
General Information

Project Title Pioneer Park Restoration

Project Short Description The City of Tumwater is seeking funding to design and construct a riparian restoration project to stabilize the slope and improve riparian conditions along the Deschutes River at River Mile 2.0, located in Pioneer Park. Currently, the roughly 1,000-foot section of unstabilized bank produces over 2,380 cubic yards of fine sediment every year into the Deschutes River, a 303(d) listed water body.

Project Long Description The Deschutes River watershed is made up of 143 streams totaling 256 linear miles. The main stem of the Deschutes River flows 52 miles before reaching Capitol Lake and eventually the Budd Inlet of the Puget Sound. Numerous studies have pointed out poor water quality along the Deschutes River, and the Department of Ecology produced the Deschutes River, Percival Creek, and Budd Inlet Tributaries Temperature, Fecal Coliform Bacteria, Dissolved Oxygen, pH, and Fine Sediment Total Maximum Daily Load in 2015, updated in 2018.

This project site was identified through the Watershed Resources Inventory Area (WRIA) 13 three-year implementation priority list. This project is located on the Deschutes River in Pioneer Park, Thurston County Parcel #12702110100 and is owned by the City of Tumwater. The project seeks to improve a major source of erosion, reducing water temperature within the reach, restore aquatic habitat in the reach by increasing the amount of in-stream complexity, and re-establishing the native riparian forest. The site produces over 2,380 cubic yards of fine sediment every year into the system which has critical stocks of Coho salmon. This grant would help fund design updates and initiate permitting to create a project to stabilize the bank, decrease TSS, reduce temperature, while providing an engaging but safe space for the public.

Work for this project began in 2010, with conceptual designs for a project to reduce fine sediment, decrease water temperature, and increase habitat complexity. In 2014, the South Puget Sound Salmon Enhancement Group (SPSSEG) received a Salmon Recovery Funding Board grant (#14-1405) from the Washington State Recreation and Conservation Office. The outcome of that grant was a preliminary design report for the site.

A large amount of effort was put into the project during that time, including hydraulic modeling, geomorphic assessments, topographic survey data, and public use surveys. The preliminary design report detailed a project that would seek to provide bank stabilization, re-establish the riparian zone by

General Information

planting 375 linear feet of bank, increase channel complexity using large woody debris and rock barbs, and direct water into the main channel during low flows to help protect tubers.

In the four years since the preliminary designs were originally conceived, the river has changed dramatically. On average, the Deschutes River channel through Pioneer Park migrates 9.4 feet per year. Due to this large change, the core plans from the preliminary designs will no longer function with the current state of the river.

In addition to Pioneer Park being a popular public park and walking trail, there has been some discussion with the Department of Fish and Wildlife about the possibility of building the Deschutes Watershed Center Hatchery on the site. While discussions are ongoing about the exact site of the hatchery, if it is built at Pioneer Park or another site in the lower watershed, the City of Tumwater has been in discussions with WDFW staff to ensure that both projects are feasible. Tumwater received feedback at the end of 2018 from WDFW staff that our plans for the restoration site will not impact any plans for the hatchery. The latest version of the proposed hatchery plans are attached to this application and show that the two projects take place on opposite sides of the park and will not impact each other.

This grant would provide funding to update the design to fit current river conditions, increase the riparian corridor to at least 100 feet, complete permitting, and construct the project by the end of 2023. This site in particular has been identified in the Deschutes River TMDL as needing a 46% reduction in fine sediment loading. In addition, the site has been identified as needing over a 50% increase in shading, highlighting the need for substantial riparian restoration work along this reach.

| | | |
|-------------------------|---|---|
| Total Cost | \$450,781.13 | Total Eligible Cost \$450,781.13 |
| Effective Date | 7/1/2021 | Expiration Date 11/1/2023 |
| Project Category | <ul style="list-style-type: none"> ✓ Nonpoint Source Activity Onsite Sewage System Stormwater Activity Stormwater Facility Wastewater Facility | |

General Information

Will Environmental Monitoring Data be collected?

No

Ecology Program

Water Quality

Overall Goal

The goal of this grant is to update designs, complete permitting, and finish construction of the Pioneer Park Restoration project to increase water quality in the Deschutes River. Once constructed, this project will decrease mobilization of fine sediments, 2,380 cubic yards of which are currently entering the system every year. Re-establish native riparian forest to improve impaired riparian conditions and lower summer water temperatures. All while maintaining a safe environmental for boaters, tubers, swimmers, and other users of the Deschutes River and Pioneer Park.

WATER QUALITY COMBINED FINANCIAL ASSISTANCE

Organization: Tumwater city of

WQC-2022-Tumwat-00092

Project Characterization

Project Themes

Select a primary and secondary theme that best describes the work to be achieved during this project.

Primary Theme: Nonpoint Source Pollution
Secondary Theme(s): Riparian/Wetland Restoration

Project Website

If your project has a website, please enter the web address below. After entering a website and saving, another blank row will appear. Up to three websites may be provided.

| Website Title/Name | Web Address |
|--------------------|-------------|
|--------------------|-------------|

Recipient Contacts

Project Manager

Dan Smith

Contact Information

Dan Smith

555 Israel Road SW
Tumwater, Washington 98501
(360) 754-4140
(360) 754-4142
desmith@ci.tumwater.wa.us

Authorized Signatory

Pete Kmet

Contact Information

Pete Kmet
Mayor
555 Israel Road SW

Tumwater, Washington 98501
(360) 754-4140

pkmet@ci.tumwater.wa.us

Billing Contact

Dan Smith

Contact Information

Dan Smith

555 Israel Road SW
Tumwater, Washington 98501

WATER QUALITY COMBINED FINANCIAL ASSISTANCE

Organization: Tumwater city of

WQC-2022-Tumwat-00092

Recipient Contacts

(360) 754-4140
(360) 754-4142
desmith@ci.tumwater.wa.us

Other recipient signatures on printed agreement

| Name | Title |
|-------------|--------------|
|-------------|--------------|

Funding Request- Nonpoint Project

| | |
|-----------------------------|-----------|
| Total Eligible Cost: | \$450,781 |
| Grant Request: | \$338,086 |
| Match Required: | \$112,695 |

IMPORTANT NOTICE. Grants for nonpoint projects require a 25% match. Projects with cash-only match are eligible for up to \$500,000 in grant. Projects with a mix of funds for match are eligible for up to \$250,000 in grant. Cash match includes any eligible project costs paid for directly by the recipient that are not reimbursed by the Ecology grant or another third party. Donations that become the long-term property of the recipient are considered cash match. Loan money provided through the CWSRF is also considered cash match. In-kind contributions are considered non-cash match. More information on match requirements can be found in the Water Quality Combined Financial Assistance Guidelines which are available for download on the Application Menu.

Will your match be cash-only? Yes No

Are you requesting or will you accept loan funds for part or all of the eligible project costs or to meet your match requirement? Yes No

What is the loan amount you are requesting or willing to accept?

What loan term do you prefer? 5 years 20 years 30 years

IMPORTANT NOTICE. Ecology may provide special loan funding for nonpoint projects in the following case: (1) projects that meet the criteria for "green project reserve" may receive up to 25% forgivable loan. Ecology will determine eligibility for special funding when developing funding packages.

