



ATTACHMENT I – General Qualifications
**ANNUAL REQUEST FOR QUALIFICATIONS AND EXPERIENCE NO:
ADSP015-00004729**

STATE PROCUREMENT OFFICE
Department of Administration
100 North 15th Avenue, Suite 201
Phoenix, Arizona 85007

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

1. **Annual Request for Qualifications**

a. FIRM (OR BRANCH OFFICE) NAME:	Greeley and Hansen LLC
b. FIRM (OR BRANCH OFFICE) STREET:	2800 North 44th Street, Suite 650
c. FIRM (OR BRANCH OFFICE) CITY:	Phoenix
d. FIRM (OR BRANCH OFFICE) STATE:	Arizona
e. FIRM (OR BRANCH OFFICE) ZIP CODE:	85008
f. YEAR ESTABLISHED:	1979
(g1). OWNERSHIP - TYPE:	Limited Liability Company
(g2) OWNERSHIP - SMALL BUSINESS STATUS:	N/A
h. POINT OF CONTACT NAME AND TITLE:	Kim Tanner, PE - Managing Director
i. POINT OF CONTACT TELEPHONE NUMBER:	602.778.8462
j. POINT OF CONTACT E-MAIL ADDRESS:	ktanner@greeley-hansen.com
k. NAME OF FIRM (If block 1a is a branch office):	Greeley and Hansen LLC



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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
Construction Manager	P	2	0
Drafter	P	1	0
Landscape Architects	P	1	0
Facility Operation Maintenance	P	1	0
Technician / Analyst	P	3	0
Civil/Sanitary Engineers	P	128	5
Environmental Engineer	P	1	0
Process Engineers	P	2	0
Electrical Engineers	P	13	0
Instn/Auton Specialists	P	3	0
Mechanical Engineers	P	9	0
Architects	P	5	0
Construction Engineers	P	11	0
Construction Inspector	P	4	0
Construction Technicians	P	2	0
Designers/Technicians	P	6	0
CADD Technician	P	9	1
Utility Management Consulting	P	0	0
Adminstrative	P	62	0
Other Employees	P	1	1
Total		264	7



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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)
3	Design-Build - Preparation of Requests for Proposals	2
1	Electrical Studies and Design	1
3	Infrastructure	4
2	Sewage Collection, Treatment and Disposal	3
1	Solar Energy Utilization	1
3	Waste Water Treatment Facility	4
1	Air Pollution Control	1
1	Automation; Controls; Instrumentation	2
1	Plumbing and Piping Design	2
3	Construction Management	2
5	Spec Writing	2

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 Andrew Richardson, PE, BCEE	b. ROLE IN THIS CONTRACT Quality Management	c. YEARS EXPERIENCE	
		1. TOTAL 36	2. WITH CURRENT FIRM 36
d. LOCATION <i>(City and State)</i> Phoenix, Arizona			
e. EDUCATION <i>(DEGREE AND SPECIALIZATION)</i> M.S. Civil Engineering, B.S. Civil Engineering, MBA Finance		f. PROFESSIONAL TRAINING - REGISTRATIONS Registered Professional Engineer: AZ, NV, IL, NY, NM, MI Board Certified Environmental Engineer	
g. OTHER PROFESSIONAL QUALIFICATIONS <i>(Organizations, Awards, etc.)</i> American Society of Civil Engineering, American Water Works Association, American Public Works Association, Water Environment Federation, Arizona Water and Pollution Control Association, AZ Water			

H. RELEVANT PROJECTS

1.	(1) TITLE AND LOCATION <i>(City and State)</i> Desert Breeze Water Resource Center Clarifier Rehabilitation - Clark County, Nevada	(2) YEAR COMPLETED	
		Professional Services 2014	Construction (if applicable) On-going
	(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.)</i> AND SPECIFIC ROLE Greeley and Hansen is working with Clark County Water Reclamation District to evaluate and rehabilitate the aeration basins, secondary clarifiers, and RAS pumps at the Desert Breeze Water Resource Center (WRC). Total Project Cost - \$3,373,737.00 - Chief Executive Officer / Principal	<input checked="" type="checkbox"/>	Check if project performed with current firm
2.	(1) TITLE AND LOCATION <i>(City and State)</i> SROG 91st Avenue Wastewater Treatment Plant Master Plan - Phoenix, Arizona	(2) YEAR COMPLETED	
		Professional Services 2013	Construction (if applicable)
	(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.)</i> AND SPECIFIC ROLE Evaluation of current and future impacts of residuals discharged to the 91st Avenue WWTP as a result of regional development of water reclamation facilities. It includes comprehensive planning of the regional impact of all SROG cities at the 91st Avenue WWTP. Total Project Cost - \$2,500,000.00 - Chief Executive Officer / Principal	<input checked="" type="checkbox"/>	Check if project performed with current firm
3.	(1) TITLE AND LOCATION <i>(City and State)</i> Regional Optimization Master Plan (ROMP) Study for Metropolitan Treatment Facilities - Tucson, Arizona	(2) YEAR COMPLETED	
		Professional Services 2010	Construction (if applicable)
	(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.)</i> AND SPECIFIC ROLE The Pima County Regional Wastewater Reclamation Department (PCRWRD) retained Greeley and Hansen to develop a master plan to identify the optimal strategy for the treatment of current and projected wastewater flows to the Roger Road Wastewater Treatment Plant (WWTP) and the Ina Road Water Pollution Control Facility (WPCF). Total Project Cost - \$2,692,934.00 - Chief Executive Officer / Principal	<input checked="" type="checkbox"/>	Check if project performed with current firm
4.	(1) TITLE AND LOCATION <i>(City and State)</i> Lake Pleasant Water Treatment Plant Project - Phoenix, Arizona	(2) YEAR COMPLETED	
		Professional Services 2007	Construction (if applicable)
	(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.)</i> AND SPECIFIC ROLE Provided program management services for the management of three other consulting firms during the procurement phase of this Design-Build-Operate project. Facilitated and participated in numerous project team workshops, selection committee meetings and working group meetings. Total Project Cost - \$230,000,000.00 - Chief Executive Officer / Principal	<input checked="" type="checkbox"/>	Check if project performed with current firm
5.	(1) TITLE AND LOCATION <i>(City and State)</i> Pima County Wastewater Management Department - Tucson, Arizona	(2) YEAR COMPLETED	
		Professional Services 2007	Construction (if applicable) 2014
	(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.)</i> AND SPECIFIC ROLE 25-Year Master Plan to identify the appropriate strategy for the conveyance and treatment of current and projected wastewater flows to the 41 mgd Roger Road Wastewater Treatment Plant (WWTP) and the 37.5 mgd Ina Road Water Pollution Control Facility (WPCF) as well as at outlying Wastewater Reclamation Facilities (WRF). Total Project Cost - \$604,000,000.00 - Project Director	<input checked="" type="checkbox"/>	Check if project performed with current firm



