# Request for Bids for Development of a Tidegate Pipe Sizing Tool



Requested by: Coquille Watershed Association 390 N. Central Blvd. Coquille, OR 97423

# Request for Bids for the Development of a Tidegate Pipe Sizing Tool

Statements made by Association's representatives or project partners will not be binding on Association unless confirmed by written addendum. Bidders shall submit their proposal pursuant to the provisions of this solicitation to:

Coquille Watershed Association (CoqWA)
c/o Melaney Dunne
390 N. Central Blvd.
Coquille, OR 97423
Email: director@coquillewatershed.org

# SOLICITATION CLOSING September 6, 2019 - 5pm (LATE BIDS WILL NOT BE ACCEPTED)

Bidders are solely responsible for ensuring that the CoqWA receives the proposal.

Bidders shall familiarize themselves with this entire Bid Document.

All questions and comments about this solicitation shall be directed IN WRITING via email to Melaney Dunne, Executive Director. Questions will be answered in a formal addendum issued no later than one week before bid close. **Questions must be provided by August 23, 2019.** 

#### INVITATION TO BID

Notice is hereby given pursuant to this Request for Bids ("RFB") that sealed bids (a "Bid") for the development of a tidegate design tool, which is described in more detail in Exhibit A Bid Prospectus, will be received by The Coquille Watershed Association ("CoqWA"), an Oregon 501(c)(3) non-profit organization, up to the deadline indicated in this Bid Document. This project will occur from October 2019 through April 2020. The contract documents (including special provisions and specifications) are all included in this Bid Document and it is also available online (www.coquillewatershed.org/contracting).

Those receiving this RFB who wish to submit a Bid (in each case, a "Bidder") shall furnish labor, materials and equipment necessary for completion of the design in accordance with the specifications provided in the Bid Prospectus. No subcontracting is allowed.

<u>See Exhibit A: Bid Prospectus</u> to obtain information on project goals, outcomes, proposal instructions and required forms.

<u>See Exhibit B: Proposal Instructions and Bid Documents</u> for detailed information about the bid requirements.

Deadline, no later than 5:00 p.m., 9/6/2019. Bids received after this date and time will not be considered. Bid shall be both emailed to Melaney Dunne at director@coquillewatershed.org and post marked as of deadline to the CoqWA office at 390 N. Central Blvd. Coquille, OR 97423; Attention: Melaney Dunne.

#### Exhibit A: BID PROSPECTUS

**LOCATION:** Work for this project will occur primarily remotely, although some in person meetings will be required and will occur in Oregon, specific locations to be determined on the Oregon Coast and I-5 Corridor. Work will also include site visits on approved tidegated locations and will be coordinated with local partners by CoqWA or other designated agents.

**BID DEADLINE:** 9/6/2019

**APROXIMATE START:** 10/1/2019

**COMPLETE:** The goal is to complete the work in 6 months.

# PROJECT BACKGROUND:

This project is an effort initiated by the Tidegate Partnership a collaborative group of organizations, landowners, county commissioners, and state and federal agencies. The overall goal of the tidegate partnership is to develop a voluntary, collaboration-based action plan for tidegate and tidegate pipe repair and replacement that is cost effective, efficient to implement and is supported by landowners, regulatory agencies, and organizations providing technical assistance and funding.

Tidegate pipes along the Oregon Coast and lower Columbia River number in the thousands. Many of the tidegates and/or pipes are aging and will likely require repair, replacement or removal in the coming years. This tidegate work group is convening to address the growing challenge of aging tidegates and tidegate pipes in coastal Oregon. If tidegates or tidegate pipes fail, roads, businesses, homes, and agricultural lands become more vulnerable to flooding and intense winter storms. A number of initiatives lead by the partnership are currently underway including coordinating the permitting process and conducting a statewide tidegate inventory. There is a need for simplified engineering tools and solutions to provide landowners and technical support organizations (watershed councils, soil and water conservation districts, etc.) a rapid method for identifying state and federal regulatory compliance with respect to tidegate pipe size.

