

## Draft STAFF REPORT

Agenda Item: C.?

**To:** Mayor and City Council

Date:

**Thru:** City Manager

**Subject:** Approval of an Agreement with CH2MHill for Engineering Services associated with improvements to the Dewatering Facility at the Truckee Meadows Water Reclamation Facility (TMWRF) in the amount of \$ 500,000.00 with Reno's share being \$343,150.00 (Sewer Enterprise Fund).

From: Robert Lee, Sr. Civil Engineer, Public Works

**Summary:** The mechanical and electrical subsystems of TMWRF's Dewatering process operation, constructed in the early 1980's, have severely deteriorated due to normal use exacerbated by harsh environmental conditions. Improvements to those systems are urgently needed to maintain operational reliability while planning is undertaken for replacement of the process. CH2MHill proposes to provide an engineering evaluation of the Dewatering facility enabling them to evaluate alternative improvements that range from systems upgrades to complete reconstruction of the facility. Staff recommends Council approve an agreement with CH2MHill in the amount of \$500,000.00 with Reno's share being \$343,150.00 ( Sewer Enterprise Fund)

**Previous Council Action:** None.

**Background:** The Dewatering Facility at TMWRF increases the solids content of digested sludge sufficiently to enable the dried sludge to be hauled off-site for disposal. The existing Dewatering Facility was placed into continuous service in the early 1980's. With time, the corrosive by-products of the sludge handling process have caused extensive damage to the electrical, mechanical and structural steel systems of the Dewatering process. The response to systems failures presently consume an inordinately large percentage of the available mechanical and electrical technicians. A recent detailed risk assessment of TMWRF infrastructure identified the Dewatering Facility as being a high priority for upgrades to the operating systems.

**Discussion:**

Immediate actions must be undertaken to evaluate alternatives for improving the reliability of the Dewatering operation; a two phased approach is proposed. First, an engineering evaluation of existing Dewatering systems will identify the most cost effective way to assure reliability for the near future. The primary objective of this proposed engineering evaluation is to identify the improvements needed to bolster

reliability, simplify operation, reduce required maintenance, reduce operating costs and maximize the life of the Dewatering operations at TMWRF. Should the urgency of the needed improvements be sufficiently significant, CH2MHill will be directed by the City’s Project Manager to proceed with the preparation of plans and specifications for bidding.

The second phase of the work will evaluate future demands upon the Dewatering Facility and recommend potential long-term improvements. Should project monies be allocated to the preparation of plans and specifications for immediate bidding of short-term improvements, additional funding will be sought for completion of the long-term planning tasks within the scope of work.

CH2MHill proposes to perform a scope of work ( Exhibit A of Attachment 1: AGREEMENT) that will accomplish these objectives by including (1) an engineering evaluation of the existing condition of electrical , mechanical and structural steel systems of the Dewatering complex, (2) identification of near-term improvements critical to assuring a high degree of reliability accompanied by selection of design criteria and potentially design of selected components, (3) identification of improvements needed to assure the long-term reliability of the dewatering operation including a design criteria report, and finally (4) a schematic design for the approved long-term dewatering upgrades.

Upon completion of this work, TMWRF will be able to define and properly budget for capital improvements necessary to assure the long-term reliability of dewatering operations.

**Financial Implications:** The City of Reno will administer the agreement and will be reimbursed for a portion of the costs by the City of Sparks through the current cost sharing agreement for TMWRF operation and maintenance. The City of Reno and the City of Sparks share the cost of this project based upon their ownership of TMWRF, which is 68.63% for Reno and 31.37% for Sparks, as shown in Table 1.

Table 1 - Cost Sharing Between Reno and Sparks

| Total Cost of Contract | Reno Share    | Sparks Share  |
|------------------------|---------------|---------------|
| \$500,000.00           | \$ 343,150.00 | \$ 156,850.00 |
| Percentages            | 68.63%        | 31.37%        |

The City of Reno sewer enterprise fund has two components that fund capital projects for the expansion of treatment plant capacity and the upgrades to existing plant facilities. Projects that require replacement or repair of facilities are funded through the existing user fee fund. Sewer enterprise funds are budgeted for this work.

Table 2 – Reno Cost Sharing Between User Fee and Connection Fee Funds

| Reno Share of Contract Amount | User Fee Share | Connection Fee Share |
|-------------------------------|----------------|----------------------|
| \$ 343,150.00                 | \$ 274,520.00  | \$68,630.00          |
| Percentages                   | 80%            | 20%                  |

**Legal Implications: ?????**

**Recommendation:** Staff recommends Council approval of the agreement with CH2MHill for engineering services as described in the attached AGREEMENT in the amount of \$ 500,000.00 ( \$343,150.00 being Reno's share funded by the Sewer Enterprise Fund).

**Proposed Motion:** I move to approve the staff recommendation.

Attachment A : AGREEMENT

## AGREEMENT

THIS AGREEMENT, made and entered into this 22<sup>ND</sup> day of FEBRUARY, 2012, by and between the City of Reno and the City of Sparks, hereinafter referred to as the "CLIENT", and CH2M HILL, hereinafter referred to as "ENGINEER":

### WITNESSETH:

WHEREAS, CLIENT desires to engineering support services for the Truckee Meadows Water Reclamation Facility Solids Dewatering Project, hereinafter referred to as "Project";

WHEREAS, public convenience and necessity require the services of a consulting engineer to provide the services required;

WHEREAS, the CLIENT has found ENGINEER qualified and experienced in the performance of said services;

WHEREAS, the CLIENT is desirous of engaging the services of ENGINEER to perform said services; and

NOW, THEREFORE, said CLIENT and said ENGINEER, for the considerations hereinafter set forth, mutually agree as follows:

### ARTICLE I - SERVICES

CLIENT agrees to retain and does hereby retain ENGINEER to perform the professional engineering services hereinafter more particularly described, with such services to commence on the date of the execution of this Agreement and to continue until the completion of the work provided for herein.

ENGINEER hereby agrees to perform the professional services as set forth herein and to furnish or procure the use of incidental services, equipment, and facilities necessary for the completion of said engineering services.

ENGINEER has the status of an independent contractor as defined in NRS 333.700 and shall not be entitled to any of the rights, privileges, benefits, and emoluments of either an officer or employee of CLIENT. ENGINEER shall undertake performance of services as independent contractor and shall be wholly responsible for the methods of performance and for their performance.

## ARTICLE II - SCOPE OF SERVICES

The Scope of Services is set forth in Exhibit A as attached hereto and incorporated herein by this reference which consists of 13 pages setting forth tasks and the schedule of tasks.

## ARTICLE III - COMPENSATION

Payment for the engineering services hereinabove set forth shall be made by the CLIENT to the ENGINEER and shall be considered as full compensation for all personnel, materials, supplies, and equipment used in carrying out the work.

A. Compensation to the ENGINEER shall be on the basis of time and expense as set forth in Exhibit A attached hereto and incorporated herein by this reference.

B. Payments shall be made by the CLIENT based on itemized invoices from the ENGINEER which lists costs and expenses. Such payments shall be for the invoice amount.

C. CLIENT shall pay ENGINEER within 30 days of receipt by CLIENT of ENGINEER's invoice. If CLIENT disputes only portions of an invoice, CLIENT agrees to pay for undisputed items on that invoice within the time provided herein. Payment by CLIENT of invoices or request for payment shall not constitute acceptance by CLIENT of work performed under the Agreement by the ENGINEER. ENGINEER shall invoice the City of Reno for the full amount. The City of Reno will invoice the City of Sparks for reimbursement of their share of fees and costs.

