

## AGREEMENT FOR CONSULTANT SERVICES

THIS AGREEMENT is made and entered into this \_\_\_\_\_ day of \_\_\_\_\_, 2025, by and between the CITY OF RENO, hereinafter referred to as “CITY” and DOWL LLC, hereinafter referred to as “CONSULTANT.”

### WITNESSETH

WHEREAS, the CITY wishes to secure engineering services for the West Wash Dam, Geologic and Geotechnical Services, hereinafter referred to as “PROJECT.”

NOW THEREFORE, the CITY and CONSULTANT agree as follows:

1. Objectives.

1.1 The CONSULTANT shall serve as the CITY’s consultant of record and shall give advice to the CITY during performance of services to which this Agreement applies.

2. Basic Services.

2.1 The CONSULTANT will perform the services described in Exhibit A, which is attached and incorporated herein by this reference as part of this agreement.

2.2 The CONSULTANT will not change its Project Manager without written approval from the CITY.

3. CITY Responsibility.

3.1 The CITY shall designate a Project Manager to act as the CITY’s representative with respect to the work performed under this Agreement.

3.2 The CITY shall give prompt written notice to the CONSULTANT whenever the CITY observes or otherwise becomes aware of a problem with the project.

4. Authorization, Progress and Completion.

4.1 By execution of this Agreement, the CITY grants to the CONSULTANT specific authorization to proceed, upon written notice, with the services described in Article 2.1 per Exhibit A per the standards set forth in Exhibit B until completed per Exhibit A.

5. Compensation.

5.1 Compensation for services performed as described in Article 2.1 is based on time and materials in the not-to-exceed amount of \$321,559.00 as provided for in Exhibit C per the Fee Schedule, Exhibit D, which are attached hereto and incorporated herein by this reference.

5.2 Invoices for services rendered shall be submitted monthly. Payment by the CITY will be made within thirty (30) calendar days of receipt.

6. Special Services.

6.1 No additional services shall be performed and no additional compensation shall be permitted without a CITY approved written "Supplemental Agreement". **The supplemental agreement must be executed prior to the commencement or performance of any additional work. In the absence of an approved supplemental agreement, CITY shall not be obligated to reimburse CONSULTANT for amounts in excess of the not-to-exceed amount set forth in this Agreement, whether or not those excess costs were incurred during the course of this Agreement.**

7. Records to be Maintained by Consultant.

7.1 The CONSULTANT shall maintain records supporting requests for payment. Such records shall be available for inspection and audit by the CITY, and the CONSULTANT shall provide duplicate copies of all such records upon request by the CITY.

7.2 The information, conclusions and data generated during this Agreement by the CONSULTANT is for the exclusive use of the CITY. The CONSULTANT may not use this information, conclusions, or data for any purpose other than to further the requirements of this Agreement. The CONSULTANT may not produce papers for professional journals or presentations for conferences without written permission and active participation by the CITY Project Manager.

8. Ownership of Documents.

8.1 Originals of all records, reports and other documents of service prepared by the CONSULTANT shall be property of the CITY. All said documents of service shall be made available to the CITY during the course of and for use in the performance of this Agreement.

9. Skill Level of Consultant.

9.1 Service performed by CONSULTANT will be conducted in a manner consistent with that level of care and skill ordinarily expected by members of the profession currently practicing in this area under similar conditions. CONSULTANT shall be responsible for the professional quality and technical accuracy of all services furnished by CONSULTANT.

10. Insurance.

10.1 General Requirements. The CITY requires that CONSULTANT purchase Industrial Insurance, General Liability, and CONSULTANT'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 CONSULTANT, its agents, representatives, employees or subconsultants. The cost of such insurance shall be borne by CONSULTANT unless otherwise agreed.

10.2 Industrial Insurance. (Worker's Compensation & Employer's Liability). It is understood and agreed that there shall be no Industrial Insurance coverage provided for CONSULTANT or any Subconsultant by the CITY and in view of NRS 616B.627 and 617.210 requiring that CONSULTANT comply with the provisions of Chapters 616A to 616D, inclusive and 617 of NRS, CONSULTANT shall, before commencing work under the provision of this Agreement, furnish to the CITY a certificate of insurance from the Worker's Compensation Insurer certifying that the CONSULTANT and each Subconsultant have complied with the provisions of the Nevada Industrial Insurance Act, by providing coverage for each and every employee, subconsultants, and independent contractors. Should the CONSULTANT be self-insured for Industrial Insurance, the CONSULTANT shall so notify the CITY and approve written approval of such self-insurance prior to the signing of a Contract. The CITY reserves the right to accept or reject a self-insured CONSULTANT and to approve the amount(s) of any self-insured retentions. The CONSULTANT agrees that the CITY is entitled to obtain additional documentation, financial or otherwise, for review prior to entering into a Contract with the CONSULTANT.

10.3 Minimum Scope of Insurance. The following requirements apply. Coverage shall be at least as broad as:

(a) **Commercial General Liability** at least as broad as Insurance Services Office Commercial General Liability Coverage "occurrence" form CG OO 01 04 13 or an equivalent form. The Comprehensive General Liability Coverage shall include, but is not limited to, liability coverage arising from premises, operations, independent contractors, products and completed operations, personal and advertising, injury, blanket contractual liability and broad form property damage.

(b) **Automobile Coverage** at least as broad as Insurance Services Office Business Auto Coverage form CA OO 01 10 13 or an equivalent form covering Automobile Liability Symbol 1 "Any Auto". In lieu of a separate Business Auto Liability Policy, the City may agree to accept Auto Liability covered in the General Liability Policy, if non owned and hired auto liability are included. The CONSULTANT shall maintain limits of no less than \$1,000,000 or

the amount customarily carried by the contractor, whichever is greater, combined single limit per accident for bodily injury and property damage. No aggregate limit may apply.

(c) The Additional Insured Endorsements for General Liability shall be at least as broad as the unmodified ISO CG 20 10 04 13 and ISO CG 20 37 04 13 endorsements, or equivalent. The certificate shall confirm Excess Liability is following form.

(d) Professional Errors and Omissions Liability applying to all activities performed under this Agreement in a form acceptable to CITY. CONSULTANT 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 unless waived by the CITY. In the event the CONSULTANT goes out of business during the term of this Agreement or the six (6) year period described above, CONSULTANT shall purchase Extended Reporting coverage for claims arising out of CONSULTANT's negligence acts, errors and omissions committed during the term of the Professional Liability Policy.