This project is specifically meant to develop a simple tool whereby landowners and technical support organizations, who possess the necessary construction knowledge and resources, can properly size and install a tide gate pipe (hydraulic facility), which fulfills both state and federal fish passage regulations. The tool may also provide a cost benefit for landowners who do not have, or cannot secure, the funding necessary for more complex hydraulic modeling sometimes necessary to properly size tidegate pipes for fish passage. This tool will also help streamline tidegate and tidegate pipe repair or replacements. Additionally, providing a simple tool that has been pre-approved by state and federal fish passage staff with clear guidance on its use will provide a foundation for landowners to meet fish passage requirements.

## **PROJECT GOAL:**

- Develop a simple, user-friendly engineering hydraulic model for sizing tidegate pipes or other hydraulic facilities relative to fish passage requirements. (e.g. regression equation, nomograph, web based GUI)
  - o Tool will be open source.

- O Input is limited to, no-cost or low cost, readily accessible or measurable spatial and tidal data (e.g. project feet-acres, average tidal fluctuation, pipe elevation relative to mean tide)
- o End user expectations: non-technical users (e.g. landowners) (Basic assistance will be available with use of the tool from organizations such as: watershed councils, soil and water conservation districts, ODFW field staff, etc.).

#### **SCOPE OF WORK and DELIVERABLES:**

The Project Team that will guide the selected contractor is comprised of members of the statewide Tidegate Partnership and will include at minimum the following organizations: National Marine Fisheries Service (NMFS), Oregon Department of Fish and Wildlife (ODFW), Coos Watershed Association (CoosWA), and the Coquille Watershed Association (CoqWA). The Project Team has identified 3 potential phases of this work as outlined below. In the required work plan, please specify time estimates for each phase. Following selection, a detailed schedule of meetings and deliverable deadlines will be created with the selected firm and Project Team. It is expected that for all phases, during meetings and in reports the firm will include sufficient description of terms and concepts for a non-engineering background audience.

#### Phase 1: Alternatives Analysis

Phase 1 is a collaboration between the Project Team and the consultant to investigate, identify, and prioritize a list of potential tools which will achieve project goals. Two main objectives exist for Phase 1.

First, to coordinate several meetings between the Project Team and the consultant with the purpose of (1) clearly identifying Project Team desires and expectations, (2) discuss and expound on potential methods available for tool development, (3) brain storm general ideas and approaches to tool development discussing the limitations, assumptions, and reasonableness of required methods, and (4) provide a feedback process to facilitate tool refinement, prioritization, and answer specific Project Team queries.

Second, the Project Team will select a preliminary set of 3-4 alternatives for the bidder to develop an alternatives analysis report on. The alternatives analysis report will list each alternative and cover the mathematical or engineering methods employed, assumptions of each individual method (more than one method may be employed for a single tool), summarize tool input, output, and interface process, and discuss feasibility (cost, time, and complexity) for each alternative. The alternatives analysis will also include obtaining information from on the ground practitioners with a track record of successful projects that meet fish passage criteria. The report will conclude with a detailed findings and recommendation section.

At the end of Phase 1 the Project Team will select a preferred alternative for development in Phase 2.

Phase 1 provides the following deliverables:

- Generate and disseminate meeting notes to all participants for review and comments.
- 1 four hour initial sit down meeting with the Project Team.

- After the first meeting an initial list of methods (e.g. numerical, computational, and physical) available for tool development will be generated in memo form.
- 2-3 two hour web based follow up meetings with Project Team.
- An alternatives analysis report containing no less than 3, and no more than 6, alternatives.

Initial Project Team tool expectations and assumptions include, but are not limited to, the following:

- Two governing assumptions must be discussed in-depth, and decided on in the initial meeting, as they represent significantly different time and cost resources for tool development:
  - o Determine tidegate losses are approximated sufficiently as traditional culvert losses
  - O Determine tidegate losses should not approximated as traditional culvert losses, but require development of specific gate losses.

#### Potential Inputs

- o Culvert shape (circular or box)
- o Upland inundated area and volume
- o Drainage area and flow
- o Average tidal displacement at the project site
- o Elevation of pipe invert related to a local tidal datum (e.g. Mean Tide Level)
- o Existing culvert size and type of tide gate
- o Number of pipes
- o Critical inundation elevation (max inundation allowed on site).

