

PUBLIC WORKS MEMORANDUM
#13-2019

DATE: April 22, 2019

TO: Honorable Mayor Carol Dodge and City Council Members

THROUGH: Heather Geyer, City Manager *Hmg*

FROM: Kent Kisselman, PE – Director of Public Works *HK*
Tamara Moon – Water Resources Administrator

SUBJECT: CR-40 – Aquifer Storage and Recovery Feasibility Study PSA

PURPOSE

City Council will be considering CR-40, a resolution to approve a professional services agreement with HRS Water Consultants to conduct an aquifer storage and recovery (ASR) feasibility study.

BACKGROUND

Water supply planning for the City of Northglenn has revealed the need for additional water supply storage to ensure that a reliable and sustainable water supply is available for Northglenn residents now and into the future. In order to identify new storage options, the City intends to investigate the viability of injecting, storing, and recovering treated water, known as aquifer storage and recovery or 'ASR', into the Denver Basin Aquifers which lie under the City of Northglenn.

If proven feasible and cost effective, ASR could provide additional water supply storage with unique benefits including no loss of stored water to evaporation and limited environmental impacts compared to new surface water storage. Additionally, ASR projects at several regional municipalities and water utilities have provided viable water supply storage at a lower cost than developing new surface storage reservoirs.

The ASR feasibility study will investigate a range of factors including local hydrogeology, operational requirements, water quality, estimated costs, and the permitting and regulatory process. If the ASR feasibility study is deemed successful, an ASR Pilot Study with a test well can be initiated to further determine the viability of implementing this technology.

STAFF RECOMMENDATION

CR-40, if approved, would authorize the Mayor to execute a contract with HRS Water Consultants to conduct the ASR feasibility study. Staff recommends approval of this proposed resolution.

BUDGET/TIME IMPLICATIONS

The project proposed by HRS Water Consultants is in the amount of \$119,550.00. This project was not budgeted in the 2019 City Budget, however, funding is available in the Water/Water Resources/Property Rights fund which can be used to support development of new water storage or supply.

2019 Budget Appropriation	\$1,000,000.00
HRS Water Consultants Contract	(\$119,550.00)
Total	(\$119,550.00)

STAFF REFERENCE

If Council members have any comments or questions they may contact Kent Kisselman at kkisselman@northglenn.org or 303.450.4005.

ATTACHMENTS

1. ASR Feasibility Study Bid Summary

CR-40 – Aquifer Storage and Recovery Feasibility Study PSA

Aquifer Storage and Recovery Feasibility Study Contract



CITY OF NORTHGLENN
FORMAL BID SUMMARY

BID NUMBER: RFP 2019 - 002

BID NAME: Aquifer Storage and Recovery Feasibility Study

DEPARTMENT: Public Works

	Leonard Rice Engineers, Inc.	HRS Water Consultants, Inc.	Quantum Water & Environment	DZ Consultants	Hemenway Groundwater Engineering, Inc.
	BID RECEIVED	BID RECEIVED	BID RECEIVED	BID RECEIVED	BID RECEIVED
DATE DUE: 3/15/19	DATE: 3/14/19	DATE: 3/15/19	DATE: 3/15/19	DATE: 3/15/19	DATE: 3/15/19
TIME: 10:00 a.m. MST	TIME: 3:32 pm	TIME: 9:08 am	TIME: 9:20 am	TIME: 9:22	TIME: 9:27 am
Addendum 1	yes	yes	yes	yes	yes
Addendum 2	yes	yes	yes	yes	yes

Betsy Nohs
Finance Department

Ava Andrews
City's Clerk's Office

3/15/19
Date

SPONSORED BY: MAYOR DODGE

COUNCILMAN'S RESOLUTION

RESOLUTION NO.

No. CR-40
Series of 2019

Series of 2019

A RESOLUTION APPROVING A PROFESSIONAL SERVICES AGREEMENT BETWEEN THE CITY OF NORTHGLENN AND HRS WATER CONSULTANTS, INC. FOR THE AQUIFER STORAGE AND RECOVERY FEASIBILITY STUDY

BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF NORTHGLENN, COLORADO, THAT:

Section 1. The Professional Services Agreement between the City of Northglenn and HRS Water Consultants, Inc., attached hereto, in an amount not to exceed \$119,550.00 for the Aquifer Storage and Recovery Feasibility Study is hereby approved and the Mayor is authorized to execute same on behalf of the City of Northglenn.

DATED, at Northglenn, Colorado, this _____ day of _____, 2019.