10.4 Minimum Limits of Insurance. CONSULTANT shall maintain limits no less than:

(a) General Liability: \$1million minimum combined single limit per occurrence for bodily injury, personal injury and property damage, and \$2 million annual aggregate.

(b) CONSULTANT's Errors and Omissions Liability: \$2 million per claim and \$4 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 that predates the date of this Agreement. The CONSULTANT may purchase project insurance or obtain a rider on her normal policy in an amount sufficient to bring CONSULTANT's coverage up to minimum requirements, said additional coverage to be obtained at no cost to the CITY.

10.5 Deductibles. Any deductibles or self-insured retentions must be declared to and approved by the CITY Risk Manager. The CITY reserves the right to request additional documentation, financial or otherwise prior to giving its approval of the deductibles or self-insured retention. Any changes to the deductible or self-insured retention made during the term of this Agreement or during the term of any policy, must be approved by the CITY Risk Manager.

10.6 Other Insurance Provisions. General Liability Coverages

(a) The CITY, its officers, officials, and employees are to be covered as additional insureds as respects: liability arising out of activities performed by or on behalf of the CONSULTANT including the insured's general supervision of the CONSULTANT; products and completed operations of the CONSULTANT; or premises owned, occupied or used by the

CONSULTANT. The coverage shall contain no special limitations on the scope of protection afforded to the CITY, its officers, officials, employees or volunteers.

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

(c) Any failure to comply with reporting provisions of the policies shall not affect coverage provided to the CITY, its officers, officials, and employees.

(d) The CONSULTANT'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.

(e) The CONSULTANT'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 at least thirty (30) days prior written notice for reasons other than non-payment of premium and at least ten (10) days for non-payment of premium, by certified mail, return receipt requested, has been given to the CITY.

10.7 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 CITY in its sole discretion. CITY reserves the right to require that CONSULTANT'S insurer be a licensed and admitted insurer in the State of Nevada, or on the Insurance Commissioner's approved but not admitted lists.

10.8 Verification of Coverage. CONSULTANT shall furnish the CITY with certificates of insurance, including but not limited to the Certificate of Compliance in NRS 616B.627 and with original 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 agent in this state. All approved deductibles and self-insured retentions shall be shown on the certificate. The certificates are to be on forms approved by the CITY. All certificate and endorsements are to be received and approved by the CITY before work commences. The CITY reserves the right to obtain copies of all required insurance policies.

10.9 Subconsultants. CONSULTANTS 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 subject to all of the requirements stated herein, unless otherwise modified by the Risk Manager or City Attorney.

#### 10.10 Miscellaneous Conditions.

(a) If the CONSULTANT or any Subconsultant fails to maintain any of the insurance coverages required, the CITY may terminate this Agreement for cause.

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

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

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

#### 11. Indemnification.

11.1 To the fullest extent permitted by law, the CONSULTANT shall defend, indemnify and hold harmless the CITY and its officers, employees and agents (collectively "Indemnatee") 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 CONSULTANT or the employees or agents of the CONSULTANT in the performance of this Agreement.

11.2 The CONSULTANT assumes no liability for the negligence or willful misconduct of any indemnitee or other consultants of indemnitee.

11.3 The CONSULTANT'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 CONSULTANT's negligence or other breach of duty.

#### 12. Intellectual Property Indemnity.

12.1 To the fullest extent permitted by law, CONSULTANT shall defend, protect, hold harmless, and indemnify CITY and the CITY 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 CITY in writing. If CONSULTANT has reason to believe the use of a required design, process or product is an infringement of a patent, CONSULTANT shall be responsible for such loss unless the CITY is promptly notified in writing. This Indemnity Covenant shall survive the termination of this Agreement.

13. Taxes.

13.1 CONSULTANT shall pay any and all Federal, State and local taxes, charges, fees, or contributions required by law to be paid with respect to CONSULTANT's performance of this Agreement (including, without limitation, unemployment insurance, social security, and income taxes).

14. Independent Contractor.

14.1 The parties agree that CONSULTANT is an independent contractor and this Agreement is entered into in conformance with the provisions of NRS 333.700. The parties agree that CONSULTANT is not a CITY employee and there shall be no:

- (a) Withholding of income taxes by the CITY;
- (b) Industrial insurance provided by the CITY;
- (c) Participation in group insurance plans which may be available to employees of the CITY;
- (d) Participation or contributions by either the independent contractor or CITY to any public employees' retirement system;
- (e) Accumulation of vacation leave or sick leave;
- (f) Unemployment compensation coverage provided by CITY if the requirements of NRS 612.085 for independent contractors are met.

15. Business License.

15.1 CONSULTANT shall maintain in full force and effect throughout the term of this Agreement a current business license from the City of Reno.

16. Compliance with Legal Obligations.

16.1 CONSULTANT is subject to NRS 338.010 – 338.090 (prevailing wage) for all covered work. CONSULTANT shall procure and maintain for the duration of this Agreement any state, county, city or federal license, authorization, waiver, permit, qualification or certification required by statute, ordinance law, or regulation to be held by CONSULTANT to provide the services required by this Agreement. CONSULTANT is solely responsible to pay assessments, premiums, permits and licenses required by law. Further, CONSULTANT agrees to comply with all applicable federal and state laws including, but not limited to, the Americans

with Disabilities Act of 1990 and related standards, guidelines, and regulations (collectively “ADA”) in providing the services identified in this Agreement. It is the responsibility of CONSULTANT to address in the performance of the services any and all access or other issues to assure compliance with the ADA.

17. Employment Opportunity.

17.1 CONSULTANT shall not discriminate against any employee or applicant for employment because of race, creed, color, national origin, religion, sex, gender identity, gender expression, veteran status, sexual orientation or age, or any other protected class status applicable under federal, state or local law, rule, or regulation. Sexual orientation means having or being perceived as having an orientation for heterosexuality, homosexuality or bi-sexuality. Any violation of this provision by consultant shall constitute a material breach of contract. Race includes traits associated with race, including, without limitation, hair texture and protective hairstyles. Any violation of these provisions by CONSULTANT shall constitute a material breach of contract.

