

LEWIS COUNTY NOTICE TO CONSULTANTS FOR A & E Professional Services – Design and Engineering of Water Crossing Structures

Lewis County Public Works, from here forward referred to as the County, is soliciting interest from consulting firms with expertise in the stream hydraulic analysis, wetland and stream delineation, design of water crossing structures, and stream channel restoration. This will include but is not limited to upcoming Rural Arterial Program (RAP) funded projects, Federal Emergency Management Agency (FEMA) funded projects, U.S. Department of Housing and Urban Development (HUD) funded projects, and Lewis County Transportation Improvement Program (TIP) projects. The agreement(s) will be for one (1) year in duration with an option to extend for an additional year by mutual agreement. The agreement amount is not anticipated to exceed \$200,000. If necessary, the agreement may be supplemented for additional time and/or money by mutual agreement.

PROJECT DESCRIPTION

The County has multiple upcoming projects, which have received or have the potential to receive grant funds in 2023 and 2024. These projects, if funded, will all require hydraulic assessments and design at a minimum. Project designs must meet all permitting requirements and utilize the most recent design guidance, standards, and regulations such as the WDFW's Water Crossing Design Guidelines, the WDFW's Stream Habitat Restoration Guidelines, and the Integrated Streambank Protection Guidelines. Upcoming projects are anticipated to include design and engineering for removal of existing fish barriers and replacement with fish passable structures.

The successful consultant will assist with and/or perform assessments and develop required design documents, as needed. A detailed outline of the types of work necessary for anticipated projects is provided in Section 1. These projects will include cooperative project development and management with the County. At this time, the tasks provided are general and are subject to change if deemed necessary in discussions between the Consultant and the County.

SUBMITTAL REQUIREMENTS

A detailed description of the proposal requirements is contained in Section 3 of this document. Proposals will be evaluated and ranked based on the criteria outlined in Section 4 of this request for proposal (RFP).

DEADLINE: Proposals must be received no later than 1:00 p.m. local time, December 16, 2022, at the Lewis County Public Works office (2025 NE Kresky Avenue, Chehalis, WA 98532). Faxed copies will not be accepted. Proposals may be submitted in .pdf form instead of hard copies. If submitting RFPs through e-mail please send to Josh Metcalf at Josh.Metcalf@lewiscountywa.gov and cc Ann.Weckback@lewiscountywa.gov.

SECTION 1 – Staff Proposed Scope of Work

Task 1 – Project Management

A. Meet with the County

These meetings will be used to review work to date, identify important issues and needs for additional data gathering and problem analyzing. Establishing expectations and interfaces, establishing and revising detailed scope of work, as needed, will also be included in these meetings.

Task 2 – Alternatives Analysis

A. Data Collection Efforts

Perform 1) topographic survey; 2) a cultural resources investigation; 3) wetland delineation; 4) hydrologic, hydraulic and geomorphic analysis; and 5) geotechnical analysis prior to developing an alternatives analysis. The consultant shall determine the proper size of streambed materials as per the stream simulation design guidelines. The data collection methods outlined below are typical of design and engineering of fish passable structures; however, the scopes of individual projects may necessitate modifications to the data collection methods mentioned herein and will be discussed early on in project development.

Topographic Survey

The consultant will provide surveying services to complete topographic survey for selected projects.

The scope limits will be determined early on in project development. Cross section data will be collected at 50-foot station intervals and detailed sections of waterways will be collected including top, toe, channel, and embankment of each side of the channel at 25 foot intervals to show detail of the channel. The roadway will be profiled to show centerline, edge of pavement, edge of gravel, top, toe of embankment, and ground out to a maximum of 100 feet from the edge of roadway.

Trees 6 inches or larger will be surveyed and noted, with size and type. The existing culvert(s) will be mapped for top, flow line, and size.

The survey will be conducted using the Lewis County control files and GIS data will be translated to match the Washington State Plane Coordinate System South Zone.

An AutoCAD drawing will be prepared with data points, break lines, and contours at 1-foot intervals with a digital terrain model.

Cultural Resources Investigation

The consultant will provide cultural resources services for selected projects.

The consultant will conduct a records review of previous cultural resource surveys and previously recorded archaeological sites in the vicinity of the project area of potential effects. Research methodology shall be provided for consultation with the Department of Archaeology and Historic Preservation and potentially affected Tribes which includes

proposed survey techniques to be used (pedestrian survey, shovel testing, trenching, etc.), proposed depths of testing, screen size, a description of what areas are covered under Executive Order 21-02 (API) and what activities will be covered under Section 106 (APE), and a description of how the reviewed surveys and findings within the area support the proposed methodology.