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4. Resumes of Key Personnel Proposed for this Contract (Complete one Section 4 for each key person.)

a. NAME Kim Tanner, PE	b. ROLE IN THIS CONTRACT Project Director	c. YEARS EXPERIENCE	
		1. TOTAL 37	2. WITH CURRENT FIRM 2
d. LOCATION (City and State) Phoenix, Arizona			
e. EDUCATION (DEGREE AND SPECIALIZATION) B.S. Civil Engineering		f. PROFESSIONAL TRAINING - REGISTRATIONS Registered Professional Engineer: AZ, NV	
g. OTHER PROFESSIONAL QUALIFICATIONS (Organizations, Awards, etc.) American Water Works Association, AZ Water			

H. RELEVANT PROJECTS

	(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED	
		Professional Services	Construction (if applicable)
1.	Palo Verde Nuclear Generating Station – Treatment Process Performance Assessment for APS - Tonopah, Arizona	2014	
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Greeley and Hansen assisted APS with professional engineering services to assess the treatment process performance, identify root causes or probable causes of the solids issues and develop a process improvement recommendation to address the identified causes. Total Project Cost - \$80,000 - Managing Director	<input checked="" type="checkbox"/>	Check if project performed with current firm
2.	Wastewater Treatment Facility Design and Aquifer Protection Permit Assistance - Golden Valley, Arizona	2014	
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Greeley and Hansen was contracted with designing the new 0.24 MGD Interim Wastewater Treatment Facility along with assisting with the Aquifer Protection Permit and Reuse Permit process as administered by the Arizona Department of Environmental Quality (ADEQ). The team provided civil, process, mechanical, electrical, and instrumentation engineering services. Total Project Cost - \$6,300,000.00 - Managing Director	<input checked="" type="checkbox"/>	Check if project performed with current firm
3.	Water Tank Rehabilitation - Tempe, Arizona	2014	On-going
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Greeley and Hansen, in association with another consultant under the City's On-Call list, are providing engineering and third party construction inspections for rehabilitation activities. Total Project Cost - \$4,500,000.00 - Managing Director	<input checked="" type="checkbox"/>	Check if project performed with current firm
4.	Desert Breeze Water Resource Center Clarifier Rehabilitation - Clark County, Nevada	2014	On-going
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Greeley and Hansen is working with the District to evaluate and rehabilitate the aeration basins, secondary clarifiers, and RAS pumps at the Desert Breeze Water Resource Center (WRC). Total Project Cost - \$3,373,737.00 - Managing Director	<input checked="" type="checkbox"/>	Check if project performed with current firm
5.	Pima County Avra Valley WRF Expansion - Tuscon, Arizona	2009	2009
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Program Manager responsible for the planning, permitting, final design and CM@Risk delivery of a 4.0 MGD expansion to the Avra Valley Wastewater Treatment Facility. This facility included new solids handling and storage, including pumping, thickening via a rotating drum thickener, sludge storage with associated pumped mixing station and a sludge liading station. Total Project Cost - \$56,000,000.00 - Project Manager	<input type="checkbox"/>	Check if project performed with current firm Greeley



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a. NAME	b. ROLE IN THIS CONTRACT	c. YEARS EXPERIENCE	
		1. TOTAL	2. WITH CURRENT FIRM
Brad Tackett, PE	Project Manager	12	1

d. LOCATION *(City and State)* Phoenix, Arizona

e. EDUCATION *(DEGREE AND SPECIALIZATION)*
B.S. Civil Engineering, M.S. Civil/Environmental
Engineering

