

# STAFF REPORT



ITEM NO. 11  
CITY OF OCEANSIDE

DATE: March 14, 2012  
TO: Honorable Mayor and City Council Members  
FROM: Water Utilities Department  
SUBJECT: **A PROFESSIONAL CONTRACTOR SERVICES AGREEMENT TO GENERAL PUMP COMPANY FOR THE WELL 3 REHABILITATION AND THE WELL 9 REDEVELOPMENT PROJECT**

## **SYNOPSIS**

Staff and the Utilities Commission recommend that the City Council approve a professional contractor services agreement in the amount of \$136,492 to General Pump Company of San Dimas for the Well 3 Rehabilitation and the Well 9 Redevelopment project; and authorize the City Manager to execute the agreement upon receipt of all supporting documents (Exhibit A).

## **BACKGROUND**

The Mission Basin Groundwater Desalting Facility (MBGDF), located at 215 Fireside Drive, was originally constructed and put into operation in 1994. The original facility produced 2.2 million gallons per day (mgd) of potable water from brackish groundwater by use of a reverse osmosis treatment process. One of the original groundwater wells for providing water to the facility was Well 3, which was completed in June 1995. In July 2011, Well 3 was taken offline due to the screen being plugged by sand and a greatly reduced flow rate. Well 3 needs rehabilitation work in order to bring it up to its designed production rate and provide a reliable flow of groundwater to the MBGDF. The rehabilitation work will include pulling the pump and motor, rebuilding the pump, pre-cleaning video documentation of the well interior, cleaning the well, post-cleaning video documentation of the well interior, installing the motor and rebuilt pump, performing a pump test, and re-commissioning the well.

Well 9 was drilled by the SDCWA, originally produced up to 2,220 gallons per minute and was equipped in June of 2008. Currently, Well 9 has an issue with sand infiltration during pumping, which at high flows can impact plant processes and production. Well 9 needs redevelopment to bring it up to its designed production rate and provide a reliable flow of groundwater to the MBGDF. Well 9 work will include pulling the pump and motor, rebuilding the pump, pre-cleaning video documentation of the well interior, dual swab redevelopment of the well screen, cleaning the well, post-cleaning video documentation of the well interior, installing the motor and rebuilt pump, performing a pump test, and re-commissioning the well.

**ANALYSIS**

On October 21, 2011, staff solicited proposals from five pump contracting firms (Exhibit B) to provide the necessary rehabilitation work for Well 3 and the redevelopment work for Well 9.

On November 15, 2011, two proposals were received by the Water Utilities Department (Exhibit C). In accordance with the City's procedure, a panel consisting of City project managers was selected to evaluate the proposals. The panel recommended that General Pump Company be selected to provide the Well 3 Rehabilitation and Well 9 Redevelopment work. The firms were selected based upon their experience and expertise in providing groundwater well redevelopment and rehabilitation services.

**FISCAL IMPACT**

The Mission Basin Desalter Facility Minor Improvements fund (908748500712.5702.10600) has a balance of \$370,350. The General Pump Company bid \$77,076 for the Well 3 Rehabilitation work and \$59,416 for the Well 9 Redevelopment work total \$136,492. Therefore, adequate funds are available for the project.

**CITY ATTORNEY'S ANALYSIS**

The referenced documents have been reviewed by the City Attorney and approved as to form.

**INSURANCE REQUIREMENTS**

The City's standard insurance requirements will be met.

**COMMISSION OR COMMITTEE REPORT**

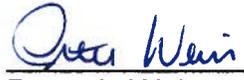
The Utilities Commission unanimously approved staff's recommendation at its regularly scheduled meeting on December 13, 2011.

**RECOMMENDATIONS**

Staff and the Utilities Commission recommend that the City Council approve a professional contractor services agreement in the amount of \$136,492 to General Pump Company of San Dimas for the Well 3 Rehabilitation and the Well 9 Redevelopment project; and authorize the City Manager to execute the agreement upon receipt of all supporting documents (Exhibit A).

PREPARED BY:

  
\_\_\_\_\_  
Jason Dafforn  
Project Manager

  
\_\_\_\_\_  
Peter A. Weiss  
City Manager

REVIEWED BY:

Michelle Skaggs Lawrence, Deputy City Manager

Cari Dale, Water Utilities Director

Teri Ferro, Financial Services Director

  
\_\_\_\_\_  
  
\_\_\_\_\_  
  
\_\_\_\_\_

- Exhibit A: Professional Services Agreement
- Exhibit B: Request for Proposals Mailing List
- Exhibit C: Proposal Results

**CITY OF OCEANSIDE**

**PROFESSIONAL CONTRACTOR SERVICES AGREEMENT**

**PROJECT: WELL # 3 REHABILITATION AND WELL # 9 REDEVELOPMENT**

THIS AGREEMENT, dated \_\_\_\_\_, 2012 for identification purposes, is made and entered into by and between the CITY OF OCEANSIDE, a municipal corporation, hereinafter designated as "CITY", and GENERAL PUMP COMPANY, hereinafter designated as "CONTRACTOR."

