

**DEFINITIONS**

**Architect Services, Engineer Services, Land Surveying Services, Assayer Services, Geologist Services and Landscape Architect Services:** Those professional services within the scope of the practice of those services as provided in ARS § 32-101.

**Branch Office:** A geographically distinct place of business or subsidiary office of a firm that has a key role on the team.

**Discipline:** Primary technical capabilities of key personnel, as evidenced by academic degree, professional registration, certification, and/or extensive experience.

**Firm:** Defined in ARS § 32-101(B.19.).

**Key Personnel:** Individuals who will have major contract responsibilities and/or provide unusual or unique expertise.

**SPECIFIC INSTRUCTIONS:**

1. Complete this form for each branch office seeking work under this RFQ.
  - a. – e. **Firm (or Branch Office) Name and Address.** Self-explanatory.
  - f. **Year Established.** Enter the year the firm (or branch office, if appropriate) was established under the current name.
  - g. **Ownership.**
    - (g1). *Type.* Enter the type of ownership or legal structure of the firm (sole proprietor, partnership, corporation, joint venture, etc.).
    - (g2). *Small Business Status.* A firm is a small business if the firm has less than 100 employees **or** has gross revenues of \$4 million or less.
  - h.-j. **Point of Contact.** Provide this information for a representative of the firm that the Customer can contact for additional information. The representative must be empowered to speak on contractual and policy matters.
  - k. **Name of Firm.** Enter the name of the firm.
2. **Employees by Discipline.**
  - a. Select disciplines from the List of Disciplines (Function Code) listed on Page 3 of 4 Instructions. For employees that do not qualify for any of the disciplines, select Other. *Note: The intended searchable database indicated in the RFQ will be populated from the Qualifications Form I Excel attachment only.*
  - b. Each person can be counted only twice; once for his/her primary function and once for his/her secondary function. Primary and secondary functions should be indicated by including a "P" or an "S" in column b after the Description Title is given.
  - c-d. If the form is completed for a firm (including all branch offices), enter the number of employees by disciplines in column c. If the form is completed for a branch office, enter the number of employees by discipline in column d and for the firm in column c.
3. **Profile of Firm's Experience and Annual Average Revenue for Last Year.**
  - a. Enter the approximate number of projects the firm (or branch) has done attributable by Profile Code listed on Page 3 of 4 Instructions over the last year.
  - b. Enter the appropriate Profile Codes from Instructions Pages 3 of 4 that represent the type of work the firm (or branch) has done over the last year.
  - c. Using the Revenue Index Number on Page 3 of 6 Form, indicate the approximate revenue the firm has

earned over the last year per Profile Code entered into the table.

4. **Resumes of Key Personnel Proposed for This Contract.** Complete this section for each key person who will participate in this contract.
  - a. Self-explanatory.
  - b. Self-explanatory
  - c. Total years of relevant experience (block c1), and years of relevant experience with current firm, but not necessarily the same branch office (block c2).
  - d. Name, City and State of the firm where the person currently works, which must correspond with one of the firms (or branch office or a firm, if appropriate) listed in Section 1.
  - e. Provide information on the highest relevant academic degree(s) received. Indicate the area(s) of specialization for each degree.
  - f. Provide information on current relevant professional registration(s) and in which State(s) they are current.
  - g. Provide information on any other professional qualifications relating to this contract, such as education, professional registration, publications, organizational memberships, certifications, training, awards, and foreign language capabilities.
  - h. Provide information on no more than five (5) projects in the last year which the person had a significant role that demonstrates the person's capability relevant to her/his proposed role in this contract. These projects do not necessarily have to be any of the projects presented in Section 5 for the project team if the person was not involved in any of those those projects or the person worked on other projects that were more relevant than the team projects in Section 5. Use the check box provided to indicate if the project was performed with any office of the current firm. If any of the professional services or construction projects are not complete, leave Year Completed blank and indicate the status in Brief Description and Specific Role.
  