Do you want your project to be considered for GPR subsidy under the CWSRF program? Yes No

NOTE: Projects are only eligible if they meet EPA's GPR criteria, and applicants accept a CWSRF loan.

Do you have any secured funds committed to this project? Yes No

If Yes, complete the Secured Funds Table, and include any secured matching funds if known.

WATER QUALITY COMBINED FINANCIAL ASSISTANCE

Organization: Tumwater city of

WQC-2022-Tumwat-00092

Funding Request- Nonpoint Project

| Source | Type | Amount Committed |
|---|------|------------------|
| State/Federal agency: | | |
| State/Federal agency: | | |
| State/Federal agency: | | |
| Interlocal contributions: | | |
| Interlocal contributions: | | |
| Interlocal contributions: | | |
| Local agency: City of Tumwater Stormwater Utility | Cash | \$114,000.00 |
| Funding | | |
| Local agency: | | |
| Local agency: | | |
| In-kind contributions: | | |
| In-kind contributions: | | |
| In-kind contributions: | | |
| Other | | |
| Other | | |
| Other | | |

Scope of Work - Task 1 Grant and Loan Administration: 1

Task Number 1

Task Title Grant and Loan Administration

Task Cost \$6,750.55

IMPORTANT NOTICE. The cost of this task should not exceed 15% of the Total Eligible Costs you entered on the General Information form.

Task Description

A. The RECIPIENT shall carry out all work necessary to meet ECOLOGY grant or loan administration requirements. Responsibilities include, but are not limited to: Maintenance of project records; submittal of requests for reimbursement and corresponding backup documentation; progress reports; the EAGL (Ecology Administration of Grants and Loans) recipient closeout report; and a two-page outcome summary report (including photos, if applicable). In the event that the RECIPIENT elects to use a contractor to complete project elements, the RECIPIENT shall retain responsibility for the oversight and management of this funding agreement.

B. The RECIPIENT shall keep documentation that demonstrates the project is in compliance with applicable procurement, contracting, and interlocal agreement requirements; permitting requirements, including application for, receipt of, and compliance with all required permits, licenses, easements, or property rights necessary for the project; and submittal of required performance items. This documentation shall be available upon request.

C. The RECIPIENT shall maintain effective communication with ECOLOGY and maintain up-to-date staff contact information in the EAGL system. The RECIPIENT shall carry out this project in accordance with any completion dates outlined in this agreement.

Task Goal Statement Properly managed and fully documented project that meets ECOLOGY’s grant or loan administrative requirements.

Task Expected Outcomes

- * Timely and complete submittal of requests for reimbursement, quarterly progress reports, Recipient Closeout Report, and two-page outcome summary report.
- * Properly maintained project documentation.

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Organization: Tumwater city of

WQC-2022-Tumwat-00092

Scope of Work - Task 1 Grant and Loan Administration: 1

Recipient Task Coordinator Meridith Greer

| Deliverable # | Description | Due Date | Received? (ECY Use Only) | EIM Study ID | Latitude (expressed in decimals) | Longitude (expressed in decimals) | Location Address |
|----------------------|---|-----------------|---------------------------------|---------------------|---|--|-------------------------|
| 1.1 | Progress Reports that include descriptions of work accomplished, project challenges or changes in the project schedule. Submitted at least quarterly. | 11/1/2023 | | | | | |
| 1.2 | Recipient Closeout Report (EAGL Form) | 11/1/2023 | | | | | |
| 1.3 | Two-page Outcome Summary Report | 11/1/2023 | | | | | |

Scope of Work - FOR APPLICATION

How many tasks do you want to appear?

Task #: 2

Task Title: Cultural and Environmental Reviews, and Permitting

Task Cost: \$2,693.01

Expected Start Date: 7/1/2021

Expected Finish Date: 12/1/2021

Describe the work that will be billed to this task. (char 3,500)

The RECIPIENT shall ensure the following items are completed and provide the associated deliverables to ECOLOGY . The RECIPIENT must approve all materials prior to submitting them to ECOLOGY for acceptance.

- A. The RECIPIENT will provide both the ECOLOGY project manager and separegister@ecy.wa.gov an internal consultation on the draft State Environmental Policy Act (SEPA) documents
- B. The RECIPIENT will notify ECOLOGY project manager, in addition to the required distribution and public notice, when SEPA documents have been issues for the official comment period, which is a minimum of 21 days.
- C. The RECIPIENT is responsible for application of, receipt of, and compliance with all required local, state, tribal and federal permits, licenses, easements, or property rights necessary for the project.
- D. Above and below ground activities must be reviewed for cultural resource impacts. The RECIPIENT will submit the forms listed below to ECOLOGY to initiate consultation for cultural resources review.

To initiate cultural review:

- 1. The RECIPIENT will submit the 05-05/106 Form to ECOLOGY, using the ECOLOGY template. Any supporting materials must conform to the Department of Archeology and Historic Preservation’s Washington State Standards for Cultural Resource Reporting .
- 2. The RECIPIENT will submit an Inadvertent Discovery Plan (IDP) to ECOLOGY, using the ECOLOGY template. The RECIPIENT will ensure that all contractors and subcontractors have a copy of the completed IDP prior to and while working onsite . The IDP template may be found on the ECOLOGY website.

The RECIPIENT must receive written notice from ECOLOGY prior to proceeding with work. Work done prior to written notice to proceed shall not

Scope of Work - FOR APPLICATION

be eligible for reimbursement. This includes geotechnical work.

Deliverables

To Add a Row

Enter a deliverable
 When done, click the **SAVE** button
 After SAVE a new row will appear
 Repeat these steps for each deliverable

To Delete a Row

In the row you want to delete, remove the information in all of the textboxes
 When done, click the **SAVE** button
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Deliverables Table (Deliverables are documents that can be uploaded into EAGL to show that work was completed; deliverables should align with the detailed budget provided on the Task Costs and Budget Form and the project schedule uploaded on the Project Planning and Schedule Form.)

| Deliverables Description | Deliverable Date | Deliverable Budget |
|--|------------------|-----------------------------------|
| 2.1 SEPA checklist, or other documentation for projects considered exempt from SEPA review. Upload to EAGL and notify ECOLOGY when upload is complete. | 8/1/2021 | \$648.41 |
| 2.2 List of permits acquired and environmental review documents. Upload to EAGL and notify ECOLOGY when upload is complete. | 12/1/2021 | \$1,737.65 |
| 2.3 ECOLOGY 05-05/106 Form. Email the form and any supplemental cultural resources documentation directly to the ECOLOGY Project Manager. ECOLOGY will upload documentation to EAGL when cultural resources is complete. | 10/1/2021 | \$219.25 |
| 2.4 Inadvertent Discovery Plan. Upload to EAGL and notify ECOLOGY when upload is complete. | 12/1/2021 | \$87.70 |
| | | Total Deliverable Budget: \$2,693 |

Scope of Work - FOR APPLICATION

Total Task Costs:

| | |
|------------------------------|---------------------------------|
| Task #: | 3 |
| Task Title: | Design Plans and Specifications |
| Task Cost: | \$44,248.95 |
| Expected Start Date: | 7/1/2021 |
| Expected Finish Date: | 4/15/2023 |

Describe the work that will be billed to this task. (char 3,500)

The RECIPIENT shall ensure the following items are completed and provide the associated deliverables to ECOLOGY . The RECIPIENT must approve all materials prior to submitting them to ECOLOGY for acceptance.