**NOW THEREFORE, THE PARTIES MUTUALLY AGREE AS FOLLOWS:**

1. **SCOPE OF WORK.** The CONSULTANT desires to perform the Rehabilitation of Well # 3 and the Redevelopment of Well # 9 and is more particularly described in the Contractor's Scope of Work dated November 11 and 14, 2011 attached hereto and incorporated herein as Exhibit A.
2. **INDEPENDENT CONTRACTOR.** CONTRACTOR'S relationship to the CITY shall be that of an independent contractor. CONTRACTOR shall have no authority, express or implied, to act on behalf of the CITY as an agent, or to bind the CITY to any obligation whatsoever, unless specifically authorized in writing by the CITY. CONTRACTOR shall be solely responsible for the performance of any of its employees, agents, or subcontractors under this Agreement. CONTRACTOR shall report to the CITY any and all employees, agents, and consultants performing work in connection with this project, and all shall be subject to the approval of the CITY.
3. **WORKERS' COMPENSATION.** Pursuant to Labor Code section 1861, the CONTRACTOR hereby certifies that the CONTRACTOR is aware of the provisions of Section 3700 of the Labor Code which require every employer to be insured against liability for Workers' Compensation or to undertake self-insurance in accordance with the provisions of that Code, and the CONTRACTOR will comply with such provisions, and provide certification of such compliance as a part of this Agreement.
4. **LIABILITY INSURANCE.**
  - 4.1. CONTRACTOR shall, throughout the duration of this Agreement maintain comprehensive general liability and property damage insurance, or commercial general liability insurance, covering all operations of CONTRACTOR, its agents and employees, performed in connection with this Agreement including but not limited

## WELL # 3 REHABILITATION AND WELL # 9 REDEVELOPMENT

to premises and automobile.

### 4.2 CONTRACTOR shall maintain liability insurance in the following minimum limits:

Comprehensive General Liability Insurance  
(bodily injury and property damage)

Combined Single Limit Per Occurrence	\$ 1,000,000
General Aggregate	\$ 2,000,000*

Commercial General Liability Insurance  
(bodily injury and property damage)

General limit per occurrence	\$ 1,000,000
General limit project specific aggregate	\$ 2,000,000

<u>Automobile Liability Insurance</u>	\$ 1,000,000
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\*General aggregate per year, or part thereof, with respect to losses or other acts or omissions of CONTRACTOR under this Agreement.

- 4.3 If coverage is provided through a Commercial General Liability Insurance policy, a minimum of 50% of each of the aggregate limits shall remain available at all times. If over 50% of any aggregate limit has been paid or reserved, the CITY may require additional coverage to be purchased by the CONTRACTOR to restore the required limits. The CONTRACTOR shall also notify the CITY promptly of all losses or claims over \$25,000 resulting from work performed under this contract, or any loss or claim against the CONTRACTOR resulting from any of the CONTRACTOR'S work.
- 4.4 All insurance companies affording coverage to the CONTRACTOR for the purposes of this Section shall add the City of Oceanside as "additional insured" under the designated insurance policy for all work performed under this agreement. Insurance coverage provided to the City as additional insured shall be primary insurance and other insurance maintained by the City of Oceanside, its officers, agents, and employees shall be excess only and not contributing with insurance provided pursuant to this Section.
- 4.5 All insurance companies affording coverage to the CONTRACTOR pursuant to this agreement shall be insurance organizations admitted by the Insurance Commissioner of the State of California to transact business of insurance in the state or be rated as A-X or higher by A.M. Best.

## WELL # 3 REHABILITATION AND WELL # 9 REDEVELOPMENT

- 4.6 CONTRACTOR shall provide thirty (30) days written notice to the CITY should any policy required by this Agreement be cancelled before the expiration date. For the purposes of this notice requirement, any material change in the policy prior to the expiration shall be considered a cancellation.
- 4.7 CONTRACTOR shall provide evidence of compliance with the insurance requirements listed above by providing, at minimum, a Certificate of Insurance and applicable endorsements, in a form satisfactory to the City Attorney, concurrently with the submittal of this Agreement.
- 4.8 CONTRACTOR shall provide a substitute Certificate of Insurance no later than thirty (30) days prior to the policy expiration date. Failure by the CONTRACTOR to provide such a substitution and extend the policy expiration date shall be considered a default by CONTRACTOR and may subject the CONTRACTOR to a suspension or termination of work under the Agreement.
- 4.9 Maintenance of insurance by the CONTRACTOR as specified in this Agreement shall in no way be interpreted as relieving the CONTRACTOR of any responsibility whatsoever and the CONTRACTOR may carry, at its own expense, such additional insurance as it deems necessary.
5. **CONTRACT BONDS (for contracts exceeding \$25,000).** If the total contract price specified in Section 7 of this Agreement exceeds \$25,000, or if any amendment to this Agreement causes the total contract price to exceed \$25,000, before entering upon the performance of work, CONTRACTOR shall provide two good and sufficient bonds in the amounts listed below:
- Performance Bond in a sum not less than one hundred percent (100%) of the total contract price, to guarantee faithful and timely performance of all work, in a manner satisfactory to the CITY, and further to guarantee that all materials and workmanship will be free from original or developed defects
  - Payment Bond that meets the requirements of California Civil Code section 3248, in a sum not less than one hundred percent (100%) of the total contract price, to satisfy claims of material suppliers, mechanics and laborers employed by CONTRACTOR on the work that is the subject of this Agreement
6. **CONTRACTOR'S INDEMNIFICATION OF CITY.** To the greatest extent allowed by law, CONTRACTOR shall indemnify and hold harmless the CITY and its officers, agents and employees against all claims for damages to persons or property arising out of the negligent acts, errors or omissions or wrongful acts or

