



**PURCHASING ITEM
FOR
COUNCIL AGENDA
Memo No. CA12-041**

1. Agenda Item Number:
14
2. Council Meeting Date:
September 22, 2011

TO: MAYOR & COUNCIL

3. Date Prepared: September 6, 2011

THROUGH: CITY MANAGER

4. Requesting Department: Municipal Utilities

5. SUBJECT: Award a Project Agreement to Southwest Ground-water Consultants, Inc. for Recharge Permit Capacity, Project No. WW1203-101, under Annual Contract No. EN0709-101, in an amount not to exceed \$92,750,

6. RECOMMENDATION: Staff recommends Council award a Project Agreement to Southwest Ground-water Consultants, Inc., for Recharge Permit Capacity project, Project No. WW1203-101, under Annual Contract No. EN0709-101, in an amount not to exceed \$92,750.

7. BACKGROUND/DISCUSSION: All recharge facilities in Arizona are required to operate under permits issued from the Arizona Department of Environmental Quality (ADEQ) and Arizona Department of Water Resources (ADWR). ADEQ and ADWR have permitted Chandler to recharge reclaimed water at the City's Tumbleweed Recharge, Ocotillo Water Reclamation, and Chandler Heights (Wetlands) Recharge Facilities. ADWR permits set the maximum recharge volumes, while ADEQ's permits establish water quality standards for the recharged water. Staff determined ADEQ's and ADWR's permits need updating to increase allowable recharge volumes.

The Consultant will perform groundwater modeling, collect and prepare technical data, and complete the permit applications necessary to update and increase the recharge capacity. The Consultant will examine recharge capacity for other recharge methods and examine the operational recharge constraints of the City's existing recharge facilities.

8. EVALUATION: On January 17, 2008 Council approved a one-year Annual Contract, with the option of four one-year extensions, to Southwest Ground-Water Consultants, Inc. for hydrogeological services. The costs proposed for this project have been reviewed by staff and compared to Annual Contract approved pricing.

9. FINANCIAL IMPLICATIONS:

Cost: \$92,750
Savings: \$N/A
Long Term Costs: \$N/A

Fund Source:

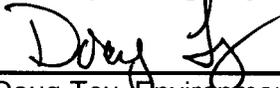
<u>Acct. No.:</u>	<u>Fund Name:</u>	<u>Program Name:</u>	<u>CIP Funded:</u>	<u>Amount:</u>
611.3910.0000.6817.8WW189	WW Bonds	Effluent Reuse - Storage & Recovery Wells	FY07/08	\$92,750

10. PROPOSED MOTION: Move Council award a Project Agreement contract to Southwest Ground-water Consultants, Inc., for Recharge Permit Capacity project, Project No. WW1203-101, under Annual Contract No. EN0709-101 in an amount not to exceed \$92,750, and authorize the Mayor to sign the contract documents.

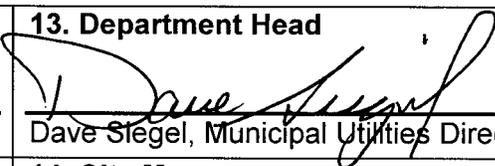
ATTACHMENTS: Location Map, Project Agreement