D. The budget for total charges for services authorized by this Agreement is \$500,000.00 and shall not be exceeded without authorization of the CLIENT. The City of Reno's share is the sum of \$343,150.00 and the City of Spark's share is the sum of \$156,850.00. The budget may be increased by amendment hereto if necessitated by a change in the scope of services which increases the cost of providing the services. ENGINEER is not authorized to provide any additional services beyond the scope of work without having authorized funding pursuant to a written amendment hereto signed by the authorized representative of the governing body.

## ARTICLE IV - SCHEDULE OF WORK

ENGINEER will commence the services as described immediately following the Notice to Proceed provided to the ENGINEER by the CLIENT and will proceed with such services in a diligent manner. ENGINEER will not be responsible for delays caused by factors beyond ENGINEER's control and will not be responsible for delays caused by factors which could not reasonably have been foreseen at the time the Agreement was approved.

## ARTICLE V - ASSIGNMENT OF AGREEMENT

The ENGINEER SHALL not assign this Contract or any portion of the work without prior written approval of the CLIENT which may be withheld for any reason whatsoever.

## ARTICLE VI- OWNER'S RESPONSIBILITY

CLIENT shall provide any information in its possession that is requested by ENGINEER and is necessary to complete the Project. CLIENT shall assist ENGINEER in obtaining access to public and private lands to allow the ENGINEER to perform the work under this Agreement. CLIENT shall examine all studies, reports, sketches, estimates, specifications, drawings, proposals, and other documents presented by the ENGINEER and shall render decisions pertaining thereto within a reasonable time so as not to delay the work of the ENGINEER.

## ARTICLE VII - NONDISCLOSURE OF PROPRIETARY INFORMATION

ENGINEER shall consider all information provided by CLIENT to be proprietary unless such information is available from public sources. ENGINEER shall not publish or disclose proprietary information for any purpose other than the performance of the Services without the prior written authorization of CLIENT or in response to legal process or as required by the regulations of public entities.

## ARTICLE VIII - NOTICE

Any notice, demand, or request required by or made pursuant to this Agreement shall be deemed properly made if personally delivered in writing or deposited in the United States mail, postage prepaid, to the address specified below:

To ENGINEER:  
David R. Roundtree, P.E.  
Vice President  
CH2M HILL  
50 West Liberty Street, Suite 205  
Reno, NV 89501

To: CLIENT  
Neil Krutz  
Community Services Director  
City of Sparks  
If by personal service  
431 Prater Way  
Sparks, NV 89431  
If by mail  
PO Box 857  
Sparks, NV 89432

To CLIENT:  
John Flansberg  
Director of Public Works  
City of Reno  
If by personal service  
1 East First Street  
Reno, NV 89501  
If by mail  
P.O. Box 1500  
Reno, NV 89505

Nothing contained in this Article shall be construed to restrict the transmission of routine communications between representatives of ENGINEER and CLIENT.

#### ARTICLE IX - UNCONTROLLED FORCES

Neither CLIENT nor ENGINEER shall be considered to be in default of this Agreement, if delays in or failure of performance shall be due to uncontrollable forces the effect of which, by the exercise of reasonable diligence, the non-performing party could not avoid and is not reasonably foreseeable at the time of entering into this Agreement. The term "uncontrollable forces" shall mean any event which results in the prevention or delay of performance by a party of its obligations under this Agreement and which is beyond the control of the non-performing party. It includes, but is not limited to, fire, flood, earthquakes, storms, lightning, epidemic, war, riot, civil disturbance, sabotage, inability to procure permits, licenses, or authorizations from any state, local, or federal agency or personal for any of the supplies, material, accesses, or services required to be provided by either CLIENT or ENGINEER under this Agreement, strikes, work slowdowns or other labor disturbances, and judicial restraint. ENGINEER shall be paid for services performed prior to the delay.

Neither party shall, however, be excused from performance if nonperformance is due to uncontrollable forces, which are removable. The provisions of this Article shall not be interpreted or construed to require ENGINEER or CLIENT to prevent, settle, or otherwise avoid a strike, work slowdown, or other labor action. The non-performing party shall upon being prevented or delayed from performance by an uncontrollable force immediately give written notice to the other party describing the circumstances and uncontrollable forces preventing continued performance of the obligation of this Agreement.

#### ARTICLE X- GOVERNING LAW

This Agreement shall be governed by and construed pursuant to the laws of the State of Nevada. In the event suit is commenced hereunder and in accordance with the Dispute Resolution Procedures of Article XXII, the suit shall be brought in the appropriate court in Washoe County, State of Nevada. In the event of an arbitration or mediation pursuant to Article XXII, such arbitration or mediation shall be held in Reno, Nevada.

#### ARTICLE XI - SUCCESSORS AND ASSIGNS

CLIENT and ENGINEER each binds itself and their successors, and assigns to the other party to this Agreement and to the successors, and assigns of such other party, in respect to all covenants, agreements and obligations or this Agreement.

#### ARTICLE XII - ASSIGNMENT

Neither CLIENT nor ENGINEER shall assign, sublet, or transfer any rights under interest in (including, but without limitation, monies that may become due or monies that are due) this Agreement without the written consent of the other, except to the extent that the effect of this

limitation may be restricted by law. Unless specifically stated to the contrary in any written consent to an assignment, no assignment will release or discharge the assignor from any duty or responsibility under this Agreement. Nothing contained in this paragraph shall prevent ENGINEER from employing such independent consultants, associates, and subconsultants as she may deem appropriate to assist her in the performance of the Services hereunder.

#### ARTICLE XIII - INDEMNIFICATION

To the fullest extent permitted by law, ENGINEER shall defend, indemnify and hold harmless CLIENT and its officers, employees and agents (collectively "Indemnitees") from any liabilities, damages, losses, claims, actions or proceedings, including, without limitation, reasonable attorneys' fees, that are caused by the negligence, errors, omissions, recklessness or intentional misconduct of the ENGINEER or employees or agents of the ENGINEER in the performance of this Agreement.

ENGINEER assumes no liability for the negligence or willful misconduct of any indemnitee or other consultants of indemnitee.

ENGINEER'S indemnification obligations for claims involving Professional Liability (claims involving acts, error, or omissions in the rendering of professional services and Economic Loss Only (claims involving economic loss which are not connected with bodily injury or physical damage to property) shall be limited to the proportionate extent of ENGINEER'S negligence or other breach of duty.

If CLIENT's personnel (engineers or other professionals) are involved in defending such legal action, ENGINEER shall also reimburse CLIENT for the time spent by such personnel at the rate charged for such services by private professionals. These provisions shall survive termination of this agreement and shall be binding upon ENGINEER, her legal representatives, heirs, successors and permitted assigns.

If ENGINEER'S insurer does not so defend the CLIENT and the ENGINEER is adjudicated to be liable, reasonable attorney's fees and costs shall be paid to CLIENT in an amount proportionate to the liability of ENGINEER.

#### ARTICLE XIV - INTELLECTUAL PROPERTY INDEMNITY

To the fullest extent permitted by law, ENGINEER shall defend, protect, hold harmless, and indemnify CLIENT and the CLIENT'S related Parties from and against any and all liability, loss, claims, demands, suits, costs, fees and expenses (including actual fees and expenses of attorneys, expert witnesses, and other consultants), by whomsoever brought or alleged, for infringement of patent rights, copyrights, or other intellectual property rights, except with respect to designs, processes or products of a particular manufacturer expressly required by CLIENT in writing. If ENGINEER has reason to believe the use of a required design, process or product is an infringement of a patent, ENGINEER shall be responsible for such loss unless such



information is promptly given to CLIENT. This Indemnity Covenant shall survive the termination of this Agreement.