Potentially affected Tribes shall be invited to come out during proposed field survey. A survey shall be conducted using the provided survey methods. If archaeological materials or sites are identified the consultant shall complete an archaeological Site Inventory Form. Any site discovered will need to be delineated both vertically and horizontally within the API/APE. If an archaeological site may not be avoided it will need a thorough determination of eligibility.

All structures within the APE over 50 years of age need to be inventoried on a Historic Property Inventory Form. If historic structures will be affected, conduct an eligibility evaluation¹.

Wetland and Other Waters Delineation

The consultant will provide Wetland Other Waters Delineation Services for selected projects.

The consultant shall delineate wetlands and jurisdictional drainages with the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region* (2010) the *2018 Western Mountains, Valleys, and Coast Regional Plant List, Field Indicators of Hydric Soils in the United States* (2018), the Munsell Soil Color Book (2017), U.S. Army Corps of Engineers (USACE) Regulatory Guidance Letter 05-05 (2008), and the Washington State Department of Ecology's (DOE) *Determining the Ordinary High Water Mark for Shoreline Management Act Compliance in Washington State* (2016), or the most current guidance, assessing who will regulate delineated wetlands and waters, and determining appropriate buffers of each wetland and jurisdictional drainage as per applicable sections of the Lewis County Code pursuant to Chapter 17.38 and/or appropriate City Code.

The boundaries of wetlands and OHW of jurisdictional drainages shall be flagged in the field, along with data plots, for survey and verification. A map shall be prepared depicting the delineated wetlands and jurisdictional drainages, along with data plots, on an aerial photo base map for use by the Environmental Planner and County Surveyors.

In the event that there are properties within the Wetland and Other Waters Study Area, where right-of-entry has been denied, approximate boundaries of potential wetlands and jurisdictional drainages shall be depicted on the aforementioned map along with estimated wetland ratings or stream types to determine appropriate buffer widths.

¹ The consultant shall upload any Historic Property Forms or Site Forms to WISSARD and leave them in draft status for RCO review.

Hydrologic, Hydraulic and Geomorphic Analysis

The consultant will provide Hydrologic, Hydraulic and Geomorphic Analysis for selected projects.

The consultant shall conduct a site visit to examine characteristics of the creek, culverts, and surrounding floodplain with respect to hydraulic, erosion and scour, and sediment transport processes. The purpose of this visit is to understand the site hydraulics and channel condition, with an emphasis on determining an appropriate fish passage water crossing solution, if applicable. Field measurements will include identifying a reference reach, determining bankfull width, characterizing sediment size, estimating channel/floodplain roughness, documenting lateral and longitudinal erosion, and other relevant information to aid in the assessment and design of the proposed water crossing structure.

The consultant shall perform a comprehensive hydraulic study to model existing and proposed conditions (HEC-RAS). The study area will extend upstream approximately 300 linear feet and downstream 300 linear feet minimum to include evaluation of the bridge/culvert, roads acting as weirs, homes currently being flooded during moderate storm events, and existing stormwater systems. The hydraulic study will utilize historic aerials and LiDAR data to determine historic channels, alcoves, and drainage patterns in this area. Additionally, historic channel levels should be extrapolated from these aerial photos.

Geotechnical Analysis

The consultant will provide Geotechnical Analysis for selected projects.

The consultant shall complete two drilled borings at the proposed culvert location. Drill depths are assumed 40 ft below ground surface or shallower. Samples will be collected at 2.5-ft intervals. Consultant will monitor the borings and maintain logs of conditions encountered. Boring will be backfilled in accordance with the Washington State Department of Ecology and Lewis County requirements.

The consultant will evaluate the subsurface data and provide the following:

- A geological cross section of the proposed water crossing structure site.
- Recommendations for shallow foundation support of the proposed water crossing structure, including allowable bearing pressure, lateral earth pressures, and lateral resistance criteria.
- Recommendation for deep foundation support of structures, if needed, including allowable pile capacity versus embedment depth, estimated pile tip elevation, and a table of soil parameters of use in evaluating lateral loads on pile foundations.
- Recommendations for earthwork construction, including subgrade preparation, any anticipated difficulties with excavation, the reuse of onsite soils, temporary excavation stability, dewatering considerations, and structural fill placement and compaction.

