

## AGREEMENT FOR PROFESSIONAL CONSULTING SERVICES

THIS AGREEMENT is entered into between Washoe County, a political subdivision of the State of Nevada ("County") and **HDR Engineering, Inc.** ("Consultant"), collectively (the "Parties").

### WITNESSETH:

WHEREAS, County desires to engage Consultant to render certain consulting services in Support of the "**Phase 1 – Steamboat Irrigation Ditch Evaluation**" (the "Project"); and

WHEREAS, County requires certain professional services in connection with the Project, as described in **Exhibit "A", Scope of Work** (the "Services"); and

WHEREAS, Consultant represents that it is duly qualified, ready, willing and able to provide the Services by virtue of its education, training and experience; and

NOW, THEREFORE, in consideration of the mutual promises contained herein, the Parties agree as follows:

### ARTICLE 1 - EFFECTIVE DATE

The effective date of this Agreement shall be January 12, 2021.

CONSULTANT shall begin performance of services as provided herein upon notice to proceed and shall complete all Services identified in Exhibit A, Scope of Work in accordance with the Standard of Care as set forth in Article 5 herein no later than June 30, 2022, unless this Agreement is terminated sooner in accordance with its terms.

### ARTICLE 2 - SERVICES TO BE PERFORMED BY CONSULTANT

Consultant agrees to perform and complete all Services identified in Exhibit A, Scope of Work under this Agreement, and any amendment thereto in accordance with the Standard of Care as set forth in Article 5 herein. Consultant shall be responsible for the quality, technical accuracy, completeness and coordination of all reports, information, specifications and other items and services furnished under this Agreement and any amendments hereto. County reserves the right to inspect, comment on, and request revision of, all Services identified in Exhibit A and any amendments thereto performed by Consultant prior to acceptance.

In performing the Services identified in Exhibit A, Consultant has the right to rely on the accuracy of information provided to Consultant by County or the City of Reno.

Failure to provide major deliverables, including, but not limited to, Services identified in Exhibit A, Scope of Work, shall constitute a material breach of this Agreement unless waived in writing by the County.

### ARTICLE 3 - COMPENSATION

#### 3.1 Compensation for Services

For Services defined in Section 1 above, Consultant's compensation shall be determined on a time and material basis, in accordance with the **Fee Schedule described in Exhibit "B"**, which is attached hereto and incorporated by reference as part of the Agreement, and shall not exceed the sum of **\$169,576**. Consultant shall satisfy its obligations hereunder without additional cost or expense to

County during the term of this Agreement other than the heretofore stated compensation and the fee schedule described in Exhibit B. The Fee Schedule may be renegotiated at the end of one (1) year upon request by either the County or the Consultant. Renegotiated fees are subject to approval by County's Board of County Commissioners. The actual costs charged for the work by Consultant in accordance with this provision shall be full compensation to Consultant for all Services and duties required by the Scope of Work, including, but not limited to: costs of supplies, facilities and equipment; costs of labor and services of employees, consultants and sub-consultants engaged by Consultant; travel expenses, telephone charges, typing, duplicating, costs of insurance, and all items of general overhead. Consultant shall submit billings on a monthly basis.

### 3.2 Compensation for Additional Services

If County requests Consultant to perform additional services, other than those required to be performed under Services identified in Exhibit A, Scope of Work, the cost of such additional services shall be determined prior to commencing additional work. All additional services and amount of payment must be authorized in writing by County prior to commencing any work for such services.

### 3.3 Methods and Times of Payment

Consultant shall submit to County monthly progress invoices indicating the number of hours each employee provided services and other allowed direct expenses. Payment to Consultant for work on the Project shall be made within thirty (30) days after receipt and approval of Consultant's invoice, said approval not to be unreasonably withheld. Payment by County of invoices or requests for payment shall not constitute acceptance by County of work performed on the Project by Consultant. No penalty shall be imposed upon the County for payment(s) received by Consultant after forty-five days.

### 3.4 Dispute of Work

County shall notify Consultant in writing within thirty (30) days of receipt of the work, or portion of work, which is not approved. For work, or portions of the work, which are unapproved, the County and Consultant shall develop a mutually acceptable method to resolve the dispute within thirty (30) days of receipt by the Consultant of notice from the County. If the County and Consultant cannot reasonably agree to remedy the dispute of unapproved work within the thirty-day period, the work shall be terminated or suspended per Article 12.