#### ARTICLE XV – PAYMENT OF TAXES

Any and all Federal, State and local taxes, charges, fees, or contributions required by law to be paid with respect to ENGINEER’S performance of this Agreement (including, without limitation, unemployment insurance, social security, and income taxes).

#### ARTICLE XVI - INSURANCE

##### GENERAL REQUIREMENTS

The CLIENT requires that ENGINEER purchase Industrial Insurance, General Liability, and Engineer’s Errors and Omissions Liability Insurance as described below against claims for injuries to persons or damages to property which may arise from or in connection with the performance of the work hereunder by the ENGINEER, its agents, representatives, employees or subconsultants. The cost of such insurance shall be borne by ENGINEER unless otherwise agreed.

##### INDUSTRIAL INSURANCE

It is understood and agreed that there shall be no Industrial Insurance coverage provided for ENGINEER or any Subconsultant by the CLIENT and in view of NRS 616.280 and 617.210 requiring that ENGINEER complies with the provisions of Chapters 616 and 617 of NRS, ENGINEER shall, before commencing work under the provision of this Agreement, furnish to the CLIENT a certificate of insurance from the Worker’s Compensation Insurer certifying that the ENGINEER and each Subconsultant have complied with the provisions of the Nevada Industrial Insurance Act, by providing coverage for each and every employee. ENGINEER shall require each subconsultant and independent contractor to comply with these requirements.

Upon completion of the project, the contractor shall provide the CLIENT with a Final Certificate for itself and each Subconsultant. If the ENGINEER or Subconsultants are unlicensed and are a sole proprietor, coverage for the sole proprietor must be purchased and evidence of coverage must appear on the Certificate of Insurance and Final Certificate.

It is further understood and agreed by and between the CLIENT and ENGINEER that ENGINEER shall procure, pay for, and maintain the above mentioned industrial insurance coverage at the ENGINEER’S sole cost and expense.

## MINIMUM SCOPE OF LIABILITY INSURANCE

Coverage shall be at least as broad as: \*

Insurance Services office Commercial General Liability Coverage Occurrence form CG0001 11/85 or Insurance Services Office Comprehensive General Liability form CG0002 Ed 01/73 with the Board Form Comprehensive General Liability Endorsement GL0404.

Insurance Services Office Business Auto Coverage form number CA00 01 12/90 covering Automobile Liability code 1 any auto with changes in Business Auto and Trucker's Coverage forms - Insured Contract Endorsement form number CA00 29 12/88.

\*Coverages may be excluded only with prior approval of the CLIENTS' Risk Managers.

Professional Errors and Omissions Liability applying to all activities performed under this Agreement in a form acceptable to CLIENT. ENGINEER will maintain professional liability insurance during the term of this Agreement and for a period of six (6) years from the date of substantial completion of the project. In the event the ENGINEER goes out of business during the term of this Agreement or the six (6) year period described above, ENGINEER shall purchase Extended Reporting coverage for claims arising out of ENGINEER's negligence acts, errors and omissions committed during the term of the Professional Liability Policy.

## MINIMUM LIMITS OF INSURANCE

ENGINEER shall maintain limits no less than:

1. General Liability: \$2 million combined single limit per occurrence for bodily injury, personal injury and property damage and \$2 million annual aggregate.
2. ENGINEER's Errors and Omissions Liability: \$2 million per claim and \$2 million as an annual aggregate during the term of this Agreement and for six years after the completion of the project, with each subsequent renewal having a retroactive date which predates the date of this Agreement. The ENGINEER may purchase project insurance or obtain a rider on her normal policy in an amount sufficient to bring ENGINEER's coverage up to minimum requirements, said additional coverage to be obtained at no cost to the CLIENT. Should the CLIENTS' Risk Managers require project insurance, project insurance shall be purchased and premium costs shall be borne by the CLIENT. CLIENT retains option to purchase project insurance through the ENGINEER's insurer or through its own source.

## DEDUCTIBLES

Any deductibles must be declared to and approved by the CLIENT Risk Management Divisions. The CLIENT reserves the right to request additional documentation, financial or otherwise prior to giving its approval of the deductibles. CLIENT must be advised of any changes to the deductible made during the term of this Agreement or during the term of any policy, must be approved by the CLIENTS' Risk Managers.

## OTHER INSURANCE PROVISIONS

### General Liability Coverages

The CLIENT, its officers, officials, employees and volunteers are to be covered as an additional insured as respects: liability arising out of activities performed by or on behalf of the ENGINEER including the insured's general supervision of the ENGINEER; products and completed operations of the ENGINEER; or premises owned, occupied or used by the ENGINEER. The coverage shall contain no special limitations on the scope of protection afforded to the CLIENT, its officers, officials, employees or volunteers.

The ENGINEER's insurance coverage shall be primary insurance as respects the CLIENT, its officers, officials, employees and volunteers. Any insurance or self-insurance maintained by the CLIENT, its officers, officials, employees or volunteers shall be excess of the ENGINEER's insurance and shall not contribute with it in any way.

Any failure to comply with reporting provisions of the policies shall not affect coverage provided to the CLIENT, its officers, officials, employees or volunteers.

The ENGINEER's insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the insurer's liability.

The ENGINEER's insurance coverage shall be endorsed to state that coverage shall not be suspended, voided, canceled or non-renewed by either party, reduced in coverage or in limits except after thirty (30) days prior written notice by certified mail, return receipt requested, has been given to the CLIENT.

### ACCEPTABILITY OF INSURERS

Insurance is to be placed with an A.M. Best and Company rating level of A - Class VII or better, or otherwise approved by the CLIENT in its sole discretion. CLIENT reserves the right to require that ENGINEER'S insurer be a licensed and admitted insurer in the State of Nevada, or on the Insurance Commissioner's approved but not admitted lists.

### VERIFICATION OF COVERAGE

ENGINEER shall furnish the CLIENT with certificates of insurance, including but not limited to the Certificate of Compliance in NRS 616B.627 and with copies of endorsements affecting coverage required by this article. The certificates and endorsements for each insurance policy are to be signed by a person authorized by that insurer to bind coverage on its behalf and must be countersigned by a duly appointed and licensed resident agent in this state. The certificates are to be on forms approved by the CLIENT. All certificate and endorsements are to be received and approved by the CLIENT before work commences. The CLIENT reserves the right to require complete, certified copies of all required insurance policies, at any time.

## SUBCONSULTANTS

ENGINEERS shall require all subconsultants to be insured on their own or under its policies and shall furnish separate certificates and endorsement for each subconsultant. Coverages for subconsultants shall be subjected to all of the requirements stated herein.

### Miscellaneous Conditions

If the ENGINEER or any Subconsultant fails to maintain any of the insurance coverages required, the CLIENT may terminate this Agreement for cause.

ENGINEER shall be responsible for and remedy all damage or loss to any property, including property of CLIENT, caused in whole or in part by the ENGINEER, any subconsultant, or any employee, directed or supervised by ENGINEER, except damage of loss attributable to faulty drawings or specifications.

Nothing herein contained shall be construed as limiting in any way to the extent to which the ENGINEER may be held responsible for payment for damages to persons or property resulting from her operations or the operations of any subconsultant under her.

If ENGINEER's failure to maintain the required insurance coverage results in a breach of this Agreement, CLIENT may purchase the required coverage, and without further notice to ENGINEER, deduct from sums due to ENGINEER any premium cost advanced by CLIENT for such insurance.