CAROL A. DODGE
Mayor

ATTEST:

JOHANNA SMALL, CMC
City Clerk

APPROVED AS TO FORM:

COREY Y. HOFFMANN
City Attorney

AGREEMENT FOR PROFESSIONAL SERVICES

THIS AGREEMENT is made and entered into this _____ day of _____, 20____, by and between the City of Northglenn, State of Colorado (hereinafter referred to as the "City") and HRS Water Consultants (hereinafter referred to as "Consultant").

RECITALS:

A. The City requires professional services.

B. Consultant has held itself out to the City as having the requisite expertise and experience to perform the required work for the Project.

NOW, THEREFORE, it is hereby agreed for the consideration hereinafter set forth, that Consultant shall provide to the City, professional consulting services for the Project.

I. SCOPE OF SERVICES

Consultant shall furnish all labor and materials to perform the work and services required for the complete and prompt execution and performance of all duties, obligations, and responsibilities for the Project which are described or reasonably implied from **Exhibit A** which is attached hereto and incorporated herein by this reference.

II. THE CITY'S OBLIGATIONS/CONFIDENTIALITY

The City shall provide Consultant with reports and such other data as may be available to the City and reasonably required by Consultant to perform hereunder. No project information shall be disclosed by Consultant to third parties without prior written consent of the City or pursuant to a lawful court order directing such disclosure. All documents provided by the City to Consultant shall be returned to the City. Consultant is authorized by the City to retain copies of such data and materials at Consultant's expense.

III. OWNERSHIP OF WORK PRODUCT

The City acknowledges that the Consultant's work product is an instrument of professional service. Nevertheless, the products prepared under this Agreement shall become the property of the City upon completion of the work. HRS and Client recognize that HRS's work product submitted in performance of this Agreement is an Instrument of Service, and is intended only for the Client's benefit and use. HRS is the owner of work products. Change, alteration, or reuse on another project by Client shall be at Client's sole risk.

IV. COMPENSATION

A. In consideration for the completion of the services specified herein by Consultant, the City shall pay Consultant an amount not to exceed one hundred nineteen thousand five hundred fifty dollars(\$119,550). Payment shall be made in accordance with the schedule of charges in Exhibit B which is attached hereto and incorporated herein by this reference. Invoices will be itemized and include hourly breakdown for all personnel and other charges. The maximum fee specified herein shall include all fees and expenses incurred by Consultant in performing all services hereunder.

B. Consultant may submit monthly or periodic statements requesting payment. Such request shall be based upon the amount and value of the work and services performed by Consultant under this Agreement except as otherwise supplemented or accompanied by such supporting data as may be required by the City.

1. All invoices, including Consultant's verified payment request, shall be submitted by Consultant to the City no later than the twenty-fourth (24th) day of each month for payment pursuant to the terms of this Agreement. In the event Consultant fails to submit any invoice on or before the twenty-fourth (24th) day of any given month, Consultant defers its right to payment pursuant to said late invoice until the twenty-fourth (24th) day of the following month.

2. Progress payments may be claimed on a monthly basis for reimbursable costs actually incurred to date as supported by detailed statements, including hourly breakdowns for all personnel and other charges. The amounts of all such monthly payments shall be paid within thirty (30) days after the timely receipt of invoice as provided by this Agreement.

C. The City has the right to ask for clarification on any Consultant invoice after receipt of the invoice by the City.

D. In the event payment for services rendered has not been made within forty-five (45) days from the receipt of the invoice for any uncontested billing, interest will accrue at the legal rate of interest. In the event payment has not been made within ninety (90) days from the receipt of the invoice for any uncontested billing, Consultant may, after giving seven (7) days written notice and without penalty or liability of any nature, suspend all work on all authorized services specified herein. In the event payment in full is not received within thirty (30) days of giving the seven (7) days written notice, Consultant may terminate this Agreement. Upon receipt of payment in full for services rendered, Consultant will continue with all authorized services.

E. Final payment shall be made within sixty (60) calendar days after all data and reports (which are suitable for reproduction and distribution by the City) required by this Agreement have been turned over to and approved by the City and upon receipt by the City of Consultant's certification that services required herein by Consultant have been fully completed in accordance with this Agreement and all data and reports for the Project.

V. COMMENCEMENT AND COMPLETION OF WORK

Within seven (7) days of receipt from the City of a Notice to Proceed, Consultant shall commence work on all its obligations as set forth in the Scope of Services or that portion of such obligations as is specified in said Notice. Except as may be changed in writing by the City, the Project shall be complete and Consultant shall furnish the City the specified deliverables as provided in Exhibit A.