## ARTICLE 4 - TIME SCHEDULE FOR COMPLETION

The Services identified in Exhibit A, Scope of Work on the Project shall be diligently performed and be completed no later than June 30, 2022. Consultant shall be granted time extensions for items within the phases of the Project in writing by County if the time schedules cannot be met because of delays beyond Consultant's reasonable control, including, but not limited to, County's failure to furnish information, or to approve or disapprove Consultant's work promptly. Consultant will provide to County a monthly report including a schedule identifying progress or work completed, problems or difficulties being encountered, work to be initiated during the following month and other useful information. This report will be submitted on the first day of each month and will be in a format suitable for submittal to other interested agencies. Consultant's failure to submit promptly the monthly progress report may cause delay in payment from the County.

## ARTICLE 5 - STANDARD OF CARE

Consultant shall exercise the same degree of care, skill, and diligence in the performance of the Services as is ordinarily provided under similar circumstances and Consultant shall, at no cost to County, re-perform services which fail to satisfy the foregoing standard of care provided that Consultant is notified in writing by County of the deficiency within six (6) months of performance of the deficient Services. Such re-performed Services may include, but not be limited to, correcting errors and omissions, or any other deficiencies in designs, drawings, specifications and reports. County reserves the right to inspect, comment on, and request revision of, all Services performed by Consultant prior to acceptance. Failure to provide Services or re-performed Services in accordance with the foregoing standard of care shall constitute a material breach of this Agreement unless waived by the County. Review and approvals by County do not relieve Consultant of its responsibilities under this Article. Except as is otherwise provided for in this Article, the re-performance of Services is the Consultant's entire responsibility and the County's exclusive remedy for Services rendered or to be rendered hereunder, and no additional warranties, guarantees or obligations are to be implied.

## ARTICLE 6 - LIMITATIONS OF RESPONSIBILITY

Consultant shall not be responsible for construction means, methods, techniques, sequences, procedures, or safety precautions and programs in connection with the Project. In addition, Consultant shall not be responsible for the failure of any other consultant, subcontractor, vendor, or other project participant to fulfill contractual or other responsibilities to County or to comply with federal, state, or local laws, ordinances, regulations, rules, codes, orders, criteria, or standards. Consultant shall notify County of any apparent unsafe conditions, methods or procedures that the Consultant may observe at the project site.

## ARTICLE 7 - OPINIONS OF COST AND SCHEDULE

Since Consultant has no control over the cost of labor, materials, equipment or services furnished by others, including over any other consultants', subcontractors', or vendors' methods of determining prices, or over competitive bidding or market conditions, Consultant's cost estimates shall be made on the basis of qualification and experience.

Since Consultant has no control over the resources provided by others to meet contract schedules, Consultant's forecast schedules for completion of Services shall be established based on generally acceptable schedules for and performance standards of similarly situated professionals qualified and experienced to perform the Services. Consultant cannot and does not guarantee that proposals, bids or actual project costs will not vary from its cost estimates or that actual schedules will not vary from its forecast schedules.

## ARTICLE 8 - INDEPENDENT CONTRACTOR

Consultant undertakes performance of the Services as an independent contractor, is not entitled to benefits provided to employees of the County, is solely responsible for federal taxes and social security payments applicable to money received for services herein provided and understands the County will file an IRS Form 1099 for all payments made to Consultant. Consultant shall be wholly responsible for the methods of performance. County shall have no right to supervise the methods used by Consultant. County shall have the right to observe such performance. Consultant shall work closely with County in performing Services under this Agreement.

## ARTICLE 9 - PERMITS AND LICENSES

Consultant shall procure the permits, certificates, and licenses necessary to allow Consultant to perform the Services. Consultant shall not be responsible for procuring permits, certificates, and licenses required for any construction unless such responsibilities are specifically assigned to Consultant in Exhibit A, Scope of Services.

## ARTICLE 10 - COUNTY'S RESPONSIBILITY

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

## ARTICLE 11 - REUSE OF DOCUMENTS

All documents, including computer files, drawings, specifications, and computer software, prepared by Consultant pursuant to this Agreement are instruments of service in respect to the Project. They are not intended or represented to be suitable for reuse by County or others on extensions of the Project or on any other project. Any reuse without written verification or adaptation by Consultant for the specific purpose intended will be at County's sole risk and without liability or legal exposure to Consultant; and County shall indemnify and hold harmless Consultant against all claims, damages, losses, and expenses including attorneys' fees arising out of or resulting from such reuse. Any such verification or adaptation will entitle Consultant to further compensation at rates to be agreed upon by County and Consultant.

Copies of all documents, including reports, computer files, drawings, specifications, and computer software, prepared by Consultant pursuant to this agreement will be provided to the County in electronic format accompanied by the appropriate documentation necessary to catalog them in the context of this project.

When transferring data in electronic media format, Consultant makes no representation as to long term compatibility, usability, or readability of documents resulting from the use of software application packages, operating systems, or computer hardware differing from those used by Consultant at the beginning of the Project.