## ARTICLE XVII - LITIGATION

This Agreement does not require the ENGINEER to prepare for or appear in litigation on behalf of The CLIENT, or as agent of the CLIENT, other than specified herein, except in consideration of additional reasonable compensation.

## ARTICLE XVIII - TERMINATION OF WORK

Either party to this Agreement may terminate the Agreement for cause upon giving the other party thirty (30) days prior written notice. Cause may include, failure to perform through no fault of the party initiating the termination. In addition, CLIENT may terminate the Agreement for any one of the following causes: performance by ENGINEER which CLIENT deems unsatisfactory in CLIENT's sole judgment; and CLIENT's lack of funds to complete the work. Cause for ENGINEER may include, failure of CLIENT to make timely payment to ENGINEER without good cause, following a demand for payment.

In addition, CLIENT may terminate any or all of the work covered by this Agreement by notifying ENGINEER in writing. In the event such termination occurs at the conclusion of services pursuant to an executed task order, then ENGINEER shall be entitled to receive compensation for all work satisfactorily completed and performed through the conclusion of that

task order. No other changes or costs incurred for services or materials other than pursuant to an executed task order shall be reimbursed by CLIENT pursuant to this Agreement. In the event such termination occurs during the performance of services pursuant to an authorized task order, then ENGINEER and CLIENT shall need to determine what, if any additional services should be performed by ENGINEER in order to close out the work in progress and provide any such unfinished materials to CLIENT. ENGINEER and CLIENT shall agree upon the additional amount of work to be performed following the termination notice and the amount payable by CLIENT for such work. In the event that the parties cannot otherwise agree on the amount to be paid pursuant to this provision, then the matter may be referred to the Dispute Resolution Procedure in ARTICLE XXII .

In the event the Agreement is terminated by CLIENT for cause, including performance deemed unsatisfactory by CLIENT, or ENGINEER failure to perform, or other cause created by ENGINEER, CLIENT may withhold and offset against any payments otherwise due and/or seek recovery from ENGINEER for amounts already paid, including without limitation: amounts paid for unsatisfactory work or work not done in accordance with this Agreement; value of CLIENT's time spent in correcting the work or problem; any increase in cost resulting from the problem or work; and any other costs which result from such termination.

ENGINEER expressly agrees that this Agreement shall be terminated immediately if for any reason local, federal and/or State Legislature funding ability to satisfy this Agreement is withdrawn, limited, or impaired.

#### ARTICLE XIX - PROFESSIONAL SERVICES

ENGINEER shall be responsible for the professional quality and technical accuracy of all services furnished by ENGINEER and their subconsultants under this Agreement. Without limiting the effect of any other provision of this Agreement and in addition to any other provision contained herein, ENGINEER shall, without additional compensation, correct or revise any errors or omissions in their services.

ENGINEER and their subconsultants retained pursuant to this Agreement are considered by CLIENT to be skilled in their profession to a degree necessary to perform the services and duties contained in this Agreement, and CLIENT hereby relies upon those skills and the knowledge of ENGINEER and their subconsultants. ENGINEER and their subconsultants shall perform such professional services and duties as contained in this Agreement in conformance to and consistent with the standards generally recognized as being employed by professionals of their caliber in the State of Nevada at the time such services and duties are performed. ENGINEER makes no warranty, either expressed or implied, as to their findings, recommendations, specifications or professional advice other than as provided herein.

Neither CLIENTS' review, approval, or acceptance of nor payment for any of the professional services or work required under this Agreement shall be construed to operate as a waiver of any of CLIENTS' rights under of this Agreement. The rights and remedies of CLIENT provided for under this Agreement are in addition to any other rights and remedies provided by law.

Project information including but not limited to reports, written correspondence, and verbal reports will be prepared for the use of the CLIENT. The observations, findings, conclusions and recommendation made represent the opinions of the ENGINEER. Reports, records, and information prepared by others will be used in the preparation of the report. The ENGINEER has relied on the same to be accurate and does not make any assurances, representations, or warranties pertaining to the records or work of others, except for its subconsultants, nor does the ENGINEER make any certifications or assurances except as explicitly provided in writing. No responsibility is assumed by the ENGINEER for use of reports for purposes of facility design by others.

#### ARTICLE XX - RIGHTS OF ENGINEERS AND EMPLOYEES

No personnel employed by ENGINEER shall acquire any rights or status in the CLIENT services and ENGINEER shall be responsible in full for payment of its employees, including insurance, deductions, and all the like.

#### ARTICLE XXI - SERVICES BY CLIENT

It is understood and agreed that the CLIENT shall, to the extent reasonable and practicable, assist and cooperate with the ENGINEER in the performance of ENGINEER's services hereunder. Such assistance and cooperation shall include, but not necessarily be limited to, environmental approval, right of access to work sites; providing material available from the CLIENT's files such as maps, As-Built drawings, records, and operation and maintenance information; serving all notices, holding all hearings, and fulfilling legal requirements in connection therewith; and rendering assistance in determining the location of existing facilities and improvements which may be affected by the project.

#### ARTICLE XXII - DISPUTE RESOLUTION PROCEDURE

1. If disputes arise under this Agreement, the parties agree to attempt to resolve such disputes through direct negotiations or if such negotiations are not successful, by non-binding mediation conducted in accordance with the rules and procedures to be agreed upon by the parties.
2. The prevailing party in an action to enforce the Agreement shall be entitled to recover its reasonable attorney's fees and costs. It is specifically agreed that a reasonable attorney's fee shall be \$125 per hour.

#### ARTICLE XXIII - NO UNFAIR EMPLOYMENT PRACTICES

1. In connection with the performance of work under this Agreement, Engineer agrees not to discriminate against any employee or applicant for employment because of race, creed, color, national origin, sex, sexual orientation or age. Such Agreement shall include, but not be limited to, the following: Employment, upgrading, demotion, or transfer, recruitment or recruitment

advertising, layoff or termination, rates of pay or other forms of compensation, and selection for training, including apprenticeship.

2. ENGINEER further agrees to insert this provision in all subcontracts hereunder, except subcontracts for standard commercial supplies or raw materials.

3. Any violation of these provisions by ENGINEER shall constitute a material breach of contract.

4. As used in this Article, sexual orientation means having or being perceived as having an orientation for heterosexuality, homosexuality or bi-sexuality.

#### ARTICLE XXIV - AMERICANS WITH DISABILITIES ACT

1. ENGINEER and its subconsultants shall comply with the terms, conditions, and requirements of the Americans with Disabilities Act of 1990 (P.L. 101-136), 42 U.S.C. 12101, as amended, and regulations adopted thereunder contained in 28 C.F.R. 26.101-36.999, inclusive, and any relevant program-specific regulations.

#### ARTICLE XXV - GENERAL PROVISIONS

1. Integration. This Agreement, including the Exhibits and the Recitals, all of which are true and correct and are incorporated by reference as a part of this Agreement, constitutes the complete and integrated Agreement between the parties with respect to the matters recited herein, and supersedes any prior or contemporaneous written or oral agreements or understandings with respect thereto.

2. Severability. The legality of any provision or portion of this Agreement shall not affect the validity of the remainder.

3. Amendment. This Agreement shall not be modified, amended, rescinded, canceled, or waived, in whole or in part, except by written amendment signed by duly authorized representatives of the parties.

4. No Third Party Benefit. This Agreement is a contract between CLIENT and ENGINEER and nothing herein is intended to create any third party benefit.