APPROVALS

11. Requesting Department


Doug Toy, Environmental Resources Senior Engineer

13. Department Head


Dave Siegel, Municipal Utilities Director

12. City Engineer

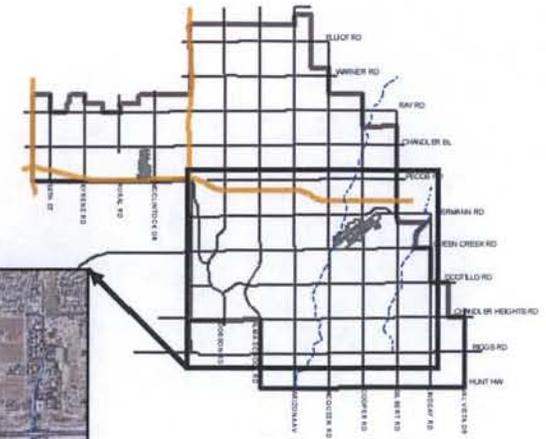

Sheina Hughes, City Engineer

14. City Manager


Rich Dlugas



RECHARGE PERMIT CAPACITY PROJECT NO. WW1203-101



MEMO NO. CA12-041

● PROJECT AREAS



**PROJECT AGREEMENT
PURSUANT TO ANNUAL CONTRACT NO. EN0709-101**

AGREEMENT NO: WW1203-101

This AGREEMENT is made this _____ day of _____, 2011, by and between the City of Chandler, a municipal corporation (hereinafter referred to as "CITY") and Southwest Ground-water Consultants, an Arizona corporation, (hereinafter referred to as "Annual Consultant") and is a project agreement entered into pursuant to Annual Contract No. EN0709-101.

CITY and Southwest Ground-water Consultants, in consideration of the mutual covenants herein set forth, agree as follows:

ARTICLE 1. DESCRIPTION OF WORK

This project is Recharge permit Capacity – Tumbleweed, Ocotillo, and Chandler Heights Recharge Project, Project Number WW1203-101. The scope of work consists of evaluating existing recharge facility permits for possible increases/modifications, all as more particularly set forth in Exhibit A attached hereto and incorporated herein by reference.

The Annual Consultant shall not accept any change of scope, or change in contract provisions, unless issued in writing, as a contract amendment and signed by the Contract Administrator.

ARTICLE 2. CONTRACT PRICE

CITY shall pay Annual Consultant for completion of the Work in accordance with the Contract Documents a fee not to exceed Ninety Two Thousand Seven Hundred Fifty Dollars (\$92,750) determined and payable as set forth in Annual Contract EN0709-101 and Exhibit B attached hereto and made a part hereof by reference.

ARTICLE 3. CONTRACT TIME

The contract time is one hundred eighty days and Annual Consultant agrees to complete all work within one hundred eighty (180) days of the date CITY issues a Notice to Proceed.

ARTICLE 4. GENERAL

This Project Agreement is entered into pursuant to Annual Contract No. EN0709-101 and the terms and conditions contained therein are incorporated herein by reference as if set forth in full.

ARTICLE 5. ARIZONA PROCUREMENT LAW

Compliance with A.R.S. § 41-4401. Pursuant to the provisions of A.R.S. § 41-4401, the Consultant hereby warrants to the City that the Consultant and each of its subcontractors ("Subconsultants") will comply with all Federal Immigration laws and regulations that relate to the immigration status of their employees and the requirement to use E-Verify set forth in A.R.S. §23-214(A) (hereinafter "Consultant Immigration Warranty").

A breach of the Consultant Immigration Warranty (Exhibit C) shall constitute a material breach of this Contract that is subject to penalties up to and including termination of the contract.

The City retains the legal right to inspect the papers of any Consultant or Subconsultant employee who works on this Contract to ensure that the Consultant or Subconsultant is complying with the Contractor Immigration Warranty. The Consultant agrees to assist the City in the conduct of any such inspections.

The City may, at its sole discretion, conduct random verifications of the employment records of the Consultant and any Subconsultant to ensure compliance with Contractors Immigration Warranty. The Consultant agrees to assist the City in performing any such random verifications.

The provisions of this Article must be included in any contract the Consultant enters into with any and all of its subcontractors who provide services under this Contract or any subcontract. "Services" are defined as furnishing labor, time or effort in the State of Arizona by a consultant or subconsultant. Services include construction or maintenance of any structure, building or transportation facility or improvement to real property.

In accordance with A.R.S. §35-393.06, the Consultant hereby certifies that the offeror does not have scrutinized business operations in Iran.

In accordance with A.R.S. §35-391.06, the Consultant hereby certifies that the offeror does not have scrutinized business operations in Sudan.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement on the day and year first written above.