Because the data stored in electronic media format can deteriorate or be modified inadvertently or otherwise without authorization of the data's creator, the party receiving electronic files agrees that it will perform acceptance tests or procedures within 60 days, after which the receiving party shall be deemed to have accepted the data thus transferred. Any errors detected within the 60-day acceptance period will be corrected by the party delivering the electronic files. Consultant shall not be responsible to maintain documents stored in electronic media format after acceptance by County.

## ARTICLE 12 - TERMINATION OR EXTENSION OF CONTRACT

Either Party may terminate this Agreement by written notice to the other Party if the other Party is in material breach or default of any provision of this Agreement and does not remedy such breach or default, or provide satisfactory evidence that such default will be expeditiously remedied,

within thirty (30) days after being given such notice. In the event of such termination, County shall pay Consultant for all Services satisfactorily performed to the date of termination.

County, in its sole discretion, shall have the right to terminate this Agreement or suspend performance thereof for County's convenience upon written notice to Consultant, and Consultant shall terminate or suspend performance of services within thirty (30) days on a schedule acceptable to County. In the event of termination or suspension for County's convenience, County shall pay Consultant for all Services performed in accordance with the terms of this Agreement.

In the event that the County's governing body fails to appropriate or budget funds for the purposes specified in this Agreement, or that the County's governing body has been required, in its sole judgment, to amend previous appropriations or budgeted amounts to eliminate or reduce funding for the purposes of this Agreement, this Agreement shall be terminated without penalty, charge, or sanction.

#### ARTICLE 13 - NONDISCLOSURE OF PROPRIETARY INFORMATION

Consultant shall consider all information provided by County to be proprietary unless such information is available from public sources, was known to Consultant prior to the execution of this Agreement, was received by Consultant from a third-party source not under any obligation of confidentiality to the County, or is required by law or ordered to be disclosed in a regulatory or judicial proceeding. Consultant shall not publish or disclose proprietary information for any purpose other than the performance of the Services without the prior written authorization of County or in response to legal process or as required by the regulations of public entities.

#### ARTICLE 14 - NOTICE

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

To County:

Dave Solaro, Director  
Washoe County Community Services  
1001 East 9<sup>th</sup> Street  
Reno, NV 89512

To Consultant:

HDR  
9805 Double R Blvd, Suite 101  
Reno, NV 89521

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

#### ARTICLE 15 - UNCONTROLLABLE FORCES

Neither County nor Consultant 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, pandemic, war, riot, civil disturbance, sabotage, inability to procure permits, licenses, or authorizations from any state, local, or federal agency or person for any of the supplies, materials, accesses, or services required to be provided by either County or Consultant under this Agreement, strikes, work slowdowns or other labor disturbances, and judicial restraint. Consultant shall be paid for services performed prior to the delay plus related costs incurred attributable to the delay.

Neither Party shall, however, be excused from performance if nonperformance is due to uncontrollable forces which are removable or remediable nor which the non-performing Party could have, with reasonable dispatch removed or remedied. The provisions of this Article shall not be interpreted or construed to require Consultant or County 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 obligations of this Agreement.

#### ARTICLE 16 - GOVERNING LAW-VENUE

Nevada law governs this Agreement and all adversarial proceedings arising out of this Agreement or arising out of planning or constructing the Project outlined in Article 2 – Services to be Performed by Consultant. Venue for all adversarial proceedings arising out of this Agreement or arising out of planning or constructing the Project outlined in Article 2 – Services to be Performed by Consultant shall be in state district court in Washoe County, Nevada.

#### ARTICLE 17 - MISCELLANEOUS

If any provision of this Agreement is determined to be illegal, invalid, or unenforceable, the provision shall be deleted and the parties shall, if possible, agree on a legal, valid, and enforceable substitute provision that is as similar in effect to the deleted provision as possible. The remaining portion of the Agreement not determined to be illegal, invalid, or unenforceable shall, in any event, remain valid and effective for the term remaining unless the provision found illegal, invalid, or unenforceable goes to the essence of this Agreement.

#### ARTICLE 18 - INTEGRATION AND MODIFICATION

This Agreement represents the entire and integrated agreement between the Parties and supersedes all prior negotiations, representations, or agreements, either written or oral. This Agreement may be amended only by a written instrument signed by each of the Parties. Unless otherwise specified in writing, if there is any inconsistency between the terms of this Agreement and any other agreement between the Parties, the terms of this Agreement shall control.

