

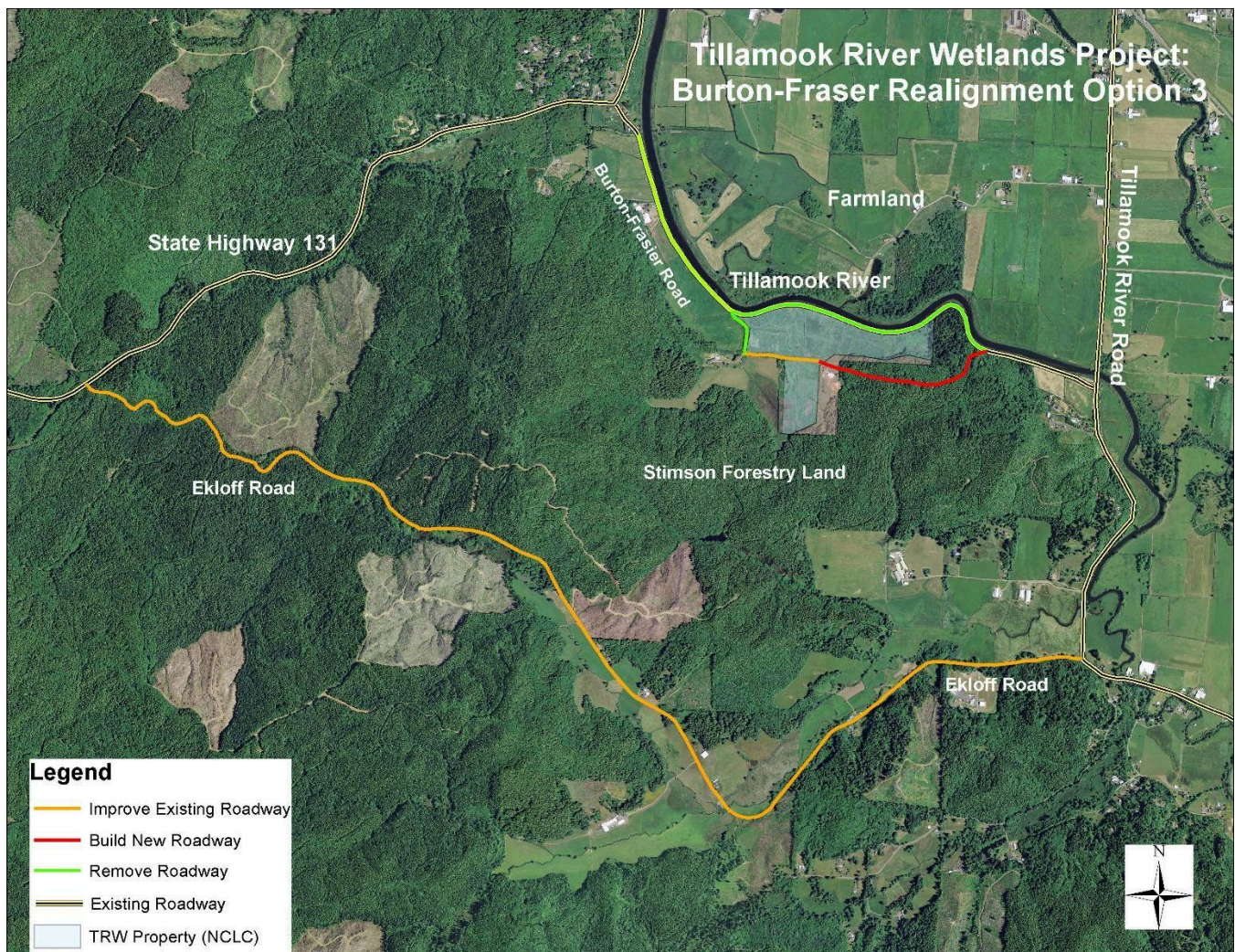
Tillamook River Wetlands Road Realignment Design

REQUEST FOR PROPOSALS (RFP)

30% Design – Eckloff Road Realignment



TILLAMOOK
ESTUARIES
PARTNERSHIP



RFP Submission Response Deadline:

October 9th, 2026

Time:

5:00 pm (PDT)

Location:

Tillamook Estuaries Partnership
613 Commercial Street
PO Box 493
Garibaldi, Oregon 97118

Single Point of Contact:

Colin Jones
Restoration & Monitoring Director
Tillamook Estuaries Partnership
(503) 322-2222
colin@tbnep.org