This Agreement will be effective on this _____ day of _____, 2011.

CITY OF CHANDLER

FOR THE ANNUAL:

By:

Title:

Bill Greenslade
PRINCIPAL / SR. HYDROGEOLOGIST

MAYOR

DATE:

ADDRESS FOR NOTICE

City of Chandler
P.O. Box 4008, Mail Stop 407
Chandler, AZ 85244-4008
480-782-3307

ADDRESS FOR NOTICE

Mr. Bill Greenslade
Southwest Ground-water Consultants
3033 N. 44th St., Ste. 120
Phoenix, AZ 85018

APPROVED AS TO FORM:

Phone: 602-955-5547

Fax: 602-955-7585

City Attorney By: *[Signature]*

ATTEST:

City Clerk

**EXHIBIT A
SCOPE OF WORK**

Background

City staff is modifying the City's Underground Storage Facility (USF), Water Storage (WS) and Aquifer Protection (APP) permits at the Tumbleweed, Ocotillo and Chandler Heights (CHRP) recharge facilities. Current permit numbers, volumes and expiration dates are given below.

Recharge Facility	Permit Number	Volume	Expiration Date
Tumbleweed			
USF	71-	10 MGD	May 2023
WS	5603470.0006	10 MGD	May 2023
APP	73-560347.0001 P-103145	10 MGD	Life of Facility
Ocotillo			
USF	71-583023.0001	10 MGD	October 2024
WS	73.583023.0001	10 MGD	October 2024
APP	P-105338	10 MGD	Life of Facility
CHRP			
USF	71-588551.0001	2 MGD	November 2023
WS	73-588551.0001	2.MGD	November 2023
APP	P-103170	2 MGD	Life of Facility

ANNUAL CONSULTANT understands that the City wishes to maximize the permitted recharge capacity at the above recharge facilities. Since the capacity of the facilities will be increased the USF will require a Major Modification and the APP will require a Significant Amendment.

If it is determined that ADWR will approve increased recharge capacity at one or more of the recharge facilities, the City wishes to assess operational changes needed to maximize the recharge capacity at each facility. In addition, The City is interested in evaluating the feasibility of recharging potable Salt River Project (SRP) water via an existing SRP well.

Scope of Work

ANNUAL CONSULTANT shall perform following tasks:

TASK 1 – COMPILE AND ASSESS EXISTING PERMITS

ANNUAL CONSULTANT will obtain copies of relevant USF, WS and APP permits. Copies will be obtained from City files. The relevant agency permit files will also be reviewed to ensure that the City's permit files correspond to the agency's files. This task has been partially completed for Tumbleweed and Ocotillo under contract WW1016-101. Remaining work includes compilation and review of permits for CHRP and review of ADWR and ADEQ files for all three facilities.

TASK 2 – PREPARE ACTION PLAN TO MODIFY/AMEND PERMITS

ANNUAL CONSULTANT will prepare a memorandum detailing the Plan of Action to modify/amend the relevant permits. The plan will include specific work to be accomplished in upgrading each permit and a corresponding schedule for completion. A meeting will be scheduled to review the plan and obtain City concurrence.

TASK 3 – MEET WITH AGENCIES

ANNUAL CONSULTANT will schedule pre-application meetings with ADWR and ADEQ to present the planned approach to modification/amendment of the permits. ANNUAL

CONSULTANT will prepare supporting documentation (maps and slides) for the meetings, present technical data on hydrogeologic conditions at Tumbleweed, Ocotillo and CHRP and outline the approach to demonstrating the maximum capacity at each facility.