18. Notices.

Any notices provided for herein shall be given in writing by certified mail, return receipt requested, or by personal service to:

CITY: City of Reno  
Trina Magoon, P.E.  
Utility Services Director  
1 East First Street  
Reno, NV 89501  
P.O. Box 1900  
Reno, NV 89505

CONSULTANT: Brent Farr, P.E.  
Dowl LLC  
5510 Longley Lane  
Reno, NV 89511

19. Assignment.

19.1 This Agreement is binding on the heirs, successors, and assigns of the parties hereto. This Agreement is not to be assigned by CONSULTANT.

20. Integration.

20.1 This agreement represents the entire understanding of CITY and CONSULTANT as to those matters contained herein. No prior oral or written understanding shall

be of any force or effect with respect to those matters covered hereunder. This Agreement may not be modified or altered except by written amendment thereto signed by both parties.

21. Governing Law and Jurisdiction.

21.1 This Agreement shall be administered and interpreted under the laws of the State of Nevada. If any part of this Agreement is found to be in conflict with applicable laws, such part shall be inoperative, null and void insofar as it is in conflict with said laws, but the remainder of this Agreement shall be in full force and effect. 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.

22. Suspension of Work.

22.1 Either party may suspend, by written notice, all or a portion of the work under this Agreement, in the event unforeseeable circumstances, beyond the control of either party, make normal progress in the performance of the work impossible. The party desiring to suspend the work must request that the work be suspended by notifying the other party, in writing, of the circumstances which are interfering with normal progress of the work. The time for completion of the work shall be extended by the number of days the work is suspended. In the event that the period of suspension exceeds ninety (90) working days, the terms of this Agreement are subject to renegotiation and both parties are granted the option to terminate work on the suspended portion of the project in accordance to Article 23 of this Agreement.

23. Termination of Work.

23.1 The CITY may terminate, by written notice, the work under this Agreement. The CONSULTANT may terminate work in the event the CITY fails to perform in accordance with the provisions of this Agreement. Termination of this Agreement is accomplished by fifteen (15) working days prior written notice from the party initiating termination to the other. Notice of the termination shall be delivered by certified mail with receipt of delivery returned to the Sender. In the event of termination, the CONSULTANT shall perform such additional work, as is necessary for the ordinary filing of documents, and closing shall not exceed ten percent (10%) of the total time expended on the termination portion of the project prior to the effective date of termination. The CONSULTANT shall be compensated for the terminated portion of the work on the basis of work actually performed prior to the effective date of termination, plus the work required for filing and closing. Charges for the latter work are subject to the ten percent (10%) limitation described in this Article.

23.2 CONSULTANT 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.

24. Dispute Resolution.

24.1. All claims, counterclaims, disputes and other matters in question between the CITY and the CONSULTANT arising out of, or relating to, this contract or breach of it, unless otherwise settled, may be mediated before initiation of a judicial action.

24.2 Unless the parties mutually agree otherwise, mediation will be in accordance with the Commercial Mediation Procedures of the American Arbitration Association currently in effect. The American Arbitration Association will not be used to administer or facilitate the process or the selection of the mediators. Instead, the parties will attempt to mutually agree to the appointment of one mediator. If the parties cannot agree to one mediator, each party shall select one mediator and the two mediators will appoint a third mediator. The parties agree to split the mediator(s) fees and expenses. Each party shall bear their own attorney's fees and other costs incurred for the mediation.

25. Attorneys' fees.

25.1 Unless otherwise provided herein, each party shall bear its own attorney's fees and court costs.

26. Severability.

26.1 If any provision contained in this Agreement is held to be unenforceable by a court of law or equity, this Agreement shall be construed as if such provision did not exist and the nonenforceability of such provision shall not be held to render any other provision or provisions of this Agreement unenforceable.

-Signature Page Follows-

27. Due Authorization.

27.1 Each party represents that all required authorizations have been obtained to execute this Agreement 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. An electronic or facsimile signature on this Agreement shall be treated for all purposes as an original signature. 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, the parties to these presents have hereunto set their hands and seals the year and date first above written.

CONSULTANT

\_\_\_\_\_  
Brent Farr, P.E., Practice Area Leader

CITY OF RENO

ATTEST:

\_\_\_\_\_  
Hillary L. Schieve, Mayor

\_\_\_\_\_  
Mikki Huntsman, City Clerk

APPROVED AS TO FORM:

\_\_\_\_\_  
Susan Ball Rothe  
Deputy City Attorney

# Exhibit A - SOW

## **Statement of Work (SOW)**

### **Requirements and Technical Specifications for**

#### **Field Investigations and Seismicity Evaluation (Task 13)**

#### **Peavine Creek-Truckee River Watershed - West Wash Dam (NV00078) and East Wash Diversion Dam (NV00079)**

### **A. INTRODUCTION**

The work consists of conducting a geologic and geotechnical investigation (GI/SM) seismicity investigation, supplemental sediment analysis information, and principal spillway investigation for West Wash Dam (NV00078) and East Wash Diversion Dam (NV00079). West Wash Dam was constructed in 1960. West Wash Dam was constructed for flood control and to reduce the potential for flood damages downstream. East Wash Diversion Dam was constructed in 1961. East Wash Diversion Dam was constructed for flood and debris control.

The project area is located south of Nevada State Route 659/McCarran Boulevard and is in the West University area in Reno, Nevada. The existing West Wash Dam (latitude 39° 32' 29.68" N, longitude 119° 50' 45.7" W) is approximately 780 feet in length and up to 70 feet in effective, and in accordance with Title 210, National Engineering Manual (NEM), Part 531 (210-NEM-531) "Geology" Section 210-NEM-531.1(1)(i) is a Group A structure for engineering geologic investigations.

DOWL (formally Farr West) must provide all required –

1. Geological and geotechnical services, oversight and quality control of drilling services and excavating services, selection of a qualified and accredited laboratory facility to perform requisite sample analysis, and special geotechnical analysis services as required.
2. CCTV services, oversight and quality control for the principal spillway inspection.
3. Provide updated sediment analysis (Technical Memorandum 1 and 2) documents and files.
4. Seismicity evaluation services in accordance with Title 210, Technical Release (TR) 60, "Earth Dams and Reservoirs" (210-TR-60).

All work must meet USDA - Natural Resource Conservation Service (NRCS) and Nevada Division of Water Resources (NDWR) requirements. If there is a conflict between two, DOWL must follow the more stringent of the two requirements.