5. Governing Law and Jurisdiction. This Agreement shall be administered and interpreted under the laws of the State of Nevada. Any action at law, suit in equity or judicial proceeding for the enforcement of this Agreement or any provision thereof shall be instituted only in the district courts of the State of Nevada, County of Washoe.

ARTICLE XXVI - DUE AUTHORIZATION

Each party represents that all required authorizations have been obtained to execute this grant and for the compliance with each and every term hereof. Each person signing this Agreement warrants and represents to the other party that he or she has actual authority to execute this Agreement on behalf of the party for whom he or she is signing. A facsimile signature on this Agreement shall be treated for all purposes as an original signature.

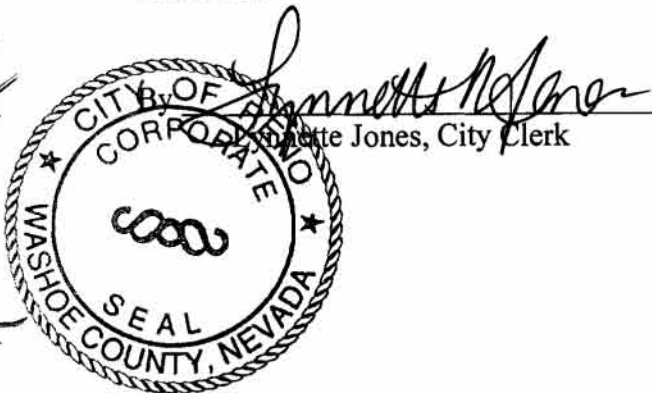
Duplicate originals. This Agreement is executed in one duplicate original for each party hereto, and is binding on a party only when all parties have signed and received a duplicate original.

IN WITNESS WHEREOF, CLIENT has caused this Agreement to be executed by the City of Reno and ENGINEER have caused this Agreement to be executed, all as of the day and year first above written.

CITY OF RENO

ATTEST:

By: [Signature]  
Robert A. Cashell, Sr., Mayor



By: [Signature]  
Lorette Jones, City Clerk

APPROVED AS TO FORM:

By: [Signature]  
Susan Ball Rothe  
Deputy City Attorney

CITY OF SPARKS

ATTEST:

By: \_\_\_\_\_  
Geno Martini, Mayor

By: \_\_\_\_\_  
Sparks City Clerk

APPROVED AS TO FORM:

By: \_\_\_\_\_  
Chet Adams, Sparks City Attorney

ENGINEER : CH2MHILL ENGINEERS, INC.

By: [Signature]  
David R. Roundtree, P.E., Vice President



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*EXHIBIT A*

**Scope of Work for the  
Truckee Meadows Water  
Reclamation Facility  
Solids Dewatering Project**

Prepared for  
**City of Reno, Nevada**

February 2012

**CH2MHILL.**  
50 West Liberty, Suite 205  
Reno, NV 89501

# Exhibit A: Scope of Work for the Truckee Meadows Water Reclamation Facility Solids Dewatering Project

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This exhibit is to the Agreement, between CH2M HILL ENGINEERS, Inc. (Consultant), and the City of Reno (City), for engineering and consulting services related to dewatering facilities at the Truckee Meadows Water Reclamation Facility (TMWRF, Plant).

## Introduction

The cities of Reno and Sparks jointly own and operate the Truckee Meadows Water Reclamation Facility (TMWRF), receiving and treating wastewater up to its current capacity of 39.8 million gallons per day (mgd).

TMWRF is a biological nutrient removal plant that uses separate nitrification and denitrification processes for nitrogen removal and biological and chemical processes for phosphorus removal. Reclaimed water is discharged to the Truckee River or is pumped to effluent reuse sites in the cities of Reno and Sparks. Solids are thickened, anaerobically digested, dewatered and hauled to the local landfill for disposal. The methane gas produced by solids digestion is used to generate the hot water which is used to heat many TMWRF's buildings.

The TMWRF primary sludge is captured by the primary clarifiers. Waste activated sludge (WAS) is captured in the secondary clarifiers and pumped to the dissolved air flotation thickening (DAFT) system. A float solids (thickened WAS or TWAS) of 3 to 4 percent is achieved by the DAFT units. The primary sludge and TWAS are pumped to the anaerobic digesters for stabilization.

Three existing centrifuges, installed in the early 1980's, receive digested solids varying in concentration from 2 to 3 percent. The centrifuge cake is approximately 15 percent solids and requires a significant amount of polymer. TMWRF operations staff have expressed the following concerns with the solids dewatering facility:

- Recent staff reductions at the TMWRF limit the operator's ability to keep up with the high level of maintenance required by the existing dewatering operation.
- Automated controls have not been provided to optimize the polymer addition, requiring operations staff to manually adjust the polymer dose.
- Air movement within the existing facility is inadequate, resulting in an environment that is excessively corrosive to copper and other metals.
- The electrical switchgear is installed in the process areas rather than in a separate electrical room and has significant corrosion issues, which could lead to system failures in the near future.
- Corrosion is also a significant issue for the four dewatered cake storage hoppers.
- The existing control system is comprised primarily of hard-wired control relays with corroded wiring and equipment operating beyond its recommended useful life.

- The solids concentration produced by the existing centrifuges is adequate, but producing solids at a higher concentration could result in TMWRF saving hundreds of thousands of dollars in disposal costs.
- The existing cake pumps require significant attention and maintenance by TMWRF operations staff. The units are not capable of conveying solids in excess of 15-18 percent.
- It has been determined, that the existing digesters require significant repair. Dewatering TWAS or primary sludge could reduce the number of digesters required to be utilized at the TMWRF.

The primary objective of this project is to identify dewatering system improvements to improve reliability, simplify operation, reduce required maintenance, reduce operating costs, and maximize the life of solids handling facilities at the TWMRF.

This exhibit presents Consultant's scope of work, preliminary schedule, and associated budgets for the Solids Dewatering project engineering and design services. Services During Construction for the Solids Dewatering project will be contracted under separate Agreement(s).

## **Consultant's Scope of Work**

### **Task 1 - Project Management**

Consultant will initiate and manage all project activities, schedule, and plan work to complete activities in a properly integrated and timely manner. Project management activities will include the following:

- **Progress Monitoring** – Monitor budget, work progress, and schedule for each Task. Monitor work efforts and evaluate actual versus planned progress. Supervise the Consultant's project team and identify actions needed to maintain the project schedule. Manage scope changes, and take action to resolve impacts on budgets as soon as scope changes have been identified.
- **Coordination and Staff Management** – Coordinate and schedule appropriate staffing to meet project requirements of each Task. Supervise activities of assigned Consultant staff, to help complete the authorized work on schedule and within budget.
- **Administration** – Maintain project records, manage and process project communications, subcontracts, and coordinate project administrative matters for each Task.
- **Meeting Preparation** – Arrange for site visits and monthly project update meetings with City's project team. Prepare and distribute agenda and meeting notes.

### **Health and Safety**

Consultant will manage the health, safety, and environmental activities of its staff and the staff of its subconsultants to achieve compliance with applicable health and safety laws and regulations. Consultant will provide project specific Field Safety Instructions for use by team members when performing field work on the Project site.

### **Progress Meetings**

Consultant will facilitate Monthly Progress Meetings to keep City apprised of progress, review pertinent issues, and obtain direction from the City. Meetings will be held at the

Plant, concurrent with other planned workshops and field activities to the extent feasible. At a minimum, meetings will be attended by one member of Consultant's project team. Each meeting is expected to include the following:

- Action Log Update, including outstanding and upcoming project issues. Items requiring decisions will be discussed, and any decisions entered into the decision log.
- Project Schedule Update, including tasks completed to date and projected completion of tasks.