TASK 4 – CONDUCT ANALYSES TO MODIFY OR AMEND PERMITS

The analyses to be conducted to support permit modifications will depend on the results of Task 3. These analyses are anticipated to include, but not be limited to:

- Groundwater modeling
- Maximum Area of Impact (AOI) and Mounding Analyses
- Discharge Impact Area (DIA)
- Analysis of monitoring data versus permit volumes and water levels

Portions of this task related to groundwater modeling have been completed for Tumbleweed and Ocotillo under existing contract WW1016-101. ANNUAL CONSULTANT proposes to utilize the latest version of ADWR's SRV groundwater flow model as the basis for the analyses in this task. The SRV model files will be modified to meet the specific needs of this project. Modifications will include:

1. Adjusting existing non-Chandler recharge facility annual volumes to reflect the facility permitted capacities.
2. Modifying the pumping files to hold 2008 pumping constant for the planned life of the recharge facilities (20 years).
3. Decreasing the model grid spacing at Tumbleweed, Ocotillo and CHRP through Local Grid Refinement (LGR).
4. Addition of recharge wells to accommodate increased recharge volumes.

Items 1 and 2 have been completed under contract WW1016-101. In addition to existing active recharge wells at each facility, ANNUAL CONSULTANT will model other recharge well locations already identified in the existing permits. Recharge rates will be increased to achieve the desired increases to permitted recharge rates, constrained by maximum recharge rates in each well and the allowable depth-to-water (20 ft bls) at monitor wells. It is anticipated that this will be achieved by trial and error over the course of up to six (6) model runs. If after the initial runs it becomes apparent that alternative recharge well locations would be required to achieve the desired increases to recharge volumes, ANNUAL CONSULTANT will work with the City to identify additional locations before completing the analysis.

Monitor well water level data at each site will be analyzed and compared to model predicted water levels.

ANNUAL CONSULTANT has retained the services of Wilson Engineers to provide engineering support in the analysis of distribution pipelines, pumps and reclaimed water system capacities, as needed, to meet permit application requirements. The precise nature of the engineering support required will be determined following the pre-application meetings with the agencies (in particular ADEQ). For cost purposes we have assumed that full 30 percent design drawings (required for a new facility APP application) will not be required for each facility and that engineering support will be limited to calculations, distribution system layouts and facility maps.

TASK 5 – PREPARE APPLICATIONS FOR MODIFICATION OR AMENDMENT OF PERMITS

Utilizing the information developed in the above tasks, and other information supplied by the City, ANNUAL CONSULTANT will prepare a draft of the permit modification and amendment applications and submit them to the City for review and comment.

Following City review and approval ANNUAL CONSULTANT will make agreed upon changes and prepare final permit applications. It is assumed that Chandler will submit the applications along with the required fees.

TASK 6 – RESPOND TO AGENCY QUESTIONS AND COMMENTS

ANNUAL CONSULTANT will make every effort to submit complete permit modification/amendment applications. Nevertheless, it should be anticipated that it will be necessary to respond to some questions and comments from the agencies. ANNUAL CONSULTANT will prepare written responses to agency questions and comments for review by City staff. Final responses will be submitted to the relevant agency. *Costs for this task are estimated based on previous experience, however, actual costs will be dependent on the type and number of agency questions/comments received.*

TASK 7 – OPERATIONAL ASSESSMENT OF RECHARGE FACILITIES

Once it is determined that ADWR will approve increased recharge at one or more of the recharge facilities, ANNUAL CONSULTANT will conduct an analysis of the current operation of each facility and make recommendations for changes (if needed) in physical (number and location of wells and/or basins) and operational (recharge rates in individual wells/basins, purging/drying times, etc) parameters to maximize the recharge volumes at each facility. Existing operational data such as recharge rates by well and basins, water levels in recharge wells and monitor wells, well purging and basin drying schedules will be obtain from City records including SCADA files.

Based on the available data, ANNUAL CONSULTANT will compute the recharge specific capacity of each well/basin and evaluate its change over the operating period of the well/basin. The relationship between recharge rate and water level rise in each recharge well and in each monitor well will be analyzed. These data will be used to identify possible changes in current operating procedures (well/basin recharge volumes, purging/drying schedules) as well as the number and location of future wells/basins.