VI. CHANGES IN SCOPE OF SERVICES

A change in the Scope of Services shall constitute any material change or amendment of services or work which is different from or additional to the Scope of Services specified in Section I of this Agreement. No such change, including any additional compensation, shall be effective, or paid unless authorized by written amendment executed by the City. If Consultant proceeds without such written authorization, then Consultant shall be deemed to have waived any claim for additional compensation, including a claim based on the theory of unjust enrichment, quantum merit or implied contract. Except as expressly provided herein, no agent, employee, or representative of the City shall have the authority to enter into any changes or modifications, either directly or implied by a course of action, relating to the terms and scope of this Agreement.

VII. PROFESSIONAL RESPONSIBILITY

A. Consultant hereby warrants that it is qualified to assume the responsibilities and render the services described herein and has all requisite corporate authority and professional licenses in good standing, required by law.

B. The work performed by Consultant shall be in accordance with generally accepted professional practices and the level of competency presently maintained by other practicing professional firms in the same or similar type of work in the applicable community.

C. Consultant shall be responsible for the professional quality, technical accuracy, timely completion, and the coordination of all designs, drawings, specifications, reports, and other services furnished by Consultant under this Agreement. Consultant shall, without additional compensation, correct or resolve any errors or deficiencies in his designs, drawings, specifications, reports, and other services, which fall below the standard of professional practice, and reimburse the City for construction costs caused by errors and omissions which fall below the standard of professional practice.

D. Approval by the City of drawings, designs, specifications, reports, and incidental work or materials furnished hereunder shall not in any way relieve Consultant of responsibility for technical adequacy of the work. Neither the City's review, approval or acceptance of, nor payment for, any of the services shall be construed to operate as a waiver of any rights under this Agreement or of any cause of action arising out of the performance of this Agreement, and Consultant shall be and remain liable in accordance with applicable performance of any of the services furnished under this Agreement.

E. The rights and remedies of the City provided for under this Agreement are in addition to any other rights and remedies provided by law.

VIII. ILLEGAL ALIENS

A. Certification. By entering into this Agreement, Consultant hereby certifies that, at the time of this certification, it does not knowingly employ or contract with an illegal alien who will perform work under the Agreement and that Consultant will participate in either the E-Verify Program administered by the United States Department of Homeland Security and Social Security Administration or the Department Program administered by the Colorado Department of Labor and Employment in order to confirm the employment eligibility of all employees who are newly hired for employment to perform work under the Agreement.

B. Prohibited Acts. Consultant shall not:

1. Knowingly employ or contract with an illegal alien to perform work under this Agreement; or

2. Enter into a contract with a subcontractor that fails to certify to Consultant that the subcontractor shall not knowingly employ or contract with an illegal alien to perform work under this Agreement.

C. Verification.

1. Consultant has confirmed the employment eligibility of all employees who are newly hired for employment to perform work under this Agreement through participation in either the E-Verify Program or the Department Program.

2. Consultant shall not use the E-Verify Program or the Department Program procedures to undertake pre-employment screening of job applicants while this Agreement is being performed.

3. If Consultant obtains actual knowledge that a subcontractor performing work under this Agreement knowingly employs or contracts with an illegal alien who is performing work under the Agreement, Consultant shall:

a. Notify the subcontractor and the City within three (3) days that Consultant has actual knowledge that the subcontractor is employing or contracting with an illegal alien who is performing work under the Agreement; and

b. Terminate the subcontract with the subcontractor if within three (3) days of receiving the notice required pursuant to subparagraph (a) hereof, the subcontractor does not stop employing or contracting with the illegal alien who is performing work under the Agreement; except that Consultant shall not terminate the contract with the subcontractor if during such three (3) days the subcontractor provides information to establish that the subcontractor has not knowingly employed or contracted with an illegal alien who is performing work under the Agreement.

D. **Duty to Comply with Investigations.** Consultant shall comply with any reasonable request by the Colorado Department of Labor and Employment made in the course of an investigation conducted pursuant to C.R.S. § 8-17.5-102(5)(a) to ensure that Consultant is complying with the terms of this Agreement.

E. If Consultant does not currently employ any employees, Consultant shall sign the NO Employee Affidavit attached hereto.

F. If Consultant wishes to verify the lawful presence of newly hired employees who perform work under the Agreement via the Department Program, Consultant shall sign the Department Program Affidavit attached hereto.