In addition to the progress meetings, conference calls will be held periodically to supplement the Monthly Progress Meetings. Conference calls will typically be one hour in duration. These conference calls will be informal and will not have specific agendas. Meeting notes will be prepared and distributed via e-mail.

### **Monthly Reporting**

Consultant will prepare a Monthly Progress Report. The monthly progress report will include at a minimum, the following:

- Progress within the last month, by task
- Problems encountered or anticipated
- Items scheduled for work in the next month

### **Deliverables**

- Project meeting agendas and meeting notes
- Monthly project schedule updates
- Monthly project progress reports and Action Log updates
- Monthly project billings showing labor hours by staff member and by task
- Compiled set of project management documentation (meeting notes, decision logs, etc.) prior to project close-out

## **Task 2 – Dewatering Facility Assessment**

### **Subtask 2.1 – Review existing data**

Consultant will review the existing information provided by the City and TWMRF operations personnel to obtain a general understanding of the dewatering facility and related facilities at TMWRF. Existing information to be provided by the City includes:

- Record drawings for the Dewatering Facility
- TMWRF site master plan
- Influent load projections as available from master planning documents
- Current plant loading
- Work orders for demand maintenance on the Dewatering Facility over the past 2 to 5 years
- 2010 Capacity Assessment Technical Memorandum
- Existing structural and corrosion assessment reports
- Existing relevant geotechnical report(s)
- Waste Management fee schedule and requirements for disposing dewatered sludge to the landfill

Consultant will subcontract for the following inspection services to be performed prior to conducting the kickoff meeting:

- Infrared scanning of the Dewatering Facility's electrical system to help determine potential areas of failure and assess critical needs.
- Corrosion inspection (visual and nondestructive testing) of the existing storage hoppers and visual inspection of dewatering facility equipment.

Consultant has included an allowance of \$20,000 for these inspection services.

Consultant will review the inspection reports along with the information provided by the City. Consultant will develop a preliminary list of immediate needs for the facility, including but not limited to HVAC needs, electrical and storage hopper corrosion, V-Ram pump condition, control system, building drains, solids conveyance piping, and polymer system operation.

### **Subtask 2.2 – Kickoff Meeting**

Consultant's project manager and lead engineers will visit the site and facilitate a project kickoff meeting with City staff and operations personnel to accomplish the following:

- Confirm the project objectives and activities schedule
- Confirm the design criteria for the dewatering facility
- Review findings from inspection reports
- Understand other concerns related to the solids processing facilities at TMWRF (struvite production, odor control, etc.)
- Confirm list of immediate facility needs
- Identify long-term facility improvement alternatives and budget constraints
- Confirm project delivery method(s) (project phases, procurement alternatives, etc.)
- Communicate information required of the City to move forward.

Meeting notes will be prepared and distributed upon the completion of the meeting.

Following the kickoff meeting, design team members will perform detailed site investigations to examine facility and equipment condition, gather equipment make and model numbers, obtain initial measurements, etc.

### **Task 3 – Near-term Improvements Project Definition**

Consultant will identify elements of the existing dewatering facility that are at risk of failure in the near term future. Alternatives to mitigate failure risk and bolster reliability will be developed. Alternatives will include building HVAC improvements, electrical equipment replacement, and control system improvements. Consultant will evaluate the alternatives and facilitate a ½-day workshop to select the elements to be included in the Near-term Improvements Project. Upon completion of the workshop, Consultant will document the most critical facility needs in a Design Basis Memorandum (DBM). The DBM will include the basis for the Near-term Improvements project along with a budgetary cost estimate (AACE Class 4) and project schedule.

**Deliverable:** Near-term Improvements Design Basis Memorandum.

## **Task 4 – Long-term Alternatives Evaluation**

### **Subtask 4.1 – Alternatives Identification**

Consultant will identify alternatives for long-term system improvement. Alternatives up for consideration include the following:

- Holistic approach – Consultant will perform a summary-level review of the existing solids handling process, and will identify alternatives for dewatering that result in cost savings for TMWRF. Consultant will review and incorporate the findings and recommendations produced by the *Solids Handling Study*, which is currently underway. The City will facilitate communications between Consultant and the *Solids Handling Study team*.
- Dewatering Facility – Consultant will develop conceptual alternatives for improvements that can be made within the existing facility as well as options for a new or partially new facility (annex).
- Dewatering Equipment – Consultant will identify alternatives for replacing and for retrofitting the existing centrifuge equipment.
- Sludge Conveyance – Consultant will identify alternatives for sludge conveyance that include utilization of the existing cake pumps, replacing with higher solids cake pumps, or belt/screw conveyance options.
- Corrosion Control – Consultant will develop alternatives for mitigation of corrosion to the existing sludge storage hoppers as well as options for mitigating future corrosion to the electrical equipment and wiring.

Consultant will facilitate a team conference call to obtain consensus on the alternatives to carry forward into the evaluation. Monetary and non-monetary criteria to be used in the evaluation will also be determined during this call.

### **Subtask 4.2 – Site Tours**

To assist in the evaluation of dewatering equipment alternatives, Consultant will arrange for TMWRF operations staff to tour up to 3 facilities with dewatering and/or conveyance equipment under consideration on this project. Facilities will be reachable within a ½ -days travel. A total budget of \$12,500 is included for this Subtask. Proposed sites to visit include the Tahoe-Truckee Sanitation Agency, Clark County Water Reclamation Facility, and potentially the Boulder (CO) WRF.

### **Subtask 4.3 – Alternatives Evaluation**

Consultant will evaluate long-term improvement alternatives identified under Subtask 4.1. Consultant will evaluate the alternatives from both a monetary and non-monetary standpoint. Screening level (AACE Class 5) cost estimates based on limited information will be developed as part of this evaluation. Consultant will also evaluate the merits of conventional versus alternate project delivery methods for this project.

**Deliverable:** Upon completion of this Task, Consultant will document the alternatives considered and the evaluation criteria used in the decision making process, and develop a presentation to facilitate discussion during the Alternatives Selection Workshop.

### **Subtask 4.4 – Alternatives Selection**

Consultant will facilitate a one-day Workshop to review Consultant's evaluation, finalize the scoring of each alternative, and select alternatives for implementation.

Following the workshop, Consultant will develop a draft Basis of Design technical memorandum documenting the alternatives selected for implementation and the project delivery method(s) to be implemented on this project.

**Deliverables:** Draft and Final Basis of Design Technical Memorandums.

## **Task 5 – Near-term Improvements - Detailed Design**

Consultant will follow a multiphase process for the development of one detailed set of Bid Documents for the selected Near-term Improvements project. The final design process includes deliverables for each subtask for review that will allow for resolution of key issues before proceeding to the next phase. Therefore, this task will consist of four subtasks: 30 Percent Design, 60 Percent Design, 90 Percent Design, and Bid Document Preparation (100 Percent). The information collected and the concepts defined in each subtask will form the basis for subsequent work.

Each subtask will include specific deliverables as listed therein. QA/QC reviews will be conducted to monitor the quality of the Project at critical design milestones. Consultant assumes that City's consolidated written review comments will be submitted to Consultant within one week after each design submittal identified herein.

Contract Documents will be prepared for a single lump sum bid where a single General Contractor will furnish all equipment, materials, and labor necessary to construct the Project. The Contract Documents will consist of Consultant-furnished Bidding Requirements (including City-furnished Supplemental sections), General Conditions, Supplementary Conditions, General Requirements (Division 1), and Technical Specifications (Construction Specifications Institute MasterFormat 2004), Standard Details, and Drawings. Specifications, Standard Details, and Drawings will be stamped in accordance with Nevada law and signed by licensed engineers of the appropriate disciplines. Contract forms will be provided by the City. For budgeting purposes, it is assumed that the Near-term Improvements project will consist of not more than 24 sheets total (including the cover, legends, and details).