5. **Example Projects Which Best Illustrate Firms Qualification for this contract.** Select project where multiple team members worked together, if possible, that demonstrate the team's capability to perform work similar to that required for this contract. Complete one Section 5 for each project. List no more than five (5) projects.
  - a. Title and Locations of project or contract. For an indefinite delivery contract, the location is the geographic scope of the contract.
  - b. Enter the year completed of the professional services (such as planning, engineering study, or design), and/or the year completed if construction. If any of the professional services or the construction projects are not complete, leave Year Completed blank and indicate the status in Brief Description of Project and Relevance to This Contract (block f).
  - c. Project Owner or user, such as a government agency or installation, an institution, a corporation or private individual.
  - d. Provide the original budget or not to exceed dollar amount for the project.
  - e. Provide the Total Cost of the Project. If any of the professional services or construction projects is not complete, indicate the percentage complete and whether this project will be on budget, over or under budget.
  - f. Brief Description: Indicate scope, size, and length of project, principle elements and special features of the project. Discuss the relevance of the example project to this contract.
  
6. **Additional Information.** Use this section to provide additional information you feel may be necessary to describe your firm's qualifications for this contract.
  
7. **Annual Average Professional Services Revenues of Firm for Last 3 Years.** Complete this block for the firm or branch office for which this form is completed. In column a, enter an approximate percentage of total work attributable to State, Federal or Municipal Work. In column b, enter an approximate percentage of total work attributable to Non-Government work. Percentages should take into consideration work completed over the last 3 years.
  
8. **Authorized Representative.** An authorized representative of the firm or branch office must sign and date the completed form. Signing attests that the information provided is current and factual. Provide the name and title of the authorized representative who signed the form.

**RFQ# ADSP014-00003465, Annual Request for Qualifications and Experience  
REVISED - Attachment I – General Qualifications**

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**List of Disciplines (Function Codes) for Question 7**

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Aeronautical Engineer	Environmental Engineer	Mining Engineer
Agricultural Engineer	Environmental Scientist	Nuclear Engineer
Archeologist	Fire Protection Engineer	Petroleum Engineer
Architect	Geodetic Surveyor	Photogrammetrist
Architectural Engineering	Geographic Information System Specialist	Project Manager
Biologist	Geological Engineer	Sanitary Engineer
CADD Technician	Geologist	Soils Engineer
Chemical Engineer	Hydrographic Surveyor	Structural Engineer
Civil Engineer	Hydraulic Engineer	Technician/Analyst
Construction Manager	Hydrologist	Transportation Engineer
Construction Inspector	Industrial Engineer	Water Resources Engineer
Control Systems Engineer	Landscape Architect	
Cost Engineer/Estimator	Mechanical Engineer	
Ecologist	Metallurgical Engineer	
Electrical Engineer		

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**List of Experience Categories (Profile Codes for Question 8)**

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Acoustics, Noise Abatement	Dredging Studies and Design
Aerial Photography; Airborne Data and Imagery Collection and Analysis	Design & Planning Structured Parking Facilities
Activity Centers	Detention Security Systems
Air Pollution Control	Disability / Special Needs
Airports; Navaids; Airport Lighting; Aircraft Fueling	Ecological and Archeological Investigations
Airports; Terminals and Hangars; Freight Handling	Educational Facilities; Classrooms
Agricultural Development; Grain Storage; Farm Mechanization	Electrical Studies and Design
Animal Facilities	Electronics
Anti-Terrorism/Force Protection	Elevators; Escalators; People-Movers
Area Master Planning	Energy / Water Auditing Savings
Auditoriums and Theaters	Energy Conservation; New Energy Sources
Automation; Controls; Instrumentation	Environmental Impact Studies, Assessments or Statements
Barracks; Dormitories	Fallout Shelters; Blast-Resistant Design
Bridge Design: Bridges	Fire Protection
Cartography	Fisheries; Fish Ladders
Cemeteries ( <i>Planning and Relocation</i> )	Forensic Engineering
Chemical Processing and Storage	Garages; Vehicles Maintenance Facilities; Parking
Child Care/Development Facilities	Gas Systems ( <i>Propane; Natural, Etc.</i> )
Codes; Standards; Ordinances	Geodetic Surveying: Ground and Airborne
Cold Storage; Refrigeration and Fast Freeze	Heating; Ventilating; Air Conditioning
Commercial Building ( <i>Low Rise</i> ); Shopping Centers	Highways; Streets; Airfield Paving; Parking Lots
Community Facilities	Historical Preservation
Communications Systems; TV; Microwave	Hospital and Medical Facilities
Computer Facilities	Hotels; Motels
Conservation and Resource Management	<i>Housing (Residential, Multi-Family; Apartments; Condominiums)</i>
Construction Management	Hotels; Motels
Construction Surveying	Hydraulics and Pneumatics
Corrosion Control; Cathodic Protection Electrolysis	Hydrographic Surveying
Cost Estimating; Cost Engineering and Analysis; Parametric Costing; Forecasting	Industrial Buildings; Manufacturing Plants
Cryogenic Facilities	Industrial Processes; Quality Control
Construction Materials Testing	Industrial Waste Treatment
Dams ( <i>Concrete; Arch</i> )	Intelligent Transportation Systems
Dams ( <i>Earth; Rock</i> ); Dikes; Levees	Infrastructure
Desalinization ( <i>Process and Facilities</i> )	Irrigation; Drainage
Design-Build - Preparation of Requests for Proposals	Judicial and Courtroom Facilities
Digital Elevation and Terrain Model Development	Laboratories; Medical Research Facilities
Digital Orthophotography	Land Surveying
Dining Halls; Clubs; Restaurants	Landscape Architecture
	Libraries; Museums; Galleries