## WELL # 3 REHABILITATION AND WELL # 9 REDEVELOPMENT

conduct of the CONTRACTOR, or its employees, agents, subcontractors, or others in connection with the execution of the work covered by this Agreement, except for those claims arising from the willful misconduct, sole negligence or active negligence of the CITY, its officers, agents, or employees. CONTRACTOR'S indemnification shall include any and all costs, expenses, attorneys' fees, expert fees and liability assessed against or incurred by the CITY, its officers, agents, or employees in defending against such claims or lawsuits, whether the same proceed to judgment or not. Further, CONTRACTOR at its own expense shall, upon written request by the CITY, defend any such suit or action brought against the CITY, its officers, agents, or employees resulting or arising from the conduct, tortious acts or omissions of the CONTRACTOR.

CONTRACTOR'S indemnification of CITY shall not be limited by any prior or subsequent declaration by the CONTRACTOR.

7. **COMPENSATION.** CONTRACTOR'S compensation for all work performed in accordance with this Agreement, shall not exceed the total contract price of \$136,492.00.

No work shall be performed by CONTRACTOR in excess of the total contract price without prior written approval of the CITY. CONTRACTOR shall obtain approval by the CITY prior to performing any work those results in incidental expenses to CITY.

8. **TIMING REQUIREMENTS.** Time is of the essence in the performance of work under this Agreement and the timing requirements shall be strictly adhered to unless otherwise modified in writing. All work shall be completed in every detail to the satisfaction of the CITY within ninety (90) calendar days.
9. **ENTIRE AGREEMENT.** This Agreement comprises the entire integrated understanding between CITY and CONTRACTOR concerning the work to be performed for this project and supersedes all prior negotiations, representations, or agreements.
10. **INTERPRETATION OF THE AGREEMENT.** The interpretation, validity and enforcement of the Agreement shall be governed by and construed under the laws of the State of California. The Agreement does not limit any other rights or remedies available to CITY.

The CONTRACTOR shall be responsible for complying with all local, state, and federal laws whether or not said laws are expressly stated or referred to herein. Should any provision herein be found or deemed to be invalid, the Agreement shall be construed as not containing such provision, and all other provisions, which are

**WELL # 3 REHABILITATION AND WELL # 9 REDEVELOPMENT**

otherwise lawful, shall remain in full force and effect, and to this end the provisions of this Agreement are severable.

- 11. **AGREEMENT MODIFICATION.** This Agreement may not be modified orally or in any manner other than by an agreement in writing signed by the parties hereto.
- 12. **TERMINATION OF AGREEMENT.** Either party may terminate this Agreement by providing thirty (30) days written notice to the other party. If any portion of the work is terminated or abandoned by the CITY, then the CITY shall pay CONTRACTOR for any work completed up to and including the date of termination or abandonment of this Agreement. The CITY shall be required to compensate CONTRACTOR only for work performed in accordance with the Agreement up to and including the date of termination.
- 13. **SIGNATURES.** The individuals executing this Agreement represent and warrant that they have the right, power, legal capacity and authority to enter into and to execute this Agreement on behalf of the respective legal entities of the CONTRACTOR and the CITY.

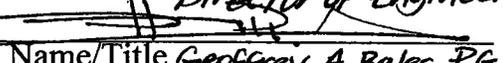
IN WITNESS WHEREOF, the parties hereto for themselves, their heirs, executors, administrators, successors, and assigns do hereby agree to the full performance of the covenants herein contained and have caused this Professional Contractor Services Agreement to be executed by setting hereunto their signatures on the dates set forth below:

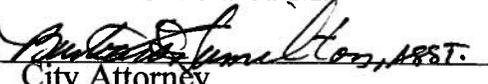
GENERAL PUMP COMPANY

CITY OF OCEANSIDE

By:   
Name/Title Michael Bodart /  
Director of Engineering

By: \_\_\_\_\_  
City Manager

By:   
Name/Title Geoffrey A. Bales, P.G./  
Project Manager/Hydrogeologist

APPROVED AS TO FORM:  
, ASST.  
City Attorney

95-3551896  
Employer ID No.