A. The RECIPIENT will develop a stormwater project design. The design submittals must conform to the Design Deliverables for Stormwater Projects with Ecology Funding (Design Deliverables Document). Projects must be designed in accordance with the Stormwater Management Manual for Eastern Washington, Stormwater Management Manual for Western Washington, or equivalent manual. Refer to the ECOLOGY website for specific guidance. Project must be reviewed and accepted in writing by ECOLOGY to be eligible for reimbursement.

The RECIPIENT will upload the design submittals listed below to EAGL for ECOLOGY review. Reduce design figures to 11x17 inches in size and ensure they are legible.

1. The RECIPIENT will submit a Design Report to ECOLOGY for review and acceptance.

The RECIPIENT agrees to respond to ECOLOGY comments. The RECIPIENT must receive an Ecology Design Report Acceptance Letter prior to proceeding to 90 Percent Design.

2. The RECIPIENT will submit a 90 Percent Design Package to ECOLOGY for review and acceptance. At a minimum, this package must include 90 percent plans, specifications, engineer’s opinion of cost, which includes a schedule of eligible cost, and project construction schedule. The current required bid inserts and specifications may be found on the Ecology website.

The RECIPIENT agrees to respond to ECOLOGY comments. The RECIPIENT must receive an Ecology 90 Percent Design Acceptance Letter prior to proceeding Final Design.

3. The RECIPIENT will submit a Final Bid Package to ECOLOGY for review and acceptance prior to advertising the project. The Final Bid

Scope of Work - FOR APPLICATION

Package includes: project plans, specifications, engineer’s opinion of cost including a schedule of eligible costs , and project construction schedule.

Deliverables

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| Deliverables Description | Deliverable Date | Deliverable Budget |
|--|-------------------------|---------------------------|
| 3.1 Contract documents (if contracting out for design.) Upload to EAGL and notify ECOLOGY when upload is complete. | 9/1/2021 | \$157.35 |
| 3.2 Design Report. Upload to EAGL and notify ECOLOGY when upload is complete. | 2/1/2022 | \$21,718.00 |
| 3.3 Responses to ECOLOGY Design Report comments. Upload to EAGL and notify ECOLOGY when upload is complete. | 4/1/2022 | \$3,616.29 |
| 3.4 ECOLOGY Design Report Acceptance Letter. Upload to EAGL and notify ECOLOGY when upload is complete. | 5/1/2022 | \$43.85 |
| 3.5 90 Percent Design Package. Upload to EAGL and notify ECOLOGY when complete. | 6/1/2022 | \$7,318.34 |

WATER QUALITY COMBINED FINANCIAL ASSISTANCE

Organization: Tumwater city of

WQC-2022-Tumwat-00092

Scope of Work - FOR APPLICATION

| | | |
|--|-----------|---------------------------------------|
| 3.6 Responses to ECOLOGY 90 Percent Design Package comments. Upload to EAGL and notify ECOLOGY when upload is complete. | 9/1/2022 | \$1,905.54 |
| 3.7 ECOLOGY 90 Percent Design Acceptance Letter. Upload to EAGL and notify ECOLOGY when upload is complete. | 10/1/2022 | \$43.85 |
| 3.8 Final Bid Package. Upload to EAGL and notify ECOLOGY when upload is complete. | 12/1/2022 | \$6,768.19 |
| 3.9 Responses to ECOLOGY Final Bid Package comments. Upload to EAGL and notify ECOLOGY when upload is complete. | 1/15/2023 | \$1,949.39 |
| 3.10 Ecology Final Bid Package Acceptance Letter. Upload to EAGL and notify ECOLOGY when upload is complete. | 2/15/2023 | \$43.85 |
| 3.11 Bid documents (e.g. bid announcement, bid tabulations, and bid award). Upload to EAGL and notify ECOLOGY when upload is complete. | 4/1/2023 | \$684.30 |
| | | Total Deliverable Budget: \$44,248.95 |

Task #: 4

Task Title: Construction Management

Task Cost: \$14,875.54

Expected Start Date: 5/1/2023

Scope of Work - FOR APPLICATION

Expected Finish Date: 10/1/2023

Describe the work that will be billed to this task. (char 3,500)

The RECIPIENT shall ensure the following items are completed and provide the associated deliverables to ECOLOGY . The RECIPIENT must approve all materials prior to submitting them to ECOLOGY for acceptance .

- A. The RECIPIENT will provide construction oversight and management of the project .
- B. The RECIPIENT will submit a detailed Construction Quality Assurance Plan (CQAP) to ECOLOGY for review and acceptance before the start of construction. This plan must describe how the RECIPIENT will perform adequate and competent construction oversight . Guidance for CQAP development is located in the Design Deliverables Document available on the ECOLOGY website .
- C. The RECIPIENT will conduct a pre-construction conference meeting and invite ECOLOGY to attend .
- D. The RECIPIENT will submit an updated project schedule and cost estimate prior to the start of construction and whatever major changes occur .
- E. Prior to execution, the RECIPIENT will submit to ECOLOGY any eligible change orders that deviate from ECOLOGY-accepted plans and specifications. ECOLOGY must review and accept all change orders that affect grant eligible activities prior to implementation .

Deliverables

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| Deliverables Description | Deliverable Date | Deliverable Budget |
|--|------------------|--------------------|
| 4.1 Contract documents (e.g. bid announcement, bid award, and bid tabulations). Upload to EAGL and notify ECOLOGY when upload is complete. | 5/15/2023 | \$1,569.60 |
| 4.2 Pre-construction conference | 5/15/2023 | \$87.70 |

WATER QUALITY COMBINED FINANCIAL ASSISTANCE

Organization: Tumwater city of

WQC-2022-Tumwat-00092

Scope of Work - FOR APPLICATION

meeting minutes. Upload to EAGL and notify ECOLOGY when upload is complete.

4.3 Project Schedule. Upload to EAGL and notify ECOLOGY when upload is complete. 5/15/2023 \$3,694.05

4.4 Revised construction cost estimates when changes in construction schedule occur. Upload to EAGL and notify ECOLOGY when upload is complete. 10/1/2023 \$4,975.90

4.5 Change Order(s). Upload to EAGL and notify ECOLOGY when upload is complete. Upload ECOLOGY acceptance documentation. 10/1/2023 \$4,548.29

Total Deliverable Budget: \$14,875.54

Task #: 5

Task Title: Construction

Task Cost: \$381,277.88

Expected Start Date: 5/1/2023

Expected Finish Date: 11/1/2023

Describe the work that will be billed to this task. (char 3,500)

The RECIPIENT shall ensure the following items are completed and provide the associated deliverables to ECOLOGY . The RECIPIENT must approve all materials prior to submitting them to ECOLOGY for acceptance .

A. The RECIPIENT will complete construction of the project in accordance with ECOLOGY -accepted plans and specifications. The construction project will include bank stabilization work and replanting a 100-foot riparian buffer .