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Section 1: General Information

The Tillamook Estuaries Partnership (TEP) intends to contract with a consultant to complete 30% initial designs for the rerouting of Eckloff Road. This road will serve as a new and improved connection between Tillamook River Road and Highway 131, allowing TEP and its partners to breach the rapidly failing Burton Fraser Road and achieve full tidal reconnection between Tillamook River Wetlands and the Tillamook River. The Consultant will meet with Tillamook County Public Works (TCPW) (the road owner) and Tillamook Estuaries Partnership (TEP) (the project manager) to discuss infrastructure and design details of the project. North Coast Land Conservancy (NCLC) (the restoration site landowner), may participate in the meeting, though it is not a requirement for this design phase. The Consultant will review existing data and project requirements to assess the site, as well as perform studies to confirm physical conditions and finalize 30% design for the realignment of Eckloff Road., as identified as requiring further study. These include the following:

- Feasibility study for the realignment of Eckloff Road including geotechnical work and a traffic impact study.
- Cost estimate of the project with a budget narrative. This includes cost estimates for the final design as well as general estimates for the construction of the Eckloff Road work.

Additional details on the scope of the requested services are included in Section 2: Scope of Work/Specifications of this document.

1. Schedule of RFP Events

Event	Date
RFP released	September 9th, 2026
Pre-proposal meeting (on-site)	September 23rd, 2026
Proposals due no later than 5:00 pm (PDT)	October 9th, 2026
Proposer evaluations begin	October 12th, 2026
Proposer selection	October 15th, 2026
Execute contract	October 31st, 2026
Estimated end date (based on funding requirements)	October 31st, 2027

Section 2: Scope of Work/Specifications

2.1 Overview and Background

The “Tillamook River Wetlands” project (TRW), is a significant opportunity to improve tidal wetland function, habitat complexity, species diversity, and water quality in Tillamook Bay. TEP, in partnership with TCPW and NCLC, proposes a project *to develop phase one engineering designs for the improvement of nearby Eckloff Road*. Located in an unincorporated portion of Tillamook County, TRW is situated at river mile three of the Tillamook River, one of five major rivers entering Tillamook Bay. TRW is tidally influenced and represents historic spruce swamp, emergent wetland, and tidal channel habitat. Tillamook Bay is critical habitat for federally threatened Oregon Coast coho salmon. NOAA’s recovery plan states the primary limiting factor for recovery is access to intact rearing habitat in tidal wetland. The current roadway separating the TRW site from the Tillamook River is a failing road deemed in need of replacement by Tillamook County Public Works. Improving the adjacent Eckloff road that sits outside of the 100-year floodplain will not only provide a safety valve and lifeline road for the coastal communities out highway 131, but will also allow for the closure of part of Burton-Fraser Road, ultimately allowing for connectivity and fish passage to the floodplain. Restoration work will follow up all road work. Closure of a section Burton-Fraser will bolster climate resiliency and emergency preparedness.

2.2 Project Location

This project is in rural Tillamook County, Oregon on the NW coast (population 27,574). The restoration site is SW of the city of Tillamook, Oregon (population 5,236). The TRW site is owned by NCLC and is surrounded by private and commercial timberland, private farmland, and private residences. The Eckloff Road elements of the project are located southwest of the project site. Eckloff Road connects to Hwy 131 on the western end and Tillamook River Road on the eastern end. Both roads are owned by Tillamook County. Community outreach for this project is a critical component. The Eckloff Road components of the project will benefit the geographically isolated communities of Netarts and Oceanside, as well as any individuals travelling from Highway 131 to Highway 101. The Eckloff road improvement will provide an upland driving route during flooding conditions as well as a stable evacuation route during catastrophic storm events.

2.3 General Work Requirements

Tillamook Estuaries Partnership

The Tillamook Estuaries Partnership, a 501(c)(3) Oregon non-profit organization, is one of 28 National Estuary Projects working throughout the continental United States and Puerto Rico to protect and restore the health of estuaries while supporting economic and recreational activities. More information may be found on TEP’s website www.tbnep.org

TEP does not discriminate on the basis of race, color, national origin, disability, age, or sex in administration of its programs or activities. TEP does not intimidate or retaliate against any individual or group because they have

exercised their rights to participate in actions protected, or oppose action prohibited, by State of Oregon and Federal civil rights and non-discrimination laws, or for the purpose of interfering with such rights.