### **B. REFERENCE MATERIALS**

1. The following is a list of potential NRCS reference materials that are required at minimum for executing the work. DOWL can download most of these documents

from the NRCS website [eDirectives](#). The NRCS Project Engineer will furnish reference materials not available on the NRCS Website upon request from DOWL. Non-NRCS documents must be obtained by DOWL.

- a. Title 210-National Engineering Manual (NEM)
  - (1) Part 503 – Safety
  - (2) Part 511 – Design
  - (3) Part 520, Subpart C - Dams
  - (4) Part 531 - Geology
  - (5) Part 533 - Geotechnical Engineering
- b. Title 210 – National Engineering Handbook (NEH)
  - (1) Part 624 - Water Table Control
  - (2) Part 628 - Dams
  - (3) Part 631 - Geology
  - (4) Part 633 - Soil Engineering
  - (5) Part 650 - Engineering Field Handbook
  - (6) Part 653 - Stream Corridor Restoration: Principle, Processes, and Practices
  - (7) Part 654 - Stream Restoration Design
- c. NRCS 210-National Instruction (NI), Part 302 “Interim Guidance for Seismic Hazard Data Collection and Evaluation for the Planning and Design of NRCS Structures (210-NI-302)
- d. NRCS Technical Releases (TR)
  - (1) TR-210-17 - Geologic Investigation for Watershed Planning
  - (2) TR-210-48 - SITES Water Resource Site Analysis Computer Program User's Guide; Archived, Located at [SITES 2005 Water Resource Site Analysis Computer Program](#)
  - (3) TR-210-60 - Earth Dams and Reservoirs
- e. Dam/Principal & Auxiliary Spillway Evaluation: [SITES Version 2005.1.12 | Natural Resources Conservation Service](#)

- f. U.S. Army Corps of Engineers ER 1110-1-1807, Procedures for Drilling in Earth Embankments.
- g. Nevada Division of Water Resources (NDWR) [water.nv.gov/index.aspx](http://water.nv.gov/index.aspx)
- h. ASTM International
  - (1) Current D1586 - Standard Test Method for Standard Penetration Test (SPT) and Split-Barrel Sampling of Soils
  - (2) Current D1587/D1587M - Standard Practice for Thin-Walled Tube Sampling of Fine-Grained Soils for Geotechnical Purposes
  - (3) Current ASTM D4546-14e1 "Standard Test Methods for One-Dimensional Swell or Collapse of Soils"

### **C. PERSONNEL**

Personnel used for geotechnical investigations must be as stated in the Statement of Work Appendix B "Personnel" with the following additional requirements.

- 1. DOWL must conduct all work by a professional geologist and professional engineer, licensed in the state of Nevada, as defined in NRS 514 and NRS 625. Personnel will affix their Professional stamp (seal) on all applicable drawings and documents
- 2. All aspects of the field investigation must be overseen by a professional geologist with experience in geotechnical investigations. This person will not serve as a member of the drill crew.
- 3. NRCS geologist will be on site providing oversight in accordance with NEH 210 631. DOWL must identify locations of boreholes, test pits, sample locations and collection, transport and testing methods with concurrence with the NRCS geologist. DOWL must provide NRCS within a 48 hours' notice to ensure the availability of NRCS geologist.

### **D. EQUIPMENT**

- 1. DOWL must provide a list of all equipment that will likely be used to complete the field investigations. Site preparation equipment must be included. Appropriate field-testing equipment must be included in the geologic and geotechnical investigation plan.
- 2. Field investigations include -
  - a. Subsurface Investigation including the geophysical survey.
  - b. Principal spillway inspection.

## **E. SCHEDULE**

The timeline to complete the tasks herein must be generated by DOWL and included in the geologic and geotechnical investigation plan, and the principal spillway inspection plan for approval by the NRCS Project Engineer prior to initiation of work. A Gantt chart in Portable Document Format (\*.pdf) format must be provided prior to any work being performed and within ten (10) business days of agreement of the Statement of Work between the Sponsor, DOWL, and NRCS; and funding being available. The Gantt chart must show sufficient detail of the project schedule of drilling, investigative work, laboratory work, analysis, and report preparation to be conducted. The schedule must be provided to the City of Reno and NRCS Project Engineer. Once submitted to the NRCS Project Engineer, allow ten (10) business days for review. If the schedule is found to be unsatisfactory by the City of Reno and/or NRCS staff, a revised schedule must be resubmitted within ten (10) business days.

## **F. PRE-INVESTIGATION CONFERENCE**

Attend a pre-investigation conference with NRCS State Conservation Engineer, NRCS Geologist, NRCS Project Engineer, and other NRCS staff, as appropriate prior to the start of any work. This may be held remotely, or site walk-through if requested in advance.

## **G. FIELD INVESTIGATIONS AND SEISMICITY EVALUATION**

### **Geologic and geotechnical Investigations**

- a. The geologic investigation will include a desktop study of all available information provided by NRCS and national state publications and programs. A seismicity evaluation will also be conducted in accordance with 210-TR-60. Refer to 210-NI-302 for guidance on conducting a seismicity evaluation.
- b. General Drilling Plan Guidance and Requirements:
  - (1) The geologic investigation, including a subsurface exploration and a geophysical survey, will seek to verify historic borings and design drawings for composition of the existing embankment and subsurface material to meet NRCS standards and specifications for a Group A structure site, and Nevada Division of Water Resources Dam Design Guidelines. Provide a drilling and test pit plan not to exceed 10 boreholes and three (3) test pits. Maps and drawings are provided in Appendix A. The proposed drill rig proposed must be able to traverse unpaved, relatively level to uneven/rough land surfaces. The drilling method should not produce the possibility of hydraulic fracture while drilling through the embankment. It must have the ability to auger and/or core soils and bedrock material to the depths necessary to obtain the required information. The drill rig must be capable of driving continuous samplers, Shelby tubes, split spoon samplers, and performing standard penetration tests (SPT). Proposed excavating

equipment and must be capable of reaching depths necessary to obtain the required information.