All conclusions and recommendations will be provided in a written geotechnical report along with supporting documentation.

For all projects, a scoping meeting will determine if modifications to the aforementioned data collection methods will be needed.

B. Conceptual Designs

The consultant will work with County staff to develop water crossing stream designs. The consultant will provide conceptual design inputs, including stream alignment, typical sections, bankfull width, channel profile, streambed substrate gradation, bank/channel stabilization elements, and other pertinent criteria to meet County and WDFW design criteria. Consultant will provide 30% drawings for the preliminary design. 30 percent drawings will include the following for (3) structure options:

- Stream plan and profile and typical section
- Road plan and profile sketch
- Three structure options

Consultant will reference the following models and standards for design:

- Washington Department of Fish and Wildlife, "Water Crossing Design Guidelines"
- Washington Hydraulic Code Rules, WAC 220-660-190
- WSDOT, "Standard Specifications for Road, Bridge, and Municipal Construction"
- HEC-RAS Current Version

C. Alternatives Analysis

Please incorporate a brief bulleted list of pros and cons of each alternative along with planning level cost estimates.

If applicable, the consultant will provide Structural Analysis for selected projects. The consultant shall prepare a Type, Size, and Location (TS&L) report for any culvert or bridge replacement project based on the Washington Bridge Design Manual (BDM). The report shall evaluate different alternatives to structure type, size and location, resulting in a minimum of three different alternatives.

D. Public Meeting

When deemed necessary by the County, a public meeting may be held after conceptual design alternatives are developed to answer any questions that stakeholders may have. Stakeholder inputs will be considered when selecting the preferred alternative.

Task 3 – Preliminary Design and Report

A. Preliminary Plans

Once conceptual designs (3 to 7) have been reviewed by the County and any key stakeholders and a preferred alternative has been chosen, the designs will be further developed to preliminary plans (60 percent). The preliminary plans shall include an existing site plan, project site plan view drawings, and structural design details, if appropriate. Designs shall include a description of the design and a plan view drawing of each existing site condition with the proposed project projected on accurately scaled

plans. The plan view drawing must include: an area/location map; property boundaries; landownership; roads or other infrastructure as appropriate; scale; north arrow; waterbodies and direction of flow; bank-full width; wetlands; and approximate dimensions of proposed elements.

Preliminary (60%) Construction Plans will be developed to reflect the preferred alternative and will include the following sheets (formatted at 11"x17" sheet size):

- Cover Sheet
- Legend
- TESC and Dewatering Plan
- Structure Plan and Profile
- Stream Plan and Profile
- Stream Planting Plan
- Roadway Plan and Profile
- Road Section and Details

Quantities of materials will be needed if the proposed water crossing structure is not a stand-alone fish passage project meeting the requirements of Fish Habitat Enhancement Projects and a SEPA checklist will be needed as part of permitting.;

B. Design Report

A design report shall be developed for preliminary plans for selected projects, which provides the following:

1. An explanation of the purpose of the project and its specific habitat restoration goals.
2. A characterization and analysis of the existing conditions that may be relevant to project design.
3. An identification, description, and evaluation of design alternatives considered for achieving the project goals and objectives.
4. A description of the preferred alternative and the rationale for choosing this alternative.
5. A listing of specific design criteria that defines the intent and expectations for each project element.
6. A description of regulatory and/or other public consultation activities carried out and how the review comments from agencies and other stakeholders were addressed in the preliminary design.
7. Construction quantities, a preliminary cost estimate, and construction feasibility analysis.
8. Analytical and Model design inputs and outputs.

Task 4 – 90 Percent Plans, Special Provisions and Cost Estimate

A. 90 Percent Design Report and Plans and Special Provisions

Once the preliminary plans have been commented on by the County as well as the technical review team and stakeholders, if applicable, the plans shall be further developed to 90 percent design (formatted at 11"x17" sheet size). A draft copy of the Special Provisions shall also be provided at 90 percent design for County Review.