TEP is the organization responsible for managing this project. However, the project is being completed in conjunction with TCPW, the owner of the roads in question. As a result, the contractor must be prepared to work closely with TCPW. Other project partners and owners of adjacent private properties must also be consulted during this project when required.

2.4 Specific Tasks

The main objective of this contract is to develop preliminary designs to replace the primary connecting road between Tillamook River Road (which connects to Highways 101) and Hwy 131. *This request for proposals specifically calls for the completion of 30% designs on the re-route and upgrading of Eckloff Road, which provides an alternate connection between Tillamook River Road and Highway 131.*

The Consultant must complete the following tasks, subject to the conditions below:

- The consultant will investigate environmental reviews and environmental permits. The consultant will be responsible for obtaining all permits required to complete the 30% designs of Eckloff Road. The consultant will provide TEP with information needed to prepare permit applications. In response to regulatory or permitting issues, the consultant is expected to formulate and present proposed solutions to TEP for approval.
- The consultant, its subcontractors, and all employers working on this project are subject employers under the Oregon Workers' Compensation Law and shall comply with ORS 656.017, which requires them to provide worker's compensation coverage for all their subject workers.
- The consultant, its subcontractors, and all employers working on this project are responsible for complying with all rules and regulations to work on projects funded with federal dollars. These include, but are not limited to Davis-Bacon act, Built America Buy America act, Copeland anti-kickback act, and policy regarding the use of certain electronics (e.g. drones) produced outside of the United States.
- The consultant shall furnish all labor, equipment, supervision, transportation, supplies and incidentals to perform tasks outlined in this RFP unless otherwise noted.
- The consultant, its subcontractors, and all employers working on this project must comply with all applicable federal, state, and local laws and regulations in completing the project.
- The consultant shall make periodic on-site investigations to remain familiar with the project and the changing on-site conditions. Proposals must include a plan for timing and number of site visits.
- The consultant shall be available for ongoing engagement of technical stakeholders and community members, supporting TEP in project communications and responses to questions/concerns surrounding project design and alternatives analysis.

Task 1 - Complete the 30% design and technical specifications

Consultant will survey site conditions and will provide survey data and design drawings in a CAD file (plus hard copies) to TCPW and TEP of road redesign and related infrastructure. The consultant will summarize the existing conditions of Eckloff Road and analyze alternatives for the road realignment. Specifications will follow the

standard format for specifications used by TCPW Engineering Section. This report will outline cost-saving alternatives where possible.

Subtasks include, but are not limited to:

- 1.1 Project Management, Administration, Meetings, Coordination, QA/QC
- 1.2 Stakeholder Coordination (Stimson Lumber Co., TCPW, adjacent property owners)
- 1.3 Roadway and Traffic Engineering
 - 1.3a Route/Alternative Analysis
 - 1.3b Identify Required Right-of-way Procurement
 - 1.3c Traffic and Intersection Analysis with ODOT consultation
 - 1.3d Proof of Concept – Roadway Design
- 1.4 Structural Engineering
- 1.5 Geotechnical Engineering
 - 1.5a Desktop Analysis
 - 1.5b Subsurface Investigation
 - 1.5c Geotechnical Reporting
- 1.6 Survey/Drone-LiDAR
- 1.7 Preliminary Environmental Investigations
- 1.8 Preliminary Right-of-Way Coordination with ODOT for Intersections

An initial *Burton-Fraser Road/Eckloff Road Upgrades Alternatives Comparison* was completed by Environmental Science Associates in August of 2021. Please find this analysis in the Appendices. This report can be utilized by the consultant to guide future phases of planning if the phasing remains in alignment with overall project goals and deliverables.

Task 2 – Construction Cost Estimates

Complete line-item cost estimates for all elements of the design. Provide a detailed budget narrative explaining and justifying the costs by object class category.

Rationale: Cost estimates are needed to secure funding and plan for implementation of the project.

Task 3 – Deliverables

1. Preliminary Geotechnical Engineering Memo
2. Preliminary Environmental Permitting Memo
3. Route/Alignment Alternative Analysis Report
4. “Alternatives Memo” and presentation to guide technical advisers through the range of alternatives including estimated design costs as described above.
5. Coherent series of maps, photos, and descriptions that coalesce the information collected.
6. Copy of all data collected and utilized in a format suitable to TEP, as well as a copy of all products produced
7. Generation of Raw Data - All raw data used in support of the model development shall be transmitted from the engineering consulting firm to TEP in the optimal format for use during the future design phases of the Tillamook River Wetlands Road Realignment Project.
8. Traffic Impact Study
9. ODOT consultation about permitting for implementation.

