and others. The information will also be used as input to computer models we have of the geology and groundwater transport of the Central and West Coast Groundwater Basins to simulate anticipated future conditions. As a research project, WRD has teamed up with the United States Geological Survey (USGS) who has their own drilling rig and crew and will be performing the construction work.

The USGS will drill the borehole using the direct mud rotary drilling method. The borehole will be a maximum of 12 inches in diameter at the top and narrow down to about 7 inches at the bottom of the borehole, which could be up to 1,800 feet deep. Soil sampling will consist of collecting and cataloging soil cuttings at 10-foot intervals or as otherwise determined. Geologic and geophysical logs will be made to document the soil conditions and depth to groundwater encountered while drilling, and to identify where the aquifers are located which are the desired targets for the nested monitoring wells.

Following completion of the borehole and geophysical logging, up to six 2-inch diameter schedule 80 PVC pipes (wells) will be lowered into the borehole. Each pipe will be set to a

different depth (e.g., 250', 500', 750', 1,000', 1,250', and 1,500') with a perforated section at the bottom of the pipe (commonly 20-feet in length) to allow the groundwater at that depth to flow into the pipe for measuring and sampling. The intervals between the pipes will be separated by a minimum of 60 feet of grout to seal off the borehole and prevent intermixing of groundwater the zones between the pipes.

After installation of the pipes (wells), they will be developed to clean out the perforations and leave the well ready for monitoring. Drilling operations will be restricted to hours prescribed by the City. The drilling schedule lasts 3 to 4 weeks. A preliminary schedule follows:

General Project Schedule

Pre-Construction Activities
- Notify Underground Service Alert, hand auger location.
- Notify neighbors and distribute information sheets

Construction Activities

Day 1-2:	Set up equipment, perimeter fence/sound wall.
Day 3-12:	Drill borehole, perform geophysical logging.
Day 13-18:	Construct Well.
Day 19-21:	Develop Well, install well vault, move drill rig off-site.
Day 22-30:	Restore site, remove fencing, and mobilize off-site.

Post-Construction Activities
- Visit Well semi-annually to collect water quality samples.
- Visit Well quarterly to measure water levels, download data loggers, and perform vault maintenance.

A USGS and/or WRD hydrogeologist will be on-site during the drilling and well construction process. WRD will arrange for a security guard to watch the construction area overnight.

SITE RESTORATION

When finished, the Well will be completed at ground surface by installing a concrete vault at grade or slightly above grade to avoid water from ponding on the lid. It will be fitted with a steel traffic-rated lid that will measure about 2 feet by 3 feet. The completion will be of high quality workmanship, and will not cause a driving or walking hazard. The work area on the property

surrounding the Well will be restored to its original condition prior to well construction including any landscaping, paving, striping, or any other condition altered by the Project.

GROUNDWATER MONITORING

Following completion of the well, the Well will be visited several times per year to collect water levels and water quality samples (see Schedule, above). Semi-annual water quality sampling takes place during the Spring and Fall and requires 4 to 6 hours to complete. Water levels are measured quarterly in the last two weeks of March, June, September and December. WRD tries to perform maintenance to the Well and well vault during these semi-annual and quarterly visits, however additional periodic visits may be necessary. Additionally, dataloggers may be installed at the Well to record daily groundwater levels. Data logger related activities are performed during the visits described above. All data collected during construction and subsequent monitoring will be provided at no expense upon request. WRD publishes an annual Regional Groundwater Monitoring Report summarizing District wide groundwater management data which is available on-line at www.wrd.org. Additionally WRD provides data through a web-based search tool at http://gis.wrd.org.

HANDLING OF INVESTIGATION DERIVED WASTE

The project is part of a regional clean water resources investigation. A specific point source site or other contamination has not been targeted. The location was selected based on distance from our existing regional groundwater monitoring wells and the location of the suspected saltwater plume beneath the City.

Investigation derived waste is anticipated to be non-hazardous soil, drilling mud, development water and purged groundwater. All of these wastes will be contained on-site, profiled, and transported to appropriate waste facilities by the USGS. Generally, two poly-lined, 20 cubic yard roll-off soil bins are on-site at a time and are rotated out as the project progresses. Drilling mud and development water are removed from the soil bins by vacuum trucks and transported to disposal facilities.

After well completion and development WRD will purge and sample the well. Purged water from the first sampling will be discharged directly into a vacuum truck and transported to a water

treatment facility. Samples of the groundwater will be profiled and the monitoring well will be added to WRDs NPDES discharge permit. Purge water from subsequent sampling events will be discharged to the storm drain or other criteria as specified by our permit.