#### Outputs

- o Culvert diameter required to meet fish passage velocities/other parameters
- o Pipe velocity
- o Predicted water conveyance capacity
- o Water depths

# Analogous Tools

- o USGS Stream Stats (e.g. regression equation)
- o Culvert Nomograph
- o HY-8 (e.g. GUI)
- o ARC GIS (e.g. web based interface)
- o Excel Spreadsheet (e.g. Visual Basic)

#### Phase 2: Building the Tool

The purpose of Phase 2 is for the bidder to develop the selected modeling tool. The bidder will maintain contact with the Project Team via scheduled meetings and weekly updates.

Phase 2 will include the following deliverables:

• Provide 3-4 one hour check-in meetings at agreed upon stages of development to showcase tool progress and solicit Project Team feedback.

- Provide 1-2 page memo updating tool progress prior to each check-in meeting.
- Complete modeling tool for the Project Team.
- Provide a report summarizing expected engineering and construction impacts (e.g. time and cost savings) of the tool on fish passage tidegate projects permitted in Oregon.
- Provide a presentation on the developed model and a question & answer session for the Project Team Members and potentially additional stakeholders.

# Phase 3: Testing and Evaluating the Model

The purpose of Phase 3 is to test and evaluate the tool using sites on the Oregon Coast. A monitoring protocol will be developed and data will be collected from on the ground sites, representing the diversity of tidally influenced areas on the Oregon Coast. Data will be compared to the model predictions and the Project Team and bidder will identify if the modeling tool needs adjustment based on the gathered on the ground information. Sites will include previously permitted projects using alternative pipe sizing methods. The monitoring protocol should be developed in a manner that is easily replicable and shared publicly to be used for long term monitoring of tidegate sites outside the scope of this contract.

Phase 3 will include the following deliverables:

- Work with Project Team to identify sites and formalize standard sampling protocols including the development of a monitoring protocol document.
- Monitor 6 tidegate sites where tidegates have recently been replaced to meet current fish passage standards.
- Provide a summary and analysis of how the tool compares to both previously completed tidegate replacement sites and in-process sites
- 2-3 one hour meetings to identify with Project Team if/what model adjustments are needed based on the on the ground vetting of the tool.
- Provide 1-2 page memo updating monitoring progress prior to each meeting.
- 4 hour final meeting with Project Team to discuss Phase 3 findings and develop next steps as needed.
- Provide an end of project presentation including results of model validation and question & answer session for the Project Team Members and potentially additional stakeholders.

#### **BIDDERS:**

Bidders will provide individual examples of successful experiences indicating in-house proficiency in each of the following fields:

- Tidal hydraulics
- Computational fluid dynamics incorporating complex hydraulic structures
- Physical modeling of hydraulic structures
- Advanced statistical/probability modeling of hydraulics.
- Programming solutions for hydraulic structures.

• ARC GIS applications associated with hydraulics.

The most competitive bidders will have additional experience developing engineering solutions that employ the following:

- Graphic User Interface
- Web based user interface

No subcontracting is allowed for this project.

# **PROJECT ROLES:**

- <u>Coquille Watershed Association:</u> The CoqWA will hold the contract with the engineering firm and serve as the point of contact for the engineering firm in regards to coordinating timelines, meetings, etc. CoqWA will serve as the convener of the Project Team.
- <u>Project Team:</u> The Project Team will be the entity that makes decisions on behalf of the
  project and will ultimately be the entity that approves or requests changes in the products
  produced by the engineering firm. Generally, all meetings will be held with all Project Team
  members and the selected firm.
- <u>Contracted Firm:</u> The firm will communicate with CoqWA in regards to billing, scheduling and other associated logistics. The firm will communicate with the full Project Team regarding content and feedback on the tool throughout the project.