Scope of Work - FOR APPLICATION

Deliverables

To Add a Row

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| Deliverables Description | Deliverable Date | Deliverable Budget |
|--|------------------|--|
| 5.1 Signed and dated construction contract. Upload to EAGL and notify ECOLOGY when upload is complete. | 5/1/2023 | \$328.08 |
| 5.2 Construction Completion Form. Upload to EAGL and notify ECOLOGY when upload is complete. | 11/1/2023 | \$380,949.80 |
| | | Total Deliverable Budget: \$381,277.88 |

Task #: 6

Task Title: Project Close Out

Task Cost: \$935.20

Expected Start Date: 8/1/2023

Expected Finish Date: 11/1/2023

Describe the work that will be billed to this task. (char 3,500)

The RECIPIENT shall ensure the following items are completed and provide the associated deliverables to ECOLOGY . The RECIPIENT must approve all materials prior to submitting them to ECOLOGY for acceptance .

Scope of Work - FOR APPLICATION

- A. The RECIPIENT will operate and maintain the site for the design life of the site. The RECIPIENT will develop and submit an Operations and Maintenance (O&M) plan for all items built with ECOLOGY funding to ECOLOGY for review. The O&M plan must address long-term maintenance for the site to ensure proper function of the site and establishment of a healthy riparian area.
- B. The RECIPIENT will submit the Recipient Closeout Report (RCOR) in EAGL in accordance with Task 1.
- C. The RECIPIENT will submit the Two-page Outcome Summary Report using the ECOLOGY template in accordance to Task 1. Upload the Two-page Outcome Summary Report in the RCOR in EAGL.

Deliverables

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| Deliverables Description | Deliverable Date | Deliverable Budget |
|--|------------------|--------------------|
| 6.1 Site Operation and Maintenance Plan. Upload to EAGL and notify ECOLOGY when upload is complete. Upload ECOLOGY acceptance documentation. | 11/1/2023 | \$935.20 |

Total Deliverable Budget: \$935.20

Task #: 7

Task Title:

Task Cost:

Scope of Work - FOR APPLICATION

Expected Start Date:

Expected Finish Date:

Describe the work that will be billed to this task. (char 3,500)

Deliverables

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Deliverables Description

Deliverable Date

Deliverable Budget

Total Deliverable Budget: \$0

Task #: 8

Task Title:

Task Cost:

Expected Start Date:

Expected Finish Date:

Describe the work that will be billed to this task. (char 3,500)

Scope of Work - FOR APPLICATION

Deliverables

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Deliverables Description

Deliverable Date

Deliverable Budget

Total Deliverable Budget: \$0

Task #: 9

Task Title:

Task Cost:

Expected Start Date:

Expected Finish Date:

Describe the work that will be billed to this task. (char 3,500)

Deliverables

To Add a Row

Enter a deliverable

To Delete a Row

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Scope of Work - FOR APPLICATION

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Deliverables Description

Deliverable Date

Deliverable Budget

Total Task Costs: \$450,781

Total Deliverable Budget: \$0

Task Costs and Budget

Describe the process used to estimate the cost of the project. If your process included reviewing similar projects, describe how this review affected your estimate.

Project costs were based on hourly rates and benefits and the anticipated number of hours working on each various task. City of Tumwater rates were based on internal payroll accounts and consultant work was based on estimates from Skillings Connolly, Inc., a consulting firm that the City of Tumwater has used for a number of different projects.

City of Tumwater staff also reviewed successfully funded nonpoint grant applications from the FY 2020 and FY2021 offer list to compare.

The City of Tumwater reviewed the Lower Icicle Sediment Reduction and Riparian Restoration Project and the Lower Icicle Sediment Reduction and Riparian Restoration Implementation Project, WQC-2020-ChCoNR-00132 and WQC-2021-ChCoNR-00127. The first project focused on designing and permitting to address a 700+ linear feet of denuded bank that is rapidly eroding and contributing large sediment inputs to the Icicle and Wenatchee Rivers. The project received \$100,874 in funding from Ecology. The second project implemented the bioengineered bank stabilization elements and riparian planting on an area about 730's stretch of bank. This part of the project received \$174,439 in funding from Ecology, bringing the total cost of the design and construction of this project to \$275,313.

The City of Tumwater also reviewed the Hangman Creek Streambank Stabilization RM-17 Phase II Project, WQC-2021-SpoCoD-00184. This project would continue work needed to stabilize 1425' of eroding stream banks and received \$250,000 from Ecology.

The City of Tumwater also reviewed the Diru Creek Bank Stabilization Project at 72nd, WQC-2020-PiCoPW-00006. This project focused on constructing a project that would stabilize eroding slopes and reverse channel incision which will help meet TMDL sediment goals. The project received \$500,000 in funding from Ecology.

The City of Tumwater also reviewed the Jones Creek Riparian Restoration Project, WQC-2020-SoSaSo-00068. This project will install large woody debris in a 100ft wide riparian area. This project funding focused mainly on LWD and plating and received \$156,584 in funding from Ecology.

Overall, this project proposal price is comparable to other recent design and permitting applications given its size and the site conditions.

Has the proposed project been demonstrated to be the lowest cost solution to the problem?

If the proposed project is not the lowest cost, describe the other benefits or considerations such as feasibility, community acceptance, or coordination with other projects that influenced the decision making process.

Currently, the bank along the Deschutes River is completely denuded of vegetation, apart from the grass. This has resulted in near vertical slopes

Task Costs and Budget

that are release over 2,380 cubic yards of fine sediment into the Deschutes River every year. This slope has been highlighted as a top priority in the Deschutes River TMDL which calls for a 46% reduction in TSS from the site. Work will be done to ensure that this project is low cost, but there are a number of other criteria that this project would also have to meet to be selected.

This project would need to stabilize the slope to reduce fine sediment loading from the site, increase riparian density and diversity, reducing water temperatures, increasing instream complexity to reduce velocities directing at the bank, and protecting public safety from both the bank and the water.

The City of Tumwater will work closely with reputable consultants with experience completing riparian restoration projects to ensure that the work being done can be completed on time and on budget.

Additionally, by applying for design and construction funding with this grant application, this project will be ensuring that funding will not be wasted creating designs that become out of date within a year due to the extreme amount of movement the Deschutes River experiences every year.

Upload a detailed budget for the project and any supporting documentation, including engineers estimates, cost analysis, etc.

Upload Documents

Click the Browse button

Select your file

Click Save, your file will appear in the List of uploaded documents

Repeat for each file

To Delete a file, select the Delete checkbox next to the file and click SAVE

https://ecyeagl/IntelliGrants_BASE/_Upload/154474_925650-PioneerParkScheduleandBudget.xlsx

Project Budget and Schedule

https://ecyeagl/IntelliGrants_BASE/_Upload/154474_925650_2-PioneerParkRestorationProject-FundingConsiderations.pdf