IX. INDEMNIFICATION

A. **INDEMNIFICATION – GENERAL:** The City cannot and by this Agreement does not agree to indemnify, hold harmless, exonerate or assume the defense of the Consultant or any other person or entity whatsoever, for any purpose whatsoever. Provided that the claims, demands, suits, actions or proceedings of any kind are not the result of professional negligence, the Consultant, to the fullest extent permitted by law, shall defend, indemnify and hold harmless the City, its Council members, officials, officers, directors, agents and employees from any and all claims, demands, suits, actions or proceedings of any kind or nature whatsoever, including worker's compensation claims, in any way resulting from or arising from the services rendered by Consultant, its employees, agents or subconsultants, or others for whom the Consultant is legally liable, under this Agreement; provided, however, that the Consultant need not indemnify or save harmless the City, its Council members, its officers, agents and employees from damages resulting from the negligence of the Council members, officials, officers, directors, agents and employees.

B. **INDEMNIFICATION FOR PROFESSIONAL NEGLIGENCE:** The Consultant shall, to the fullest extent permitted by law, indemnify and hold harmless the City, its Council members, and any of its officials, officers, directors, and employees from and against damages, liability, losses, costs and expenses, including reasonable attorneys fees, but only to the extent caused by negligent acts, errors or omissions of the Consultant, its employees or subconsultants, or others for whom the Consultant is legally liable, in the performance of professional services under this Agreement. The Consultant is not obligated under this subparagraph IX.B. to indemnify the City for the negligent acts of the City, its Council members, or any of its officials, officers, directors and employees.

C. To the extent this Agreement is subject to C.R.S. § 13-50.5-102(8), Contractor's liability under this provision shall be to the fullest extent of, but shall not exceed, that amount represented by the degree or percentage of negligence or fault attributable to Contractor, any subcontractor of Contractor, or any officer, employee, representative, or agent of Contractor or of any subcontractor of Contractor. If Contractor is providing architectural, engineering, surveying or other design services under this Agreement, the extent of Contractor's obligation to indemnify and hold harmless the City may be determined only after Contractor's liability or fault has been determined by adjudication, alternative dispute resolution or otherwise resolved by mutual agreement of the Parties, as provided by C.R.S. § 13-50.5-102(8)(c).

X. INSURANCE

A. Consultant agrees to procure and maintain, at its own cost, a policy or policies of insurance sufficient to insure against all liability, claims, demands, and other obligations assumed by Consultant

pursuant to Section IX, above. Such insurance shall be in addition to any other insurance requirements imposed by this Agreement or by law. Consultant shall not be relieved of any liability, claims, demands, or other obligations assumed pursuant to Section IX, above, by reason of its failure to procure or maintain insurance, or by reason of its failure to procure or maintain insurance in sufficient amounts, durations, or types.

B. Consultant shall procure and maintain, and shall cause any subcontractor of Consultant to procure and maintain, the minimum insurance coverages listed below. Such coverages shall be procured and maintained with forms and insurers acceptable to the City. All coverages shall be continuously maintained to cover all liability, claims, demands, and other obligations assumed by Consultant pursuant to Section IX, above. In the case of any claims-made policy, the necessary retroactive dates and extended reporting periods shall be procured to maintain such continuous coverage.

1. Worker's Compensation Insurance to cover obligations imposed by applicable laws for any employee engaged in the performance of work under this Contract, and Employer's Liability Insurance with minimum limits of five hundred thousand dollars (\$500,000) each incident, five hundred thousand dollars (\$500,000) disease - policy limit, and five hundred thousand dollars (\$500,000) disease - each employee.

2. Commercial general liability insurance with minimum combined single limits of one million dollars (\$1,000,000) each occurrence and two million dollars (\$2,000,000) general aggregate. The policy shall be applicable to all premises and operations. The policy shall include coverage for bodily injury, broad form property damage (including completed operations), personal injury (including coverage for contractual and employee acts), blanket contractual, products, and completed operations. The policy shall contain a severability of interests provision.

3. Professional liability insurance with minimum limits of six hundred thousand dollars (\$600,000) each claim and one million dollars (\$1,000,000) general aggregate.

C. The policy required by paragraph 2. above shall be endorsed to include the City and the City's officers, employees, and consultants as additional insureds. Every policy required above shall be primary insurance, and any insurance carried by the City, its officers, its employees, or its consultants shall be excess and not contributory insurance to that provided by Consultant. No additional insured endorsement to the policy required by paragraph 1. above shall contain any exclusion for bodily injury or property damage arising from completed operations. Consultant shall be solely responsible for any deductible losses under any policy required above.

D. The certificate of insurance provided for the City shall be completed by Consultant's insurance agent as evidence that policies providing the required coverages, conditions, and minimum limits are in full force and effect, and shall be reviewed and approved by the City prior to commencement of the Agreement. No other form of certificate shall be used. If the City is named as an additional insured on any policy which does not allow for the automatic addition of additional insureds, the Consultant's insurance agent shall also provide a copy of all accompanying endorsements recognizing the City as an additional insured.