#### **EXISTING INFORMATION TO BE USED:**

The Contractor will be required to use the existing data and reports throughout the project. These investigations, reports, and information have been specifically developed to provide a sound project foundation. The following reports are available and will be provided (via electronic copy) to prospective Bidders upon request:

- ODFW Fish Passage Criteria for Tidegates (Oregon Administrative Rules governing fish passage 635-412-0035) ODFW Fish Passage Requirements
- NMFS Fish Passage Criteria
- NMFS Draft Guidelines for Tidegates
- NFMS TARP Programmatic Biological Opinion

EXAMINATION OF BID DOCUMENTS, REGULATIONS, ETC.: Before submitting a Bid, each Bidder shall be responsible for: (i) becoming fully acquainted with the conditions relating to the Work, in order to understand fully the facilities, difficulties, and restrictions attending the execution of the Work; (ii) carefully examining each component of the Bid Documents and any other available supporting data, in order to become thoroughly familiar with all of the requirements; and (iii) obtaining for itself, at its own cost and expense, copies of all agency and association guidelines and standards cited in the proposed Contract and necessary to perform the Work. No failure or omission of any Bidder to receive or examine any such information and become acquainted with the conditions shall in any way relieve such Bidder from obligations with respect to its Bid, any Contract entered into with such Bidder, or the Work, and the submission of a Bid shall

be taken as prima facie evidence of compliance by the submitting Bidder with the requirements of this paragraph.

**SELECTION AND EVALUATION CRITERIA:** Proposals will be evaluated by the Project Team that, after a review of written proposals, may choose to also conduct a personal interview. Bid evaluation will be based on the ability of the Bidder to meet the specifications for the tasks described in this RFB in a timely fashion. Selection will also be based on the ability of the Bidder to work in a cooperative manner with CoqWA staff, Project Team, and other partners. CoqWA will generally not disclose the status of any award until the appropriate authority at CoqWA has approved the award of a Contract. Normally, the awarding of a Contract or Bid rejection will occur within 10 business days after Bid opening. If the selected Bidder and CoqWA agree, this deadline may be extended. CoqWA reserves the right: (i) to propose alterations to the scope of work as part of contract negotiation process, which may result in changes to the budget prior to award of Contract; (ii) to consider such criteria as it may deem appropriate with respect to the Project; (iii) to reject any or all Bids; and/or (iv) not to proceed with the Work and/or the Project (or any part thereof); all in the exercise of its sole and absolute discretion. CoqWA will provide a written notice of its intent to award a Contract to the successful Bidder(s) (in each case, a "Notice of Intent to Award Contract"), and any submittals required to be submitted to CoqWA within a certain number of days after award is made will count from the day that the Notice of Intent to Award Contract is given. The actual award shall, however, be dependent on full execution of the Contract(s) and submission by the successful Bidder(s) of all other required documents.

**EVIDENCE OF RESPONSIBILITY:** Upon the request of CoqWA, a Bidder whose Bid is under consideration for the award of a Contract shall submit promptly to CoqWA satisfactory evidence showing the Bidder's financial resources, design experience, and organization available for the performance of the Work.

**RIGHT TO AWARD OR REJECT:** This RFB does not obligate the Coquille Watershed Association to award a contract, CoqWA reserves the right to reject any and all proposals and to further amend or refine a proposal and negotiate a contract with one of the proposers. The Coquille Watershed Association reserves the right to offer a contract to other than the lowest cost bidder based on other evaluation criteria.

**CONTRACT REQUIREMENTS:** It is the desire of the Coquille Watershed Association to enter into a contract that includes all of the services necessary to achieve the goal of the project, whether or not those services are specifically outlined or described in this RFB.

**WAIVER OF INFORMALITIES:** The Coquille Watershed Association reserves the right to waive minor informalities contained in proposals, when in the Association's sole judgment; it is in the best interest of the Association to do so. CoqWA may also reject any Bid not in compliance with all prescribed requirements, including the requirement to demonstrate the Bidder's responsibility and may reject for good cause any or all Bids upon a finding by the CoqWA that it is in the public interest to do so, in accordance with OAR 137-049-0440

**BID ERRORS AND WITHDRAW:** A Bidder may withdraw its Bid at any time prior to the date and time that Bids are due, by means of written notice which is given to CoqWA before the date and

time that Bids are due, at the address for submission of Bids which is given above. A Bidder may also modify and/or resubmit its Bid at any time prior to the date and time that Bids are due.