- (2) When sampling with splitspoons, standard penetration tests (SPT) must be performed at each interval sampled. Samples collected must represent each interval drilled in uniform materials or each differing material should a change occur before reaching the next sampling interval. Continuous sampling may be used if deemed necessary to gain a more detailed representation of the materials observed between planned intervals. Depth to ground water, if reached, must be recorded and monitored over a 24-hour period. After the 24-hour ground water recording period has concluded, the boring(s) will be properly grouted/sealed per the method in the current U.S. the current Army Corps of Engineers ER 1110-1-1807 Drilling in Earth Embankment Dams and Levees

- a) Centerline of Dam

A maximum of two (2) boreholes must be located along the centerline of the existing embankment and the proposed alignment of the auxiliary spillway to investigate embankment and foundation soils. Boreholes along the centerline must be advanced to a depth of two (2) times the proposed embankment height, (~150'). Depths may vary once borehole locations are surveyed and drilled.

All test holes penetrating the existing embankment must follow guidance outlined in the current U.S. Army Corps of Engineers ER 1110-1-1807, Procedures for Drilling in Earth Embankments. Plans must detail procedures to mitigate hydraulic fracture by drilling mud and plans for borehole abandonments after drilling and data collection.

- b) Downstream Toe/Foundation

A maximum of two (2) boreholes must be located along the existing embankment toe for purposes of investigating foundation conditions. The approximate depths must be similar the elevation depth of the two (2) centerline bores. Depths may vary once borehole locations are surveyed and drilled. The boreholes may not be easily accessible. DOWL must determine how best to access these locations.

- c) Upstream Toe/Foundation

A maximum of one (1) borehole must be located at the northeast corner of the existing embankment toe, for purposes of investigating foundation conditions. Depths may vary once borehole locations are surveyed and drilled.

d) Auxiliary Spillway

Three (3) boreholes are located in the upstream, flat, and downstream areas of the auxiliary spillway (Appendix A), respectively. The approximate depth is depicted in Table 1; depths may vary once borehole locations are surveyed and drilled.

e) Borrow Areas

A maximum of two (2) test pits and a maximum of two (2) boreholes must be placed in the proposed borrow areas within the reservoir basin to-

- i Identify and classify the materials according to their availability and suitability for their intended use
- ii The boreholes must also be used to evaluate slope stability. Borehole depths may vary once borehole locations are surveyed and drilled, and additional sampling may be required based on field conditions observed while drilling.

(3) Samples representing each defined material required for use must be collected for laboratory testing. DOWL must determine the quantities and location of desirable materials, and the areas in which it may be most conveniently developed. DOWL must also determine the method of excavation.

c. Geophysical Survey

A geophysical investigation using multi-channel analysis of surface waves (MASW) must be conducted between the associated boreholes. Interpretation of acquired data must be ground-truthed using data collected from the drilling, sampling, and soil mechanics laboratory testing. A seismic refraction velocity profile of the MASW data will characterize Vs30) DOWL must provide interpreted information on discontinuities and heterogeneity in the subsurface within the geotechnical report.

d. Principle Spillway Inspection

Perform and record a closed caption television (CCTV) inspection of the principal spillway conduit and a narrative report with photographs.

## H. DELIVERABLES

1. A detailed geologic investigation and a geotechnical report signed and sealed by a professional engineer, licensed in the state of Nevada; and a professional

geologist, as defined in Statutes of Nevada, Chapter 591, AB531, Section 3. The deliverables must include but are not limited to:

- a. Description of the regional and site-specific geology including results and recommendations of the seismicity evaluation.
- b. Plan view map of the site that illustrates the location of all boreholes and test pits.
- c. Detailed, both original (or copies) and type-written, complete borehole and test pit logs and field notes.
- d. Profiles of the auxiliary spillway showing layers, sample locations, “n” values, and headcut erodibility values for each layer.
- e. Profiles of the embankment showing layers or zones, sample locations and “n” values.
- f. Complete rock core samples contained in labeled boxes conforming to NEH Part 631, Chapter 5. After the rock cores are processed and catalogued, DOWL must send them to the Nevada NRCS State Office at:

Natural Resources Conservation Service Nevada  
Attn: NRCS State Geologist (Adam Porath)  
Project: West Wash Dam  
300 Booth Street  
Reno, NV 89509

- g. Photographs of rock core samples conforming to NEH Part 631, Chapter 5.
- h. DOWL must provide complete results, forms, and/or calculation sheets of all soil laboratory tests conducted.
- i. DOWL must evaluate seepage and slope stability in accordance with 210-TR-60 and provide computer modeling input data, output data, and results.
- j. DOWL must evaluate for collapsible soils
- k. DOWL must evaluate the stability and integrity of the auxiliary spillway in accordance with 210-TR-60 and provide computer modeling input data, output data, SITES profiles (or equivalent), and results. Refer to 210- NEH-628 for guidance.
- l. Geologic Investigation and Soil Mechanics Testing are to be in separate reports.
  - a. Draft Geologic Investigation and Soil Mechanics Report

b. Final Geologic Investigation and Soil Mechanics Report

Geologic and geotechnical conclusions must be incorporated into the text of the Plan-Environmental Document to describe the existing conditions and to support the formulation, evaluation, and conclusions of alternatives carried forward for a detailed study. An executive summary of the geologic and geotechnical conclusions must be incorporated into the Investigations and Analyses Report (Appendix D of the Environmental Assessment) to support the conclusions, formulation, evaluation, and conclusions stated in the body of the plan. This will include descriptions of procedures, techniques, assumptions, and the scope and intensity of the investigations so that a reader not familiar with the watershed site or its problems can form an opinion on the adequacy of the plan. Handwritten field logs and notes will be included.

2. Principle Spillway Inspection

Deliverable items must include a narrative report of principle spillway and CCTV inspection with photographs and plotted cross sections and profiles and a video recording of the principal spillway.

3. Sediment Analysis (Survey) from Technical Memorandum 1 and 2

Deliverable items include:

- a topographic map of the surveyed dam site and reservoir area including bathymetric data obtained during the sediment analysis (survey);
- text files of all surveyed points or LiDAR files used for analysis.

The maps will be delivered as part of the project folder as paper drawings and pdf files at a scale appropriate for 11" x 17" exhibits in the Plan-Environmental Document, as well as AutoCAD drawings in dwg format including all points, surfaces, and externally referenced files. The maps will be included as an addendum to Technical Memorandum 2.