2.5 Timeline for Work Commencement, Benchmark Dates, and Completion

The consultant shall provide a detailed timeline that shows when Tasks 1, 2 and 3 will be completed. The timeline will include benchmark dates of important steps needed to reach completion of each of the tasks. There is no specific format that the timeline must follow, as long as it is clear and easy for the RFP review team to understand.

Section 3: Proposal Requirements

3.1 Proposer Certifications and Licenses

Proposer shall include all qualifying certifications and licenses held by the consulting firm.

3.2 Submission Requirements

Required Elements

Page numbers are the maximum to be submitted for each element. Points are used in ranking proposals for selection. **The consultant shall be selected for this contract based on highest ranking out of 150 total points, and not by lowest bid.**

Cover Page: 1 page, 5 points

This page serves to primarily identify the proposal and firm information. It should include:

- Title reading, “Tillamook Estuaries Partnership, Tillamook River Wetlands Road Realignment Project”;
- Firm identification;
- Project team leader contact information; and

Transmittal Letter: 2 pages, 5 points

Provide an introduction to the firm that summarizes knowledge and experience with projects similar to the one in this RFP. The letter may include elements mentioned in other parts of the proposal evaluation. Letter must acknowledge receipt of any and all amendments to this RFP issued by TEP.

Staff Qualifications and Relevant Experience: 3 pages, 20 points

This section should identify the consultant team that will likely be involved with the project. List the qualifications and relevant experience of the team. Highest scores will be given to consultants that demonstrate relevant qualifications for key members of the team. The key positions should include a project manager, geotechnical engineer, structural engineer, hydraulic engineer, biologists, other professional and surveying staff, right-of-way agent, etc. In describing the experience of team members, consultants should focus on applicable experience. Highest scores will be given to firms that demonstrate they have a coherent team that has worked together in prior similar projects (ideally those projects identified in the element titled *Specific Similar Project Experience*). For design teams that have not worked together previously, the proposal should clearly demonstrate the project manager's ability to develop and manage a productive team. This section should identify any experience with tidal wetlands and tidally influenced river systems in the Pacific Northwest and more specifically Oregon's North Coast region.

Specific Similar Project Experience: 3 pages, 20 points

Beginning with the most recently completed project, clearly show experience with roadway design projects. Emphasize projects with similar setting and scope to this project (county road through a hill system). Highest scores will be given to firms demonstrating specific experience for the type of work included in this RFP. Presentation of firm experience should be tied to a time frame and experience of the project team leader(s).

Project Approach: 3 pages, 45 points

Given information provided in this RFP, describe the firm's approach for this project to cost effectively meet project deliverables and objectives in the timeframe provided. Describe the most critical elements of this project that the design team must address for a successful outcome. Clearly identify work that will be done by the prime versus sub-consultants.

Project Timeline: 1 page, 10 points

Provide an estimated timeline for completing each task and providing the associated deliverables within the overall timeline stated in *Section 2.5 Timeline for Work Commencement, Benchmark Dates, and Completion*.

Project Budget: 4 pages, 25 points

Provide an itemized budget for the tasks defined in this RFP and on separate pages a brief budget narrative for each line item. In addition to total cost, TEP's selection team will evaluate the budget based

on how well narratives identify how funds will be spent, how cost efficiencies will be achieved and the proposer's ability to provide all scoped services within the anticipated budget. **Though the budget is weighted as part of this proposal, consultant selection will not be based on lowest bidder.**

References: 1 page, 5 points

List references for roadway engineering projects. This list should include a minimum of four contact names, including business names and phone numbers for TEP to contact. Title of referenced project(s) should be provided. Topics likely asked of references include those related to: submission of accurate estimates, high quality work, meeting deadlines, and ease of interaction with the local jurisdiction, including responsiveness to on-site problems or requested meetings.

Serviceability & Local Preference – Considered as part of above: 5 points

Highest scores will be given to firms having an office within an approximately 100-mile radius of Tillamook and/or show that they can/will provide a representative in a timely manner to attend meetings within a half-day notice or to handle on-site situations.

Workload Capacity and Signed letter of commitment: 5 points

Include a signed letter that identifies the project title and the consultant team, defines the services to be provided, and commits the consultant team to providing sufficient resources to fulfill its responsibilities under the scope and timeline provided in this RFP. The letter acts as the certification of the submitted Proposal and should be signed by the individual who bears responsibility for the fulfillment of the commitment.