Funding Consideration Options

WATER QUALITY COMBINED FINANCIAL ASSISTANCE

Organization: Tumwater city of

WQC-2022-Tumwat-00092

Project Team

Fill out the following table to describe your Project Team, including staff, contractors, and partner agencies:

| Team Member Name/and or Title | Agency/ Company Name | Key Responsibilities | Qualifications/ Experience | Estimated Total Hours Devoted to the Project | Who will take over the person's responsibilities if they are unable to work on the project? |
|--|-----------------------------|--|---|---|--|
| Dan Smith, Water Resources & Sustainability Depart | City of Tumwater | Dan will provide: <ul style="list-style-type: none"> • Overall grant and project management • Technical expertise • Cross agency coordination | Dan has been with the City for other 19 years, providing oversight to all Tumwater water resources programs. Dan has managed numerous stormwater retrofit projects as well as habitat restoration and bank stabilization projects, including installing LWD at the Tumwater Valley Golf course to stabilize slopes. | 30.00 | Meridith Greer, Water Resources Educator |
| Meridith Greer, Water Resources Educator | City of Tumwater | Meridith will provide: <ul style="list-style-type: none"> • Overall grant management • Reporting protocols • Technical expertise • Volunteer coordination (Stream Team) • Stakeholder outreach and engagement | Meridith has been with the City for two years and coordinates the majority of the City's grants. She has six years of experience with stormwater and restoration projects and runs all of the City's water related outreach and volunteer work. | 81.00 | Dan Smith, Water Resources & Sustainability Department Director |
| Dave Kangiser, Water Resources Specialist | City of Tumwater | Dave will provide: <ul style="list-style-type: none"> • Technical expertise | Dave oversees the stormwater program at the City. He previously worked in the shellfish protection | 57.00 | Meridith Greer, Water Resources Educator |

WATER QUALITY COMBINED FINANCIAL ASSISTANCE

Project Team

| | | | | | |
|---|--|---|---|---|-------------------------|
| Ursula Euler, Finance City of Tumwater Director | Ursula will provide: <ul style="list-style-type: none"> • Invoice coordination • Coordination of payments • Tracking of internal and external staff hours | division at the Department of Health and has experience working on restoration projects from his time working at the Hood Canal Salmon Enhancement Group. Ursula is a Certified Public Account and has worked for municipalities since 2004 as a financial manager. In her capacity and as Director of the finance staff, she or her staff account for all City grants according to generally accepted accounting principles, applicable grant terms, laws, and best practices. | 25.00 | Shelly Carter, Financial Services Manager | |
| Project Manager | Hired Consultant | The project manager will provide: <ul style="list-style-type: none"> • General project management • Inter-agency coordination to obtain permits • Project deliverables including (but not limited to) 05-05/106 Form, IDP, Design Reports, CQAP revised construction estimates, and final project | Tumwater will hire a project manager for the project after an RFQ process. We are seeking a project manager with past experience successfully managing stormwater projects, familiarity working on Department of Ecology grants, thorough understanding of necessary permits and regulations, excellent | 198.00 | Another Project Manager |

WATER QUALITY COMBINED FINANCIAL ASSISTANCE

Project Team

| | | deliverables. | communication skills both oral and written, and ideally familiar working with the hired professional engineer. | | |
|-----------------|------------------|---|--|--------|-------------------------|
| Engineer | Hired Consultant | <p>The professional engineer will provide:</p> <ul style="list-style-type: none"> • Final design package deliverables • Coordination with Ecology staff on review comments • Technical expertise | <p>Tumwater will hire a professional engineer for the project after an RFQ process. We are seeking a professional engineer with past experience designing successful riparian restoration projects, familiarity working with Department of Ecology Design Report requirements and formatting, excellent communication skills both oral and written, and ideally familiar working with the hired project manager.</p> | 140.00 | Another Engineer |
| Staff Scientist | Hired Consultant | <p>The Staff Scientist will provide:</p> <ul style="list-style-type: none"> • Technical assistance • Design support • In-field support as needed • Creation of a planting plan | <p>Tumwater will hire a staff scientist for the project after seeking a staff scientist with past experience creating riparian restoration plans, excellent communication skills both oral and written, and ideally familiar working with the project hired manager and engineer.</p> | 65.00 | Another Staff Scientist |

WATER QUALITY COMBINED FINANCIAL ASSISTANCE

Organization: Tumwater city of

WQC-2022-Tumwat-00092

Project Team

| | | | | | |
|-------------------|------------------|--|---|-------|---------------------------|
| Construction Firm | Hired Consultant | <p>The construction firm will provide:</p> <ul style="list-style-type: none"> • Construction deliverables on time and on budget • Clear communication with project team on changes and challenges • Technical expertise | <p>Tumwater will hire a construction firm after an RFQ process. We are seeking a construction firm with past experience completing successful stormwater retrofit projects on time and on budget, familiarity adhering to IDPs and CQAPs, proper sediment and erosion control practices, ability to communicate well with the project team, and commitment to completing the current construction project before moving onto a new project.</p> | 80.00 | Another Construction Firm |
|-------------------|------------------|--|---|-------|---------------------------|

Describe similar projects that your project team or organization has completed. Note any deviations from the original proposal in scope, budget, or schedule and briefly describe project success and lessons learned. If the project was funded by Ecology, include the Ecology grant or loan number.

Dan Smith has worked on a number of stormwater and restoration projects over his 20 years at the City of Tumwater. He worked closely on restoration activities around the E Street Stormwater Facility on the Deschutes River and established the Site Steward program where local Tumwater residents could “adopt” a restoration site. He also has managed the bi-annual Capacity Grants, the E Street Stormwater Retrofit (#G2100506), Cleveland Avenue Stormwater Retrofit (#G1200504) and the Somerset Hill Bioretention Cell Project (#G1200505).

David Kangiser has worked as a technical reviewer on the NEP grant applications that funded most of the work done as part of the Washington Department of Health’s Shellfish Program and is familiar with grant reporting requirements and timelines. Prior to Dave’s work in environmental health, he was a Salmon and Steelhead Biologist for the Hood Canal Salmon Enhancement Group where he led salmon, steelhead and habitat restoration efforts in Hood Canal watersheds.

Meridith Greer has worked on creating restoration plans for three of Tumwater’s identified sites needing restoration : Pioneer Park, Percival

Project Team

Creek at Sapp Rd, and Deschutes River at E Street. Meridith co-coordinates Stream Team, a volunteer organization that focuses on water quality, and she has helped lead restoration activities along the Deschutes River, Percival Creek, and Woodland Creek. In addition, Meridith has led teams working on stabilizing slopes, removing invasive species, managing large woody debris, planting native riparian plants, and engaging with the public.

Overall, the project team has a wide variety of experience working on numerous restoration projects. These projects always prove to be a bit difficult as they need to be executed quickly and safely, there's also large amounts of monitoring and maintenance that needs to be in the first five years to ensure the project is behaving as planned. Many of the challenges encountered during these projects has helped the City of Tumwater to be prepared to successfully move forward with this project in 2021.

The City of Tumwater will hire a consulting firm to assist in the completion of this project. When going through the hiring process and sending out Requests For Qualifications (RFQs), we will be seeking experienced firms with strong track records of completing similar projects properly, on time, and within budget.

Project Planning and Schedule

Project Start Date 7/1/2021

The date the actual work will start, or if interim refinance, the date the work started.

List and describe the criteria you used to determine the value and feasibility of the project.

Examples: useful life, installation cost, site suitability, and environmental justice.

When determining the restoration strategy, the following criteria were taken into consideration:

1.Reduction in fine sediment loading: The Deschutes River, Percival Creek, and Budd Inlet TMDL has specifically called out this site for a 46% reduction in fine sediment loading. Currently the site contributes of 2,380 cubic yards of sediment in the Deschutes River every single year. The main goal of this project is to achieve a massive reduction in fine sediment through some combination of in stream flow deflection, aggressive riparian planting, slope set back, and slope stabilization.

2.Increase in riparian zone density and diversity: Currently the site is entirely denuded of vegetation apart for grass. Part of the reason the slope is failing at such a dramatic rate is that a lack of vegetation with strong roots to hold soil in place. Planting a diverse and dense population of native trees and shrubs can help to reestablish the important riparian zone alongside the Deschutes River.