## I. SUPPORTING DATA

All documents and data used in the preparation of the geological and subsurface investigation are the property of NRCS and are to be provided to NRCS at the end of the performance period. This includes the original handwritten field notes and boring logs.

## J. MEASUREMENT AND PAYMENT

This Statement of Work for geologic and geotechnical investigation (GI/SM) and amendment does not change the submitting of invoices, progress reports, and other document requirements described in Exhibit A Scope of Work - Supplemental Watershed Plan and Environmental Assessment for the Peavine Mountain Watershed West Wash Dam Rehabilitation August 2020.

## **K. PERFORMANCE TIME**

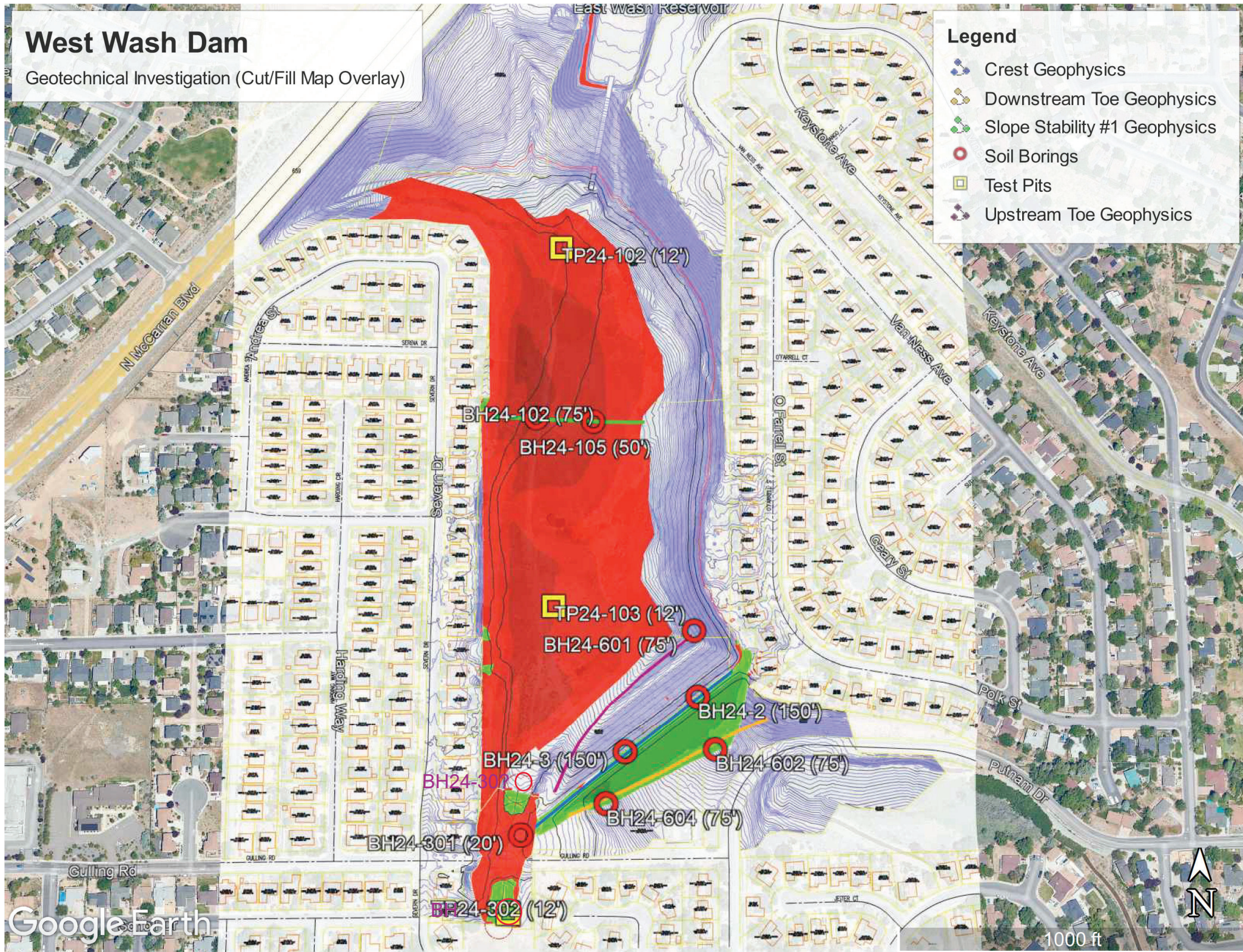
1. The performance time for Task 13 is one hundred twenty (120) calendar days from when the schedule is approved by NRCS. The performance time includes all planning services, meetings, field work, laboratory testing, analyst, report preparation, and reviews.
2. NRCS will have twenty (20) business days from the day of receipt to review the draft geological investigation report. Additional time for review of resubmittals may be necessary if unresolved issues arise during the review period.
3. It is acceptable and preferred for DOWL to complete individual deliverable items early to reduce review times and revisions of subsequent work.
4. DOWL's request to change the project schedule must be submitted in writing (email) to the NRCS Project Engineer with a justification for the change. The Project Engineer will confer with NRCS staff and notify DOWL within ten (10) business days of the decision whether the requested change to the project is approved.
5. It may be possible to work on several subsidiary items concurrently. DOWL must coordinate with the Project Engineer to ensure the project progresses on schedule while avoiding starting subsidiary items that may depend on data or decisions from a prior or subsequent phase.
6. Start and finish dates will adhere to the overall performance time stated in this SOW.

APPENDIX A – MAP AND LOCATIONS

### Geotechnical Investigation (Cut/Fill Map Overlay)

### Geotechnical Investigation (Cut/Fill Map Overlay)

-  Crest Geophysics
-  Downstream Toe Geophysics
-  Slope Stability #1 Geophysics
-  Soil Borings
-  Test Pits
-  Upstream Toe Geophysics



APPENDIX B – PERSONNEL

The on-site Government Representative for the tasks detailed in this GI SOW is Dennis A. Porath.