**BIDDERS INTERESTED IN MORE THAN ONE BID:** No person, firm, or corporation shall be allowed to make, file, or be interested in more than one Bid for the Work. However, a person, firm, or corporation which has submitted a sub-proposal to a Bidder, or which has quoted prices of materials to a Bidder, is not thereby disqualified from submitting a sub-proposal or quoting prices to other Bidders or making its own Bid.

**COSTS INCURRED:** The Coquille Watershed Association accepts no liability for any costs incurred by respondents in the preparation or presentation of proposals.

**INQUIRES:** Questions concerning this request for proposals should be directed in writing to: CoqWA Executive Director – Melaney Dunne, Email: director@coquillewatershed.org

Each Bidder shall promptly notify CoqWA of any discovered conflicts, ambiguities, or discrepancies in or between, or omissions from, the Bid Documents. Bidders should note that questions received less than four business days prior to the closing date may not be answered. Any interpretation or correction of the Bid Documents will be made only by Addendum, and a copy of such Addendum will be sent directly to each Bidder via the email provided. No oral interpretations of any provision in the Bid Documents will be made to any Bidder.

#### Exhibit B: PROPOSAL INSTRUCTIONS and BID DOCUMENTS

#### Submission instructions:

Bids must be received on or before 9/6/2019, 5pm

Bids shall be both emailed to Melaney Dunne, Executive Director at director@coquillewatershed.org with the subject line titled: "Bid for Tidegate Pipe Sizing Tool" and mailed to Coquille Watershed Association c/o Melaney Dunne. Bids must be post marked by the due date and can arrive after the due date.

#### Mailing Address:

Coquille Watershed Association c/o Melaney Dunne 390 N. Central Blvd. Coquille, OR. 97423

Bidders must clearly show the following information on the envelope in which their Bid is sent: Name of Bidder

RE: Bid for Tidegate Pipe Sizing Tool

## Proposals shall include, at a minimum, the following items:

- 1. Bid Form with Schedules 1-4 completed
- 2. A work plan to accomplish the Project goal and deliverables taking into account the proposed end date for completion of the Work indicated in the RFB. The work plan should include:
  - a. A description of the work product
  - b. Time estimates for each task
  - c. Personnel to be assigned (where possible, individual staff members and titles should be provided)
  - d. A budget justification (See Bid Form Schedule 1 for more information on the justification)
- 3. A signed statement that you can and shall provide the Insurance requirement as listed.

Bids must not contain any erasures, interlineations, or other corrections unless each such correction is suitably authenticated by affixing in the margin immediately opposite the correction the surname or surnames of the person or persons signing the Bid, in the named person's own handwriting. In order for a Bid to be considered responsive, it must contain all of the documents and information which are required by this RFB, with signatures and notarization as indicated, and it must: (i) cover the complete scope of work as defined in the RFB; (ii) not include any exclusions or qualifications.

#### **Bid Form**

# Develop of a Tidegate Pipe Sizing Tool

Coquille Watershed Association c/o Melaney Dunne 390 N. Central Blvd. Coquille, OR 97423

This Bid is being made to The Coquille Watershed Association, a State of Oregon 501(c)(3) non-profit corporation ("CoqWA" or "Owner") in the form of a sealed bid (the "Bid") with respect to the project known as "Tidegate Pipe Sizing Tool" (the "Project"). The undersigned ("Bidder") is making this Bid pursuant to the terms of the Request for Bids for the Project, dated August 6<sup>th</sup>, 2019 (the "RFB"), a copy of which was supplied to Bidder by or on behalf of CoqWA and has been reviewed in its entirety by Bidder. The RFB and all of the documentation required of a proposed bidder on the Project under the terms of the RFB are sometimes hereinafter referred to collectively as the "Bid Documents".