### **Construction Cost Estimates**

Consultant will furnish construction cost estimating services as indicated below under Deliverables for the 30 Percent and 100 Percent Submittals. Estimates will be prepared to a level of accuracy based on the information available, within normal industry standards. Estimates will be formatted in accordance with the Project design Construction Specifications Institute (CSI) specification format and segregated by facility. Where sufficiently detailed information is lacking to obtain reasonably accurate quantities of materials, allowances will be used to provide an opinion of the estimated construction costs at the midpoint of construction. Cost estimates and levels of accuracy (Class level) will conform to American Association of Cost Engineering International, AACE Recommended Practice No. 18R-97.

### **Subtask 5.1 – 30 Percent Design**

In this subtask, decisions included in the Basis of Design Report will be used to develop the major project elements, equipment selections and layouts, process flow diagrams, and the

preliminary site and electrical plans. Drawings will be submitted one week prior to the 30 Percent Design Review Workshop.

**30 Percent Design Review Workshop** - Consultant will conduct a review meeting with City and TMWRF staff to discuss the major concepts and findings of the 30 percent submittal. Consultant will receive consolidated written City and TMWRF review comments at the meeting and will discuss major design concepts, layout, and operational impacts accompanying the new design. Major action items and decisions will be documented in minutes that will be distributed to City and Consultant's design teams. It is anticipated that a maximum of one 4-hour meeting, held at TMWRF, will be required for this subtask.

#### **Deliverables**

- 30 Percent Submittal - 5 copies of half-size preliminary construction drawings (11-inch by 17-inch)
- 30 Percent Construction Cost Estimate - Consultant will furnish City with a Class 3 estimate of construction costs at the 30 percent design completion level
- Review Workshop Notes

#### **Subtask 5.2 – 60 Percent Design**

In this subtask, the preliminary design engineering decisions made during the 30 Percent Design phase will be further developed. Structures, equipment, major plant piping, process, demolition, instrumentation and control concepts, electrical, and site plans will be developed during this phase to allow final detailing during the next phase of design.

The 60 percent design is intended to show the major design concepts and features of the Project. The submittal will include a preliminary specifications table of contents. Documents submitted will be reviewed by Consultant's QC team concurrent with the City's review. Consultant will collect the City's consolidated written review comments during a regularly scheduled bi-weekly status call. Consultant will incorporate comments into the 90 percent design as appropriate.

#### **Deliverables**

- 60 Percent Submittal - 5 copies of half-size 60% construction drawings (11-inch by 17-inch), draft specifications for major equipment, and unbound specifications table of contents

#### **Subtask 5.3 – 90 Percent Design**

Consultant will prepare 90 percent complete Bid Documents, which will be the basis for the final review submittal. This submittal will include the Bidding Requirements, Contract Forms, Conditions of the Contract, General Requirements, Technical Specifications (CSI MasterFormat 2004), Standard Details, and Drawings necessary for bidding the construction contract. The Bid Documents will include the applicable general, demolition, structural, structural/mechanical, mechanical, instrumentation and control, and electrical technical specifications, standard details, and design drawings necessary for permitting, bidding, and construction.



The 90 percent submittal is intended to be a near final version of all construction drawings, standard details, and technical specifications that will be included in the Bid Documents. It will be reviewed by Consultant's QC team and revised accordingly prior to submitting to the City for review.

90 Percent Submittal Review – Consultant will provide the 90 percent design submittal for review by the City. Consultant will conduct a review meeting with the City one week after the delivery to gather final consolidated written comments.

#### **Deliverables**

- 90 Percent Submittal – 5 copies of half-size construction drawings (11-inch by 17-inch), standard details (11-inch by 17-inch), and specifications (8-1/2-inch by 11-inch) will be delivered to the City for review and comment.

#### **Subtask 5.4 - Quality Control Review, Coordination, and Response**

Consultant will implement and carry out a quality control (QC) program. The review process includes coordinating the participation of senior reviewers at appropriate points in the Project as noted above. Consultant will perform multidisciplinary internal QC review activities using a senior review team during the progress of the final design. QC review activities will be governed by the requirements of an overall Project Quality Management Plan. All design documents will be reviewed by assigned QC reviewers, comments addressed, and changes incorporated, prior to submission to the City for review. Project deliverables will be reviewed from the perspective of sound engineering design, constructability, construction cost, operability, and maintainability.

#### **Task 5.5 – Final Plans and Specifications (100 Percent)**

Following receipt of the City's review comments on the 90 percent submittal, Consultant will address and incorporate changes, and prepare the 100 percent complete plans and specifications for Bidding and for Permit Review. Consultant will submit the Plans and Specifications to the Building and Fire departments as required. Consultant has included an allowance of \$5,000 in the budget of this task for fees and related expenses.

#### **Deliverables**

- 2 hard copy sets to City for submission to City Building Department of the 100 percent submittal, including full-size construction drawings (22-inch by 34-inch), standard details (8-1/2-inch by 11-inch), and technical specifications (8-1/2-inch by 11-inch).
- Fifteen (15) hard copy sets to City of the 100 percent submittal, including full-size construction drawings (22-inch by 34-inch), half-size construction drawings (11-inch by 17-inch), standard details (8-1/2-inch by 11-inch), and technical specifications (8-1/2-inch by 11-inch)
- One CD containing technical specifications, standard details, and full-size and half-size drawings in Adobe Acrobat .pdf file format.
- Engineer's Cost Estimate – Consultant will prepare a Class 1 "Engineer's Cost Estimate" of construction costs for the Project and will submit a summary of the cost estimate to the City within 2 weeks after the final plans and technical specifications are submitted.

## **Task 6 – Bid Services**

Consultant will furnish the following services under this Task for the Near-term Improvements Project.

Consultant will attend and conduct, in conjunction with the City, one pre-bid conference at the Project site. Consultant will record all questions and requests for additional technical information.

Consultant will receive, log, and respond to potential Bidders' technical questions and requests for additional information, as forwarded to Consultant by City. Consultant will furnish technical interpretation of the contract documents and will prepare responses to questions in the form of addenda distributed by City to all plan holders.

Consultant will assist the City as requested in reviewing the low bid received to verify that it is complete and responsive as submitted. This task does not include attendance by the Consultant at the Bid Opening.

## **Alternative Task 7 – Long-term Improvements Schematic Design**

Upon completion of Task 2, the City may elect to move forward with design for one larger construction bid package to address both near-term and long-term needs in lieu of executing two separate design packages. In the event this occurs, the services described under Tasks 5 and 6 would be voided and the budget allocated for Tasks 5 and 6 would be used to fund a schematic design for the one larger project. Services provided under this alternative Task 7 would thereby include the following subtasks:

### **Alternative Subtask 7.1 – Preliminary Investigations**

Consultant will subcontract with a local surveying firm to provide field survey and mapping work necessary for the design of the Long-term Improvements project.

Consultant anticipates the need to hire a subcontractor to excavate potholes to locate existing piping and utilities within the plant site access road corridor and at the plant site.