The certificate shall identify this Agreement and shall provide that the coverages afforded under the policies shall not be cancelled, terminated or materially changed until at least thirty (30) days prior written notice has been given to the City. The completed certificate of insurance shall be sent to:

City of Northglenn
Attn:
11701 Community Center Drive
Northglenn, Colorado 80233-8061

E. Failure on the part of Consultant to procure or maintain policies providing the required coverages, conditions, and minimum limits shall constitute a material breach of agreement upon which the City may immediately terminate this Agreement, or at its discretion, the City may procure or renew any

such policy or any extended reporting period thereto and may pay any and all premiums in connection therewith, and all monies so paid by the City shall be repaid by Consultant to the City upon demand, or the City may offset the cost of the premiums against any monies due to Consultant from the City.

F. The City reserves the right to request and receive a certified copy of any policy and any endorsement thereto.

G. The parties hereto understand and agree that the City, its officers, and its employees, are relying on, and do not waive or intend to waive by any provision of this Agreement, the monetary limitations (presently three hundred fifty thousand dollars (\$350,000) per person and nine hundred ninety thousand dollars (\$990,000) per occurrence) or any other rights, immunities, and protections provided by the Colorado Governmental Immunity Act, Colo. Rev. Stat., §§ 24-10-101, et seq., as from time to time amended, or otherwise available to the City, its officers, or its employees.

XI. NON-ASSIGNABILITY

Neither this Agreement, nor any of the rights or obligations of the parties hereto, shall be assigned by either party without the written consent of the other.

XII. TERMINATION

This Agreement shall terminate at such time as the work in Section I is completed and the requirements of this Agreement are satisfied, or upon the City's providing Consultant with seven (7) days advance written notice, whichever occurs first. In the event the Agreement is terminated by the City's issuance of said written notice of intent to terminate, the City shall pay Consultant for all work previously authorized and completed prior to the date of termination. If, however, Consultant has substantially or materially breached the standards and terms of this Agreement, the City shall have any remedy or right of set-off available at law and equity. If the Agreement is terminated for any reason other than cause prior to completion of the Project, any use of documents by the City thereafter shall be at the City's sole risk, unless otherwise consented to by Consultant.

XIII. CONFLICT OF INTEREST

The Consultant shall disclose any personal or private interest related to property or business within the City. Upon disclosure of any such personal or private interest, the City shall determine if the interest constitutes a conflict of interest. If the City determines that a conflict of interest exists, the City may treat such conflict of interest as a default and terminate this Agreement.

XIV. VENUE

This Agreement shall be governed by the laws of the State of Colorado, and any legal action concerning the provisions hereof shall be brought in the County of Adams, State of Colorado.

XV. INDEPENDENT CONTRACTOR

Consultant is an independent contractor. Notwithstanding any provision appearing in this Agreement, all personnel assigned by Consultant to perform work under the terms of this Agreement shall be, and remain at all times, employees or agents of Consultant for all purposes. Consultant shall make no representation that it is the employee of the City for any purposes.

XVI. NO WAIVER

Delays in enforcement or the waiver of any one or more defaults or breaches of this Agreement by the City shall not constitute a waiver of any of the other terms or obligation of this Agreement.

XVII. ENTIRE AGREEMENT

This Agreement and the attached Exhibits A and B is the entire Agreement between Consultant and the City, superseding all prior oral or written communications. None of the provisions of this Agreement may be amended, modified, or changed, except as specified herein.

XVIII. SUBJECT TO ANNUAL APPROPRIATION

Consistent with Article X, Section 20 of the Colorado Constitution, any financial obligations of the City not to be performed during the current fiscal year are subject to annual appropriation, and thus any obligations of the City hereunder shall extend only to monies currently appropriated.

XIX. BENEFICIARY CLAUSE

Nothing contained in this Agreement shall create a contractual relationship with or a cause of action in favor of a third party against either the City or the Consultant. The Consultant's services under this Agreement are being performed solely for the City's benefit, and no other party or entity shall have any claim against the Consultant because of this Agreement or the performance or nonperformance of services hereunder.

XX. NOTICE

Any notice or communication between Consultant and the City which may be required, or which may be given, under the terms of this Agreement shall be in writing, and shall be deemed to have been sufficiently given when directly presented or sent pre-paid, first class United States Mail, addressed as follows:

The City: City of Northglenn
11701 Community Center Drive
Northglenn, Colorado 80233-8061

Consultant: HRS WATER CONSULTANTS, INC.
ATTN: MARK P. PALUMBO
8885 W. 14TH AVE.
LAKWOOD, CO 80215

IN WITNESS WHEREOF, the parties hereto each herewith subscribe the same in duplicate.

