Yakama Nation Fisheries is seeking proposals from qualified engineering firms to award an indefinite demand / indefinite quantity survey and hydraulic modeling services contract in support of salmon habitat restoration activities taking place in the Upper Columbia salmon recovery region (Methow, Entiat, and Wenatchee Basins). As is needed by Yakama Nation Fisheries staff, the selected contractor will perform topographic and bathymetric data collection, and hydraulic modeling of habitat restoration project sites.

Based upon the proposals received under this solicitation the Confederated Tribes and Bands of the Yakama Nation will award a one year on-call contract to the best quality bidder, with an option to renew for two additional years if funding is available, for the Scope of Work listed below:

**Scope of Work**

**Task 1 – Existing data review**
Review existing data to be provided by Yakama Nation Fisheries, Bureau of Reclamation (BOR) or any other private or government entity that would aid future analysis and design. It is assumed this data may consist of fish habitat survey, stream flow data, and historical air photos.

**Task 2 – Geomorphic Field investigation and site survey**
To gain a perspective of river process, including fluvial geomorphology and sediment continuity, the river will be walked within the site boundaries and sufficient distances up and downstream to gain a reach level understanding of conditions. Air photos will be used during this investigation. An overview of reach conditions will be documented with general field notes and photos. Appropriate hydraulic cross sections will be identified and marked on maps and in the field for topographic survey.

A site survey will be conducted using a total station or survey grade GPS to collect survey data required for hydraulic analysis, conceptual designs and drawings. LIDAR data may be used in floodplain areas to complete hydraulic cross sections where appropriate.

Topographic and bathymetry survey will be completed on all lands from which ownership permission can be obtained by the Yakama Nation. Cross section survey and profile will be completed to develop a reach level hydraulic model. Survey will be based on an existing horizontal and vertical datum. A number of temporary bench marks using wooden hubs will be established for reference during construction. River and floodplain cross sections will be surveyed to develop both 1 and 2 dimensional models of the entire reach.
infrastructural elements such as riprap, levees, bridges, irrigation diversions, well heads, power lines, building foundations, and/or other such elements shall be surveyed.

Stream substrate size will be documented by collection of pebble counts. Pebble count locations of representative bed load materials will be determined in the field. The data will be used in design considerations of sediment continuity and stream stability.

Existing riparian vegetative composition will be noted including species and elevations with respect to the stream.

Field and survey data will be downloaded into and summarized in appropriate software (i.e. Excel, AutoCAD).

Assumptions:

Consent for access will be provided.
Stream flows will be low enough to wade.

Task 3 – Hydrology
Peak stream flow frequencies will be estimated or obtained from previous BOR and/or USGS work efforts or developed using available gage data. A channel forming discharge will be estimated based on modeled flow depths in comparison to vegetative and gravel bar indicators surveyed in the field.

Task 4 – Hydraulic analysis
Hydraulic conditions will be modeled using both 1 dimensional and 2 dimensional models. Site survey collected in Task 2 will be used to build an existing conditions model. Manning’s n values will be estimated from reference literature, professional experience and opinion. In support of the alternatives analysis and design tasks, the existing conditions model will be copied and modified for project conditions.

The U.S. Army Corps of Engineer’s one-dimensional HEC-RAS hydraulic model will be used to consider and certify FEMA flood impacts. Two-dimensional modeling will be used to estimate surface flow behaviors at various stream discharges, including analyzing for changes in flow direction, sheer stress, and bed mobility based on the proposed conditions.

Baseline Qualifications
To be considered competitive, each firm’s proposal will have to demonstrate the following:

- Field survey capabilities by in-house and regionally local (Washington/Oregon based) design engineers
- Ability to effectively model hydraulics using HEC-RAS
- Ability to effectively model inundation using a program like Flow 2-D (or similar)
- Have on staff a Geologist, Hydrologist, and a Professional Engineer with at least 10 years’ experience designing instream restoration projects
- Completion of at least 10 successful Engineered Large Wood Structures in the Upper Columbia Basin in last 5 years
- Experience with the creation of alcove habitat using groundwater collection to create flow
- Experience designing and constructing constructed riffles or roughened channels
Bid Directions

Each company seeking to be eligible for a contract award under this Request for Proposals must submit two hardcopies of their proposal in writing to:

Yakama Nation Fisheries
Attn: Jackie Olney
RE: UC On-Call Survey and Model Services Contract
PO Box 151
401 Fort Road (if using a shipping service)
Toppenish, WA  98948

Proposals must be received by Close of Business, Wednesday, April 24, 2019. Only hand deliveries and/or mail or parcel delivery service submittals will be accepted. Please clearly state “UC On-Call Survey and Model Services Contract” on the shipping envelope and the cover letter of the proposal. It is recommended that all shipping and/or delivery confirmation receipts are retained past the proposal due date to ensure proof of submission.

Each proposal must include a roster of key personnel proposed to work under this contract, including resumes. The key personnel roster should include the proposed geologist, hydrologist, professional engineer, and any other key technical staff needed to complete the work tasks. Provision of a separate roster for other non-key project personnel is also recommended. Please note that proposals dependent upon subcontracting will not be preferred.

Each proposal must include a Statement of Qualifications pertaining to the bidder’s qualifications to produce the Scope of Work items listed in this Request for Proposals. The Statement of Qualifications should include a description of equipment available to the contractor to accomplish the tasks.

Each proposal must include a complete company rate schedule proposal for all project staff and material prices. Please certify in the cover letter that the submitted rate schedule is the company’s competitive bid response to this Request for Proposals, and that the rate schedule is valid for at least 180 days from the date the proposal was submitted.

Please review the attached Consultant Services Agreement template for typical Yakama Nation contracting terms and conditions including reporting/invoicing requirements.

Project related questions should be directed to:

Jarred Johnson, UCHRP Habitat Biologist
Phone: 509-881-1462
E-mail: johj@yakamafish-nsn.gov
Bid Scoring Categories and Weighting

The following categories will be used to evaluate the competitiveness of bids received.

- Demonstrated experience with this type of work – 15%
- Demonstrated quality of work – 15%
- Cost – 15%
- Schedule – 10%
- Company integrity/references – 10%
- Demonstrated experience with permitting agencies in the Upper Columbia Region – 10%
- Adequacy/quality of staff and equipment proposed – 15%
- Completeness of Proposal (Based on RFP Submission Requirements) – 10%

Limitations

The Yakama Nation reserves the right to accept or reject any and all of the proposals received as a result of this request, or to cancel in part or entirely this request if it is in the best interest of the Yakama Nation to do so. This request does not commit the Yakama Nation to pay any costs incurred in the preparation of a proposal.

The contractor shall furnish all supervision, labor, equipment and tools necessary to complete the work as outlined in the Scope of Work.