3.Decrease in water temperature: Summer water temperatures along the Deschutes River are getting dangerously high during warm summer months. Decreasing water temperatures through this reach will play an important role in protecting water quality. Establishing a dense 100 foot riparian zone should help decrease temperatures by shading part of the river once plants have been given enough time to grow. In addition, forcing more water into a deeper channel can help decrease water temperatures. This project should seek to provide cooler water temperatures by using a variety of techniques.

4.Increase in in-stream complexity: Currently, the Deschutes River has very little large woody debris and in stream complexity. Occasionally trees will fall from nearby banks and into the river, but this happens infrequently and the trees that do fall are too small to stay in place for any substantial period of time to create long-term habitat. The Deschutes River has a stock of Coho salmon, which are threatened, and lack of in-stream complexity is a limiting factor to the population's survival. An increase in in-stream complexity will also help to slow the velocity of the water traveling through the river. By installing more complexity, the velocity of water hitting and scouring the main bank of Pioneer Park can be reduced.

5.Increase in public safety: Pioneer Park is a very popular local park for Tumwater residents. The Deschutes River has been eroding so quickly that two pedestrian pathways through park have already been eroded away by the moving river in the last 10 years. Currently, there is no signage or barrier to keep park visitors from falls off the steep ledge and into the Deschutes River below. Improving public safety by keeping residents

Project Planning and Schedule

away from the edge, which will also help reduce some erosion, will be important for this project.

In addition to park users, the area also sees a number of tubers and rafters using the reach during summer months. While the City of Tumwater posts signs advising residents to not float the river and there have been no reported serious injuries along the stretch, ensuring that recreation river users are still safe through the area must be considered when designing any instream elements for this project.

Briefly describe all project alternatives (including the preferred alternative) considered, and explain how each alternative met or failed to meet the criteria listed above.

Use one line for each alternative and click “save” to enter additional alternatives.

Description of Alternative

Criteria

Alternative 1: No Action – Maintain the status quo and continue letting the Deschutes River erode away fine sediment from the bank.

This option fails to reduce fine sediment erosion, temperature, or in-stream complexity.

Alternative 1: Re-assess options and create a new design for the site (preferred alternative).

This option will build off work completed between 2014-2016 with modifications based on the changing river, addressing TSS, 100 ft riparian zone, temperature, in-stream complexity, & public safety.

Alternative 1: Move forward with preliminary designs from 2016.

These design plans meet some of the criteria above, but are no longer feasible due to the river changing dramatically and cutting off an island that was a major focal point of the design plan.

List project stakeholders and provide documentation showing key stakeholders have been identified and will support the project.

This project has received extensive stakeholder involvement. This site was originally identified by the Water Resource Inventory Area (WRIA) 13 group through its three-year implementation priority plan back in 2010. WRIA 13 is a stakeholder group focused on improving water quality and salmon habitat in the Deschutes River Watershed. WRIA 13 has members from the Squaxin Island Tribe, Capitol Land Trust, South Puget Sound Salmon Enhancement Group, Washington Department of Fish and Wildlife, Thurston County Conservation District, Washington State Recreation and Conservation Office, Puget Sound Partnership, Wild Fish Conservancy, Thurston Regional Planning Council, Thurston County, City of Olympia, City of Lacey, City of Tumwater, and active citizens. This project received funding beginning in 2010 to do conceptual designs, and was awarded funding again in 2014 to complete preliminary design work for the project. The WRIA 13 stakeholder group has been actively involved with the project since its inception and continue to be strong advocates for the work. The WRIA 13 group has received presentations on the work and progress surrounding this project on July 21st, 2015, March 8th, 2016, and September 13th, 2019 at Lead Entity meetings.

Project Planning and Schedule

Additionally, the project was received positively during a presentation to the City of Tumwater Public Works Committee on October 8 and received unilateral from all City departments, as reflected in the Letter of Support signed by the Public Works Committee Chair, Mayor, and Director of the Water Resources & Sustainability Director attached to this application.

Describe the steps you have taken to be ready to start the project by May 1, 2021. Provide detailed information and documentation on project elements such as status of designs, permits, interlocal agreements, landowner agreements, easements, other secured funding, staff, or agency approvals.

The project has had a large amount of support from all of the WRIA 13 stakeholders as well as support internally from the City of Tumwater for a number of years. The site has been identified as a major source of fine sediment in numerous reports and has been identified as one of the top 10 sites producing fine sediment in all of Thurston County.

Previously, this project sought funding mainly from the Washington State Recreation and Conservation Office's Salmon Recovery Funding Board (SRFB). This project had successfully received funding through the SRFB for design work and background research, but it failed to be funded for construction in 2016 due to a perceived lack of salmon specific benefits. The large scale of direct water quality benefits that this project would create makes this project a top priority for the watershed as a whole.

Much of the background work and modeling for this project has been completed and this grant would help to update plans and initiate permitting so this project can apply for design and construction funding in 2022. The City and the projects stakeholders want to move forward with this project and will be able to act quickly and

(1) For stormwater facility and wastewater facility projects: Do you own or have clear control over the entire project area?

Yes No Not Applicable

Please explain why you selected not applicable: Not a stormwater or wastewater project.

(2) For stormwater facility and wastewater facility projects requiring road cuts: When was the last time the road was resurfaced or reconstructed? This is for informational purposes; no points are associated with this question.

Date:

(3) Has initial cultural resources review been conducted for the area of potential effect (APE) (for example, review of the APE in the

Project Planning and Schedule

WISARRD database)? This is for informational purposes; no points are associated with this question.

Yes No Not Applicable

Upload a project schedule that includes all tasks necessary to complete the project, including tasks that are not part of the funding request.

Upload any other supporting documentation.

Upload Documents

https://ecyeagl/IntelliGrants_BASE/_Upload/153594_925655-PioneerParkScheduleandBudget.xlsx

Project Schedule and Budget

https://ecyeagl/IntelliGrants_BASE/_Upload/153594_925655_2-Pioneer_Park_Restoration_Application_Grant_Support_Letter.pdf

Letter of Support

https://ecyeagl/IntelliGrants_BASE/_Upload/153594_925655_3-September13th,2019WRIA13Presentation.pptx

WRIA 13 Presentation

Water Quality and Public Health Improvements

To go to the Water Quality Atlas, follow this link: <https://fortress.wa.gov/ecy/waterqualityatlas/StartPage.aspx>.

Name the specific water body(ies) this project will improve or protect and the parameters it will address.

Deschutes River, Capitol Lake, Budd Inlet.

Is the project planning, implementation, or a combination?

Planning

Implementation

Planning/Implementation

What type of plan or regulatory requirement does this project address?

TMDL/TMDL Alternative (approved or in development)/Straight to Implementation

Wastewater Engineering Report/Sewer Plan

Permit

Salmon Recovery Plan

Watershed Plan

Shoreline Master Plan

Administrative Order or Other Legal Action

Capital Improvement Plan

Puget Sound Action Plan

Mitigation

Other

Not Applicable

If your project is addressing a TMDL, select at least one from the dropdown list.

To select multiple TMDLs, hold down the control key as you select

TMDL Name

Deschutes River Temperature TMDL (Approved)

Enter the implementation action and plan reference in the Action Table. If this is a planning-only project, you may enter, "Not applicable, planning-only".

