

Project: Natural Areas Capital Grants Program

Contract No. 929861

INTERGOVERNMENTAL AGREEMENT
Natural Areas Bond Measure
Capital Grant Award

This Intergovernmental Agreement (this "Agreement"), entered into under the provisions of ORS chapter 190 and effective on the date the Agreement is fully executed (the "Effective Date"), is by and between Metro, a metropolitan service district organized under the laws of the state of Oregon and the Metro Charter, located at 600 N.E. Grand Avenue, Portland, Oregon 97232-2736, and the City of Portland's Bureau of Environmental Services, located at 1120 SW Fifth Ave., Portland, Oregon 97204 ("Grant Recipient").

RECITALS

WHEREAS, the electors of Metro approved Ballot Measure 26-80 on November 7, 2006, authorizing Metro to issue \$227.4 million in bonds to preserve natural areas, clean water, and protect fish and wildlife (the "Measure");

WHEREAS, the Measure allocated \$15 million from bond proceeds to the Nature in Neighborhoods Capital Grants Program to complement the regional and local share portions of the Measure by providing opportunities for the community to actively protect fish and wildlife habitat and water quality in areas where people live and work;

WHEREAS, Metro has determined to make a grant award to Grant Recipient to fund the Crystal Springs Partnership (the "Project") as more specifically identified within the Scope of Work attached hereto as Exhibit A (the "Work");

WHEREAS, the Grant Recipient will become the owner of the property that constitutes the Project, which property is more specifically identified in Exhibit A (the "Property");

WHEREAS, this Agreement between Metro and Grant Recipient is now needed to satisfy the terms and conditions of the Nature in Neighborhoods Capital Grants Program as provided for in the Measure; and

WHEREAS, except as specifically provided in this Agreement, including the scope of work attached hereto as Exhibit A, and otherwise notwithstanding any statements or inferences to the contrary, Metro neither intends nor accepts any (1) direct involvement in the Project (2) sponsorship benefits or supervisory responsibility with respect to the Project; or (3) ownership or responsibility for care and custody of the tangible products which result from the Project;

NOW THEREFORE, the parties agree as follows:

1. Purpose; Scope of Work; Limitations

The purpose of this Agreement is to implement the Measure and facilitate the funding of a Nature in Neighborhoods Capital Grants Program project. Grant Recipient shall perform all activities described in the Scope of Work attached hereto as Exhibit A (the "Work"). As a condition precedent to Metro's agreement to fund the Project, Grant Recipient hereby approves the Project and agrees to comply with the terms and conditions of this Agreement and the applicable provisions of the Measure. At no time will Metro have any supervisory responsibility regarding any aspect of the Work. Any indirect or direct involvement by Metro in the Work shall not be construed or interpreted by Grant Recipient as Metro's assumption of a supervisory role.

2. Declaration of Capital Project

In accordance with the Measure, Metro may only provide funds to Grant Recipient for the Project so long as such funds are exclusively used for capital expenses. Grant Recipient hereby confirms that the Project will result in the creation of a capital asset to be owned by Grant Recipient. Grant Recipient covenants that it will (a) own and hold all such capital improvements and real property interests acquired pursuant to this Agreement, and (b) record the asset created by the Project as a fixed, capital asset in Grant Recipient's audited financial statement, consistent with Generally Accepted Accounting Principles ("GAAP") and with Grant Recipient's financial bookkeeping of other similar assets.

3. Contract Sum and Terms of Payment

Metro shall compensate Grant Recipient for performance of the Work as described in Exhibit A. Metro shall not be responsible for payment of any materials, expenses or costs other than those that are specifically described in Exhibit A.

4. Limitations on Use of the Capital Asset That Results from the Project

Throughout the term of this Agreement, Grant Recipient shall maintain and operate the capital asset that results from the Project in a manner consistent with one or more of the following intended and stated purposes of the Measure (the "Nature in Neighborhood Approved Purposes"):

- To safeguard water quality in local rivers and streams;
- To protect and enhance fish and wildlife habitats;
- To promote partnerships that protect and enhance nature in neighborhoods; and
- To increase the presence of ecological systems and plant and animal communities in nature deficient and other disadvantaged neighborhoods;

Grant Recipient may not sell, use, or authorize others to use such capital asset in a manner inconsistent with such purposes.

Notwithstanding the foregoing, secondary uses that arise as a result of such capital asset being used primarily in accordance with the Nature in Neighborhood Approved Purposes will be permitted, but only to the extent such secondary uses affect a *de minimis* portion of such capital asset or are necessary in order to facilitate the primary Nature in Neighborhood Approved Purposes. For example, if, as part of a land use review proceeding initiated to obtain the necessary approvals to operate such capital asset consistent with the Nature in Neighborhood Approved Purposes, a portion of such capital asset was required to be dedicated as a road, such road dedication would be a permitted secondary use.