**NOTARY ACKNOWLEDGMENTS OF CONTRACTOR MUST BE ATTACHED.**

**CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT**

CIVIL CODE § 1189

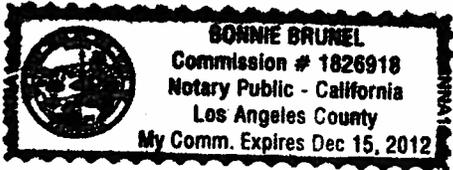
State of California

County of Los Angeles

On January 27, 2012 before me, Bonnie Brunel, Notary Public  
Date Here Insert Name and Title of the Officer

personally appeared Geoffrey A. Bates  
Name(s) of Signer(s)

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/~~she/they~~ executed the same in his/~~her/their~~ authorized capacity(ies), and that by his/~~her/their~~ signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.



I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature: Bonnie Brunel  
Signature of Notary Public

Place Notary Seal Above

**OPTIONAL**

*Though the information below is not required by law, it may prove valuable to persons relying on the document and could prevent fraudulent removal and reattachment of this form to another document.*

**Description of Attached Document**

Title or Type of Document: \_\_\_\_\_

Document Date: \_\_\_\_\_ Number of Pages: \_\_\_\_\_

Signer(s) Other Than Named Above: \_\_\_\_\_

**Capacity(ies) Claimed by Signer(s)**

Signer's Name: \_\_\_\_\_

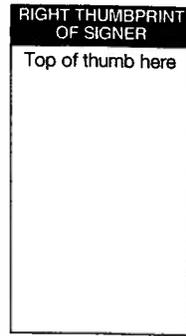
- Corporate Officer — Title(s): \_\_\_\_\_
- Individual
- Partner —  Limited  General
- Attorney in Fact
- Trustee
- Guardian or Conservator
- Other: \_\_\_\_\_



Signer Is Representing: \_\_\_\_\_

Signer's Name: \_\_\_\_\_

- Corporate Officer — Title(s): \_\_\_\_\_
- Individual
- Partner —  Limited  General
- Attorney in Fact
- Trustee
- Guardian or Conservator
- Other: \_\_\_\_\_



Signer Is Representing: \_\_\_\_\_

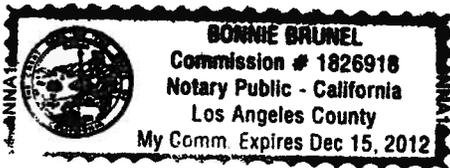
**CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT**

CIVIL CODE § 1189

State of California }  
County of Los Angeles }

On January 27, 2012 before me, Bonnie Brunel, Notary Public  
Date Here Insert Name and Title of the Officer  
personally appeared Michael Bodart  
Name(s) of Signer(s)

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/~~she/they~~ executed the same in his/~~her/their~~ authorized capacity(ies), and that by his/~~her/their~~ signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.



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Signature of Notary Public

Place Notary Seal Above

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**Capacity(ies) Claimed by Signer(s)**

Signer's Name: \_\_\_\_\_

- Corporate Officer — Title(s): \_\_\_\_\_
- Individual
- Partner —  Limited  General
- Attorney in Fact
- Trustee
- Guardian or Conservator
- Other: \_\_\_\_\_

RIGHT THUMBPRINT OF SIGNER  
Top of thumb here

Signer Is Representing: \_\_\_\_\_

Signer's Name: \_\_\_\_\_

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- Individual
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- Attorney in Fact
- Trustee
- Guardian or Conservator
- Other: \_\_\_\_\_

RIGHT THUMBPRINT OF SIGNER  
Top of thumb here

Signer Is Representing: \_\_\_\_\_



159 N. ACACIA STREET - SAN DIMAS, CA 91773  
 PHONE: (909) 599-9606 - FAX: (909) 599-6238

**WELL & PUMP SERVICE SINCE 1952**

Lic. #496765

*"Now Serving All Southern California and Central Coast!"*

November 11, 2011

City of Oceanside Water Utilities Department  
 300 North Coast Highway  
 Oceanside, CA 92054

Attn: Ralph Felix

**Re: Well # 3 Rehabilitation  
 Well # 9 Redevelopment  
 GPC Job No.: 12-TBD**

**General Pump Company, Inc. (GPC)** is pleased to provide Qualifications and Scope of Work for Well #3 and Well #9 for the City of Oceanside. Please note – If Both Well Nos. 3 and 9 are performed simultaneously, a discount on field labor would be considered.

### **QUALIFICATIONS AND REFERENCES**

- 1. Firm's name, corporate and local office address, telephone number and fax number.**

**General Pump Company, Inc.**  
 159 North Acacia Street  
 San Dimas, California 91773  
 Ph: 909-599-9606  
 Fax: 909-599-6238

### **CAPABILITIES**

**General Pump Company, Inc.** is a Professional Well Redevelopment and Pump Equipment contractor located in San Dimas and Camarillo California. The Engineering staff, field support and service crews, and office support staff are 100% dedicated to well evaluation and rehabilitation, and pump equipment evaluation and services.

The technical staff at **General Pump Company, Inc.** has worked in almost every aspect of the well and pump industries. This diverse experience provided us with unique qualifications to serve our customers and provide them with solution-oriented approaches to get their system back into operation. Our engineers and Hydrogeologist have all worked in the drilling and design segment of the water, and/or oil and gas industries, and many of our shop and support technicians have worked for major pump manufactures.