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Lighting (*Interior; Display; Theater, Etc.*)  
Lighting (*Exteriors; Streets; Memorials; Athletic Fields, Etc.*)  
Labs - General  
Labs – Research – Dry  
Labs – Research – Wet  
LEED Accredited A/E  
LEED Independent 3<sup>rd</sup> Party Building Commissioning  
Mapping Location/Addressing Systems  
Materials Handling Systems; Conveyors; Sorters  
Metallurgy  
Materials Testing  
Measurement / Verification / Conservation Water Consumption Savings  
Mining and Mineralogy  
Medical Related  
Modular Systems Design; Fabricated Structures or Components  
Mold Investigation  
Museums  
Nuclear Facilities; Nuclear Shielding  
Office Buildings; Industrial Parks  
Outdoor Recreation  
Petroleum and Fuel (*Storage and Distribution*)  
Photogrammetry  
Pipelines (*Cross-Country - Liquid and Gas*)  
Phase I Environmental  
Prisons & Correctional Facilities  
Plumbing and Piping Design  
Prisons and Correctional Facilities  
Product, Machine Equipment Design Pneumatic Structures, Air-Support Buildings Power Generation, Transmission, Distribution Public Safety Facilities  
Radar; Sonar; Radio and Radar Telescopes  
Radio Frequency Systems and Shielding's  
Railroad; Rapid Transit  
Recreation Facilities (*Parks, Marinas, Etc.*)  
Refrigeration Plants/Systems  
Rehabilitation (*Buildings; Structures; Facilities*)  
Research Facilities  
Resources Recovery; Recycling  
Roof Infrared Imaging to Identify Water Leaks

Roofing  
Safety Engineering; Accident Studies; OSHA Studies  
Security Systems; Intruder and Smoke Detection  
Seismic Designs and Studies  
Sewage Collection, Treatment and Disposal  
Soils and Geologic Studies; Foundations  
Solar Energy Utilization  
Solid Wastes; Incineration; Landfill  
Special Environments; Clean Rooms, Etc.  
Structural Design; Special Structures  
Surveying; Platting; Mapping; Flood Plain Studies  
Sustainable Design  
Swimming Pools  
Storm Water Handling and Facilities  
Specifications Writing  
Toxicology  
Testing and Inspection Services  
Traffic and Transportation Engineering  
Topographic Surveying and Mapping  
Towers (*Self-Supporting and Guyed Systems*)  
Tunnels and Subways  
Traffic Studies  
Transportation  
Urban renewals; Community Development  
Utilities (*Gas and Steam*)  
Value Analysis; Life-Cycle Costing  
Warehouse and Depots  
Water Resources; Hydrology; Ground Water  
Water Supply; Treatment and Distribution  
Wind Tunnels; Research/Testing Facilities Design  
Waste Water Treatment Facility  
Water Well Rehabilitation; Water Well Work  
Zoning; Land Use Studies

**RFQ# ADSPO14-00003465, Annual Request for Qualifications and Experience  
REVISED - Attachment I – General Qualifications**

*(If a firm has branch offices, complete for each specific branch office seeking work.)*