(Adam) Porath, Geologist

USDA Natural Resources Conservation Service

Nevada State Office

300 Booth St. USDA, Suite 2070

Reno, NV 89509

Phone: 775-834-0880

Email: [dennis.porath@usda.gov](mailto:dennis.porath@usda.gov)

DOWL Staff:

# Exhibit B - Part 540

## Part 540 – Field Surveys

### 540.2 Format

- A. The format and minimum requirements for engineering note keeping will comply with National Engineering Handbook (NEH), Part 645, Appendix D. Note keeping for situations not covered in NEH Part 645, Appendix D should use note keeping format and minimum requirements for similar and comparable practices.
- (1) All field survey notes will be specific to the location and complexity of the project and clearly identify information related to the task being completed, e.g. I&E, design, stakeout, construction check, etc. Supporting engineering notes shall be adequately referenced by field number, sketches, descriptions, etc., so that practice location may be determined by a person unfamiliar with the site.
  - (2) When non-electronic survey methods are used, record survey data on loose-leaf field survey notes or bound field book. All loose-leaf field survey notes for a given conservation practice will be stapled together or placed in an envelope clearly marked to prevent separation of survey notes. Each sheet must be clearly identified, and the sheets numbered.
  - (3) When electronic survey methods are used, the original JOB file and any converted survey files (e.g. FBK, CSV, etc.) need to be stored in an appropriately labeled project folder on the field office shared drive and on the surveyor's computer. The field office shared drive used needs to correlate to the field office that services the area the project is located in. When surveying using electronic equipment a hard copy of pertinent information about the site, including but not limited to descriptions, benchmarks, sketches, etc., shall be recorded on loose-leaf survey notes or bound field book. A scanned copy of the notes will need to be included with the electronic files.
  - (4) Geodetic default settings for survey-grade GPS systems shall be standardized for Nevada to reduce potential for technical errors by multiple errors. The following defaults will need to be programmed into all survey-grade GPS systems:
    - i. Coordinate System and Projection will be Nevada State Plane Coordinate System of 1983 (SPCS83) East, West or Central
    - ii. Horizontal datum will be North American Datum of 1983 (NAD83)
    - iii. Vertical datum will be North American Vertical Datum of 1988 (NAVD88)
    - iv. Geoid model will be GEOID12B and 18
    - v. Survey units will be US Feet
  - (5) All engineering surveys will be tied back (closed) to the original benchmark. A benchmark is required for all engineering surveys and shall be adequately described in the field notes. A benchmark description and coordinates will be included on the construction drawings, either summarized on the coversheet or shown on the plan view.
  - (6) Where non-NRCS engineering services are used by land users for non-project activities and they provide designs for approval by the NRCS, their survey data may be accepted. The person (contractor, consultant, engineer, etc.) shall be informed and understand that they are responsible for the accuracy of the survey data. The NRCS design approval assumes that the survey data is accurate and does not require their survey notes to be furnished unless the person approving the design needs the notes to evaluate the design.

#### **540.4 Precision and Accuracy**

- A. During the planning and implementation phase of a project a person having Engineering Job Approval Authority shall verify the surveying equipment and methods used provide the level of precision and accuracy necessary for the project or activity.
- B. Engineering surveys shall reference existing or create new control points (benchmarks) as needed to check the required accuracies.
- C. Figure 1-2 in 210-NEH-650 EFH Chapter 1 describes accuracy standards for horizontal and vertical control applicable to conservation practice planning (rough surveys) and implementation (ordinary surveys).
- D. If a conservation practice standard or statement of work contains specific horizontal and vertical measurement tolerances, they shall supersede the general requirements stated in this section.

## Exhibit C - Budget

Task 1 – Project Management	\$ 22,360.00
Task 2 – Geological & Geotechnical Services	\$ 195,327.00
Task 3 – Geophysical Survey	\$ 40,512.00
Task 4 – CCTV Inspection Services	\$ 3,840.00
Task 5 –Sediment Survey Services	\$ 22,780.00
Task 6 – Seismicity Evaluation & Auxiliary Spillway Erodibility Analysis Services	\$ 36,740.00
<b>Total</b>	<b>\$ 321,559.00</b>

# Exhibit D - Engineering Rates



## FEE SCHEDULE

### Personnel Billing Rates

Personnel are identified on our invoices by name and/or labor category.

Description	Rate	Description	Rate
Accounting Manager	\$180.00	Engineer IX	\$245.00
Accounting Technician	\$115.00	Engineer X	\$260.00
Administrative Assistant	\$90.00	Engineering Technician I	\$95.00
Administrative Manager	\$120.00	Engineering Technician II	\$110.00
Biologist I	\$125.00	Engineering Technician III	\$120.00
Biologist II	\$135.00	Engineering Technician IV	\$185.00
Biologist III	\$145.00	Engineering Technician V	\$150.00
Biologist IV	\$155.00	Engineering Technician VI	\$210.00
Biologist V	\$200.00	Environmental Specialist I	\$115.00
CAD Drafter I	\$100.00	Environmental Specialist II	\$130.00
CAD Drafter II	\$115.00	Environmental Specialist III	\$135.00
CAD Drafter III	\$125.00	Environmental Specialist IV	\$145.00
CAD Drafter IV	\$135.00	Environmental Specialist V	\$150.00
CAD Drafter V	\$145.00	Environmental Specialist VI	\$185.00
Senior CAD Drafter	\$165.00	Environmental Specialist VII	\$205.00
Civil and Transportation Designer	\$130.00	Environmental Specialist VIII	\$220.00
Senior Civil and Transportation Designer	\$165.00	Environmental Specialist IX	\$240.00
Contract Administrator I	\$155.00	Environmental Specialist X	\$260.00
Contract Administrator II	\$180.00	Field Project Representative I	\$125.00
Corporate Development Manager	\$225.00	Field Project Representative II	\$140.00
Cultural Resources Specialist I	\$115.00	Field Project Representative III	\$150.00
Cultural Resources Specialist II	\$135.00	Field Project Representative IV	\$165.00
Cultural Resources Specialist III	\$140.00	Geologist I	\$130.00
Cultural Resources Specialist IV	\$175.00	Geologist II	\$140.00
Cultural Resources Specialist V	\$190.00	Geologist III	\$150.00
Document Production Supervisor	\$145.00	Geologist IV	\$170.00
Engineer I	\$125.00	Geologist V	\$200.00
Engineer II	\$140.00	GIS Technician	\$100.00
Engineer III	\$150.00	GIS Specialist	\$120.00
Engineer IV	\$170.00	GIS Coordinator	\$170.00
Engineer V	\$190.00	GIS Manager	\$175.00
Engineer VI	\$200.00	Graphics Designer	\$125.00
Engineer VII	\$210.00	Senior Graphics Designer	\$160.00
Engineer VIII	\$220.00	Hydrogeologist I	\$135.00