**In the event of any conflict between the documents that make up this Agreement, the documents will prevail in the following order: the Agreement for Professional Consulting Services Agreement, Insurance Exhibit “C” and then any other agreement / exhibits.**

#### ARTICLE 19 - SUCCESSORS AND ASSIGNS

County and Consultant each binds itself and its directors, officers, partners, successors, executors, administrators, assigns and legal representatives to the other party to this Agreement

and to the partners, successors, executors, administrators, assigns, and legal representatives of such other party, in respect to all covenants, agreements, and obligations of this Agreement.

#### ARTICLE 20 - ASSIGNMENT

Neither County nor Consultant shall assign, sublet, or transfer any rights under or 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 Consultant from employing such independent consultants, associates, and subcontractors, as he may deem appropriate to assist him in the performance of the Services hereunder.

#### ARTICLE 21 - THIRD PARTY RIGHTS

Nothing herein shall be construed to give any rights or benefits to anyone other than County and Consultant.

#### ARTICLE 22 – INDEMNIFICATION, HOLD HARMLESS AND INSURANCE

Washoe County has established specific indemnification, hold harmless and insurance requirements for agreements/contracts with consultants, engineers, and architects to help assure that reasonable insurance coverage is maintained. Indemnification and hold harmless clauses are intended to assure that consultants accept and are able to pay for the loss or liability related to their activities. **Exhibit “C” Insurance Specifications** is included by reference. All conditions and requirements identified in this exhibit shall be completed prior to the commencement of any work under this Agreement.

#### ARTICLE 23 – LIMITED LIABILITY

County will not waive and intends to assert available defenses and limitations contained in Chapter 41 of the Nevada Revised Statutes. Contract liability of both parties shall not be subject to punitive damages. Actual damages for the County’s breach of this Agreement shall never exceed the amount of funds that have been appropriated for payment under this Agreement, but not yet paid, for the fiscal year budget in existence at the time of the breach.

More specifically and without limitation to the foregoing, in recognition of the limitations provided in NRS 338.155, Consultant is not required to defend County and the employees, officers and agents of the County with respect to the liabilities, damages, losses, claims, actions or proceedings caused by the negligence, errors, omissions, recklessness or intentional misconduct of Consultant or the employees or agents of Consultant which are based upon or arising out of the professional services of Consultant. However, if Consultant is adjudicated to be liable by a trier of fact, the trier of fact shall award reasonable attorney’s fees and costs to be paid to the County, as reimbursement for the attorney’s fees and costs incurred by County in defending the action, by Consultant in an amount which is proportionate to the liability of Consultant.

#### ARTICLE 24 - ORGANIZATION’S CERTIFICATION

Consultant, its principals and agents, to the best of its knowledge and belief:

- a) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal or state department or agency;
- b) Have not within a three year period preceding this Agreement been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State, or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;
- c) Are not presently indicted for or otherwise criminally or civilly charged by a government entity (Federal, State, or local) with commission of any of the offenses enumerated in (ii) above;
- d) Have not within a three-year period preceding this Agreement had one or more public transactions (Federal, State, or local) terminated for cause or default; and
- e) Understand that a false statement on this certification may be grounds for rejection or termination of this Agreement. In addition, under 18 USC Sec. 1001, a false statement may result in a fine of up to \$10,000 or imprisonment for up to 5 years, or both.

IN WITNESS WHEREOF, the parties have executed this Agreement.

WASHOE COUNTY:

CONSULTANT:

Dated this \_\_\_\_ day of \_\_\_\_\_, 2021

Dated this \_\_\_\_ day of \_\_\_\_\_, 2021

By \_\_\_\_\_  
Chair,  
Washoe County Commission

By \_\_\_\_\_  
Managing Principal  
HDR Engineering, Inc.





## Scope of Services

Northern Nevada Water Planning Commission  
and Washoe County

Phase 1 - Steamboat Irrigation Ditch Evaluation

March 2020



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# Project Understanding

The irrigation ditches in the Reno, NV area were constructed in the late 1800's to deliver irrigation water from the Truckee River to water rights holders in the Truckee Meadows. These ditches are constructed with minimal slope parallel to the contours and with sufficient capacity to convey irrigation water only. Since these ditches follow the contours, numerous natural drainages cross these irrigation ditches with a range of conditions. Some have culverts that pass natural drainage flows under the ditch. At many locations the ditches intercept natural flows resulting in overflows or redirection of natural flows.

When these ditches were originally constructed, there was very little urban development adjacent to those ditches. As urban development has occurred around these ditches, issues have arisen with regard to urban storm drainage systems discharging to the ditches as well as unpredictable locations of overflow that causes damage to urban development. This is a common issue throughout the West as urbanization has occurred in areas originally developed with agricultural uses. Often this change in land uses and need to manage stormwater within and around these ditches has resulted in legal challenges related discharges of urban storm drainage into these ditches or the damages caused by irrigation ditch overflows into urban development. As development occurs replacing irrigated areas, the water rights holders receiving their water delivered by these ditches also decreases over time.