**1. REVISED ADSPO13-00003465: Annual Request for Qualifications**

a.	FIRM (OR BRANCH OFFICE) NAME:	CH2M HILL ENGINEERS, INC
b.	FIRM (OR BRANCH OFFICE) STREET:	1501 W Fountainhead Pkwy, Ste. 401
c.	FIRM (OR BRANCH OFFICE) CITY:	Tempe
d.	FIRM (OR BRANCH OFFICE) STATE:	Arizona
e.	FIRM (OR BRANCH OFFICE) ZIP CODE:	85282
f.	YEAR ESTABLISHED:	1946
(g1).	OWNERSHIP - TYPE:	Corporation
(g2).	OWNERSHIP - SMALL BUSINESS STATUS:	Not applicable
h.	POINT OF CONTACT NAME AND TITLE:	Ryan Rhoades, Principal Project Manager
i.	POINT OF CONTACT TELEPHONE NUMBER:	480-377-6212
j.	POINT OF CONTACT E-MAIL ADDRESS:	<a href="mailto:Ryan.Rhoades@ch2m.com">Ryan.Rhoades@ch2m.com</a>
k.	NAME OF FIRM (If block 1a is a branch office):	

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**2. EMPLOYEES BY DISCIPLINE**

a. Discipline Title	b. Function: Primary (P) or Secondary (S)	c. No. of Employees - Firm	d. No. of Employees - Branch
Aeronautical Engineer	P	5	1
Archaeologist	P	9	
Architect	P	292	2
Biologist	P	128	
CADD Technician	P	130	4
Chemical Engineer	P	212	8
Civil Engineer	P	903	10
Construction Manager	P	534	3
Construction Inspector	P	112	4
Controls System Engineer	P	304	8
Cost Engineer/Estimator	P	192	1
Ecologist	P	45	
Electrical Engineer	P	476	6
Environmental Engineer	P	804	4
Environmental Scientist	P	519	
Fire Protection Engineer	P	65	
Geographic Information System Specialist	P	98	
Geologist	P	215	
Hydraulic Engineer	P	72	
Hydrologist	P	224	
Industrial Engineer	P	66	2
Landscape Architect	P	14	
Mechanical Engineer	P	726	6
Mining Engineer	P	4	
Nuclear Engineer	P	292	
Petroleum Engineer	P	29	
Project Manager	P	335	12
Sanitary Engineer	P	149	2
Soils Engineer	P	12	1
Structural Engineer	P	601	10

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Technician/Analyst	P	861	
Transportation Engineer	P	1550	4
Water Resources Engineer	P	774	4
Other	P	13,300	8
<b>Total</b>		26,752	100

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**3. PROFILE OF FIRM'S EXPERIENCE AND ANNUAL AVERAGE REVENUE FOR LAST YEAR**

a. Approximate No. of Projects*	b. Experience**	c. Revenue Index Number (see below)***
>100	Automation; Controls; Instrumentation	10
>100	Construction Management	10
>100	Corrosion Control; Cathodic Protection Electrolysis	10
>100	Cost Estimating; Cost Engineering and Analysis; Parametric Costing; Forecasting	10
>50	Desalinization ( <i>Process and Facilities</i> )	10
>100	Electrical Studies and Design	10
>10	Fisheries; Fish Ladders	8
>100	Industrial Waste Treatment	10
>100	Infrastructure	10
>100	Pipelines	10
>100	Sewage Collection, Treatment and Disposal	10
>100	Solid Wastes; Incineration; Landfill	10
>100	Structural Design; Special Structures	10
>100	Storm Water Handling Facilities	10
>100	Transportation	10
>100	Water Resources; Hydrology; Ground Water	10
>100	Water Supply; Treatment and Distribution	10
>100	Waste Water Treatment Facility	10

\*CH2M HILL had 19,776 active projects at last reporting in 2013. It is estimated that there are over 100 projects being delivered over the last year in most of the profile categories listed unless otherwise noted.

\*\*CH2M HILL has experience in the majority of profile codes listed in the instructions. The areas of specific interest are listed in this table.

\*\*\*CH2M HILL had a gross revenue of \$6.2 billion in 2012. It is estimated that revenue is greater than \$50 million in each profile category unless otherwise noted.