Name of Bidder:		
Business License Number:	Federal Tax Id No:	
Contact Person(s):		
State of Incorporation/Formation:		
Business Mailing Address:		
Shipping Address (if different):		
Telephone Number:	Email:	

Pursuant to and in compliance with the RFB, the undersigned Bidder, having become familiar with the conditions of the Project, the cost of the work to be done in carrying out the Project (collectively, the "Work"), the terms of the Bid Documents, and the form of the Contract to be awarded to the successful bidder (the "Contract"); hereby proposes and agrees to perform the Work within the time stipulated in the Bid Documents and to provide and furnish any and all labor, materials, equipment, transportation, utilities, and services necessary to perform and complete the Work in a workmanlike manner and in strict conformity with the requirements contained in the Bid Documents, including any addenda referenced below, for the amount(s) and/or at the rates indicated below (collectively, the "Bid Price").

By signing and submitting this Bid to CoqWA, Bidder hereby represents, warrants, acknowledges, and agrees to and with CoqWA, or certifies to CoqWA (as applicable), as follows:

- 1. <u>Bid.</u> Bidder hereby offers to carry out and complete the Work for the Bid Price, made up of the price(s) and/or rates, and according to the budget, which are more particularly described in Schedule 1 to this Bid, and Bidder has checked all of the figures contained in this Bid carefully and understands that CoqWA will not be responsible for any errors or omissions on the part of Bidder in making this Bid.
- 2. <u>Quantities</u>. Bidder understands that the quantities mentioned in the RFB are approximate only and are subject to increase or decrease, and hereby proposes to perform all quantities of work as either increased or decreased in accordance with the terms of the Contract.
- 3. <u>Bid to Remain Open.</u> This Bid, unless withdrawn prior to the scheduled closing time for receipt of Bids, or thereafter when permitted under the terms of the RFB, shall remain valid and will not be withdrawn by the undersigned Bidder for a period of thirty (30) days after the scheduled closing time for receipt of Bids.
- 4. <u>Responses to CoqWA Concerns.</u> Bidder hereby responds to CoqWA's concerns about the following issues as indicated below, with such responses being continued/contained on attached schedules to the extent indicated below in each case:

(a) Minority- and Women- Owned Business Enterprises. Is the Bidder's firm at least 51%

minority- or women-owned, controlled and operated: Yes No
If the answer is "yes", identify the % of minority- or women-ownership, control and operation:
(b) <u>Additional Information</u> . Please provide any other information you feel would help CoqWA's selection committee evaluate your firm for this Work.
5. <u>License(s)</u> . By execution of this Bid, the undersigned Bidder declares that Bidder holds the following license(s) relevant to the Work, in accordance with the applicable licensing laws where the Project is to take place, as follows:
Classification:
License number:
Expiration date:
6. <u>Interested Persons.</u> The names of all persons interested in this Bid as principals are as follows:

If Bidder or another interested person is a corporation, state the legal name of the corporation, its state of incorporation, and the names of the president, secretary, treasurer, and manager thereof.

If Bidder or another interested person is a partnership or other form of legal entity, state the name and form of the entity, its state of formation, and the names of all the individual partners, members, joint ventures or others with an interest in the entity.

If Bidder or another interested person is an individual, the person's sate of legal residence, and the first and last names in full, and give all fictitious names under which the individual does business.

- 7. Notices. Bidder understands that, except as noted below, notice of acceptance of this Bid, any requests for additional information, and any other notices to Bidder with respect to this Bid shall be given in writing via email to the address(s) provided in the Bid Form. Each such notice or request shall be deemed given either upon actual delivery (or attempted delivery) to such address (whether personally or via courier), or three calendar days after being placed in the US mail, postage prepaid, addressed to Bidder at such address. However, Bidder understands that CoqWA may, if it chooses, elect to respond by email to questions from Bidder, at the email address provided in this Bid.
- 8. Attachments. Attached to these Bid cover pages and incorporated into this Bid by this reference are the following required items, in the forms required under the RFB:
  - (a) Schedule 1 Bid Price sheet with the details of the Bid Price (an external spreadsheet may be used instead of the form provided, the form provides the minimum amount of information required for the pricing);
  - (b) Schedule 2 List of references and descriptions of similar projects completed;
  - (c) Schedule 3 Insurance requirements
- 9. Requirements Upon Award. If this Bid is accepted by CoqWA and notice of such acceptance is timely delivered to the undersigned, then the undersigned shall, within ten (10) days after receipt of such notice, execute and deliver to CoqWA:
  - (a) the Contract, in the form required under the RFB, as prepared by CoqWA;
  - (b) the insurance certificates required under the RFB and the Contract; and
  - (c) such other documentation as may be required under the Contract.