All in-water work areas (based on 90 Percent Plans) shall be provided as 8.5"x11" drawings which provide the information requested on the USACE Seattle District Drawing Checklist. A table must also be provided which provides a breakdown of all materials to be excavated out or placed in a Wetland or Waterbody. For each wetland or waterbody list amounts of each material and the area to be affected both above and below ordinary high water (OHW). If the project is within the FEMA effective 100-year floodplain, this breakdown should be further broke down to amounts/area below OHW, amounts above OHW within the 100 year floodplain, amounts above, or outside, the 100 year floodplain. Materials below OHW should include anything below the elevation of OHW within the horizontal limits of OHW. This number should not include amounts or areas within the roadway prism, which is defined as the area within the constructed roadway that is higher in elevation relative to adjacent undeveloped lands. Additionally, high summertime (August and September) flow rates and modeled flow elevations at proposed cofferdam locations shall be included to aid with environmental permit review and Contractor effort needed to pump/bypass stream flows during construction.

B. Estimated Construction Quantities and Costs

A detailed list of work items shall be included and quantities calculated for construction of the preferred alternative.

Task 5 – 100 Percent Plans and Design Report, Special Provisions and Cost Estimate

County comments will be incorporated into the Final Plans and Final Design Report, Special Provisions and Cost Estimate for the County's use in bidding the project for construction. The 90 percent construction cost estimate will be refined to reflect the 100% Design and additional items will be added to reflect the increased level of design detail. Unit bid prices will be updated based on the current bidding climate and current bid tabulations.

Draft (100%) Construction Plans will be developed to reflect the preferred project and will include the following sheets (formatted at 11"x17" sheet size):

- Cover Sheet
- Summary of Quantities
- Legend
- TESC and Dewatering Plan
- Structure/Stream Excavation Plan
- Structure Plan, Profile and Details
- Erosion and Scour Protection Plan
- Stream Plan, Profile and Sections
- Large Woody Debris and/or Other Habitat Elements Details
- Planting Plan and Details
- Roadway Plan and Profile
- Road Section and Details
- Right of Way Map (to be provide by Lewis County)
- Traffic Control Plan (to be provided by Lewis County)

County comments will be incorporated into the Final 100 Percent Plans. Any CADD data and/or GIS data prepared by the Consultant shall also be provided to the County.

Task 6 – Project Coordination and Documentation

- A. Progress Reporting
Prepare and submit progress schedules.

- B. Meetings
In order to keep information current and relevant, meetings will be scheduled monthly between Lewis County and the consultant.

Task 7 – Construction Support

For selected projects, it is possible that construction support will be needed. Construction Support includes traveling to or from the site or meetings during construction, overseeing the contractor, responding to requests for information, providing additional design details, and other office related support.

SECTION 2 CONSULTANT INFORMATION

- 2.1 Contract Requirements
 - a. The Consultant will be required to enter into a contract with the County using Appendix 31.4 of the current edition of “Local Agency Guidelines” (WSDOT) as the basis of the agreement between the Consultant and the County.
 - b. Consultant must have a familiarity with the WSDOT standard contract agreement and a current WSDOT overhead audit or safe harbor indirect cost rate.

- 2.2 County Responsibilities.
Right-of-Entry agreements for all private properties within the study area limits will be the responsibility of Lewis County. Lewis County will also provide Right of Way (ROW) data, and traffic control plans.

SECTION 3 PROPOSAL INSTRUCTIONS

- 3.1 General Information
 - a. The Consultant must submit a proposal for the end results that are set forth in the RFP. The proposal shall describe the qualifications of the Consultant and provide a listing of similar projects completed in the past five years, a listing of project team members and qualifications, and a listing of references with contact information. Any professional staff necessary to conduct the required project scope must be available to support successful completion of the contract scope of work.
 - b. Sub-consultants proposed to be used by the Consultant shall be listed in the proposal and shall be subject to approval of the County.

- c. The proposal shall be submitted for professional services. The proposal shall be limited to twenty (20) pages total (each side of the sheet is counted as a page) including title page and table of contents and include evaluation information listed in subsection 4.3 and 4.4 of this document. Font shall be ARIAL, 12 point.
- d. Pages shall be double-sided (10-sheets) with minimum of one-inch side and top margins. Direct the submittals to:
Josh Metcalf, County Engineer; Lewis County Public Works; 2025 NE Kresky Avenue; Chehalis, WA 98532

3.2 Closing Date for Submittal of Proposals

- a. Five copies of the Proposal must be received no later than 1:00 p.m. local time, December 16, 2022.
- b. The proposal may require 15 days for evaluation. The County may request the Consultant to make an oral presentation to the selection committee in support of the proposal.