If the Work is the acquisition of real property, then Grant Recipient shall satisfy the requirements in this section of the Agreement by granting to Metro a conservation easement substantially comparable to the form of conservation easement approved by the Metro Council at the time the Metro Council approved the grant award to Grant Recipient.

5. Funding Recognition

Grant Recipient shall recognize in any publications, media presentations, or other presentations referencing the Project produced by or at the direction of Grant Recipient, including, without limitation, any on-site signage, that funding for the Project came from the Metro Natural Areas Bond Measure's Nature in Neighborhoods Capital Grants Program. Such recognition shall comply with the recognition guidelines detailed in the Measure. The Grant Recipient shall place at or near the Project's location signage that communicates that funding for the Project came from the Metro Natural Areas Bond Measure's Nature in Neighborhoods Capital Grants Program.

6. Term

It is the intent of the parties for the Project to have been completed, and for all Metro funding to have been provided to Grant Recipient prior to April 30, 2012. Notwithstanding the forgoing, all provisions set forth in this Agreement, and the obligations of Grant Recipient hereunder, shall continue in effect after the completion of the Project until June 30, 2027.

7. Termination for Cause

A. Subject to the notice provisions set forth in Section 7.B below, Metro may terminate this Agreement, in full or in part, at any time during the term of the Agreement if Metro reasonably determines that Grant Recipient has failed to comply with any provision of this Agreement and is therefore in default.

B. Prior to terminating this Agreement in accordance with Section 7.A above, Metro shall provide Grant Recipient with written notice that describes the reason(s) that Metro has concluded that Grant Recipient is in default and includes a description of the steps that Grant Recipient shall take to cure the default. From the date that such notice of default is received by Grant Recipient, Grant Recipient shall have 30 days to cure the default. In the event Grant Recipient does not cure the default within the 30-day period, Metro may terminate all or any part of this Agreement, effective on any date that Metro chooses following the 30-day period. Metro shall notify Grant Recipient in writing of the effective date of the termination.

C. Grant Recipient shall be liable to Metro for all reasonable costs and damages incurred by Metro as a result of and in documentation of the default. Following such termination, should Metro later determine or a court find that Grant Recipient was not in default or that the default was excusable (e.g. due to a labor strike, fire, flood, or other event that was not the fault of, or was beyond the control of, Grant Recipient) this Agreement shall be reinstated or the parties may agree to treat the termination as a joint termination for convenience whereby the rights of Grant Recipient shall be as set forth below in Section 8.

8. Joint Termination for Convenience

Metro and Grant Recipient may jointly terminate all or part of this Agreement based upon a determination that such action is in the public interest. Termination under this provision shall be effective only upon the mutual, written termination agreement signed by both Metro and Grant Recipient.

9. Oregon Constitution and Tax Exempt Bond Covenants

Grant Recipient acknowledges that Metro's source of funds for the Nature in Neighborhoods Capital Grants Program is from the sale of voter-approved general obligation bonds that are to be repaid using ad valorem property taxes exempt from the limitations of Article XI, sections 11, 11b, 11c, 11d, and 11e of the Oregon Constitution, and that the interest paid by Metro to bond holders is currently exempt from federal and Oregon income taxes. Grant Recipient covenants that it will take no actions that would cause Metro not to be able to maintain the current status of the real property taxes imposed to repay these bonds as exempt from Oregon's constitutional property tax limitations or the income tax exempt status of the bond interest under IRS rules. In the event Grant Recipient breaches this covenant, Grant Recipient shall undertake whatever remedies are necessary to cure the default and to compensate Metro for any loss it may suffer as a result thereof, including, without limitation, reimbursing Metro for any Projects funded under this Agreement that resulted in Grant Recipient's breach of its covenant described in this Section.

10. Liability and Indemnification

As between Metro and Grant Recipient, Grant Recipient assumes full responsibility for the performance and content of the Work; provided, however, that this provision is not intended

to, and does not, create any rights by third parties. To the extent permitted by Oregon law, and subject to the limitations and conditions of the Oregon Tort Claims Act, ORS chapter 30, and the Oregon Constitution, Grant Recipient shall indemnify, defend, and hold Metro and Metro's agents, employees, and elected officials harmless from any and all claims, demands, damages, actions, losses, and expenses, including attorney's fees, arising out of or in any way connected with the performance of this Agreement by Grant Recipient or Grant Recipient's officers, agents, or employees. Grant Recipient is solely responsible for paying Grant Recipient's contractors and subcontractors. Nothing in this Agreement shall create any contractual relationship between Metro and any such contractor or subcontractor.