**General Pump Company, Inc.** employs only experienced Engineers, Hydrogeologist and Technical Field Personnel that can offer Customers assistance in the following areas:

- Assess Well Yields to Minimize Operating and Maintenance Costs



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City of Oceanside  
November 14, 2011  
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- Determine the Efficiency of Wells and Pumps
- Engineered Pump and Well Equipment
- Pump Facility Design and Construction
- Booster Facility Design and Construction
- Pipeline Design and Construction
- Appropriate Mechanical and Chemical Redevelopment
- Periodic Monitor and Maintenance Programs
- Water Quality and Production Solutions
- Well System Optimization
- Engineered Pump Suctions
- Pump and Motor Repair
- Custom Pump Design and Machining
- Electrical, SCADA and Transducer Support
- Casing Repair and Swedging
- Video and Geophysical Logging Support

**General Pump Company, Inc.**, an Engineering Service Company, is dedicated to supporting the ongoing needs of the Water Industry, and committed to providing:

- Solution-oriented engineering using problem-solving techniques by degreed Engineers and Registered Geologists with diverse well system and groundwater experience, and pump application engineers from major pump manufacturing companies.
- Full-time machine shop, staffed with experienced personnel capable of building and repairing standard and custom pump equipment and specialty products.
- Self-contained chemical trailers to include safety support and operational controls.
- Trained and certified operators for periodic monitoring and maintenance programs.
- In-house training facility and training programs for customers and our own personnel.
- Strong project and construction management for any size project.
- Instant communications with cellular radio/phones for all staff, engineering, technical, field and shop personnel, resulting in better services at a reduced risk and overall cost.
- Modern, safe and reliable equipment with the Only Telescoping Well Rigs in the industry capable of effective redevelopment of wells in pump houses; and,

#### **SAFETY**

Safety is paramount when men and equipment are involved. A good safety record is important along with adequate insurance and bonding. **General Pump Company, Inc.** has the best safety record in Southern California for the water well and pump rehabilitation business. Over the past seven years, **General Pump Company, Inc.** has had minimal loss of time for work related injuries



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PUMP  
COMPANY**  
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City of Oceanside  
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2. In the proposal provide a comprehensive project schedule.

### **WELL NO. 3 ESTIMATED PROJECT SCHEDULE**

- 1) Review water quality and hydraulic test reports, monthly SCADA reports and talk briefly with operators about production and decline. This work would be performed to determine the rate of well plugging and decline, the best method(s) for mechanical and/or chemical redevelopment and to develop a long-term monitoring and maintenance program for this well – and other wells in the system. **Anticipated time to complete this part of the work – 3-days.**
- 2) Review findings with the City and adjust the redevelopment program – **if necessary 1-day.**
- 3) Pull the pump equipment and perform well redevelopment work proposed – see "Draft" Scope of Work Cost Sheet **Anticipated time to complete this part of the work – 2-days**
- 4) Re-install pump equipment back into the well, re-test water quality and hydraulic test - **Anticipated time to complete this part of the work – 6- to 10-days**
- 5) Update the initial monitor and maintenance program, and fill in data gaps where needed - **Anticipated time to complete this part of the work – 2-weeks**
- 6) Meet with the City to review results of work, monitor and maintenance program, and determine if additional work and data are needed – **if necessary 1-day**
- 7) Well redevelopment work as per scope of work – **between 5- and 7-working days**
- 8) If pump equipment work is needed, the duration for this work would be based on the amount of work and effort needed.

### **WELL NO. 9 ESTIMATED PROJECT SCHEDULE**

- 1) Pull the pump equipment and perform dual swab airlift redevelopment – see "Draft" Scope of Work Cost Sheet. GPC proposes to use smaller surface tanks as they are much easier and safer to work around. Sand will be captured in the smaller tanks and that sand can be hauled away with the tanks. **Anticipated time to complete this part of the work – 2-days**
- 2) Based on inspection of the pump equipment, GPC's Pump Manufacturing and Engineering Facility will re-build the pump equipment as needed. GPC proposes to use SS ring material of different Brinell hardness. As discussed in the pre-bid meeting – if the pump "runs dry" there is a much greater problem than galling materials. Carbon or other brittle materials are potentially good in booster applications, but not in the dynamic environment of water wells. **Anticipated time to complete this part of the work – 5- to 7-days**
- 3) Chlorinate the well, and re-install pump equipment back into the well, re-test sand production, water quality and hydraulic test. **Anticipate 1-day**
- 4) Update the initial monitor and maintenance program, and fill in data gaps where needed. **Anticipated time to complete this part of the work – 2-weeks**
- 5) Meet with the City to review results of work, monitor and maintenance program, and determine if additional work and data are needed. – **if necessary 1-day**



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PUMP  
COMPANY**  
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## PROJECT REFERENCES

3. Provide a list of past and ongoing projects for which our team has provided well redevelopment and rehabilitation work in the last five (5) years. These project references are for customers that GPC has performed well and pump evaluation, redevelopment, and pump work, and wells and pumps constructed of Stainless Steel, and operate as part of a treatment plant. Include client references and phone numbers.