f. PROFESSIONAL TRAINING - REGISTRATIONS
Registered Professional Engineer: AZ

g. OTHER PROFESSIONAL QUALIFICATIONS *(Organizations, Awards, etc.)*

American Public Works Association, AZ Water, American Water Works Association

H. RELEVANT PROJECTS

	(1) TITLE AND LOCATION <i>(City and State)</i>	(2) YEAR COMPLETED	
		Professional Services	Construction (if applicable)
1.	Desert Breeze Water Resource Center Clarifier Rehabilitation - Clark County, Nevada	2014	On-going
	(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.)</i> AND SPECIFIC ROLE Greeley and Hansen is working with the District to evaluate and rehabilitate the aeration basins, secondary clarifiers, and RAS pumps at the Desert Breeze Water Resource Center (WRC). Total Project Cost - \$3,373,737.00 - Project Engineer	<input checked="" type="checkbox"/>	Check if project performed with current firm
2.	Water Pollution Control Facility - Misc Improvements - Las Vegas, Nevada	On-going	
	(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.)</i> AND SPECIFIC ROLE Greeley and Hansen was contracted by the City to evaluate and design valve replacements for the Sludge Holding Tanks along with evaluating and designing new digester mixers. Total Project Cost - \$1,500,000.00 - Project Engineer	<input checked="" type="checkbox"/>	Check if project performed with current firm
3.	Wastewater Treatment Facility Design and Aquifer Protection Permit Assistance - Golden Valley, Arizona	2014	
	(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.)</i> AND SPECIFIC ROLE Greeley and Hansen was contracted with designing the new 0.24 MGD Interim Wastewater Treatment Facility along with assisting with the Aquifer Protection Permit and Reuse Permit process as administered by the ADEQ. The team provided civil, process, mechanical, electrical, and instrumentation engineering services. Total Project Cost - \$6,300,000.00 - Senior Project Manager	<input checked="" type="checkbox"/>	Check if project performed with current firm
4.	Ak-Chin Indian Community Surface Water Treatment Plant - Maricopa, Arizona	2010	2012
	(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.)</i> AND SPECIFIC ROLE Provided design services and project oversight for design of a new 2.25-mgd surface water treatment plant. The treatment plant was based on Zenon 500D membrane technology and equipped with the necessary facilities to provide treated water capable of meeting all primary potable water quality standards (as defined by EPA) under historical raw water quality conditions. Total Project Cost - \$15,700,000.00 - Project Manager	<input type="checkbox"/>	Check if project performed with current firm
5.	Ray and Recker Rd Reservoir and Pump Station - Gilbert, Arizona	2012	2013
	(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.)</i> AND SPECIFIC ROLE 2 MG Reservoir and Pump Station located on approximately 3.23-acres at the northwest corner of Ray and Recker Roads. Work efforts included design, preparation of bid documents, and engineering services during construction of a new reservoir and pump station utilizing a traditional design-bid-build project delivery method. Total Project Cost - \$6,500,000 - Project Engineer	<input type="checkbox"/>	Check if project performed with current firm



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a. NAME Thomas Powell, PE	b. ROLE IN THIS CONTRACT Instrumentation and Controls Engineer	c. YEARS EXPERIENCE	
		1. TOTAL 27	2. WITH CURRENT FIRM 3
d. LOCATION <i>(City and State)</i> Chicago, Illinois			
e. EDUCATION <i>(DEGREE AND SPECIALIZATION)</i> B.S.E. Electrical Engineering		f. PROFESSIONAL TRAINING - REGISTRATIONS Registered Professional Engineer: AZ, IL, FL, IN, MI, NV, NY, OH and OK	
g. OTHER PROFESSIONAL QUALIFICATIONS <i>(Organizations, Awards, etc.)</i> Certified Construction Specifier, Institute of Electrical and Electronics Engineers, Instrumentation, Systems and Automation Society			

H. RELEVANT PROJECTS

	(1) TITLE AND LOCATION <i>(City and State)</i>	(2) YEAR COMPLETED	
		Professional Services	Construction (if applicable)
1.	Desert Breeze Water Resource Center Clarifier Rehabilitation - Clark County, Nevada	2014	On-going
	(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.)</i> AND SPECIFIC ROLE Greeley and Hansen is working with the District to evaluate and rehabilitate the aeration basins, secondary clarifiers, and RAS pumps at the Desert Breeze Water Resource Center (WRC). Total Project Cost - \$3,373,737.00 - Senior Instrumentation and Controls Engineer	<input checked="" type="checkbox"/>	Check if project performed with current firm
2.	Newtown Creek Water Pollution Control Plant Upgrades - New York, New York	2001	On-going
	(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.)</i> AND SPECIFIC ROLE Greeley and Hansen is currently performing design, office services during construction, and construction management services for the \$4 billion upgrade of New York City's 310 MGD Newtown Creek Water Pollution Control Plant as part of a tri-venture with two other consultants. Total Project Cost - \$34,000,000.00 - Senior Instrumentation and Controls Engineer	<input checked="" type="checkbox"/>	Check if project performed with current firm
3.	Brandon Urban Dispersed (BUD) 5R Collection Main - Brandon, Florida	2002	2003
	(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.)</i> AND SPECIFIC ROLE Tampa Bay Water retained Greeley and Hansen to provide all engineering services required to construct water production and monitoring wells, perform aquifer performance tests on the new and existing wells; and design and construct the well equipment and well houses, well collecting mains and transmission main. Total Project Cost - \$4,000,000.00 - Senior Electrical Engineer and Instrumentation Engineer	<input checked="" type="checkbox"/>	Check if project performed with current firm
4.	Terrence J. O'Brien Water Reclamation Plant UV Disinfection System, Metropolitan Water Reclamation District - Chicago, Illinois	On-going	
	(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.)</i> AND SPECIFIC ROLE Project elements include designing a new 530 MGD UV disinfection system, low-lift pump station and future effluent facilities. Total Project Cost - \$60,000,000.00 - Instrumentation and Control Engineer	<input checked="" type="checkbox"/>	Check if project performed with current firm
5.	Power Reliability, Washington Suburban Sanitary Commission - Laurel, Maryland	2013	
	(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.)</i> AND SPECIFIC ROLE Responsible for the electrical assessment capacity and reliability of plant electrical services; condition assessment of electrical equipment and loads; arc flash study for more than 50 sites. At locations where these electrical services are determined to be inadequate, alternative solutions will be evaluated and recommendations will be made for improvements. Total Project Cost - \$4,500,000.00 - Senior Instrumentation and Controls Engineer	<input checked="" type="checkbox"/>	Check if project performed with current firm



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a. NAME	b. ROLE IN THIS CONTRACT	c. YEARS EXPERIENCE	
		1. TOTAL	2. WITH CURRENT FIRM
Jerry Bish, PE	Engineer	42	42

d. LOCATION *(City and State)* Phoenix, Arizona

e. EDUCATION <i>(DEGREE AND SPECIALIZATION)</i> B.S. Civil Engineering	f. PROFESSIONAL TRAINING - REGISTRATIONS Registered Professional Engineer: AZ and IL
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g. OTHER PROFESSIONAL QUALIFICATIONS *(Organizations, Awards, etc.)*
Water Environment Federation, American Society of Civil Engineering, American Water Works Association, American Metropolitan Sewerage Association, American Water Resources Association-Philadelphia Metropolitan Area