Within the Reno metropolitan area there are multiple irrigation delivery ditches that include the Steamboat, Highland, Cochran, and Lake Ditches. Responsibility for these ditches has also partially/solely shifted to the municipal agencies (Washoe County and the City of Reno) over time. These changing land uses, flooding, and storm drainage issues require long term solutions for management of both storm water and irrigation deliveries to water rights holders as these needs are anticipated to change in the future.

This effort will focus on the evaluation of a portion of Steamboat Irrigation Ditch (Ditch) through the urbanized areas within the jurisdictions of Washoe County and the City of Reno between Hunter Creek and Evans Creek. This effort is intended to provide flexible support to the Northern Nevada Water Planning Commission, Washoe County, and the City of Reno for the assessment of potential flood control outlet improvements on the Steamboat Ditch.

The segment of the Steamboat Irrigation Ditch to be included in this evaluation are shown on Figure 1:

- Steamboat Ditch from the crossing over Hunter Creek to the crossing over Evans Creek downstream from Ridgeview Lane (approximately 11 miles).

Evaluation of this challenge will require a phased approach beginning with initial condition assessment, problem and needs identification, infrastructure planning and then implementation. Those phases will include:

Phase 1 – System Inventory and Problem Identification

Phase 2 – Evaluation of Alternatives and Priorities





# 1 Project Management and Coordination

HDR project management activities include project initiation, invoicing, project tracking, internal resources management, client coordination, and project coordination. These activities will be conducted to consistently monitor project progress, anticipate project needs, and implement action plans to maintain scope, fee, and schedule to the extent possible. For the purpose of this contract, Washoe County staff are assumed to manage this contract on behalf of the Northern Nevada Water Planning Commission and the direction given to HDR as part of this effort.

## 1.1 Project Initiation

Upon approval of the agreement, HDR personnel will conduct management activities related to the initiation of the project. These will include contract initiation, preliminary project review, and electronic project setup.

## 1.2 Invoicing and Progress Tracking

Schedule and budget progress will be reported through submission of monthly invoices. Monthly invoices will include summary of tasks worked on in that period, cost to date, and funds remaining for the project to assist the Washoe County (WC) project manager track progress and project spending.

## 1.3 Project Coordination

HDR's Project Manager will work with the NNWPC, WC, and City of Reno (City) staff to facilitate regular communication and transfer of information with the project team. Internal and client project meetings will be held as necessary via conference call or in-office meetings at the WC or City offices.

## 1.4 Quality Assurance/Quality Control

HDR will perform internal QA/QC activities related to project initiation and management in accordance with HDR's internal policies and procedures. HDR will also perform QA/QC on products delivered to NNWPC, Washoe County, and the City of Reno using the aforementioned internal policies.

### Assumptions:

- Project management tasks are estimated based upon anticipated project duration of 12 months.
- HDR personnel will issue meeting invitations and take meeting notes.

### Deliverables:

- Status reports to accompany monthly invoices.

## 2 Data Collection

### 2.1 Existing Data

There are a number of datasets that will be beneficial in obtaining and reviewing to get a better understanding of the hydrologic and hydraulic behavior of the study area. These data will help to define the current conditions. This task may include, but may not be limited to:

1. Review of existing reports – Existing reports that pertain to these ditches will be assembled to compile existing information regarding ditch capacity, condition, inventory of structures that provide for roadway and pedestrian crossing of the ditch, drainage structures under the ditch, location of storm drain outfalls etc. This will include the following known reports:
  - Ditch Survey for Steamboat and Cochran Ditches, Gray and Associates (2003)
  - Other documents supplied by the City and WC
2. Review of LiDAR data – It is assumed that WC and the City will provide to HDR all relevant current and historical topographic mapping for the ditch and the upstream contributing watersheds. Existing LiDAR data will be collected from these LiDAR and topographic mapping data sets which will provide additional detail with regard to offsite drainage areas, terrain surrounding the irrigation ditches, location of structures, historical changes, etc.
3. Geographic Information Systems (GIS) data – WC and the City will provide available GIS databases to HDR that are relevant to the nature of this effort at no charge.
4. Interview SDC, City, and WC staff – Interview of SDC maintenance staff is a key component since much of the maintenance history is known well to the irrigation ditch company staff since documentation may be limited. City and WC staff may also have direct experience with known problem locations and key staff will be identified for interviews and data compilation.
5. City of Reno and Washoe County complaint database - Previous complaints of drainage related issues near irrigation ditches will be provided to HDR by the City and WC staff for use in determining known problem locations.
6. Irrigation Ditch Usage/Water Rights Status Review – Based on interviews with the Steamboat Ditch Company and the State Engineer's office, the status of current uses will be evaluated for the purpose of determining the approximate past and future demands for water deliveries within these ditch segments.