Overall Proposal Presentation: 5 points

Points will be awarded based on the reviewer's general impression of the proposal. Does it effectively address all submittal requirements? Is it well-written with clear and concise text? Is it well-organized?

3.3 Formatting

Proposals should be prepared simply and economically, providing a straightforward, concise description of proposer capabilities to satisfy the requirements of this RFP. Emphasis should be on completeness and clarity of content. Proposals must be submitted electronically as detailed below.

3.4 How to Submit

Each responsible proposer shall respond to the "Submission Requirements" as presented in Section 3.2 of this RFP. Proposals received without the required information may be rejected as incomplete.

Each proposer must submit one signed electronic PDF copy submitted to **Colin Jones, via email at: colin@tbnep.org**. Emails should be titled with the subject: *Tillamook River Wetlands Road Realignment Project*. Proposals will be received until **October 9th, 2026 at 5pm**. Any proposals received after the

scheduled closing time for receipt of proposals shall be returned to the proposer unopened. SUBMISSIONS MUST BE ELECTRONIC; NO PHYSICAL COPIES OF PROPOSALS WILL BE ACCEPTED.

Section 4: Solicitation Process

Public Notice and Amendments

This RFP will open on **September 9th, 2026**

In the event it becomes necessary to revise any part of this RFP, addenda will be provided to all prospective proposers who have notified TEP's Single Point of Contact of their interest in submitting a proposal. Notification of interest prior to the pre-proposal meeting is encouraged but not mandatory.

Pre-Proposal Meeting

An on-site pre-proposal meeting is scheduled for **September 23rd, 2026 at 1pm (PDT)**. This will provide prospective bidders with an opportunity to inspect the project site and ask questions of key members of the project team. Attendance at this meeting is not required, but is highly encouraged.

Contractors interested in attending the on-site pre-proposal meeting should notify TEP's Single Point of Contact, Colin Jones, via email at: colin@tbnep.org by no later than 5:00 pm (PDT) September 21st, 2026.

Modification/Withdrawal of Submitted Proposals

Modifications to submitted proposals can be made prior to **the submission deadline**. Modifications must be submitted to the Single Point of Contact via the same method as outlined in *Section 3.2.4 How to Submit*. The email should be titled: *Tillamook River Wetlands Road Realignment Project*.

Proposals can be withdrawn prior to the submission deadline. Proposer must notify TEP in writing by emailing the Single Point of Contact as soon as possible after the decision is made to withdraw.

Proposal Evaluation

TEP reserves the right to exercise its discretion with regard to selecting who will be awarded a Contract from the pool of applicants. For instance, TEP reserves the right to:

- Reject any and all proposals received in response to this RFP, if deemed to be in the best interest of the project and in consideration of the limited grant funds available;
- Waive or modify any irregularities in proposals received, after prior notification to the Proposer;
- Consider proposals or modifications received at any time before the award is made, if such action is in the best interest of TEP;
- Seek clarification of each proposal; and
- Negotiate a final contract under which the compensation paid to the Proposer is fair and reasonable to TEP as determined solely by TEP.

Ranking Process

An RFP Consultant Selection Committee of no fewer than three individuals shall be established to review, score, and rank all responsive proposals according to the criteria found in Section 3.2.

After completion of initial scores, TEP will execute reference checks of the top two evaluated firms.

Section 5: Award and Negotiation

TEP will notify the top-ranking Proposer in writing of its intent to award a contract to the Proposer. TEP may award less than the full Scope of Work described in this RFP.

The contents of the proposal of the successful Proposer (unless superseded in writing during contract negotiations) will become contractual obligations if the proposal is accepted by TEP. Failure of the successful Proposer to accept these obligations in a contract may result in cancellation of the award.

5.1 Requirements for Selected Proposer

Proposer(s) who are selected for a Contract award under this RFP will be required to submit additional information and comply with the following:

Liability Insurance

If a contract is awarded, the successful proposer must provide a certificate of coverage at the time of contract execution, indicating proof of insurance coverage with limits not less than \$100,000 property damage per claimant, \$200,000 all other claims per claimant, \$500,000 all claims. Such insurance shall be evidenced by Certificate of Insurance provided to the TEP, indicating coverages, limits and effective dates, by an insurance company licensed to do business in the State of Oregon. Also, an Endorsement shall be issued by the company showing TEP and Tillamook County as additional insured and containing a 30-day Notice of Cancellation endorsement. If a contract is awarded, the successful proposer must provide documentation of Errors and Omissions (professional liability) Insurance Coverage.