H. RELEVANT PROJECTS

	(1) TITLE AND LOCATION <i>(City and State)</i>	(2) YEAR COMPLETED	
		Professional Services	Construction (if applicable)
1.	Desert Breeze Water Resource Center Clarifier Rehabilitation - Clark County, Nevada	2014	On-going
	(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.)</i> AND SPECIFIC ROLE Greeley and Hansen is working with the District to evaluate and rehabilitate the aeration basins, secondary clarifiers, and RAS pumps at the Desert Breeze Water Resource Center (WRC). Total Project Cost - \$3,373,737.00 - Senior Consultant / Principal	<input checked="" type="checkbox"/>	Check if project performed with current firm
2.	Fort Huachuca Digester Cover Assessment - Sierra Vista, Arizona	2012	
	(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.)</i> AND SPECIFIC ROLE Professional engineering services to assist the plant in the identification of the problem(s) and the development of proposed solution(s). Project tasks consist of reviewing existing technical information, interviewing parties involved in design and installation, assessment of system operation, and development of recommendations to address the operational issues identified. Total Project Cost - \$12,000.00 - Project Engineer	<input checked="" type="checkbox"/>	Check if project performed with current firm
3.	Regional Optimization Master Plan (ROMP) Study for Metropolitan Treatment Facilities - Tucson, Arizona	2010	
	(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.)</i> AND SPECIFIC ROLE The Pima County Regional Wastewater Reclamation Department (PCRWRD) retained Greeley and Hansen to develop a master plan to identify the optimal strategy for the treatment of current and projected wastewater flows to the Roger Road Wastewater Treatment Plant (WWTP) and the Ina Road Water Pollution Control Facility (WPCF). Total Project Cost - \$2,692,934.00 - Senior Consultant / Principal	<input checked="" type="checkbox"/>	Check if project performed with current firm
4.	Pima County System Wide Odor Control Plan - Tucson, Arizona	2007	
	(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.)</i> AND SPECIFIC ROLE The System Wide Odor Control Plan incorporated the review of the existing odor control systems at the County's plants and sewer systems, as they were having major issues with odor control complaints in the surrounding community. The analysis looked at the County's sewer system and the treatment plants themselves and the potential for odors from each system. Total Project Cost - \$530,000.00 - Project Manager	<input checked="" type="checkbox"/>	Check if project performed with current firm
5.	Newtown Creek Water Pollution Control Plant Upgrades - New York, New York	2001	On-going
	(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.)</i> AND SPECIFIC ROLE Facility Planning, Preliminary and Final Design for the upgrade of New York City's 310 MGD modified aeration Newtown Creek WPCP. The project provides for upgrade of this plant to full secondary treatment to meet concerns for the citywide water quality concerns of the East River Water Quality Plan. Total Project Cost - \$34,000,000 - Quality Control Manager	<input checked="" type="checkbox"/>	Check if project performed with current firm



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4. Resumes of Key Personnel Proposed for this Contract *(Complete one Section 4 for each key person.)*

a. NAME Norbert Viranyi, PE, LEED AP	b. ROLE IN THIS CONTRACT Electrical Engineer	c. YEARS EXPERIENCE	
		1. TOTAL 23	2. WITH CURRENT FIRM 10
d. LOCATION <i>(City and State)</i> Chicago, Illinois			
e. EDUCATION <i>(DEGREE AND SPECIALIZATION)</i> B.S. Electrical Engineering		f. PROFESSIONAL TRAINING - REGISTRATIONS Registered Professional Engineer: AZ, IN, FL, IL, MD, MI, NV, OH, OK, VI, D.C. and LEED AP	
g. OTHER PROFESSIONAL QUALIFICATIONS <i>(Organizations, Awards, etc.)</i> American Water Works Association, Institute of Electrical and Electronics Engineers, National Fluid Power Association			

H. RELEVANT PROJECTS

1.	(1) TITLE AND LOCATION <i>(City and State)</i> Wastewater Treatment Facility Design and Aquifer Protection Permit Assistance - Golden Valley, Arizona	(2) YEAR COMPLETED	
		Professional Services On-going	Construction (if applicable)
	(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.)</i> AND SPECIFIC ROLE Greeley and Hansen was contracted with designing the new 0.24 MGD Interim Wastewater Treatment Facility along with assisting with the Aquifer Protection Permit and Reuse Permit process as administered by the ADEQ. The team provided civil, process, mechanical, electrical, and instrumentation engineering services. Total Project Cost - \$6,300,000.00 - Electrical Engineer	<input checked="" type="checkbox"/>	Check if project performed with current firm
2.	(1) TITLE AND LOCATION <i>(City and State)</i> Electrical Hazard Assessment for the Central Lake County Joint Action Water Agency - Lake Bluff, Illinois	(2) YEAR COMPLETED	
		Professional Services 2011	Construction (if applicable)
	(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.)</i> AND SPECIFIC ROLE Greeley and Hansen was selected to perform an electrical hazard assessment for the CLCJAWA's entire water treatment facility, raw water pump station and booster pump station; furnish the required field markings (labels) for the electrical distribution equipment, and provide training for staff. Total Project Cost - \$77,700.00 - Project Manager	<input checked="" type="checkbox"/>	Check if project performed with current firm
3.	(1) TITLE AND LOCATION <i>(City and State)</i> Dupage Water Commission Lexington Pumping Station Photovoltaic System Design - Chicago, Illinois	(2) YEAR COMPLETED	
		Professional Services 2010	Construction (if applicable)
	(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.)</i> AND SPECIFIC ROLE The Lexington Pumping Station is the only Chicago Department of Water Management pumping station that can supply City of Chicago water to the DuPage Water Commission system. To improve the reliability of the station's operation, Greeley and Hansen was asked by the Commission to study the feasibility of providing onsite standby electrical generation. Total Project Cost - \$30,000,000.00 - Electrical Associate	<input checked="" type="checkbox"/>	Check if project performed with current firm
4.	(1) TITLE AND LOCATION <i>(City and State)</i> Strawberry Hill Sewage Pumping Station Facility Planning - Henrico, Virginia	(2) YEAR COMPLETED	
		Professional Services On-going	Construction (if applicable)
	(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.)</i> AND SPECIFIC ROLE Greeley and Hansen designed the original 27 MGD Strawberry Hill Pumping Station (constructed in 1977), the additional pumps expanding the capacity to 78 MGD, the replacement pumps expanding the capacity to 83 MGD, and the emergency power generator. Greeley and Hansen is in the process of designing replacements for the remaining pumps to expand the capacity to 90 MGD. Total Project Cost - \$7,311,000.00 - Electrical Associate	<input checked="" type="checkbox"/>	Check if project performed with current firm
5.	(1) TITLE AND LOCATION <i>(City and State)</i> Basic Ordering Agreement for General Process Engineering - Alexandria, Virginia	(2) YEAR COMPLETED	
		Professional Services 2011	Construction (if applicable)
	(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.)</i> AND SPECIFIC ROLE Greeley and Hansen developed AlexRenew's comprehensive Energy Master Plan (EMP) to assist them in meeting their progressive energy goals. The overarching goal was to develop a capital improvements plans that will start AlexRenew's WRRF on the path to becoming a net energy neutral facility. Total Project Cost - \$1,000,000.00 - Electrical Associate	<input checked="" type="checkbox"/>	Check if project performed with current firm