## 2.2 Photographic Data

Readily available historical aerial imagery will be used to assess changes that have occurred within key problem areas that are identified.

## 2.3 Utility and Facilities Data

1. HDR may contact utility purveyors to collect records of underground utilities that cross or are in the immediate vicinity of the Steamboat irrigation ditch in particular areas of interest.
2. HDR will collect available as-built data for bridges, culverts, pipelines, and etc. from Washoe County, the City, and ditch companies that are associated with the Steamboat Ditch within the project limits as needed for the hydraulic capacity assessment described in Task 5.

### Assumptions:

- WC and the City will provide and/or assist in the acquisition of available topographic, LiDAR LAS data, historic photographs, utility, GIS data, and etc. at no charge to HDR.

# 3 Terrain Development and GIS Database

A terrain surface will be developed for using the latest LiDAR data set for the areas surrounding the irrigation ditches and the upstream contributing watersheds. It may be necessary to also construct limited terrain data sets for other time periods with available data if necessary to assess a historical condition.

Using the data compiled during Task 2, a GIS database will be developed locating the reaches of irrigation ditch to be included in this evaluation, location of key structures and storm drain outfalls and other relevant data.

### Assumptions

- Existing terrain datasets will be adequate for this effort.
- Only minimal processing or editing of the data will be necessary to merge the terrains.
- Terrain dataset projection will be in NAD83 State Plane Feet Nevada West.
- Vertical datum will be NAVD 88.
- LiDAR LAS data files will be provided by Washoe County at no expense to HDR.

### Deliverables

- Combined terrain dataset in GeoTiff format.



## 4 Field Review and System Inventory

Using the GIS database developed in Task 3, a field review will be performed for the project reach to assess the completeness of the database compiled from available data. Any missing, major outfalls or structures will be field located and sizes documented.

The field review will also attempt to identify general condition, problem area identification and conditions surrounding natural drainage crossings of the irrigation ditch.

## 5 Hydrologic/Hydraulic Data Development

For the purpose of this initial assessment, the hydrologic assessment will be limited to the following:

1. Delineation of upstream contributing areas to each irrigation ditch segment and natural drainage crossing of the ditch using the topographic data sets provided in Task 2 and associated terrain data sets developed in Task 3, above.
2. Review of existing relevant hydrologic studies available from the City and Washoe County collected in Task 2.
3. Estimation of rainfall excess relationships from regional studies, existing studies, and available technical documents (no detailed hydrologic modeling will be performed) in order to identify reaches of irrigation channels that are subjected to significant offsite flow contributions. The rain-on-grid capabilities contained within the USACE HEC-RAS (latest version) program (or similar) may be used to simulate runoff responses from the tributary watersheds.
4. Estimation of the hydraulic capacity of specific reaches of the Steamboat Ditch using HEC-RAS program based on available LiDAR data and the field survey data collected by subcontractor. The intent of the hydraulic models is to qualitative estimate the hydraulic capacities of segments of the ditch within the project limits and identify locations that are or may be prone to overtopping/breaching.

## 6 Problem Area Identification and Opportunity Assessment

Based on the information compiled in Tasks 1 to 5, problem areas will be identified based on system capacity limitations, offsite flow contributions, topographic characteristics of the ditch embankments and related structures, and known problem locations. This task is intended to be flexible and allow WC to provide direction to HDR during the course of this preliminary evaluation effort. Work efforts may include:

HDR will coordinate with WC, the City, and identified stakeholders to review the findings of Tasks 1 to 6 and to review potential opportunities for improving existing conditions.

Assess whether upstream development has contributed to past ditch overflow events. Determine which developments were constructed after the change in drainage criteria regarding discharge of storm flows into existing irrigation ditches.

If requested, HDR (by subcontractor) will collect basic field survey data for major hydraulic structures, including existing culverts, overflow structures, and representative ditch cross sections (if necessary) and invert elevations in order to inform the hydraulic capacity estimates of the various reaches of the ditch within the project limits. Field surveying will only be performed following written approval from WC.

For the purpose of this initial assessment, the potential range of opportunities may be identified for future evaluation. Final alternatives will need to be based on additional data that would include, but not be limited to; more detailed utility information, storm drainage system inventory data, existing turnout structures, survey data, alternatives analyses, and design-level engineering and cost estimates. This initial assessment is intended to identify the key locations where irrigation ditch overflow locations may be considered and the potential range of conveyance options and impacts downstream.