CITY OF NORTHGLENN, COLORADO

By: _____

ATTEST:

Carol A. Dodge
Print Name

Mayor
Title _____ Date

Johanna Small, CMC Date
City Clerk

APPROVED AS TO FORM:

Corey Y. Hoffmann Date
City Attorney

CONSULTANT:

By: Mark R. Palumbo

ATTEST:

Mark R. Palumbo
Print Name

By: Tammi Wiessenberger
TAMMI WIESSENBERGER
Print Name

PRESIDENT _____ 4/11/19
Title Date

OFFICE MGR. _____ 4/11/19
Title Date



AQUIFER STORAGE AND RECOVERY FEASIBILITY STUDY SCOPE OF WORK

A. General Information

The City of Northglenn ('City' or 'Northglenn') is a small Colorado municipality, located in the heart of the Denver Metro Region, encompassing approximately 7.45 square miles in Adams and Weld Counties. The City provides water service to its approximately 37,000 residents. The City must ensure that a reliable and sustainable water supply is available for its residents now and into the future.

B. Project Description

Water supply planning for the City of Northglenn has revealed the need for additional water supply storage as well as a need to increase operational flexibility by diversifying water supply storage locations. In order to achieve both goals, the City intends to investigate the viability of injecting, storing, and recovering treated or untreated water (known as aquifer storage and recovery or 'ASR') into the Denver Basin Aquifer(s) which lie under the City of Northglenn. If proven feasible and cost effective, the City plans to use a future ASR program to store river water either from the Berthoud Pass Ditch, Clear Creek, or the South Platte River.

This Request for Proposals pertains to an ASR feasibility study which aims to examine:

- The feasibility and effectiveness of ASR for the City's water supply system given regional and local hydrogeology.
- Water quality factors which may impact the feasibility or operational requirements of an ASR program.
- The permitting and regulatory process for an ASR pilot study as well as an ongoing ASR program.
- Estimated capital and maintenance costs.
- Potential well testing sites to be considered for a future pilot study phase of the City's ASR program.
- Any additional factors which may facilitate or challenge the development of an ASR program for the City of Northglenn.

Determining the viability of utilizing an ASR program to meet water storage needs is a time-sensitive priority for the City of Northglenn. Following the initial feasibility study, if proven viable and cost effective, the City will rapidly proceed with an ASR Pilot Study.

C. Project Background

The City of Northglenn’s supplies its residents with water sourced from the Berthoud Pass Ditch (transbasin), Clear Creek, and ownership of FRICO-Standley Division shares which it stores in Standley Lake. The City is particularly interested in identifying an alternate storage location for water delivered from Berthoud Pass Ditch which is completely reusable.

The City is interested in pursuing ASR to increase water supply storage as aquifer storage can be cheaper than constructing new surface storage, regulatory compliance can be easier with fewer environmental impacts, and underground storage eliminates water loss due to evaporation.

D. Consultant Qualifications

The City seeks a qualified consultant that can demonstrate expert experience in civil engineering, water resources, and hydrogeology. Experience with local hydrogeology and regional aquifer storage and recovery projects is highly desirable.

E. Scope of Services

The following scope of services (tasks 1 – 9 below) are currently envisioned for the ASR Feasibility Study. Tasks are not necessarily presented in order of completion. Consultants are encouraged to recommend modifications to this scope of services in their proposal if, based on experience and expertise, they believe those modifications more appropriately address the purpose of this project. The proposal should specify the reasons for such change.

1. Work Plan

As the start of the project, the consultant will develop a written work plan for how the final scope of services will be implemented. Task sequence, project meetings with Northglenn staff, consulting firm staffing, and project schedule should be included in the work plan.

Project Meetings

Project meetings that include Northglenn staff members who may be involved in the planning and ultimate operation of an ASR system should be included in the consultant’s work plan.

- *Kickoff Meeting* – A kickoff meeting will be held at the beginning of the project to identify key issues, familiarize the consultant with City personnel, and to discuss the consultant’s work plan.
- *Collaboration Meetings* – As needed.
- *Project Progress Meetings* – Project progress meetings will be held monthly throughout the project to identify action items and keep the project on schedule. Additional calls can be scheduled as needed during the project.
- *Review Meetings* – After the completion of each task and comments from Northglenn staff are consolidated, a meeting will be conducted to review results and clarify comments. Project progress meetings and review meetings can be combined.

Deliverable: Work plan in electronic report format. A draft must be submitted to Northglenn staff for approval prior to submission of final work plan.

2. **Regional and Local Hydrology Study**

The consultant will conduct a systematic data review and study to gather information about regional and local hydrology and geology, and assess whether these conditions are conducive for the successful implementation of an ASR program.