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a. NAME Jenny Lopez, PE	b. ROLE IN THIS CONTRACT Engineer	c. YEARS EXPERIENCE	
		1. TOTAL 23	2. WITH CURRENT FIRM 17

d. LOCATION *(City and State)* Phoenix, Arizona

e. EDUCATION *(DEGREE AND SPECIALIZATION)*
Civil Engineering

f. PROFESSIONAL TRAINING - REGISTRATIONS
Registered Professional Engineer: AZ

g. OTHER PROFESSIONAL QUALIFICATIONS *(Organizations, Awards, etc.)*

Water Environment Federation, American Water Works Association, AZ Water

H. RELEVANT PROJECTS

1.	(1) TITLE AND LOCATION <i>(City and State)</i> 91st Avenue WWTP WWTP Joint Exercise of Powers Agreement Support Services - Phoenix, Arizona	(2) YEAR COMPLETED	
		Professional Services 2005	Construction (if applicable)
	(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.)</i> AND SPECIFIC ROLE Ms. Lopez was responsible for modeling the Salt River Outfall (SRO) and Southern Avenue Interceptor (SAI) Interceptors that belong to the SROG cities. The special request also included cost estimates for the construction of the new relief interceptor between 47th Avenue and 59th Avenue. Total Project Cost - \$1,230,000.00 - Project Engineer	<input checked="" type="checkbox"/>	Check if project performed with current firm
2.	(1) TITLE AND LOCATION <i>(City and State)</i> Professional Engineering Services for 91st Avenue Wastewater Treatment Plant SROG Metering Stations Calibration Study - Phoenix, Arizona	(2) YEAR COMPLETED	
		Professional Services On-going	Construction (if applicable)
	(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.)</i> AND SPECIFIC ROLE Used flow data collected in Phase I to dynamically model the system, establish interceptor hydraulic characteristics, estimated system capacity, identified current and future capacity issues, established new Interceptor Ownership values & estimated system usage for each SROG city. Total Project Cost - \$245,958.00 - Project Engineer	<input checked="" type="checkbox"/>	Check if project performed with current firm
3.	(1) TITLE AND LOCATION <i>(City and State)</i> 91st Avenue Wastewater Treatment Plant Master Plan - Phoenix, Arizona	(2) YEAR COMPLETED	
		Professional Services 2009	Construction (if applicable)
	(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.)</i> AND SPECIFIC ROLE Ms. Lopez was responsible for the development of flow and loading projection. The projected constituents included BOD, COD, TSS, TKN and Ammonia for the five Cities that constitute the SROG group (Cities of Glendale, Mesa, Phoenix, Scottsdale and Tempe) and the capacity needs at the 91st Avenue WWTP. Total Project Cost - \$150,000,000.00 - Project Engineer	<input checked="" type="checkbox"/>	Check if project performed with current firm
4.	(1) TITLE AND LOCATION <i>(City and State)</i> Regional Optimization Master Plan (ROMP) Study for Metropolitan Treatment Facilities - Tucson, Arizona	(2) YEAR COMPLETED	
		Professional Services 2010	Construction (if applicable)
	(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.)</i> AND SPECIFIC ROLE The Pima County Regional Wastewater Reclamation Department (PCRWRD) retained Greeley and Hansen to develop a master plan to identify the optimal strategy for the treatment of current and projected wastewater flows to the Roger Road Wastewater Treatment Plant (WWTP) and the Ina Road Water Pollution Control Facility (WPCF). Total Project Cost - \$2,692,934.00 - Project Engineer	<input checked="" type="checkbox"/>	Check if project performed with current firm
5.	(1) TITLE AND LOCATION <i>(City and State)</i> 23rd Avenue Regional Capacity Management Facilities (Phases 1 and 2) - Phoenix, Arizona	(2) YEAR COMPLETED	
		Professional Services 2010	Construction (if applicable) 2010
	(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.)</i> AND SPECIFIC ROLE This project consists of implementing flow equalization facilities preceded by primary treatment at the 23rd Avenue WWTP site to alleviate current interceptor system capacity issues. In order to complete the design and construction activities within SROG's capital improvement program, this project was divided into phases. Total Project Cost - \$21,500,000.00 - Project Engineer	<input checked="" type="checkbox"/>	Check if project performed with current firm