Phase 1 efforts will be summarized in a technical report that describes the information compiled in Phase I, coordination activities and findings.

## Assumptions

- One draft version of the report and one final version of the report is assumed. The draft will be reviewed by the staff of WC and the City. One review meeting is also assumed to discuss the comments WC and the City and desired report revisions. The final report will incorporate the revisions discussed during the review meeting.

## Deliverables

- One digital and 2 paper copies of the report will be provided to the City and WC each.

# 7 Schedule

HDR personnel will work with NNWPC and Washoe County upon Notice to Proceed (NTP) to develop a project schedule. Project schedule will be finalized within three (3) weeks of Notice to Proceed. Initially, HDR assumes that all work will be completed within 12 months of the NTP.

# 8 Budget

Major budget items are summarized below:

Exhibit B

**Table 1: Anticipated project budget**

1	Project Management & Coordination	\$26,911
2	Data Collection	\$19,125
3	Terrain Development & GIS Database	\$15,891
4	Field Review and System Inventory	\$21,189
5	Hydrologic/Hydraulic Data Development	\$23,067
6	Problem Area Identification and Opportunity Assessment	\$63,393
<b>Total</b>		<b>\$169,576</b>

## **Exhibit C**

### **INSURANCE, HOLD HARMLESS AND INDEMNIFICATION REQUIREMENTS FOR PROFESSIONAL ENGINEERING SERVICES PHASE 1 – STEAMBOAT IRRIGATION DITCH EVALUATION**

#### **INDEMNIFICATION**

##### ENGINEER Liability

As respects acts, errors or omissions in the performance of ENGINEER services, ENGINEER agrees to indemnify and hold harmless COUNTY, its officers, agents, employees, and volunteers from and against any and all claims, demands, defense costs, or liability to the extent caused by ENGINEER'S negligent acts, errors or omissions in the performance of its ENGINEER services under the terms of this agreement.

ENGINEER further agrees to defend COUNTY and assume all costs, expenses and liabilities of any nature to which COUNTY may be subjected as a result of any claim, demand, action or cause of action to the extent arising out of the negligent acts, errors or omissions of ENGINEER or its Sub-ENGINEER in the performance of their ENGINEER services under the Agreement.

##### General Liability

As respects all acts or omissions which do not arise directly out of the performance of ENGINEER services, including but not limited to those acts or omissions normally covered by general and automobile liability insurance, ENGINEER agrees to indemnify, defend (at COUNTY'S option), and hold harmless COUNTY, its officers, agents, employees, and volunteers from and against any and all claims, demands, defense costs, or liability arising out of any acts or omissions of ENGINEER while acting under the terms of this agreement; excepting those which arise out of the negligence of COUNTY.

In determining the nature of the claim against COUNTY, the incident underlying the claim shall determine the nature of the claim, notwithstanding the form of the allegations against COUNTY.

#### **GENERAL REQUIREMENTS**

COUNTY requires that ENGINEER purchase Industrial Insurance (Workers' Compensation), General and Auto Liability, and ENGINEER'S Professional 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 here under by ENGINEER, its agents, representatives, employees or Sub-ENGINEERS. The cost of all such insurance shall be borne by ENGINEER.

#### **INDUSTRIAL INSURANCE**

It is understood and agreed that there shall be no Industrial Insurance coverage provided for ENGINEER or any Sub-ENGINEER by COUNTY. ENGINEER agrees, as a precondition to the performance of any work under this Agreement and as a precondition to any obligation of the COUNTY to make any payment under this Agreement to provide COUNTY with a certificate issued by an insurer in accordance with NRS 616B.627 and NRS 617.210.

If ENGINEER or Sub-ENGINEER is a sole proprietor, coverage for the sole proprietor must be purchased and evidence of coverage must appear on the Certificate of Insurance. Such requirement may be waived for a sole proprietor who does not use the services of any employees, subcontractors, or independent contractors and completes an Affirmation of Compliance pursuant to NRS 616B627.

Should ENGINEER be self-funded for Industrial insurance, ENGINEER shall so notify COUNTY in writing prior to the signing of any agreement. COUNTY reserves the right to approve said retentions and may request additional documentation, financial or otherwise for review prior to the signing of any agreement.