Chino Basin Desalter Authority                      Brian Dickinson                      909 218-3731

Stainless Steel submersible well pump multi-unit. (Wells I-13 thru I-15 and Wells II-1 thru II-9)

City of Ontario    Tom O'Neill    909-395-2676

Multi-site wells and pumps – Annual Contact since 2002

City of Vernon    Scott Rigg    323-583-8811

Multi-site wells and pumps – Annual Contract since 2003

Western Municipal Water District                      Scott McAnalley                      951-353-9645

Arlington Desalter Plant, Well Nos. 1 through 5; stainless steel wells and pumps.

## SCOPE OF WORK – WELL NO. 3 AND NO. 9

GPC's Scope of Work for Well #3 Rehabilitation and Well #9 Rehabilitation will include:

- Review all available existing data for both wells including well technical specifications, record drawings, shop drawings, geotechnical reports, past investigations, improvement and/or repair plans, water quality laboratory analyses, and other available reports including past rehabilitation work.
- Provide a detailed plan for each well that includes a minimum of the following:
  - Well description (location, type, year built, depth, dimensions, pump & motor, etc.)
  - A plan to inspect the well interior including casing and screens and describe the methods to be used including documenting findings and safety requirements.
  - A plan to pull the pump and motor for external inspection, disassembly, and internal inspection.
- Prepare a detailed line-item proposal to perform the complete rehabilitation of Well #3 including all of the work described attached "Well #3 Rehabilitation Scope of Work."
- Prepare detailed line item proposal to perform the complete redevelopment of Well #9 including all of the work described in the attached "Well #9 Redevelopment Scope of Work."
- Provide written reports and DVD copies as specifies in the Scope of Work for each well.

## WELL NO. 3

Well #3 is located at 215 Fireside Drive on the site of the Mission Basin Desalting Facility (RO Plant). The 16 inch diameter well is 200 feet deep. The 316 Stainless Steel well screen has 0.070-inch opening



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and resides between 100-feet and 142-feet. As of 7/26/11, Well #3 was taken offline due to plugging of screen. It last recorded flow was 340-gpm with pumping level of 95-feet.

Historically, according to the water constituents found in Well #3, it has been known to have high levels of Fe, Mn, Mg, and Ca.

**SCOPE OF WORK - PROPOSED**

GPC's proposed scope of work for this project would include:

- 1) Review water quality and hydraulic test reports, monthly SCADA reports and talk briefly with operators about production and decline. This work would be performed to determine the rate of well plugging and decline, the best method(s) for mechanical and/or chemical redevelopment and to develop a long-term monitoring and maintenance program for this well – and other wells in the system.
- 2) Review findings with the City and adjust the redevelopment program – if necessary.
- 3) Pull the pump equipment and perform well redevelopment work proposed – see "Draft" Scope of Work Cost Sheet
- 4) Re-install pump equipment back into the well, re-test water quality and hydraulic test
- 5) Update the initial monitor and maintenance program, and fill in data gaps where needed.
- 6) Meet with the City to review results of work, monitor and maintenance program, and determine if additional work and data are needed.

<b>Well #3</b>		<b>Project Charges</b>
1	LS	Plotting of the specific capacity of the current well's condition with data to be provided. <span style="float: right;">\$98.00</span>
1	LS	Pull the flanged column pipe, pump, and motor for external inspection and disassembly and complete internal inspection. Provide quote for repairs and/ or replacement parts including labor, equipment, and materials <span style="float: right;">\$4,804.00</span>
1	LS	<b>Optional Task</b> - Estimated cost to re-build the Afton 3-stage pump to include labor, equipment and materials for machining and installing new SS seal rings in the bowls, skim-cut to tolerance impeller seal rings, dynamic balance impellers, machine new 416 SS bowl shaft, provide and install new SS bowl, suction and discharge case bearings, and new SS bolting - Add \$7,864
1	LS	After pulling the column pipe, pump, and motor, performs a static color video, with side scan capability, of the well casing interior. Submit (3) DVD copies of the video and color report with screen captures and electronic copy of color report. The video log shall include a narrative regarding the observation as it is being taken. <span style="float: right;">\$1,020.00</span>
1	LS	Cleaning requirements are based on previous rehabilitations the following should be employed; however, a video log recording along with the analysis of lab reports will ultimately be used for determination: muriatic acid for de-scaling; Nuwell 310 as a bio and mineral depressant; soda ash for ph neutralization; the rehab of the well should also include the utilization of mechanical process such as double line swabs <span style="float: right;">\$7,424.00</span>