Additionally the USGS implements an on-site spill prevention and clean-up plan to prevent impacts from equipment related hydrocarbon releases and drilling mud spills. Site cleanup measures will be implemented and include absorbent materials being placed on spills or underneath leaks. After use, these materials will be placed in garbage bags and hauled away for proper disposal. Kitty litter or equivalent material may also be used to absorb contaminants and will be available onsite. Although not anticipated, any mud spills will be shoveled up and placed in the containment bins for offsite disposal.

CEQA

A CEQA Notice of Exemption was filed on January 23, 2008 which specified that this project qualifies for a categorical exemption under CEQA Guidelines Section 15306. The Notice of Exemption covers the four monitoring wells WRD is installing in 2008 and 2009, including one in the City of Los Angeles (completed), one at Columbia Park in Torrance (completed), one in the City of Bell (completed), and this well in the parking lot of the Madrona Marsh Nature Center. A photocopy of the Notice of Exemption will be provided at the City's request.

OTHER INFORMATION

Photographs and diagrams of the construction and monitoring process are shown below. Please contact Mr. Ted Johnson or Mr. Tony Kirk at WRD if you need additional information at (562) 921-5521.

Figure 1 – Typical Nested Monitoring Well Construction and Completion

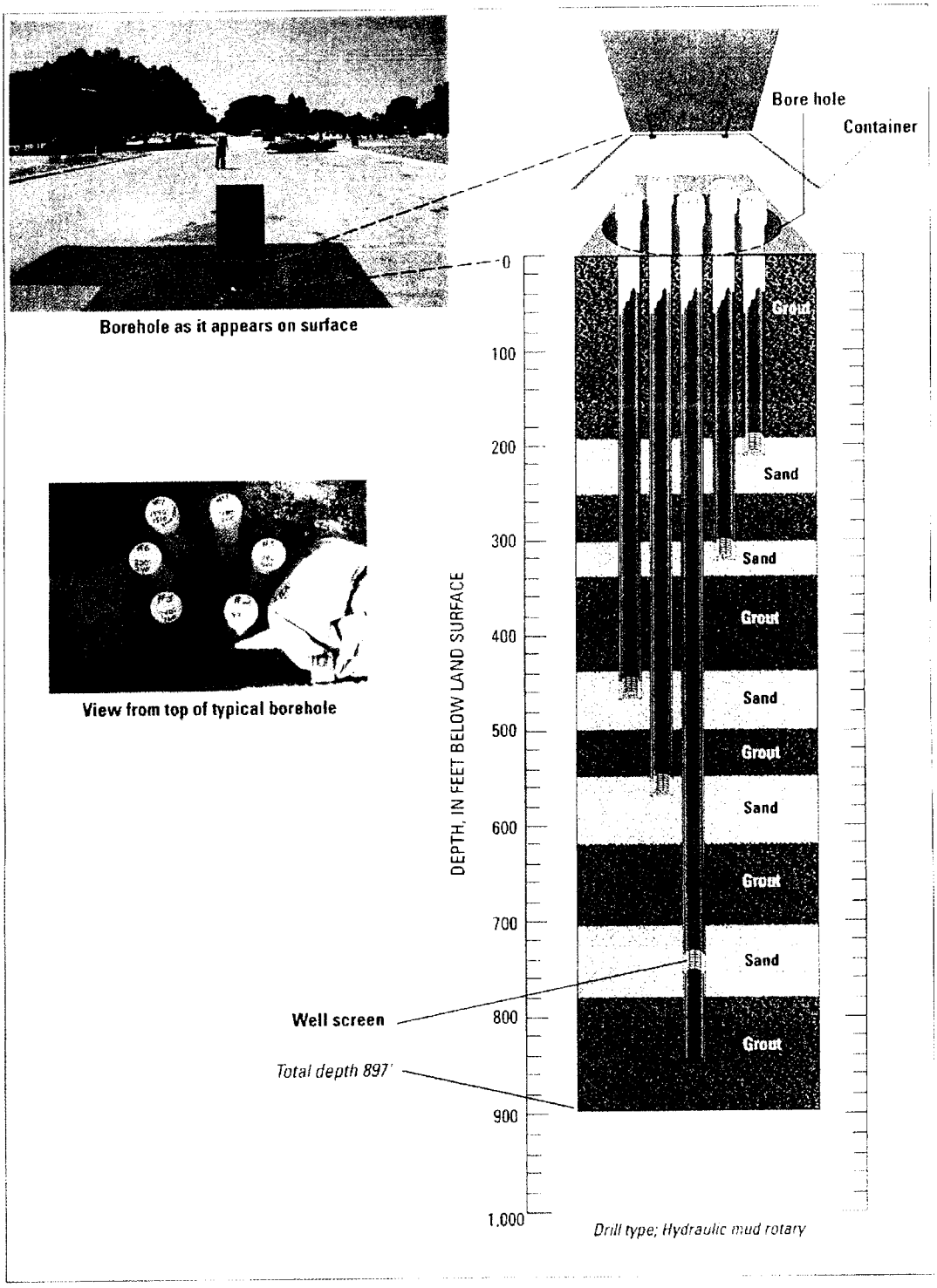


Figure 2 – Drilling Rig Setup

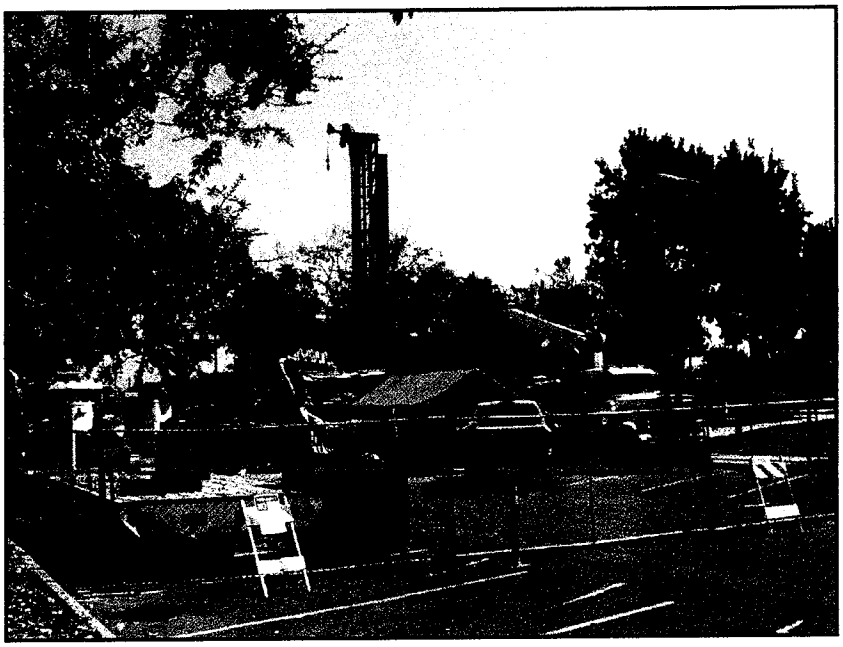
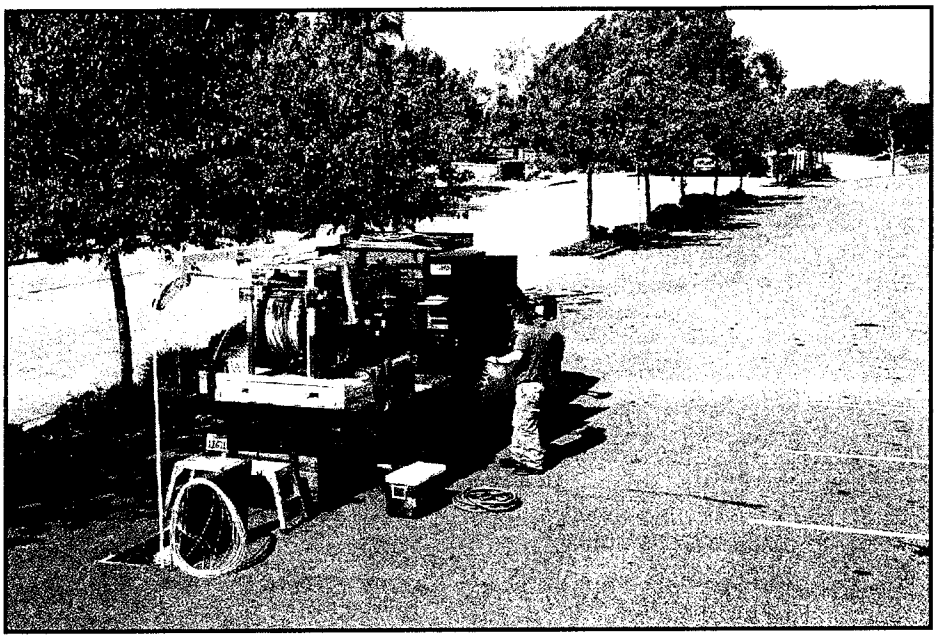



Figure 3 – Sampling Truck