Water Quality and Public Health Improvements

To add multiple implementation actions:
 Enter the implementation action and plan reference.
 When done, click the **SAVE** button.
 After SAVE a new row will appear.
 Repeat these steps for each implementation action.

Action Table

| Action | Reference the document that describe the action, including page numbers and where a copy can be obtained. |
|---|--|
| Specifically called out this section of creek at Pioneer Park as needing a 46% reduction in fine sediment and increase shade cover by over 50%. | Deschutes River, Percival Creek, and Budd Inlet Tributaries Temperature, Fecal Coliform Bacteria, Dissolved Oxygen, pH, and Fine Sediment Total Maximum Daily Load. Department of Ecology webpage, pages: 13, 18, 39, 46, 47, 61, 75, 76, and 259. |
| Necessary reductions in fine sediment and temperature for Coho salmon recovery in the Deschutes River watershed. | Deschutes River Coho Salmon Biological Recovery Plan. Attached, pages: 5, 7, 11, 26, 27, 28, 37, 46, 49, 50, Appendix A pg 20. |
| Pioneer Park being the 6th highest priority project in the watershed. | Water Resources Inventory Area (WRIA) 13 4-year Work Plan – Approved. Attached, see row 6, although not all the information is accurate. |
| Construction, planning, and budgeting justification. | City of Tumwater Capital Facilities Plan 2018-2024. Attached, pages 118 and 121. |

Did you discuss this project with Ecology staff? If yes, provide the name of the staff and the last date of contact.

Yes. The City of Tumwater participated in the Water Quality Program Nonpoint Activity Project Notice of Intent process this summer . The City last communicated with Department of Ecology staff member Leanne Whitesell on September 4th, 2019.

Describe how the project drainage area connects to the water body.

Examples: surface flow, ditch, pipe, groundwater, infiltration, and path/distance to outfall/discharge.
 The project site sits directly on the Deschutes River at roughly River Mile 2.0 in Pioneer Park, a City of Tumwater owned park. The project is almost completely denuded of vegetation along the 1,000 linear foot area and the near vertical slopes are contributing 2,380 cubic yards of fine sediment directly into the Deschutes River, which then runs into Capitol Lake and ultimately Budd Inlet.

Water Quality and Public Health Improvements

Describe the measure and method that will be used to determine the water quality benefit and overall success of the project.

If you need help determining a water quality metric, please refer to the Funding Guidelines for suggested metrics by project type.

Success for this project will be the completion of designs, full design report, and completion/initiation of all the permits necessary to perform the work outlined in the designs the following year. The overarching goal of this project will be to provide water quality benefit upon the completion of the project.

Overall project success will be measured in the following ways:

1. Reduction in fine sediment loading
2. Increase in density and diversity of riparian vegetation
3. Decrease in water temperature along the reach, in turn increasing Dissolved Oxygen (OD) and decreasing pH
4. Increase in in-stream complexity to reduce water velocity and increase habitat
5. Increase in public safety around the project site
6. Increase in community engagement with the efforts of the project

Using the method described above, estimate the water quality and public health benefits that will be achieved by the project.

This grant application focuses on designing a restoration project that fits within the previously stated criteria to achieve water quality benefits. As this project design has not been completed yet, it is difficult to determine the exact water quality and public health benefits, but below are rough estimates.

1. The Deschutes River, Percival Creek, and Budd Inlet Tributaries Temperature, Fecal Coliform Bacteria, Dissolved Oxygen, pH, and Fine Sediment Total

Maximum Daily Load calls for a 46% reduction in fine sediment from the site. The site is currently producing roughly 2,380 cubic yards of fine sediment

per year, therefore, a successful project would reduce the amount of fine sediment produced to at least 1,095 cubic yards per year. Ideally this reduction

would be more substantial, but at minimum the project will reduce fine sediment production by 46%.

2. Currently, very little vegetation aside from local grass is currently on site. Aggressive planting along the top of the bank should occur across the roughly 0.5-acre site at the top of the bank between walking paths. A successful project would cover the entire 0.5-acre top bank with native riparian trees and shrubs.

Water Quality and Public Health Improvements

3. The Deschutes River, Percival Creek, and Budd Inlet Tributaries Temperature, Fecal Coliform Bacteria, Dissolved Oxygen, pH, and Fine Sediment Total

Maximum Daily Load calls for more than a 50% increase in shade along the reach. Increased shade should help to reduce water temperatures along the

reach. Current Deschutes River temperatures could be reduced by up to 6.9°C if riparian vegetation and channel conditions are restored.

According to

the Deschutes River TMDL, restoring riparian vegetation and channel conditions could not only reduce temperatures, but increase minimum DO by 1.03

mg/L, and decrease maximum pH by 0.5 standard units (SU) under critical conditions.

This project will only focus on a relatively small reach of the Deschutes, so dramatic decreases in temperature should not be expected, but this project

would be successful if temperatures along the reach could decrease by 0.2°C from current peak summer water temperatures.

4. The roughly 1,000 linear foot stretch of river currently has very little in stream complexity. Occasionally some trees will fall further up-stream and wash

down to the site, but complexity is usually minimal and very short lived. This is a concern not only for in-stream habitat for threatened species of salmonids, but also for water velocities hitting the bank. Modeling done in 2016 showed that channel velocities in the project area are moderate, between

2 and 4 feet per second in the vicinity of the project reach. An increase in in-stream complexity along the reach should help to improve habitat conditions

while also slowing average water velocity. In-stream complexity should seek to reduce the average velocity of water through the reach to between 0.5

and 1.5 feet per second.

5. Pioneer Park is very popular for walkers and river users. This project should seek to install roughly 40 feet of fencing to protect the newly planted riparian

area while simultaneously keeping park visitors away from the edge of the bank. In addition, during the summer especially, people access the site while

floating the river in inner tubes and rafts. Ensuring that the in-stream portion of the design poses no serious threat to river users will be important.

Success for this project will be no serious injuries because of the site for park or river users. In addition, project success will be installing four warning

signs around the site where park users can be informed about the dangers of the site from the water and from land, two signs will be installed for each

Water Quality and Public Health Improvements

area.

6. Pioneer Park receives numerous visitors every day, especially during the weekend and the summer. Many of the park visitors are interested in water quality and environmental health and would be likely to engage with some educational signage around the site. A success for this project would be to install three educational signage at the top of the slope talking about the project, water quality, and the benefit of riparian areas. Signage will be developed in conjunction with local stakeholder input and will be successful if five or more park visitors interact with an educational sign on an average day.

How long will the project provide benefits after the funding assistance ends? Who will be responsible for maintaining the benefits during its useful life?

The project will continue providing water quality benefits in temperature reduction for years to come. Stream temperature will continue decreasing as the newly planted riparian zone will grow, mature, and provide more and more shade. The project will also continue to provide TSS reduction, increased hyporheic flow, and deeper cooler water in the main channel for as long as the bank stabilization materials are not moved or do not deteriorate quicker than expected.

The project will be designed to stay in place and last a long time. Structures used in these types of situations are generally boulders, natural fibers, earthen, or woody materials. Rock barbs and rock riffle will not deteriorate within 100 years or more. Natural fibers such as the coir fabric within an bioengineered bank revegetation structures are designed to deteriorate into natural compostable materials within 5 years of time. Salix and other riparian species are expected to form strong root cohesion and a stable canopy with 3 to 5 years to replace and overcome the temporary function of the natural coir fabrics to retain fine sediments and earthen bank materials.