Responsibility Inquiry

TEP reserves the right to seek proof or require the Proposer to certify that it is financially solvent and capable of project.

Nondiscrimination Policy

As a condition of receiving the award of a Contract Agreement under this RFP, Proposer must certify that it has in place a policy and practice of preventing sexual harassment, sexual assault, and discrimination against employees who are members of a protected class. The policy and practice must include giving employees a written notice that the policy both prohibits, and prescribes disciplinary measures for, conduct that constitutes sexual harassment, sexual assault, or unlawful discrimination.

5.2 Contract Negotiation

TEP shall begin contract negotiations with the highest ranked Proposer. In the event the final scoring and ranking results in a high tie proposal, TEP:

- May further evaluate and rank all high tie proposals according to the criteria set forth in the RFP, with or without requiring further submissions from, or interviews of, the Proposers involved in the tie, to determine which of the Proposers to select, if any, to provide the required services in a manner most beneficial to the overall intent of the project, and to the expectations of TEP; and
- Provided the high tie is broken, shall then enter into negotiations with the highest ranked consultants as outlined in this RFP.

Negotiations with a high-ranked consultant may be formally terminated if they fail to result in a contract within a reasonable amount of time as determined by TEP. Negotiations will then ensue with the next ranked consultant, and if necessary, the next consultant and so on, until the negotiations result in a contract.

If negotiations fail to result in a contract within a reasonable amount of time, the solicitation may be formally terminated and a new solicitation effort undertaken.

5.3 Contract Administration

Project Manager

Contract administration and project management are conducted through TEP. The awarded contract will be between the chosen consultant and the TEP. TEP's Project Manager and primary contact is:

Colin Jones, Restoration & Monitoring Director
 Tillamook Estuaries Partnership
 PO Box 493 (Physical Address: 613 Commercial Street)
 Garibaldi, OR 97118
 Phone: 503-322-2222
 Email: colin@tbnep.org

Compensation

Compensation to the consultant shall be based on:

- Direct salary costs;
- Direct non-salary costs;
- Overhead costs expressed as a percentage of direct salary costs; and
- A fixed professional fee.

A "not to exceed" total contract price will be negotiated prior to start of work.

This project is entirely grant funded. All payments will be paid by TEP after the invoices from the consultant have been reviewed and approved by TEP. Following approval, TEP will submit a reimbursement request to the grantor(s). Payments will be made upon receipt of funds from the grantor. Invoices will be processed in as timely a manner as possible, however, delays in payment of up to several weeks may occur as a result of the above process.

Ten (10) percent of the total contract amount will be withheld until all deliverables are approved by TEP and its advisory committee at which time a final payment will be issued.

Section 6: Additional Information

6.1 Governing Laws and Regulations

Any dispute arising under this RFP or resulting contract award will be governed by the laws of Tillamook County and Oregon State. Venue shall be in Tillamook County, Oregon, unless otherwise agreed by the parties.

6.2 Ownership/Permission to Use Materials

All Proposals submitted in response to this RFP become the property of TEP. By submitting a Proposal in response to this RFP, Proposer grants TEP a non-exclusive, perpetual, irrevocable, royalty-free license for the rights to copy, distribute, display, prepare derivative works of and transmit the Proposal solely for the purpose of evaluating the Proposal, negotiating a Contract, if awarded to Proposer, or as otherwise needed to administer the RFP process. Proposals, including supporting materials, will not be returned to Proposer, except in the case of Proposals that were submitted late and rejected.

6.3 Cancellation of RFP; Rejection of Proposal; No Damages

TEP may reject any or all Proposals in-whole or in-part, or may cancel this RFP at any time. TEP is not liable to any Proposer for any loss or expense caused by or resulting from the delay, suspension, or cancellation of the RFP or a Contract award, or the rejection of any Proposal.

6.4 Cost of Submitting a Proposal

Proposer shall pay all costs incurred in connection with its Proposal, including, but not limited to, the costs to prepare and submit the Proposal, costs of samples and other supporting materials, and costs to participate in demonstrations.