**PROFESSIONAL SERVICES REVENUE INDEX NUMBER**

- |   |   |
|---|---|
| 1. Less than \$100,000                  | 6. \$2 million to less than \$5 million   |
| 2. \$100,000 to less than \$250,000     | 7. \$5 million to less than \$10 million  |
| 3. \$250,000 to less than \$500,000     | 8. \$10 million to less than \$25 million |
| 4. \$500,000 to less than \$1 million   | 9. \$25 million to less than \$50 million |
| 5. \$1 million to less than \$2 million | 10. \$50 million or greater               |

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**4. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT (Complete one Section 4 for each key person.)**

a. NAME: Ryan Rhoades	b. ROLE IN THIS CONTRACT: Project Manager	c. YEARS EXPERIENCE	
		1. TOTAL: 17	2. WITH CURRENT FIRM: 7
d. FIRM NAME AND LOCATION (City and State): CH2M HILL, Tempe, AZ			
e. EDUCATION (DEGREE AND SPECIALIZATION): Civil Engineering		f. CURRENT PROFESSIONAL REGISTRATION (STATE AND DISCIPLINE): Professional Engineer (Arizona) #41009	
g. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.) Member AZ Water Association and American Water Works Assoc			

**H. RELEVANT PROJECTS**

1)	(1) TITLE AND LOCATION (City and State): City of Scottsdale Chaparral Water Treatment Plant – Original design and construction, Optimization study and related improvements, Scottsdale, AZ	(2) Year Completed	
		Professional Services: On-going	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <span style="float: right;"><input checked="" type="checkbox"/> Check if project performed with current firm</span> Provided management of a treatment study including a successful decision analysis to select strategies to optimize plant performance and reduce DBPs. Performed comprehensive plant evaluation of the direct membrane filtration plant with granular activated carbon (GAC) contactors. Currently implementing and evaluating plant performance for several near-term improvements.		
2)	(1) TITLE AND LOCATION (City and State) Ocotillo Wastewater Treatment Plant Miscellaneous Improvements, City of Chandler, AZ	(2) Year Completed	
		Professional Services 2013	Construction (if applicable) 2013
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <span style="float: right;"><input checked="" type="checkbox"/> Check if project performed with current firm</span> Provided management of construction of miscellaneous process, civil, and architectural improvements at a 10 mgd conventional WWTP. Construction safely completed on-time and budget.		
3)	(1) TITLE AND LOCATION (City and State) Pecos Rd WTP Taste and Odor Study, Chandler, AZ	(2) Year Completed	
		Professional Services 2013	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <span style="float: right;"><input checked="" type="checkbox"/> Check if project performed with current firm</span> Assisted the City with laboratory testing and evaluation of treatment techniques for the improvement taste and odor in response to water quality events.		
4)	(1) TITLE AND LOCATION (City and State) Scottsdale Water Master Plan, Scottsdale, AZ	(2) Year Completed	
		Professional Services On-going	Construction (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <span style="float: right;"><input checked="" type="checkbox"/> Check if project performed with current firm</span> Task lead for evaluating data and regulations in regards to water quality for water system planning and operations for the Scottsdale water service area including 64 mgd and 30 mgd WTPs. The evaluation consisted of developing compliance strategies for current and future regulations with a focus on disinfection byproducts (DBPs) and Long Term 2 SWTR.		
5)	(1) TITLE AND LOCATION (City and State) Glendale Oasis Groundwater Treatment Plant, Glendale, AZ	(2) Year Completed	
		Professional Services 2012	Construction (if applicable) 2012
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <span style="float: right;"><input checked="" type="checkbox"/> Check if project performed with current firm</span> Management of design and construction of a 15 mgd ion exchange treatment facility co-located with a surface WTP. A blending plan was developed for optimization of these supplies. The system includes 6 groundwater wells and 6 miles of 12”-36” conveyance pipeline through residential and commercial areas. Project required extensive permitting, utility coordination, tunneling, land acquisition, and public relations.		

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**5. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT**  
*(Present no more than five (5) projects. Complete one Section 5 for each project.)*

a. TITLE AND LOCATION <i>(City and State)</i> Chaparral Water Treatment Plant Pretreatment Study and Implementation of Improvements, Scottsdale, AZ	b. YEAR COMPLETED	
	PROFESSIONAL SERVICES On-going	CONSTRUCTION <i>(If applicable)</i> On-going

**23. PROJECT OWNER'S INFORMATION**

c. PROJECT OWNER City of Scottsdale	d. DOLLAR AMOUNT OF PROJECT \$500,000	e. TOTAL COST OF PROJECT \$10M
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f. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT *(include scope, size, and length of project)*  
 CH2M HILL has been instrumental in developing and implementing pretreatment improvements to help the City of Scottsdale maximize capacity and increase reliability at the Chaparral WTP, co-authoring the treatment alternative study that developed recommendations for improved WTP operations performance and compliance with DBP regulations. The recommendations included addition of clarification prior to UF, use of alternative coagulant, and UF operation in batch mode. CH2M HILL created a comprehensive decision model to analyze 15 technologies. Alternatives were categorized as near-term or long-term, and analyzed on the basis of cost and non-cost criteria. Bench testing was conducted by CH2M HILL's ASL and results were integrated into the analysis. Near-term recommendations included preformation of TTHMs to be removed downstream by GAC, and changing the coagulant from ferric to ACH. CH2M HILL is currently working with the City on the implementation of these improvements.