Thereafter, the undersigned will commence and complete the Work within the time required by the Contract.

- 10. Bidder's Acknowledgment, Certification, and Agreement as to its Bid. By submitting this Bid, Bidder shall be deemed to acknowledge, certify, and agree to and with CoqWA that Bidder:
  - (a) has taken steps reasonably necessary to ascertain the nature of the Work;
  - (b) has investigated and satisfied itself as to the general and local conditions that can affect the Work or its cost, including but not limited to: travel for meetings held on the Oregon Coast or Oregon I-5 Corridor, travel for site visits located throughout the Oregon Coast.
  - (c) has satisfied itself as to the adequacy of time allowed for the completion of the Work.

Addendum Number		Date of Addendum	
Traderidani i vaniser		Date of Fluderidam	
In witness whereof, th	is Bid is being execu	ated and delivered by Bidder as of the date(s) set	
	h in the signature block be	ns, partnerships, or other forms of legal entity, the full legal name low, together with the signature(s) of the officers, partners, or f of and to bind the entity.	
Ву:			
(Signature)			
Print Name:			
Print Title:			
Print Date:			
If Bidder consists of or inclu such individuals:	des one or more individual	ls, the following form of signature block is to be used for <u>each</u> of	
Signature	Print Name	Print Date	

11. Addenda. Bidder has received, reviewed, and understands, the following Addenda to the original

# Schedule 1 - Bid Price Sheet

Bid Item	Total Cost
Phase 1 – Alternatives Analysis	\$
Phase 2 – Building Model	\$
Phase 3 – Testing Model	\$
Total	\$

Please complete the summary table and include a detailed, itemized budget justification as part of the work plan including rates for personnel, travel, material and supplies purchases, equipment usage, etc. Budget justification should include unit amount, per unit cost, and total cost for each budget line item. Subtotal the budget by each phase.

# Schedule 2 - Bidder's References and Descriptions of Similar Projects Completed

Please list references, including name, address, and telephone number of those who have personal knowledge of Bidder's abilities to undertake and complete projects of similar scope and complexity. Bidders will provide individual examples of successful experiences indicating in-house proficiency in each of the following fields:

- Tidal hydraulics
- Computational fluid dynamics incorporating complex hydraulic structures
- Physical modeling of hydraulic structures
- Advanced statistical/probability modeling of hydraulics.
- Programming solutions for hydraulic structures.
- ARC GIS applications associated with hydraulics.

The most competitive bidders will have additional experience developing engineering solutions that employ the following:

- Graphic User Interface
- Web based user interface

In addition to completing the references table below, provide a description of each referenced project (1 page per project).

Project Name	Reference	Email Address	Telephone Number

# Schedule 3 - Insurance and Security

Selected firm (CONTRACTOR) is responsible to comply with all federal, state, county and local laws, ordinances and regulations applicable to this contract. Please note additional coverages may be required or change.

INSURANCE: The CoqWA shall have no obligation to CONTRACTOR until CONTRACTOR has fully complied with the following requirements. CONTRACTOR must carry insurance policies offering the following minimum coverage levels and provide Certificates of Coverage to CoqWA before work commences.

- Commercial General Liability, \$1,000,000 Each Occurrence, \$2,000,000 Policy Aggregate
- Automobile Liability \$1,000,000 combined single limit covering owned, hired and non-owned vehicles. (Including the "pollution from autos endorsement," 1S0 Form No. CA 99 48)
- State or private accident insurance Workers Compensation

The above polices shall reference as additional insured as follows and copies be provided to:

Coquille Watershed Association 390 N. Central Blvd. Coquille, OR 97423

Attn: Melaney Dunne