The modified SRV model developed in Task 4 will be re-run to test its simulation of actual water level changes in response to past recharge. As needed, model parameters will be adjusted to approximate the actual water level response. The adjusted model will then be used to assist in locating and assigning recharge volumes at individual wells/basins in order to maximize the overall recharge volume at each facility.

Initiation of this task will require separate written approval from the City.

TASK 8 – RECHARGE OF SRP WATER THROUGH AN EXISTING SRP WELL

The City is working with SRP to conduct a 'pilot' study to assess the feasibility of recharging SRP water in an existing well. The City anticipates the recharging of water from the SRP canal system into an existing SRP well for approximately 30 days to determine the rate and volume of recharge that could occur on an ongoing basis. ANNUAL CONSULTANT will support the City in its discussions with SRP, monitoring of well testing and in the evaluation of test results. It is not anticipated that ANNUAL CONSULTANT will perform any field data collection, work will be limited to review and analysis of data collected by others.

Since effluent will not be added to the source water, the facility (well) will be exempt from the requirement for an APP (A.R.S. 49-250 (12)). ANNUAL CONSULTANT will arrange for and participate in (with City staff) a meeting with ADWR under the Department's Pilot-Scale Underground Storage Facility substantive policy statement. If appropriate, ANNUAL CONSULTANT will prepare the hydrologic portions of the pilot-scale permit application. Application fees will be paid directly by the City.

**EXHIBIT B
FEE SCHEDULE**

TASKS	SGC Hours	Cost
Task 1 – Compile and Assess Existing Permits	20	\$2,340
Task 2 – Prepare Action Plan	38	\$4,560
Task 3 – Meet with Agencies	70	\$8,850
Task 4 – Conduct Analyses to Modify or Amend Permits	140	\$15,800
Task 5 – Prepare Modification/Amendments Applications	60	\$7,400
Task 6 – Respond to Agency Questions and Comments	80	\$9,600
Task 7 – Operational Assessment of Recharge Facilities	120	\$14,000
Task 8 – SRP Recharge Well	120	\$15,200
Allowance for Wilson Engineers		\$15,000
Total	653	\$92,750

EXHIBIT C

**Contractor Immigration Warranty
To Be Completed by Consultant Prior to Execution of Contract**

A.R.S. § 41-4401 requires as a condition of your contract verification of compliance by the consultant and subconsultants with the Federal Immigration and Nationality Act (FINA), all other Federal immigration laws and regulations, and A.R.S. § 23-214 related to the immigration status of its employees.

By completing and signing this form the Engineer/Annual Consultant shall attest that it and all subconsultants performing work under the cited contract meet all conditions contained herein.

Project Number: WW1203-101		
Name (as listed in the contract): <u>SOUTHWEST GROUND-WATER CONSULTANTS</u>		
Street Name and Number: <u>3023 N. 44TH STREET</u>		
City: <u>PHOENIX</u>	State: <u>AZ</u>	Zip Code: <u>85028</u>

I hereby attest that:

1. The Engineer/Annual Consultant complies with the Federal Immigration and Nationality Act (FINA), all other Federal immigration laws and regulations, and A.R.S. § 23-214 related to the immigration status of those employees performing work under this contract;
2. All subconsultants performing work under this contract comply with the Federal Immigration and Nationality Act (FINA), all other Federal immigration laws and regulations, and A.R.S. § 23-214 related to the immigration status of their employees; and
3. The Engineer/Annual Consultant has identified all consultant and subconsultant employees who perform work under the contract and has verified compliance with Federal Immigration and Nationality Act (FINA), all other Federal immigration laws and regulations, and A.R.S. § 23-214.

Signature of Engineer/ Annual Consultant (Employer) or Authorized Designee:

William M. Greenhouse

Printed Name: WILLIAM M. GREENHOUSE

Title: PRINCIPAL / SR. HYDROGEOLOGIST

Date (month/day/year): September 6, 2011