3.3 Proposal Acceptance

The successful Consultant will be expected to enter into a contract specifying payment methods as allowed by the Local Agency Standard Consultant Agreement. Please refer to WSDOT standard consultant agreement found in Appendix 31.79 of "Local Agency Guidelines", WSDOT current edition.

3.4 Right of Award or Rejection

The proposal shall specifically stipulate all terms and conditions contained in the RFP. It is understood that all proposals will become a part of the public file on this matter without obligation to the County. County reserves the right to reject any or all proposals.

3.5 Costs

County is not liable for any costs incurred by the Consultant in the preparation or presentation of the statement of qualifications.

3.6 Inquires

Questions that arise during preparation of the proposal shall be handled by Ann Weckback, 360-740-1440. A proposal list will be developed (for all interested responders) and all questions & answers will be posted during the advertisement period.

3.7 Protest of Contract Award

Protests concerning the consultant selection process must be delivered in writing to the Lewis County Director of Public Works within fourteen (14) days of the award announcement. The Director will review the protest, contact all parties involved, and recommend the appropriate action to the BOCC. The Commissioners' decision will be the final County position. The final decision will

be presented to all interested parties within 45 calendar days of receipt of the protest.

SECTION 4 PROPOSAL EVALUATION

4.1 General Information

- a. County will award the contract to the most qualified Consultant whose proposal is deemed to be in the best interests of the County.
- b. A selection committee will be appointed to evaluate the statements received. The committee will evaluate each of the criteria listed in subsection 4.3 and 4.4 for the purpose of ranking proposals.

4.2 Proposal Evaluation

The Consultant selection process will be conducted in two phases. The first phase will consist of a panel of reviewers who will individually review all submittals independently using a set of review criteria. The review panel will then meet to finalize their selection ranking. Their findings will be forwarded to the County Engineer for review. The County Engineer will review the scores of the selection committee and determine if consultant interviews are required. If interviews are desired, the project manager will appoint an interview selection committee. Consultant selection will be based on consensus amongst the selection committee.

4.3 Review Criteria

EVALUATION CRITERIA	WEIGHT
Qualifications and experience of personnel assigned to project	15 points
Recently completed similar projects	25 points
Past performance/references	10 points
Availability and response time	20 points
General evaluation of the proposal in meeting objectives	30 points

4.4 Criteria Explanation

- a. Qualifications and experience of personnel assigned to project, including sub-consultants, on projects with other government agencies within the last five years including:
 - Extent of principal and project manager involvement
 - Qualifications and relevant individual experience
 - The team's expertise in relation to all phases of the project
 - Project managers' experience with project requirements
 - Approximate number of people to be assigned to the project
 - Quality assurance review responsibility
 - A stipulation that key personnel will not be removed from the contract without prior approval of Lewis County
- b. Recently Completed Similar Projects

- Projects completed that are similar in scope of work
 - County or City projects that are similar in Washington State.
- c. Past Performance/References
- List contact person, agency, phone number, address, and project. Describe the specific problems that were encountered and explain the methodology and action plan (include requirements and software) to overcome them.
- d. Availability and Response Time
- Estimate the number of hours per month in which team members would be available.
 - Estimate turnaround time on comments.
- e. General Evaluation of the Submitted Proposal in Meeting Proposal Objectives
- Is the proposal clear and concise?
 - What is the probable ease and ability of the consultant to coordinate with the project and County staff?
 - What is the firm's experience with Lewis County or other Counties in Washington State?

4.5 Selection

- a. A final recommendation for selection will be made to the Public Works Director following review and rankings of the proposals. Consultant selection will be carried out under Washington State Local Agency Guidelines Section 31.
- b. RFP's are anticipated to take approximately 15 working days to evaluate.
- c. Follow-up interviews with consultants NOT selected may be arranged with County following successful contract award to the selected consultant.

4.6 Pre-contract Clarification

The apparent selected Consultant will be required to review their proposal with the County. The County reserves the right to require any clarification or alterations it deems necessary in the Consultant's assignment or resources, or in the Consultant's approach to the scope of work and the County's needs and expectations. This review and any changes will be made prior to contract execution and will become part of the final Consulting contract.

4.7 Schedule

Task	Anticipated
Proposal Due	December 16, 2022
Proposal Review	January 11, 2023
Contract Negotiations	January 20, 2023
Notice to Proceed	January 27, 2023

4.8 Project Contact: Ann Weckback, 360-740-1440

4.9 Proposals must be received no later than 1 p.m. local time December 16, 2022.