ATTACHMENT I – General Qualifications

**ANNUAL REQUEST FOR QUALIFICATIONS AND EXPERIENCE NO:
ADSP015-00004729**

**STATE PROCUREMENT OFFICE
Department of Administration
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4. Resumes of Key Personnel Proposed for this Contract *(Complete one Section 4 for each key person.)*

a. NAME	b. ROLE IN THIS CONTRACT	c. YEARS EXPERIENCE	
		1. TOTAL	2. WITH CURRENT FIRM
Sara He, PE	Project Engineer	14	14

d. LOCATION *(City and State)* Phoenix, Arizona

e. EDUCATION <i>(DEGREE AND SPECIALIZATION)</i> M.S. Environmental Engineering, B.E. Environmental Engineering	f. PROFESSIONAL TRAINING - REGISTRATIONS Registered Professional Engineer: AZ
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g. OTHER PROFESSIONAL QUALIFICATIONS *(Organizations, Awards, etc.)*

Arizona Water, American Water Works Association

H. RELEVANT PROJECTS

	(1) TITLE AND LOCATION <i>(City and State)</i>	(2) YEAR COMPLETED	
		Professional Services	Construction (if applicable)
1.	91st Avenue Joint Exercise of Powers Agreement Support Services - Phoenix, Arizona	2014	
	(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.)</i> AND SPECIFIC ROLE The Regional 91st Avenue WWTP is owned by SROG and operated by the City of Phoenix. The operating and upgrade costs of the 91st Avenue WWTP are shared amongst the SROG cities. The monthly billing and annual year-end cost settlements are apportioned to each SROG city base on the SROG reporting. Total Project Cost - \$1,230,000.00 - Senior Project Engineer	<input checked="" type="checkbox"/>	Check if project performed with current firm
2.	Kyrene Water Reclamation Facility Process Overview - Tempe, Arizona	2009	
	(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.)</i> AND SPECIFIC ROLE Assisted the team in understanding the operational concerns of the retrofitted Kyrene Water Reclamation Facility. Sara helped review the design drawings, collected required field sampling data and made recommendations to the City of Tempe regarding facility process operations. Total Project Cost - \$64,571.00 - Project Engineer	<input checked="" type="checkbox"/>	Check if project performed with current firm
3.	Regional Interceptors Capacity Improvements Project - Phoenix, Arizona	2009	
	(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.)</i> AND SPECIFIC ROLE SROG decided to implement the Phase A improvements in two distinct sub-phases (A1 and A2). This project subphasing would allow SROG to better match design and construction activities with their CIP budget program. The planned activities involved under Phase A1 will be the Regional Interceptors Capacity Improvements Study, Conceptual Design, Preliminary Design (A1 and A2) and Detailed Designs for approximately half the required facilities in the Central Phoenix and Northeast areas of the SROG system. Total Project Cost - \$2,749,154.00 - Project Engineer	<input checked="" type="checkbox"/>	Check if project performed with current firm
4.	91st Avenue Wastewater Treatment Plant Master Plan - Phoenix, Arizona	2009	
	(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.)</i> AND SPECIFIC ROLE The plan identifies how and where the WWTP is to be expanded and how existing facilities will be integrated into future expansions or decommissioned through the year 2030 and beyond. Total Project Cost - \$896,188.00 - Project Engineer	<input checked="" type="checkbox"/>	Check if project performed with current firm
5.	Professional Engineering Services for 91st Avenue Wastewater Treatment Plant SROG Metering Stations Calibration Study - Phoenix, Arizona	2006	
	(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.)</i> AND SPECIFIC ROLE Used flow data collected in Phase I to dynamically model the system, establish interceptor hydraulic characteristics, estimated system capacity, identified current and future capacity issues, established new Interceptor Ownership values & estimated system usage for each SROG city. Total Project Cost - \$245,958.00 - Project Engineer	<input checked="" type="checkbox"/>	Check if project performed with current firm



ATTACHMENT I – General Qualifications

**ANNUAL REQUEST FOR QUALIFICATIONS AND EXPERIENCE NO:
ADSP015-00004729**

**STATE PROCUREMENT OFFICE
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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	
	PROFESSIONAL SERVICES	CONSTRUCTION <i>(If applicable)</i>
City of Tempe Tank Rehabilitation - Tempe, Arizona	2014	On-going

23. PROJECT OWNER'S INFORMATION

c. PROJECT OWNER	d. ORIGINAL BUDGET/NTE AMOUNT OF PROJECT	e. TOTAL COST OF PROJECT
City of Tempe	\$4,500,00.00	On-going

f. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT (include scope, size, and length of project)

The City of Tempe distribution system has four welded steel water storage tanks, referred to as Hayden East, Hayden West, Belle Butte and Papago. The Hayden East and Papago tanks have a capacity of one million gallons (MG) and each of the remaining tanks has a capacity of 2.0 MG. The City procured a tank inspection group that conducted condition assessments of the tanks and summarized the findings in reports dated December 2012. As the next step in the City's rehabilitation program, Greeley and Hansen, in association with another consultant under the City's On-Call list, are providing engineering and third party construction inspections for rehabilitation activities.

The scope of work includes:

- Preparing technical specifications for the City's use in procuring typical tank asset preservation services (i.e. recoating and cathodic protection system replacement).
- Developing a comprehensive tank rehabilitation plan including cost estimates and implementation scheme.
- Providing detailed design of recommended rehabilitation improvements.
- Furnishing construction phase services, including services of a NACE 3 inspector, for implementation of designed improvements.

The desired result of the rehabilitation program is to provide asset preservation, while minimizing the maintenance component of asset life cycle cost. Based upon coating specifications developed by Greeley and Hansen, coating product warranties will be 10 years for the interior system and 15 years for the exterior system.