**5. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT**  
*(Present no more than five (5) projects. Complete one Section 5 for each project.)*

a. TITLE AND LOCATION <i>(City and State)</i> City of Glendale Oasis Groundwater Treatment Plant, Glendale, AZ	b. YEAR COMPLETED	
	PROFESSIONAL SERVICES 2012	CONSTRUCTION <i>(If applicable)</i> 2012

**23. PROJECT OWNER'S INFORMATION**

c. PROJECT OWNER City of Glendale	d. DOLLAR AMOUNT OF PROJECT \$40M	e. TOTAL COST OF PROJECT \$35M
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f. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT *(include scope, size, and length of project)*  
 CH2M HILL worked with the City of Glendale and the CMAR to design, permit, and build this 10-mgd ion exchange groundwater treatment plant. The nitrate and arsenic removal facility treats flow from six wells to comply with the Safe Drinking Water Act regulatory limits. Each well has varying concentrations of arsenic, nitrate, sulfate, chloride, iron, and manganese, all of which affect the expected efficiency of the treatment plant. As part of the project, we also designed a conveyance pipeline to deliver groundwater from the wells to the new treatment plant. CH2M HILL evaluated fixed bed and fluidized bed ion exchange technology process options and brine disposal systems. In coordination with the CMAR, we developed a pre-bid procurement package for the IX system based on specific performance requirements for chemical use, brine waste, and resin, which were tied to the warranty conditions. We developed an operational blending plan to prioritize well selection, minimize operational costs, and provide operators with a water quality planning tool.

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**5. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT**

*(Present no more than five (5) projects. Complete one Section 5 for each project.)*

a. TITLE AND LOCATION <i>(City and State)</i>	b. YEAR COMPLETED	
SROG SAI/SRO Interceptor Odor Control Modeling Project	PROFESSIONAL SERVICES 2011	CONSTRUCTION <i>(If applicable)</i>

**23. PROJECT OWNER'S INFORMATION**

c. PROJECT OWNER Sub-Regional Operating Group	d. DOLLAR AMOUNT OF PROJECT \$100,000	e. TOTAL COST OF PROJECT \$100,000
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- f. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT (include scope, size, and length of project)
- CH2M HILL was tasked to complete a study of odor generation, fate, and headspace ventilation in the Salt River Outfall (SRO) and Southern Avenue Interceptor (SAI). This study employed the INTERCEPTOR model to evaluate the two interceptors as currently operated and as predicted to operate in a future (2060) scenario with increased flow rates and recommended hydraulic improvements. Average dry weather odor generation scenarios and varied flow storm scenarios were considered. Model results were used to estimate forced ventilation extraction rates required to prevent odor emissions from the SRO and SAI and to develop equipment costs and recommended locations for installing vapor-phase odor control equipment. Additionally, liquid-phase chemical addition scenarios were simulated to provide dose guidance and cost information on Peroxide Regenerated Iron-Sulfide Control (PRI-SC™).

**6. ADDITIONAL INFORMATION**

**a. PROVIDE ANY ADDITIONAL INFORMATION YOU FEEL MAY BE NECESSARY TO DESCRIBE YOUR FIRMS QUALIFICATIONS. (ATTACH ADDITIONAL SHEETS AS NEEDED.)**

**7. ANNUAL AVERAGE PROFESSIONAL SERVICES REVENUES OF FIRM FOR LAST 3 YEARS**

a.	Percentage of Total Work Attributable to State, Federal and Municipal Government Work:	80%
b.	Percentage of Total Work Attributable to Non-Government Work:	20%

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**8. AUTHORIZED REPRESENTATIVE. The foregoing is a statement of facts.**

Signature: *Ryan Rhoades*

Date: December 12, 2013

Name: Ryan Rhoades

Title: Principal Project Manager