Deliverable: Technical report in electronic format which will include a thorough discussion of the data reviewed, and the consultant’s assessment of the feasibility for Northglenn to continue pursuing an ASR program given local geologic and hydrogeologic conditions.

3. **Assessment of Water Quality Impacts and Limitations**

The consultant will identify water quality factors which may impact an ASR program in Northglenn.

In particular, one site that should be considered for an ASR well site lies on City of Northglenn property adjacent to Northglenn’s Water Treatment Plant where there is an existing deep groundwater well. The consultant will gather information from Northglenn water operations staff to identify any known groundwater quality concerns and assess feasibility of utilizing that site for an ASR Pilot Study well.

Deliverable: Technical report in electronic format that discusses water quality impacts and limitations that may impact an ASR program. This report should also discuss potential solutions to any identified challenges. Finally, the report must describe the feasibility and benefits/drawbacks of storing treated vs. untreated water in an ASR system.

4. **Permitting and Regulatory Analysis**

The consultant will identify all regulatory processes, permits, water rights applications, and other approvals that will be required to drill and operate an ASR well and specify the information and actions that will be necessary in applying for such permits and obtaining approvals. This includes working with Northglenn’s water resources staff in identifying any necessary water rights applications.

Deliverable: Technical memorandum with list and explanation of all permits and approvals needed for the ASR pilot study.

5. **Siting Study**

The consultant will conduct a study that results in a conceptual level list and map of the sites representing long-term potential capability for ASR in the City of Northglenn. From this list the consultant will create a prioritized list of two to three sites within the City that would be appropriate for installing the ASR Pilot Well Facility for comprehensive testing of injection, storage, and recovery of Northglenn’s water supply to and from the Denver Basin Aquifer(s). The consultant will work with City of Northglenn staff to develop criteria for site selection. Criteria may include availability of land for facilities, compatibility of land use, proximity to Northglenn’s water treatment plant, distribution system, water quality, aquifer characteristics

and surrounding wells and uses, general estimates of capital and operating costs, etc. The consultant will assemble the necessary information for site selection, analyze the data, evaluate the degree to which each site meets the criteria, and work collaboratively with Northglenn staff to develop recommendations for appropriate sites for the ASR Pilot Well Facility.

Deliverable: Electronic copy of a technical report describing the criteria and process for selection of the recommended sites, the rationale for the priority given to each site, and the risks associated with each site.

6. Capital and Maintenance Cost Estimates

Using the range of conditions found at the recommended sites, the consultant will prepare a preliminary design and cost estimate for the ASR Pilot Well Facility including both capital and operational components. The cost estimate should be presented as a range with a midpoint representing the best estimate.

Deliverable: Technical memorandum in electronic format containing cost estimates including a detailed itemization of materials and activities and the associated unit costs. Design, labor, overhead, mobilization and other relevant costs should be included.

7. Integrated Resource Plan Compatibility

While Northglenn works with a selected consulting firm on the ASR Feasibility Study, the City will simultaneously be working with a separate consulting firm to update Northglenn's Integrated Resources Plan (IRP) to plan for future water supply and demand. Because the feasibility of aquifer storage and recovery may play a key role in the integrated resources planning process it is imperative that staff working on both of these projects communicate about the progress and findings of each investigation. In order to ensure that the findings of the ASR Feasibility Study are effectively incorporated in Northglenn's IRP the firm selected to perform the ASR Feasibility Study will need to regularly update and communicate with the firm selected to update Northglenn's IRP.

Deliverable: Ongoing communication with consulting firm selected to perform Northglenn's IRP throughout the duration of the feasibility study. Memorandum in electronic format describing how aquifer storage and recovery could be incorporated in Northglenn's integrated resource planning.

8. Pilot Study – Scope of Work

If by the conclusion of tasks 1 – 7, an ASR program is deemed feasible and cost effective by Northglenn staff, the final component of this project will be to develop a scope of work to begin an ASR Pilot Study. The scope of work should be designed so that upon completion of the outlined ASR Pilot Study, construction and implementation of an ASR program could be initiated. Steps currently envisioned for a pilot study include:

- Water quality testing
- Operational procedures and maintenance program design

- Site selection and/or acquisition
- Permitting and other approvals
- Well design and construction
- Initial well operation, testing, and monitoring

Deliverable: Technical report in electronic format describing the scope of work for an ASR Pilot Study.

Project Schedule

Project milestones are tentatively scheduled as follows.