ATTACHMENT I – General Qualifications

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ADSP015-00004729**

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(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	
City of Surprise Chemical Storage Area Modifications and Bridge Crane Design at SPA 2 - Surprise, Arizona	PROFESSIONAL SERVICES	CONSTRUCTION <i>(If applicable)</i>
	2013	2014

23. PROJECT OWNER'S INFORMATION

c. PROJECT OWNER	d. ORIGINAL BUDGET/NTE AMOUNT OF PROJECT	e. TOTAL COST OF PROJECT
City of Surprise	\$310,000.00	\$310,000.00

f. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT (include scope, size, and length of project)

The City of Surprise SPA 2 Water Reclamation Facility (WRF) is a 2-MGD membrane bioreactor treatment plant. Greeley and Hansen was contracted to design modifications to the facility's chemical storage area. Sodium hypochlorite and citric acid are used in the cleaning process of the membranes. The two chemicals were stored in totes with secondary containment located adjacent to the chemical handling area of the facility. The chemical area also included a concrete containment area with three concrete pads intended to accommodate chemical storage.

The City modified the chemical storage area and converted the existing tote storage system into a permanent chemical tank storage with bulk unloading stations. Greeley and Hansen was tasked to develop a technical memorandum for the City describing the required work that will be required to furnish, install, and provide specifications for the purchase of new permanently installed storage tanks for citric acid and sodium hypochlorite.

The project required a fast turnaround for design in order to purchase and deliver at least one storage tank while funds were available by the end of the City's fiscal year. The storage tank specifications were complete and one storage tank purchased and delivered within 60 days of the contract award. This project demonstrates Greeley and Hansen's commitment to the client's schedule driven objective.

As a follow on project to the chemical area modifications, Greeley and Hansen was sole sourced as part of a design-build team to design a 5-ton bridge crane at SPA 2. The crane is utilized to lift the membrane cassettes for monthly service and inspection. The original SPA 2 facility did not have a crane and operations staff had to rent a crane on a monthly basis.



ATTACHMENT I – General Qualifications

**ANNUAL REQUEST FOR QUALIFICATIONS AND EXPERIENCE NO:
ADSP015-00004729**

**STATE PROCUREMENT OFFICE
Department of Administration
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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	
	PROFESSIONAL SERVICES	CONSTRUCTION <i>(If applicable)</i>
Desert Breeze Water Resource Center - Clark County, Nevada	2014	On-going

23. PROJECT OWNER'S INFORMATION

c. PROJECT OWNER	d. ORIGINAL BUDGET/NTE AMOUNT OF PROJECT	e. TOTAL COST OF PROJECT
Clark County Water Reclamation District	\$3,373,737.00	On-going

f. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT (include scope, size, and length of project)

Greeley and Hansen is currently working with the Clark County Water Reclamation District to evaluate and rehabilitate the aeration basins, secondary clarifiers, and RAS pumps at the Desert Breeze Water Resource Center (WRC). Greeley and Hansen completed the original design of the WRC in the late 1990's. The purpose of this project is to complete a condition assessment of the mechanical and structural components of the aeration basins, secondary clarifiers and RAS pumps; make rehabilitation recommendations; provide detailed design of the recommended improvements; and assist during the bidding process and construction of the improvements. The condition assessment provided a thorough analysis of the existing situation for the aeration basin mechanical and structural conditions, the secondary clarifier mechanical and structural conditions, and the RAS pump condition. A Basis of Design Report was prepared to document technical and engineering decisions based on the assessments.

The aeration basins and secondary clarifiers mechanical condition assessment included the input of operational data and maintenance records, on-site inspection of the aeration basin mechanical components and on-site inspection of electrical and I&C systems. Mechanical components included aeration diffusers, process blower capacity, piping, piping supports, influent and effluent gates. Electrical components included conduit/cables, power distribution equipment, equipment starters, control panels, meters, sensors and lighting. Upon agreement of the rehabilitation items, Greeley and Hansen prepared plans and specifications to bid and construct the facilities.

The Desert Breeze Clarifier Rehabilitation project has unique construction constraints regarding schedule, construction sequencing and access. Work at the WRC is only allowed from October 1st through March 31st and only one train can be shut down for work at a time. During the six-month construction window the Contractor must complete work on both trains of the plant. Both the aeration basins and secondary clarifiers are classified as confined spaces, and access to the basins is limited. Contractors have one 3' x 3' opening above each aeration basin zone to use as access for all work to be completed in the zone. While the secondary clarifier covers can be removed for construction work, the tanks are 20' deep. Regarding sequencing, structural repair work and protective concrete coatings will need to be complete in each zone prior to equipment replacement.



ATTACHMENT I – General Qualifications

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ADSP015-00004729**

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Department of Administration
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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	
Palo Verde Nuclear Generating Station Treatment Process Performance Assessment - Palo Verde, Arizona	PROFESSIONAL SERVICES 2013	CONSTRUCTION <i>(If applicable)</i>

23. PROJECT OWNER'S INFORMATION

c. PROJECT OWNER	d. ORIGINAL BUDGET/NTE AMOUNT OF PROJECT	e. TOTAL COST OF PROJECT
Arizona Public Service	\$80,000.00	\$80,000.00

f. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT (include scope, size, and length of project)

The Palo Verde Nuclear Generating Station (PVNGS), operated by Arizona Public Service (APS), uses reclaimed water for condenser cooling. Prior to the condensers, the water is treated at the PVNGS's 90-MGD softening plant to remove hardness causing minerals. Over the years, operations staff has experienced seasonal problems with solids fouling throughout the treatment process. Starting in the winter season, the solids settling performance is poor. Some of the issues observed include: difficulty to control settling operation, solids not settling as desired, and presence of floating materials. The issue compounds with a high solids content that remains in the return flow to the head of the plant. The plant process becomes overloaded with solids and operators are challenged with managing through the solids overload. Plant staff has attempted to address the problem through different means (such as raising pH and adding polymer solutions) with no major success. Rather than continuing with isolated attempts to solve the issue, Greeley and Hansen assisted APS with professional engineering services to assess the treatment process performance, identify root cause(s) or probable cause(s) of the solids issues, and develop process improvement recommendations to address the identified causes.