### **MINIMUM LIMITS OF INSURANCE**

ENGINEER shall maintain coverages and limits no less than:

1. General Liability: \$1,000,000 combined single limit per occurrence for bodily injury, personal injury and property damage. If Commercial General Liability Insurance or other form with a general aggregate limit is used, the general aggregate limit shall be increased to equal twice the required occurrence limit or revised to apply separately to this project or location.
2. Automobile Liability: \$1,000,000 combined single limit per accident for bodily injury and property damage. No aggregate limit may apply.
3. ENGINEER Professional Liability: \$1,000,000 per claim and as an annual aggregate. Premium costs incurred to increase ENGINEER'S insurance levels to meet minimum contract limits shall be borne by the ENGINEER at no cost to the COUNTY.

ENGINEER will maintain professional liability insurance during the term of this Agreement and for a period of three (3) years from the date of substantial completion of the project. In the event that ENGINEER goes out of business during the term of this Agreement or the three (3) year period described above, ENGINEER shall purchase Extended Reporting Coverage for claims arising out of ENGINEER'S negligent acts, errors and omissions committed during the term of the Professional Liability Policy.

Should COUNTY and ENGINEER agree that higher ENGINEER Coverage limits are needed warranting a project policy, project coverage shall be purchased and the premium for limits exceeding the above amount shall be borne by COUNTY. COUNTY retains the option to purchase project insurance through ENGINEER'S insurer or its own source.

### **DEDUCTIBLES AND SELF-INSURED RETENTIONS**

Any deductibles or self-insured retentions must be declared to and approved by the COUNTY Risk Management Division prior to the start of work under this Agreement. COUNTY reserves the right to request additional documentation, financial or otherwise prior to giving its approval of the deductibles and self-insured retention and prior to executing the underlying agreement. Any changes to the deductibles or self-insured retentions made during the term of this Agreement or during the term of any policy must be approved by the COUNTY Risk Manager prior to the change taking effect.

### **OTHER INSURANCE PROVISIONS**

The policies are to contain, or be endorsed to contain, the following provisions:

1. General Liability Coverages
  - a. COUNTY, its officers, agents, employees and volunteers are to be covered as additional insureds as respects: liability arising out of activities performed by or on behalf of ENGINEER, including the insured's general supervision of ENGINEER; products and completed operations of ENGINEER; or premises owned, occupied or used by ENGINEER. The coverage shall contain no special limitations on the scope of protection afforded to the additional insureds, nor shall the rights of the additional insured be affected by the insured's duties after an accident or loss.

b. ENGINEER'S insurance coverage shall be primary insurance as respects COUNTY, its officers, agents, employees and volunteers. Any insurance or self-insurance maintained by COUNTY, its officers, agents, employees or volunteers shall be excess of ENGINEER'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 COUNTY, its officers, agents, employees or volunteers.

d. 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.

e. 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 below that specified herein except after thirty (30) days' prior written notice by certified mail, return receipt requested, has been given to COUNTY except for nonpayment of premium.

### **ACCEPTABILITY OF INSURERS**

Insurance is to be placed with insurers with a Best's rating of no less than A-: VII. COUNTY with the approval of the Risk Manager may accept coverage with carriers having lower Best's ratings upon review of financial information concerning ENGINEER and insurance carrier. COUNTY reserves the right to require that the ENGINEER'S insurer be a licensed and admitted insurer in the State of Nevada, or on the Insurance Commissioner's approved but not admitted list.

### **VERIFICATION OF COVERAGE**

ENGINEER shall furnish COUNTY with certificates of insurance and with original endorsements affecting coverage required by this exhibit. 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. The certificates are to be on forms approved by COUNTY. **All certificates and endorsements are to be addressed to the specific COUNTY contracting department and be received and approved by COUNTY before work commences.** COUNTY reserves the right to require complete, certified copies of all required insurance policies, at any time.

### **SUB-ENGINEERS**

ENGINEER shall include all Sub-ENGINEERS as insureds under its policies or furnish separate certificates and endorsements for each Sub-ENGINEER. Sub-ENGINEER shall be subject to all of the requirements stated herein.

### **MISCELLANEOUS CONDITIONS**

1. ENGINEER shall be responsible for and remedy all damage or loss to any property, including property of COUNTY, caused in whole or in part by ENGINEER, any Sub-ENGINEER, or anyone employed, directed or supervised by ENGINEER.
2. Nothing herein contained shall be construed as limiting in any way the extent to which ENGINEER may be held responsible for payment of damages to persons or property resulting from its operations or the operations of any Sub-ENGINEERS under it.
3. In addition to any other remedies COUNTY may have if ENGINEER fails to provide or maintain any insurance policies or policy endorsements to the extent and within the time herein required, COUNTY may, at its sole option:

- a. Order ENGINEER to stop work under this Agreement and/or withhold any payments which become due ENGINEER here under until ENGINEER demonstrates compliance with the requirements hereof;
- b. Terminate the Agreement.