Description	Rate	Description	Rate
Hydrogeologist II	\$160.00	Professional Land Surveyor V	\$155.00
Hydrogeologist III	\$190.00	Professional Land Surveyor VI	\$160.00
Senior Hydrogeologist	\$220.00	Professional Land Surveyor VII	\$170.00
Intern I	\$80.00	Professional Land Surveyor VIII	\$180.00
Intern II	\$100.00	Professional Land Surveyor IX	\$205.00
Laboratory Supervisor	\$100.00	Professional Land Surveyor X	\$215.00
Laboratory Manager	\$120.00	Professional Land Surveyor XI	\$240.00
Landscape Architect I	\$125.00	Project Assistant I	\$110.00
Landscape Architect II	\$140.00	Project Assistant II	\$125.00
Landscape Architect III	\$155.00	Project Administrator	\$130.00
Landscape Architect IV	\$170.00	Project Controller	\$160.00
Landscape Architect V	\$185.00	Senior Project Controller	\$180.00
Landscape Architect VI	\$195.00	Project Manager I	\$155.00
Landscape Architect VII	\$205.00	Project Manager II	\$170.00
Landscape Designer I	\$90.00	Project Manager III	\$185.00
Landscape Designer II	\$110.00	Project Manager IV	\$200.00
Marketing Assistant	\$100.00	Project Manager V	\$215.00
Marketing Coordinator	\$130.00	Project Manager VI	\$230.00
Marketing & Administrative Manager	\$220.00	Project Manager VII	\$245.00
Materials Technician	\$90.00	Proposal Manager	\$135.00
Materials Technician II	\$100.00	Senior Proposal Manager	\$205.00
Lead Materials Technician	\$110.00	Public Involvement Assistant	\$110.00
Senior Materials Technician	\$120.00	Public Involvement Planner	\$130.00
Materials Manager	\$125.00	Public Involvement Coordinator	\$150.00
Planner I	\$115.00	Public Involvement Program Manager	\$195.00
Planner II	\$140.00	Real Estate Services Manager	\$175.00
Planner III	\$155.00	Right of Way Assistant	\$110.00
Planner IV	\$170.00	Right of Way Agent I	\$120.00
Planner V	\$185.00	Right of Way Agent II	\$135.00
Planner VI	\$195.00	Right of Way Agent III	\$150.00
Planner VII	\$205.00	Right of Way Agent IV	\$165.00
Planner VIII	\$220.00	Right of Way Agent V	\$180.00
Planner IX	\$235.00	Right of Way Agent VI	\$210.00
Planner X	\$275.00	Risk Manager	\$195.00
Planning Technician	\$105.00	Senior Manager I	\$235.00
Professional Land Surveyor I	\$115.00	Senior Manager II	\$255.00
Professional Land Surveyor II	\$125.00	Senior Manager III	\$265.00
Professional Land Surveyor III	\$135.00	Senior Manager IV	\$300.00
Professional Land Surveyor IV	\$145.00	Senior Manager V	\$310.00



Description	Rate	Description	Rate
Senior Manager VI	\$330.00	Systems Administrator	\$150.00
Survey Technician I	\$85.00	Technical Coordinator	\$175.00
Survey Technician II	\$90.00	Utility Operator	\$140.00
Survey Technician III	\$95.00	Water Resource Specialist	\$190.00
Survey Technician IV	\$110.00	Water Rights Specialist I	\$145.00
Survey Technician V	\$115.00	Water Rights Specialist II	\$165.00
Survey Technician VI	\$125.00	Water Rights Specialist III	\$200.00
Survey Technician VII	\$140.00	Water Rights Technician I	\$100.00
Survey Technician VIII	\$155.00	Water Rights Technician II	\$110.00
Survey Technician IX	\$165.00	Water Rights Technician III	\$120.00
Survey Technician-Supervisor	\$150.00		

#### Survey Crews

One-Person Survey Crew	=	\$155.00 / hour
One-Person Survey Crew GPS/Robotics	=	\$175.00 / hour
Two-Person Survey Crew	=	\$220.00 / hour
Two-Person Survey Crew (PLS + LSIT)	=	\$255.00 / hour
Two-Person Survey Crew GPS/Robotics	=	\$230.00 / hour
Three-Person Survey Crew	=	\$305.00 / hour

#### Travel, Mileage, and Miscellaneous

Lodging	=	Cost per night
Airfare	=	Cost
Vehicle Usage – Passenger Cars	=	\$1.05/mile
Vehicle Usage – Trucks & SUV's	=	\$1.20/mile
Printing/Supplies/Phone/Fax/Postage	=	Note 3
In-House Usage Charges	=	Note 4

#### Per Diem

Unless otherwise specified contractually, per diem will be billed when travel is more than 50 miles from the office during a meal allowance period of three or more consecutive hours or involves an overnight stay. The three meal allowance periods are breakfast (midnight to 10 am), lunch (10 am – 3 pm) and dinner (3 pm to midnight).

	Breakfast	Lunch	Dinner	Incidentals	1 <sup>st</sup> and Last Day	DOD Per Diem Rate
<b>Elko</b>	\$13.00	\$15.00	\$26.00	\$5.00	\$44.25	<b>\$59.00</b>
<b>Reno</b>	\$16.00	\$17.00	\$31.00	\$5.00	\$51.75	<b>\$69.00</b>

For all other cities not listed above and meal breakdown, use the following link: <https://www.gsa.gov/travel/plan-book/per-diem-rates>

**Notes**

1. DOWL's Professional Services Fee Schedule is subject to adjustment each year or at the end of a contract period, whichever is appropriate. Should adjustments be anticipated or required, such adjustments will not affect existing contracts without prior agreement between Client and DOWL.
2. Straight-time rates are given. Multiply by 1.5 for overtime rates. Overtime rates will be applied at the rate prescribed by applicable state law.
3. Direct reimbursable expenses such as travel, freight, subcontractors, and request beyond those requests considered reasonable by the Project Manager for phone/fax/postage, office supplies, reproduction and photography, and laboratory analysis will be billed at cost plus the negotiated markup.
4. In-house equipment usage charges or specialized software/equipment that are not separately stated on the fee schedule will be negotiated at rates deemed fair and reasonable.