Section 7: Attachments

A. Detailed Project History

Tillamook Bay and the coastal communities that surround it are sandwiched between the Oregon Coast Range and the Pacific Ocean. The watershed includes five major rivers, a vast lowland floodplain, and a diverse network of tidal wetlands. Tillamook's low-lying communities are prone to oceanic and riverine flooding on a frequent basis. These floods are likely to be exacerbated by predicted changes in climate, including significant changes to storm frequency and intensity and an increase in sea level. The network of roads and highways interwoven amidst these undulating bodies of water were, in some cases, established atop wetlands, and in many cases started as wagon trails. They were not designed to withstand the volume of traffic they see in conjunction with the increased inundations and erosion of the shifting bodies of water.

Burton-Fraser Road runs generally east-to-west along the south bank of the Tillamook River, between Hwy 131 on the west end and Tillamook River Road on the east end. Partially constructed prior to 1900 and completed in the early 1960s, Burton-Fraser Road has experienced significant deterioration over the decades and is on the verge of catastrophic failure. The road's location directly adjacent to the Tillamook River and construction on a base of poor-quality marsh subsoils has led to severe settlement and sinking resulting in several low points where the river frequently overtops and flows across the roadway during high tides and moderate flow events. The settlement, bank erosion, and scour due to overflowing water has resulted in failures of the pavement and shoulders, creating safety hazards. The embankment of Burton-Fraser Road forms an earthen dike along the river that disconnects the land behind it from natural tidal and riverine processes. TEP is interested in restoring the hydrologic connection between TRW and the Tillamook River, thereby restoring fish passage and natural ecological processes to the TRW site. The failure of this road would leave the coastal communities of Netarts and Oceanside with only one evacuation route through downtown Tillamook on 3rd Ave. Extensive work has been done to assess the restoration site and adjacent (Burton-Fraser) road. The *Burton-Fraser Road/Eckloff Road Upgrades Alternatives Comparison (ESA, 2021)* determined that Burton-Fraser road is extremely likely to fail, regardless of high-cost upgrades. The composition of the soils and proximity to the tidally influenced river will always pose problems for a road in this location. The next step of the project is to design an alternate "lifeline" road that can serve as the county right-of-way, allowing for Burton-Fraser to be closed. Fish passage design into the TRW property and habitat restoration designs on-site are both sitting at 60%. The cost and timing of the alternate route (Eckloff Road.) being designed will impact final designs for Burton-Fraser and the TRW site. They cannot move forward until preliminary design work is done at Eckloff Road. to inform our Commissioners how to proceed with road-closure planning, permitting, and procedures. Meanwhile, the current state of Burton-Fraser Road is now in violation of fish passage regulations and needs to be addressed. This project, as well as other tidal wetland restoration projects on the coast, are called out over and over in regional management plans. This project supports county infrastructure needs that are beyond the budget of county public works.

Tillamook is a low population county at just 27,417. But the population and tax base don't reflect the infrastructure improvement needs. The coastal climate as well as proximity to the coastal mountain range creates a perfect storm for water accumulation and erosive force. The steep gradient in close proximity to the coastal floodplain creates a high density of rivers and streams. Winter storms can create extreme flooding events

during the winter. Burton-Fraser Road follows the Tillamook River along its southern bank. The Tillamook at the section is still very tidally influenced, often rising and falling 8 feet a day. The mix of upstream flooding and downstream tidal events, especially king tides, leads to severe overtopping events that have compromised Burton-Fraser Road over time. After the first two rounds of engineering analysis, the county now understands the failing condition of the road. Burton-Fraser Road has been designated for closure by the county, but an alternative route must first be established and prepared to be the county right-of-way prior to a closure on Burton-Fraser. That brings us to where we now stand with this project as TEP undertakes advancing the upgrade designs for Eckloff road to serve as that alternative route.

Once Eckloff Road is redesigned and upgraded, traffic can be rerouted between Highways 101 and 131. Burton-Fraser Road is the current lifeline road between these highways that provides access to the coastal communities of Netarts and Oceanside, as well as all the properties, residences, and farms situated along the way. This road is also highly trafficked by industry vehicles working in dairy, timber, livestock, as well as utility services and first responders. As with many coastal areas, the Tillamook area also sees high amounts of tourist traffic and roads in poor states of repair can be especially dangerous for folks that are not local, don't know alternative routes, or when conditions warrant avoiding certain areas. Some people don't realize how swift and strong the water current overtopping the road may be, even if it appears to only be 6-8 inches depth on the roadway. Vehicles have been swept into the river while trying to ford the inundated roadway. Burton-Fraser Road overtops upwards of fifty times a year. Water can be a depth of three feet over the roadway. In some of the attached images you can see whitewater cresting as the water sweeps across the roadway, an indication of the speed and power of the torrent.