ATTACHMENT I – General Qualifications

**ANNUAL REQUEST FOR QUALIFICATIONS AND EXPERIENCE NO:
ADSP015-00004729**

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Department of Administration
100 North 15th Avenue, Suite 201
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(Present no more than five (5) projects. Complete one Section 5 for each project.)

a. TITLE AND LOCATION <i>(City and State)</i> Pravada Interim Wastewater Treatment Facility - Golden Valley, Arizona	b. YEAR COMPLETED PROFESSIONAL SERVICES CONSTRUCTION <i>(If applicable)</i> 2014	
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23. PROJECT OWNER'S INFORMATION

c. PROJECT OWNER Slater Hanifan Group	d. ORIGINAL BUDGET/NTE AMOUNT OF PROJECT \$235,000.00	e. TOTAL COST OF PROJECT \$235,000.00
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f. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT (include scope, size, and length of project)

Pravada is a mixed use, master planned development located in Golden Valley, Arizona. Sewerage treatment in the area consists of on-site septic systems, with no centralized collection and treatment in place. Greeley and Hansen was contracted with designing the new 0.24 MGD Interim Wastewater Treatment Facility along with assisting with the Aquifer Protection Permit and Reuse Permit process as administered by the Arizona Department of Environmental Quality (ADEQ).

The Greeley and Hansen team provided civil, process, mechanical, electrical, and instrumentation engineering services. The initial phase of the treatment facility is capable of treating 0.16 MGD of residential wastewater to meet ADEQ Class A+ Effluent standards for irrigation. The ultimate capacity of the facility is 0.24 MGD. The facility contains an influent pump station utilizing submersible pumps, grit removal system, fine screening, membrane bioreactors, ultraviolet light reactors for disinfection, effluent storage with pump station, and a WAS storage tank. The facility also consists of a pipeline that conveys treated effluent to Thirteen Mile Wash when the irrigation demand is low. Greeley and Hansen coordinated directly with County and State regulatory agencies along with the land developer to design a facility that is robust, but also cost conscience, while providing the desired effluent quality.



ATTACHMENT I – General Qualifications

ANNUAL REQUEST FOR QUALIFICATIONS AND EXPERIENCE NO:
ADSP015-00004729

STATE PROCUREMENT OFFICE
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6. ADDITIONAL INFORMATION

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

Please see attached additional information.

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:	1
b. Percentage of Total Work Attributable to Non-Government Work:	6

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

Signature:

Date: December 23, 2014

Name: Kim Tanner, PE

Title: Manging Director, Southwest

ADDITIONAL INFORMATION

As a national leader in water and wastewater, Greeley and Hansen offers services for all phases of related projects ranging from master planning and feasibility studies through start-up and operation. Since the firm's founding in 1914, Greeley and Hansen has provided services to more than 500 municipalities, states, federal agencies and industries. We have been located in the Phoenix metro area since 1979. Greeley and Hansen takes a hands-on approach in solving each individual client challenge, using creative and proven engineering solutions, while maintaining a sensitivity to budget constraints and the urban environment.

Recognized nationally as an industry leader, Greeley and Hansen consistently ranks among the top national engineering consultants on Engineering News Record's list of "Top 500 Design Firms." The firm offers a full range of engineering services for all project phases from development through start-up including facilities inspection, strategic planning, facilities planning, design, and field and office services during construction. Municipalities across the nation have turned to us for more than 100 years to meet their complex and evolving water and wastewater needs. We understand your challenges from increased environmental, regulatory, and technical requirements to water scarcity, growing demands, and tighter budgets. Through our exclusive water and wastewater focus, we help our clients rise to these challenges with innovative, cost conscience, long-term solutions. We have served continuously on-call for many of these clients since the 1920s. In fact, we are still partnering with our firm's first client, Metropolitan Water Reclamation District of Greater Chicago.

We believe these long-lasting relationships are a proven measure of the success of our services and the satisfaction of our clients. We understand the demands of this type of contract and have performed similar contracts for numerous water and wastewater utilities in Arizona and nationwide.

We have assembled a seasoned team that provides a thorough understanding of local issues, regulatory requirements, treatment technology trends, and the forethought of "lessons learned" that will be applied to designs prior to construction. Our team's firsthand knowledge of issues that affect Southwest communities is combined with the support of specialty experts located throughout the company to provide a team capable of identifying and implementing solutions that maximize value and resources for the Town.

Greeley and Hansen's local office, located in Phoenix, provides a wide variety of water and wastewater experience. The staff located in our local office has expertise in the following areas:

- Treatment Facility Rehabilitation and Retrofit
- Water and Wastewater Treatment
- Master Planning
- Pipeline Design
- Booster Pump Station Design
- Lift Station Design
- Odor Control Facilities
- Feasibility Studies
- Reservoir Design and Rehabilitation
- Wellhead Treatment
- Construction Administration and Inspection

ADDITIONAL INFORMATION

Our firm has a company-wide workforce of more than 285 individuals located in 18 offices throughout the nation. We have experts in specialties ranging from below grade pipeline assessment to the newest emerging treatment technologies. These resources are at the finger tips of the local team and the Project Director will mobilize the appropriate personnel to the project at hand.

The team supporting the Phoenix office has specific expertise in the following areas:

- Emerging Treatment Technologies
- Instrumentation and Controls
- Electrical Engineering
- Supervisory Control and Data Acquisition (SCADA)
- Programming/Upgrades
- Asset Management
- Pipeline Assessment and Rehabilitation
- Utility Management



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