- May 2019 – Completion of Work Plan (Task 1)
- September 2019 – Completion of Tasks 2 – 8
- November 2019 – Completion of Pilot Study Scope of Work (Task 9) and Feasibility Study

F. Response/Submittal Format

The consultant shall submit three (3) hard copies of the **Request for Proposals (RFP)** submittal and an electronic copy (pdf) on flash drive or CD-ROM. The RFP submittal is not intended to be an expansive or elaborate document, but it should be thoughtfully composed and easy to understand. The body of the response shall be no longer than fifteen (15) pages, not including cover letter, and resumes – included in an appendix. The consultant’s general Statement of Qualifications shall also be included as an appendix. The review of the RFP shall be in accordance with Northglenn Municipal Code – Chapter 6/Article 5/Section 8.

The consultant shall address each of the following components:

EXECUTIVE SUMMARY – Identify the name of your firm, and the location of the main office and all branches or satellite offices. Tell us how many years your firm has been in business under the present name and under current ownership. Introduce the members of your project team, including the sub-consultants and/or contractors (if applicable). Provide an overview of your firm’s experience that specifically relates to the work being requested.

PROJECT TEAM – Provide an organizational chart of your project team. Delineate the time commitment and specific role for both the Principle-in-Charge and the Staff Liaison (Project Manager).

CLIENT REFERENCES – Provide at least two (2) references for municipalities or utilities who your firm provided project services related to aquifer storage and recovery (preferably in Colorado) within the last five (5) years. Include scope of services performed. Provide a professional reference and contact information for each client selected.

RATE SCHEDULE – Include a 2018 fee schedule that will be applicable to all charges (time, material, overhead, and mark-up).

G. Selection Process

Review of Submittals:

Review of submittal will be conducted in accordance with Northglenn Municipal Code Section 6-5-8. Procurement for specialized goods and services as determined by the City Manager in writing shall be eligible for award by a competitive selection process following a request for proposals under the aforementioned Section.

Qualifying Finalists:

RFP submittals will be evaluated qualitatively on responsiveness, professional experience, the reference project and the information gained through project reference, resource availability.

HRS is working on all aspects of the Inverness Arapahoe aquifer ASR project that includes EPA and Colorado Division of Water Resources permitting, pilot testing, well equipping, water quality analyses, well hydraulic analyses, and project coordination. Inverness will inject and store Water Infrastructure and Supply Efficiency ("WISE") water. Due to our work on this project, HRS knows all of the EPA permitting issues related to the injection and storage of WISE water for South Metro Water Supply members.

Reference – Mr. Luis Tovar
720-274-8348
luis@mulhernmre.com

5 PROJECT COST ESTIMATE

Our estimated total cost for this project is \$119,550. Of this total cost, the HRS cost is \$86,010 and the Merrick cost is \$31,980. The cost estimate for each task is the following.

Task 1.0 Work Plan - \$12,670

Task 2.0 Regional and Local Hydrology Study - \$11,080

Task 3.0 Assessment of Water Quality Impacts and Limitations - \$20,680

Task 4.0 Permitting and Regulatory Analysis - \$7,440

Task 5.0 Siting Study - \$24,160

Task 6.0 Capital and Maintenance Cost Estimate - \$21,280

Task 7.0 Integrated Resource Planning Compatibility - \$3,240

Task 8.0 Pilot Study – Scope of Work \$19,000

HRS will work on all tasks and Merrick will work on tasks 1.0, 3.0, 5.0, 6.0, 7.0, and 8.0. In this proposal we recommend performing water quality work first in order to evaluate and determine project feasibility. The project cost estimate reflects the level of work included in the RFP. The project cost estimate would benefit if the number of project meetings could be reduced further and if one project report could be prepared.

PROSPECTIVE CONSULTANT'S CERTIFICATE REGARDING EMPLOYING OR CONTRACTING WITH AN ILLEGAL ALIEN

FROM: HRS Water Consultant, Inc.
(Prospective Consultant)

TO: City of Northglenn
PO Box 330061
11701 Community Center Drive
Northglenn, CO 80233

Project Name Aquifer Storage Recovery Feasibility Study

Bid Number 2019-002

Project No. 2019-045

As a prospective Consultant for the above-identified bid, I (we) do hereby certify that, as of the date of this certification, I (we) do not knowingly employ or contract with an illegal alien who will perform work under the Agreement and that I (we) will confirm the employment eligibility of all employees who are newly hired for employment to perform work under the Agreement through participation in either the E-Verify Program administered by the United States Department of Homeland Security and Social Security Administration or the Department Program administered by the Colorado Department of Labor and Employment.

Executed this 11th day of April, 2019.

Prospective Consultant HRS Water Consultant, Inc.

By: [Signature]

Title: PRESIDENT