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1	LS	<p><b>If Needed - As a separate process (usually prior to installing the pump equipment)</b> Sodium hypochlorite as a biocide/ disinfectant; C12 enhancer for ph control and ascorbic acid to neutralize the C12; the rehab of the well should also include the utilization of mechanical process such as double line swabs</p>	\$5,182.00
1	LS	Rehab of the well would also include SonarJet of the well screen	\$9,146.70
1	LS	<p><b>Optional Task - Mobilize and demobilize men and equipment, compressor, lines, tanks, pumps and other equipment to perform the dual swab airlift process - Add \$12,500</b></p> <p><b>Optional Task - Dual swab redevelopment to remove the chemical and material dissolved by the chemical treatment process. Assume a static water level of 20 ft. Perform using a 10-foot tight fitting dual swab at an estimated rate of 200-gpm. Due to the sensitivity of waste product generated from the redevelopment process, a 2-each smaller surface settling tank will be used to collect sand and water. All waste products generated from the rehab work must be neutralized. From the smaller surface tanks, the waste stream will be pumped into the Fe &amp; Mn system waste basin through a collapsible fire hose, where it will be pumped to a waste water plant for further treatment. Make note that the distance from Well #9 to the Fe &amp; Mn waste basin is approximately 500 ft. The hose will cross an asphalt access road with vehicle traffic. The asphalt paved roadway crossing is approximately 30 ft. The fire hose can be crossed by traffic and therefore no enclosure or surface crossing will be used. - Add \$6,350</b></p>	
2	Days		
1	LS	<p>Due to the sensitivity of waste product generated from the redevelopment process, a 2-each smaller surface settling tank will be used to collect sand and water. All waste products generated from the rehab work must be neutralized. From the smaller surface tanks, the waste stream will be pumped into the Fe &amp; Mn system waste basin through a collapsible fire hose, where it will be pumped to a waste water plant for further treatment. Make note that the distance from Well #9 to the Fe &amp; Mn waste basin is approximately 500 ft. The hose will cross an asphalt access road with vehicle traffic. The asphalt paved roadway crossing is approximately 30 ft. The fire hose can be crossed by traffic and therefore no enclosure or surface crossing will be used.</p>	\$5,211.40
1	LS	<p>Re-install the pump, 100 feet if the 1 inch flush-threaded PVC pipe for camera access must be installed into the well head down to the screen. This will require drilling through the SS head to allow the PVC to fit through the head into the well. This should include new SS column flange bolting and SS bandit cable to column pipe. The purpose of this pipe is to provide an access point for the cameras to perform future dynamic video monitoring and recording of the well.</p>	\$4,598.70
1	LS	<p>Re-install the pump, 100 feet if the 1 inch flush-threaded PVC pipe for camera access must be installed into the well head down to the screen. This will require drilling through the SS head to allow the PVC to fit through the head into the well.</p>	\$1,683.40
1	LS	<p>Relocate the pump above the well screen. Currently, the center of the pump screen intake is located at 160 feet. Relocating the pump above the well screen will resolve any cascading effects in the well and improve overall efficiency.</p>	\$196.00
1	LS	<p>After rehab work and final inspection video are completed, the pump/motor SS column pipe and PVC camera access piping will be installed for a 1000 gpm pump test. This will necessitate the use of temporary 8" piping with Victaulic couplings plumbed to a detention pond approximately 1030 feet, just north of the plant across the channel.</p>	\$9,117.40



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1	LS	After the installation work and pump/ sand test are completed, perform a static color video, with side scan capability of the well casing interior and redevelopment of the well. Submit (3) DVD copies of the video and color report with the screen captures and electronic copy of color report. This video log shall include a narrative regarding the observations as it is being taken.	\$1,020.00
1	LS	Perform start-up and test the pump equipment for Overall Plant Efficiency, and sand production over a 1-hour period	\$860.00
<b>Total Estimated Project Charges</b>			<b>\$50,361.60</b>

### WELL NO. 9

Well #9 is located at 215 Fireside Drive near the site of Mission Basin Desalting Facility (RO Plant). The well has a sand pumping issue, which at high flows, can impact plant processes and production. The 16 inch diameter well is 302 feet deep. The Ful-Flo louvered well screen is SS 304L with 0.094-inch opening residing between 100 feet and 220 feet.

GPC understands that Well No. 9 produces sand during production resulting in an operational and maintenance issue with the system; and several attempts have been made to visually locate the sand production (extremely important when trying to solve sand problems).

#### SCOPE OF WORK - PROPOSED

GPC has reviewed data for this well, and attempted several times to gain access into the well in an effort to visually characterize the location of sand production. In an attempt to reduce or eliminate sand production from the well, GPC proposes to perform airlift of the entire perforated interval of the well.

- 6) Pull the pump equipment and perform dual swab airlift redevelopment – see "Draft" Scope of Work Cost Sheet. GPC proposes to use smaller surface tanks as they are much easier and safer to work around. Sand will be captured in the smaller tanks and that sand can be hauled away with the tanks.
- 7) Based on inspection of the pump equipment, GPC's Pump Manufacturing and Engineering Facility will re-build the pump equipment as needed. GPC proposes to use SS ring material of different Brinell hardness. As discussed in the pre-bid meeting – if the pump "runs dry" there is a much greater problem than galling materials. Carbon or other brittle materials are potentially good in booster applications, but not in the dynamic environment of water wells.
- 8) This work assumes that the motor is in good condition and not work or maintenance will be performed.
- 9) Chlorinate the well, and re-install pump equipment back into the well, re-test sand production, water quality and hydraulic test.
- 10) Update the initial monitor and maintenance program, and fill in data gaps where needed.
- 11) Meet with the City to review results of work, monitor and maintenance program, and determine if additional work and data are needed.