The City of Tumwater will be responsible for maintaining the project. Parks and Recreation staff will be in charge of the newly planted riparian area over the first two years, especially focusing on sapling survival and watering. Parks staff will work with Water Resources Staff to place educational signage around the area and work to keep members of the public from walking through the newly planted area. Water Resources staff will also be responsible for assessing the in water structures. Staff will assess the structures quarterly for the first five years after the project to determine how they are responding to high and low flow scenarios. After five years Water Resources staff will access the structures annually as well as respond to any concerns or questions raised by other staff members, contractors, or the general public. Large scale maintenance work will be done by a contractor and will be hired once a problem has been identified.

Water Quality and Public Health Improvements

Regular maintenance would likely occur quarterly, taking only an hour or two for two maintenance workers to complete. Maintenance workers are generally paid \$20 -\$25 per hour, and overall maintenance would cost roughly \$600 per year. Funding for this work would come from the City of Tumwater Parks Department as general park maintenance is already included in their yearly budget .

Larger maintenance needs would be addressed by the Stream Team, a volunteer program that's be running for 30 years. Over that time volunteer have donated over 10,000 hours of their time, planting over 100,000 native trees and shrubs. With regular maintenance, Stream Team work parties would likely only be needed once per year. Staff time and equipment would likely only cost \$200 per year, and would be funded by the Stormwater Utility fund.

A private construction or consulting team would be hired should large scale failure maintenance of the system occur . The City of Tumwater is highly invested in this project and wants to ensure that this project provides water quality benefits for years to come. The City of Tumwater sets aside \$25,000 in the Stormwater Fund annually for "Emerging Projects", which could cover part of the work required. With regular maintenance and monitoring, larger scale projects should occur few and far between, likely only being deemed necessary every five to ten years.

How will greenhouse gas emissions be reduced or mitigated under this project? And what policies or measures has your organization put in place to reduce greenhouse gas emissions apart from this project?

The City of Tumwater has been actively working on ways to reduce greenhouse gas emissions and be more energy efficient with our current buildings, equipment, projects, and activities.

In 2014, the City Council approved Resolution R2014-008. This resolution accepted the recent greenhouse gas emission survey conducted by the Thurston Climate Action Team (TCAT). It also directed City staff to collaborate with TCAT to develop and implement policies and actions for reducing the Tumwater community's greenhouse gas emissions.

Additionally, the Cities of Olympia, Lacey, and Tumwater and Thurston County are working with the Regional Planning Council (TRPC) to develop a regional climate mitigation plan with actions to reduce regional greenhouse gas emissions that contribute to global climate change. The City of Tumwater also has an internal Green Team made up of department representatives from around the City to determine baseline metrics for greenhouse gas emissions from City operations and programs, projects, or policies to reduce greenhouse gas emissions.

In conjunction with those initiatives and goals, this project will seek to reduce carbon emissions as much as possible. During construction efforts will be taken to reduce vehicle idle time and the number of trips vehicles are taken. Additionally, the number of tree plantings occurring in and around the project will help capture and store carbon dioxide.

Water Quality and Public Health Improvements

Are you aware of any Category I or Category II wetlands on the site or downstream from the site? This is for informational purposes; no points are associated with this question.

Yes ✓ No Not Applicable

Upload a map that shows an aerial view of the project area, an estimated direction of flow for the project area, potential locations for the proposed facility or activity, and how the project connects to the water body named above.

The map does not need to be precise, but it should help reviewers with a general understanding of the area. If access to GIS software is not available, screen shots or snips from Google Maps with arrows and text added using a paint program may be used.

Upload Documents

Click the Browse button

Select your file

Click Save, your file will appear in the List of uploaded documents

Repeat for each file

To Delete a file, select the Delete checkbox next to the file and click SAVE

- | | |
|---|----------------------------------|
| https://ecyeagl/IntelliGrants_BASE/_Upload/153597_925654-PioneerParkRestorationProjectMap1.PNG | Pioneer Park Map #1 |
| https://ecyeagl/IntelliGrants_BASE/_Upload/153597_925654_2-PioneerParkRestorationProjectMap2.PNG | Pioneer Park Map #2 |
| https://ecyeagl/IntelliGrants_BASE/_Upload/153597_925654_3-PioneerParkRestorationProjectMap3.PNG | Pioneer Park Map #3 |
| https://ecyeagl/IntelliGrants_BASE/_Upload/153597_925654_4-CapitalFacilitiesPlan2018-2023-ForEcology.pdf | Tumwater Capital Facilities Plan |
| https://ecyeagl/IntelliGrants_BASE/_Upload/153597_925654_5-DeschutesCohoRecoveryPlan-ForEcology.pdf | Deschutes Coho Study |
| https://ecyeagl/IntelliGrants_BASE/_Upload/153597_925654_6-WRIA13_4YWP_2018approved.xlsx | WRIA 13 4 year Work Plan |

WATER QUALITY COMBINED FINANCIAL ASSISTANCE

Organization: Tumwater city of

WQC-2022-Tumwat-00092

Environmental and Cultural Resources Documentation

For all Water Quality Combined Funding Program projects, regardless of funding source or project category.

Cultural Review Final Determination

Date of Final Determination:

DAHP Letter of Concurrence

Completed activity/location specific Inadvertent Discovery Plan (IDP). An IDP is not associated with consultation and is required in the event of a discovery during ground disturbance.

If you are applying for or have received a loan from the CWSRF, when applicable upload the following documents.

NEPA Environmental Assessment or Impact Statement

SEPA Checklist

SEPA Threshold Determination

SEPA Environmental Impact Statement

Affidavit of Publication of SEPA Threshold Determination

Public Meeting documents

SERP Coversheet

SERP Checklist (Ecology Project Manager completes this document)

SERP Determination

Memo justifying use of an exemption under NEPA or SEPA

Other supporting environmental documentation as requested by Ecology

If you have a stormwater facility project, and you are applying for or have received state funding via SFAP and no federal funds under CWSRF, when applicable upload the following documents.

SEPA Checklist

SEPA Threshold Determination

Affidavit of Publication of SEPA Threshold Determination

Upload Documents

Click the browse button

Select your file

Click Save, your file will appear in the list of uploaded documents

Repeat for each file

To Delete a file, select the Delete checkbox next to the file and click SAVE

Description

Attachments

WATER QUALITY COMBINED FINANCIAL ASSISTANCE

Organization: Tumwater city of

WQC-2022-Tumwat-00092

Uploads

Description

Previous Design Report Appendices

A-H

Previous Design Report Appendices I

Deschutes Watershed Center Hatchery

Designs

Attachments

https://ecyeagl/IntelliGrants_BASE/_Upload/154585_884773-PioneerParkPreliminaryDesignReport062016_v2_Appendices_A-H.pdf

https://ecyeagl/IntelliGrants_BASE/_Upload/154585_884825-PioneerParkPreliminaryDesignReport062016_v2_Appendix_I.pdf

https://ecyeagl/IntelliGrants_BASE/_Upload/154585_884823-PioneerParkHatcheryDev.SEPASITEPLAN12-2016.pdf