Consultant will develop geotechnical design recommendations for dewatering facility improvements. Design recommendations will be developed based on use of existing available data, supplemental field explorations and soil sampling, and laboratory testing (soil borings, test pits, R-value testing, etc.). Consultant will manage a geotechnical subcontractor for development of a Geotechnical Data Report (GDR), which includes drilling and logging of approximately 2 soil borings in new structure areas. Subcontractor will coordinate with the City to locate borings in areas to avoid underground utilities. Consultant will make site visit during field exploration activities to become familiar with surface and subsurface site conditions and general condition of existing facilities. The GDR data will be used by Consultant to prepare a Geotechnical Interpretative Report (GIR) summarizing subsurface conditions and providing geotechnical recommendations for design of foundations, pipes, and pavements.

### **Alternative Subtask 7.2 – Schematic Design Development**

Consultant will prepare a schematic design for the Long-term Improvements project. The schematic design will provide a basis for determining construction costs and finalizing the design for obtaining construction bids. Decisions included in the Basis of Design Report

(subtask 4.4) will be used to develop the major project elements, equipment selections and layouts, process flow diagrams, and the preliminary site and electrical plans. Consultant will develop a Class 3 estimate of construction costs. The preliminary drawings will consist of 5-10 sheets total (including the P&ID, process flow diagram, one process plan, one electrical plan and one process section).

Consultant will conduct a review meeting with City and TMWRF staff to discuss the major concepts and findings of the 30 percent submittal. Consultant will also review the Class 3 cost estimate for this Work. Consultant will receive City and TMWRF consolidated written review comments at the meeting and will discuss major design concepts, layout, and operational impacts accompanying the new design. Major action items and decisions will be documented in minutes that will be distributed to City and Consultant's design teams.

#### **Alternative Task 7 Deliverables**

- 30 Percent Submittal – 5 copies of half-size construction drawings (11-inch by 17-inch)
- 30 Percent Construction Cost Estimate – Consultant will furnish City with a Class 3 estimate of construction costs at the 30 percent design completion level
- Geotechnical Interpretative Report– 2 copies of draft to City for review and 3 PE stamped and signed originals delivered to the City, including the GDR as an Exhibit

## **Future Services**

An amendment or separate Agreement will be required for any work exceeding the budget allocated to this scope of services. Services not allocated to this scope of work and fee schedule, and anticipated to occur at the conclusion of this project phase, will be negotiated under a separate contract.

Examples of future services are as follows:

- Preparation of pre-purchased equipment specifications or RFQ's
- Preparation of Conformed Construction Documents
- Design Services for additional Bid Packages
- Services during Construction including construction management, inspection, submittal review, processing RFI's, etc.
- Value Engineering or similar value analysis studies
- Development, coordination, or participation in partnering program(s)
- Services related to training of City or Plant operations personnel
- Preparation of Operations and Maintenance manuals
- Permitting support services
- Other services mutually agreeable to the City and Consultant

## City Responsibilities

The services described below are assumed to be provided by City and are not included in Consultant's Scope of Work:

- Furnish copies of drawings and other pertinent information related to Tasks included herein.
- Participate in project workshops and provide input & review comments Project deliverables/recommendations.
- Coordinate input from the City of Sparks Building Department and the City of Sparks Fire Department, including review of deliverables.
- Coordinate input/review from any other stakeholders beyond the City's core project team.
- Prepare notices and pay fees for Advertisements for Bids.

## Preliminary Milestone Schedule

| Milestone  | Target Start | Target Finish |
|--|--------------|---------------|
| Task 2 - Dewatering Facility Assessment            | 2/15/12      | 3/16/12       |
| Task 3 - Near-term Improvements Project Definition | 3/19/12      | 4/4/12        |
| Task 4 - Long-term Improvement Alternatives        | 3/19/12      | 5/4/12        |
| Task 5 - Near-term Improvements Detailed Design    | 4/5/12       | 6/26/12       |
| Task6 - Bid Services                               | 6/26/12      | 8/30/12       |

All work under this Agreement is expected to be completed by August 31, 2012. If the work is delayed beyond the reasonable control of Consultant, Consultant reserves the right to request a scope and fee modification for additional administrative and support time.

## Compensation

Compensation for services described herein will be on a time and expense basis using the billing rates specified in Exhibit B. The amount invoiced each month will be based on actual hours of labor and expenses expended. Each invoice will include a project summary and a listing of the charges applicable to each of the 7 Tasks noted herein. For services enumerated in Tasks 1 through 7, the total estimated fee is \$500,000 plus applicable sales, use, value-added, business transfer, gross receipts, or other similar taxes. This total fee will not be exceeded without prior authorization from the City. A breakdown of the estimated fee is summarized in Table 1. City understands and agrees that individual tasks may be completed either under or over budget and that Consultant can reallocate budgets within and across tasks provided the total authorized estimated fee is not exceeded.

**TABLE 1**  
Fee Estimate Summary

| <b>Task</b>  | <b>Description</b>                        | <b>Estimated Fee (\$)</b> |
|--------------|---|---------------------------|
| 1            | Project Management                        | 58,000                    |
| 2            | Dewatering Facility Assessment            | 73,000                    |
| 3            | Near-term Improvements Project Definition | 25,000                    |
| 4            | Long-term Improvement Alternatives        | 115,000                   |
| 5            | Near-term Improvements Detailed Design    | 216,000                   |
| 6            | Bid Services                              | 13,000                    |
| 7            | Long-term Improvements Schematic Design   | 0                         |
| <b>Total</b> |   | <b>\$500,000</b>          |

## Exhibit B

### 2012 CH2M HILL Per Diem Rate Schedule for the Truckee Meadows Water Reclamation Facility 2012 Solids Dewatering Project Hourly Billing Rates

| <u>Classification</u>                             | <u>2012 Rate</u> |
|---|------------------|
| Principal Technologist*/Principal Project Manager | \$222            |
| Sr. Technologist*/Sr. Project Manager             | \$205            |
| Engineer Specialist*/Project Manager              | \$185            |
| Project Engineer*                                 | \$163            |
| Associate Engineer*                               | \$143            |
| Staff Engineer 2*                                 | \$123            |
| Staff Engineer 1*                                 | \$107            |
| Construction Manager 1                            | \$120            |
| Engineering/Environmental Tech 5                  | \$136            |
| Engineering/Environmental Tech 4                  | \$119            |
| Engineering/Environmental Tech 3                  | \$101            |
| Engineering/Environmental Tech 2                  | \$87             |
| Engineering/Environmental Tech 1                  | \$77             |
| Office/Clerical/Accounting                        | \$72             |

\* includes engineering, consulting, planner, and scientist disciplines

#### Notes:

1. Direct Expenses are those necessary costs and charges incurred for the PROJECT including, but not limited to: (1) the direct costs of transportation, meals and lodging, mail, subcontracts, and outside services; special client-approved PROJECT-specific insurance, letters of credit, bonds, and equipment and supplies; (2) Consultant's charges for direct use of Consultant's vehicles, computing systems, laboratory test and analysis, word processing, printing and reproduction services, and certain field equipment; and (3) Consultant's project charges for special health and safety requirements of Occupational Safety and Health Administration (OSHA) services.
2. Consultant's rates for the following direct expenses shall be: Computer charges of \$6.00 will be applied to all labor hours for office staff. A Health & Safety charge of \$1.75 will be applied to all labor hours of employees who are currently enrolled in the CH2M HILL Comprehensive Health & Safety Program. These rates are subject to change for work performed beyond 2012.
3. A markup of 10% will be applied to all other Direct Costs and Expenses.
4. An additional premium of 25% will be added to the above rates for Expert Witness and Testimonial Services.
5. Rates are applicable for work performed through December 31, 2012. Rate increases will go into effect for work performed beyond 2012.