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Well # 9		Project Charges
1	LS	Pulling the flanged column pipe, pump, and motor for external inspection and disassembly and complete internal inspection with a line-item quote for repairs and/or replacement parts including labor, equipment, and materials. \$4,656.00
1	LS	Estimated cost to re-build the Afton 3-stage pump to include labor, equipment and materials for machining and installing new SS seal rings in the bowls, skim-cut to tolerance impeller seal rings, dynamic balance impellers, machine new 416 SS bowl shaft, provide and install new SS bowl, suction and discharge case bearings, and new SS bolting \$7,864.00
1	LS	After pulling the column pipe, pump, and motor, performs a static color video, with side scan capability, of the well casing interior. Submit three (3) DVD copies of the video in and color report. The video log shall include a narrative regarding the observations as it is being taken. \$1,020.00
4	Hrs	If Needed - Bail well to total depth and spread material at surface. Assume 20 feet of sand fill material. \$2,230.00
1	LS	Mobilize and demobilize men and equipment, compressor, lines, tanks, pumps and other equipment to perform the dual swab airlift process \$12,561.00
3	Day	A dual swab redevelopment of the well screen between 100 and 250 feet shall be performed. Assume a static water level of 20 ft. Perform using a 5 foot tight fitting dual swab at an estimated rate of 200-gpm. Due to the sensitivity of waste product generated from the redevelopment process, a 2-each smaller surface settling tank will be used to collect sand and water. All waste products generated from the rehab work must be neutralized. From the smaller surface tanks, the waste stream will be pumped into the Fe & Mn system waste basin through a collapsible fire hose, where it will be pumped to a waste water plant for further treatment. Make note that the distance from Well #9 to the Fe & Mn waste basin is approximately 500 ft. The hose will cross an asphalt access road with vehicle traffic. The asphalt paved roadway crossing is approximately 30 ft. The fire hose can be crossed by traffic and therefore no enclosure or surface crossing will be used. \$8,882.00
1	LS	Prior to installing the pump equipment, a pH adjusted chlorination treatment at 200 ppm and a swabbing of the well for a minimum of 4 hours shall be performed. \$3,686.00
1	LS	Re-install the pump; 100 feet of 1-inch flush threaded PVC pipe for camera access must be installed into the well head down to the screen. This will require drilling through the SS head to allow the PVC to fit through the head into the well. This should include new SS column flange bolting and SS bandit cable to column pipe. The purpose of this pipe is to provide an access point for cameras to perform future dynamic video monitoring and recording of the well. \$6,284.00
1	LS	After installation the pump, a pump/sand test shall be performed. This will necessitate the use of temporary 8" piping with Victaulic couplings plumbed to a detention pond approximately 1300 feet, just north of the plant across the channel. \$10,473.40
1	LS	After the installation work and pump/sand test are completed, per diem a static color video, with side scan capability of the well casing interior and the redevelopment of the well. Submit three (3) DVD copies of the video and color report with screen captures and electronic copy of the color report. The video log shall include a narrative regarding the observations as it is being taken. \$900.00
1	LS	Perform start-up and test the pump equipment for Overall Plant Efficiency, and sand production over a 1-hour period \$860.00
<b>Total Estimated Project Charges</b>		<b>\$59,416.40</b>



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**General Pump Company, Inc.** appreciates the opportunity to assist with this project and if you have any questions regarding the technical aspects of this project please do not hesitate to give me a call.

Regards,  
GENERAL PUMP COMPANY, INC.

**Geoffrey A. Bates**

Geoffrey A. Bates, P.G.  
Project Manager

W3-9 Scope 11-11.doc

WELL # 3 REHABILITATION AND WELL # 9 REDEVELOPMENT  
RFP MAILING LIST

Company	Address	City	State	Zip	First Name	Last Name	Title	Phone	Fax
Fain Drilling & Pump Co.	12029 Old Castle Road	Valley Center	CA	92082	Joe	Fain		760-749-0701	
General Pump Co.	159 N. Acacia Street	San Dimas	CA	91773	Geoffrey	Bates		909-599-9606	
Hidden Valley Pump Systems	31248 Valley Center Road	Valley Center	CA	92082	Jason	Bogan		760-749-2209	
Layne Christensen Co.	11001 Eitwanda Ave.	Fontana	CA	92337	Dennis	Skinner		909-390-2833	
Stehly Brothers Drilling Inc.	13268 McNally Road	Valley Center	CA	92082	Paul	Stehly		760-742-3668	

City of Oceanside  
Well 3 Rehabilitation and Well 9 Redevelopment  
11/15/2011 Proposal Results

Exhibit C

Wells	Companies	
	Hidden Valley Pump Systems, Inc.	General Pump Company, Inc.
Well 3 Rehabilitation	\$ 82,778.00	\$ 77,075.60
Well 9 Redevelopment	\$ 63,503.00	\$ 59,416.40
Total	\$ 146,281.00	\$ 136,492.00