During overtopping events, water overflowing across the roadway has eroded the back/wetland side of the roadway embankment, created abrupt edge conditions and threatened to undermine the edge of the roadway pavement. To temporarily address the erosion on the back side of the road, TCPW constructed scour protection aprons in six locations where water frequently overtops and flows across the roadway. The aprons were constructed in 2012 using a wire mesh-reinforced controlled density fill (CDF), a self-compacting, cementitious material. These scour protection measures are temporary and incomplete solutions for preventing ultimate failure of the roadway, and the aprons are showing significant deterioration.

During each overtopping event, water continues to erode and undermine these features, and significant changes have been observed in the past year alone. In several locations the edges of the CDF are failing, and two of the CDF aprons have been undermined and pushed away from the road's edge leaving an abrupt edge and additional safety hazard. The volume and velocity of water that crosses the road during overtopping is expected to eventually erode the CDF and adjacent embankments. It is likely that an overtopping event and/or culvert collapse could blow out the roadway embankment, rendering the road impassable.

Ultimately, it's the opinion of the engineers and Tillamook County Public Works that it's not a matter of *if* the road is going to fail, it's just a matter of *when*. When evaluating alternatives, the third alternative of "do nothing" had to be considered, especially because that is the default alternative without the funding to pursue upgrading an alternative route. Doing nothing means watching this road slowly deteriorate while alternative routes are limited. Eckloff is in such a poor state of repair at this point that it's only paved on the east end. The steep grade, sharp curves, single lane, and earthen substrate do not provide a serviceable evacuation route for high traffic, especially in wet and rainy conditions. It does offer an important feature for long term sustainability though,

which is consolidated soils that won't sink like floodplain material that Burton-Fraser is built on top of, and it's also out of the FEMA 100-year floodway.

The environmental habitat implications of this project for fish and wildlife are numerous. Burton-Fraser Road currently acts as a dike, elevated between the Tillamook River and its floodplain. While there are culverts and tidegates under the roadway, that are all undersized and in the case of the tidegates, non-functioning. Fish passage is limited to during the major overtopping events. Stripping the roadway and breaching the dike to cut tidal channels would allow for fish passage, as well as restoring the natural processes that existed historically and are clear in LiDAR imagery. The proposed tidal wetland restoration would provide a complex network of channels, wood, vertical stratification, native vegetation, shade, and habitat connectedness. Tidal wetlands and estuaries are critically threatened habitats and are uniquely endemic to the coast. The mixing of fresh and salt water in an area that is still protected, is shallow enough for light to provide aquatic vegetation used as food and shelter, sits within the anadromous zone, but is out of the main channel and allows for juvenile aquatic organisms to grow in relative safety. This habitat is critical to salmonids, lamprey, amphibians, reptiles, waterfowl, birds of prey, and beaver. Off-channel, over-winter rearing habitat has been identified as a limiting factor for coho. This is due to the fact that, unlike most other salmonids, coho typically spend over a year rearing in freshwater systems. Many other salmon species go from fresh to salt water within their first year. Coho need different types of rearing habitat due to the varying conditions and species compositions during different seasons. In the winter when there is higher water and greater velocities, juveniles can be at greater risk of predation or simply being swept out to sea. Off-channel habitat to safely hide and graze and grow is paramount during this time.

Unlike fully freshwater habitat, there is only a narrow coastal zone where tidal wetlands can exist. There needs to be a low enough gradient for calm waters and anadromous fish access, and it needs to be within relative proximity to the coast to maintain tidal influence. In Tillamook County, the majority of the locations that meet these criteria have been diked, dredged, drained, and are currently under active agriculture. The opportunity to return 73 acres back to tidal wetland is a fleeting opportunity. This property was purchased with conservation dollars with the expectation that restoration will occur in the near future. Without funding to move this project forward, the property may have to be sold to pay back that investment. Meanwhile, Burton-Fraser Road will likely fail sooner than later and retroactively fixing a road is always orders of magnitude more expensive to address than proactively getting ahead of the problem. Not to mention the potential human harm that may occur in a blowout or with folks stranded in the coastal communities during cataclysmic weather events.

The community has been and will continue to be involved and engaged as we move this project forward. Individual landowner contacts along roadways have already been made. Ongoing discussions with Stimson Lumber regarding easement to expand Eckloff road will be of primary focus.