11. Contractors' Insurance

A. Grant Recipient shall require all contractors performing any of the Work to purchase and maintain at each contractor's expense, the following types of insurance covering the contractor, its employees and agents:

1. Commercial general liability insurance covering personal injury, property damage, and bodily injury with automatic coverage for premises and operation and product liability shall be a minimum of \$1,000,000 per occurrence. The policy must be endorsed with contractual liability coverage. Grant Recipient and Metro, and their elected officials, departments, employees and agents, shall be named as additional insureds.

2. Automobile bodily injury and property damage liability insurance. Insurance coverage shall be a minimum of \$1,000,000 per occurrence. Grant Recipient and Metro, and their elected officials, departments, employees, and agents, shall be named as additional insureds. Notice of any material change or policy cancellation shall be provided to Grant Recipient thirty (30) days prior to the change.

B. This insurance required by Grant Recipient, as well as all workers' compensation coverage for compliance with ORS 656.017, must cover all contractors' operations under this Agreement, whether such operations are by a contractor, by any subcontractor, or by anyone directly or indirectly employed by any contractor or subcontractor.

C. Grant Recipient shall require all contractors performing any of the Work to provide Grant Recipient with a certificate of insurance complying with this section and naming Grant Recipient and Metro as additional insureds within fifteen (15) days of execution of a

contract between Grant Recipient and any contractor or twenty-four (24) hours before services such contract commence, whichever date is earlier.

D. In lieu of the insurance requirements in Sections 11.A through 11.D, above, Grant Recipient may accept evidence of a self-insurance program from any contractor. Such contractor shall name Grant Recipient and Metro as additional insureds within fifteen (15) days of execution of a contract between Grant Recipient and any contractor or twenty-four (24) hours before services such contract commence, whichever date is earlier.

12. Safety

Grant Recipient shall take all necessary precautions for the safety of employees, volunteers and others in the vicinity of the Work and the Project, and shall comply with all applicable provisions of federal, state and local safety laws and building codes, including the acquisition of any required permits.

13. Metro's Right to Withhold Payments

Metro shall have the right to withhold from payments due Grant Recipient such sums as necessary, in Metro's sole opinion, to protect Metro against any loss, damage or claim which may result from Grant Recipient's performance or failure to perform under this Agreement or the failure of Grant Recipient to make proper payment to any suppliers, contractors or subcontractors. All sums withheld by Metro under this Section shall become the property of Metro and Grant Recipient shall have no right to such sums to the extent that Grant Recipient has breached this Agreement.

14. Project Records, Audits, and Inspections

A. For the term of this Agreement, Grant Recipient shall maintain comprehensive records and documentation relating to the Project and Grant Recipient's performance of this Agreement (hereinafter "Project Records"). Project Records shall include all records, reports, data, documents, systems, and concepts, whether in the form of writings, figures, graphs, or models, that are prepared or developed in connection with any Project.

B. In accordance with Section 2 above, Grant Recipient shall maintain all fiscal Project Records in accordance with GAAP. In addition, Grant Recipient shall maintain any other records necessary to clearly document:

(i) Grant Recipient's performance of its obligations under this Agreement, its compliance with fair contracting and employment programs, and its compliance with Oregon law on the payment of wages and accelerated payment provisions;

(ii) Any claims arising from or relating to (a) Grant Recipient's performance of this Agreement, or (b) any other contract entered into by Grant Recipient that relates to this Agreement or the Project;

(iii) Any cost and pricing data relating to this Agreement; and

(iv) Payments made to all suppliers, contractors, and subcontractors engaged in any work for Grant Recipient related to this Agreement or the Project.

C. Grant Recipient shall maintain Project Records for the longer period of either (a) six years from the date the Project is completed, or (b) until the conclusion of any audit, controversy, or litigation that arises out of or is related to this Agreement or the Project and that commences within six years from the date the Project is completed.

D. Grant Recipient shall make Project Records available to Metro and its authorized representatives, including, without limitation, the staff of any Metro department and the Metro Auditor, within the boundaries of the Metro region, at reasonable times and places, regardless of whether litigation has been filed on any claims. If the Project Records are not made available within the boundaries of Metro, Grant Recipient agrees to bear all of the costs incurred by Metro to send its employees, agents, or consultants outside the region to examine, audit, inspect, or copy such records, including, without limitation, the expense of travel, per diem sums, and salary. Such costs paid by Grant Recipient to Metro pursuant to this Section shall not be recoverable costs in any legal proceeding.

E. Grant Recipient authorizes and permits Metro and its authorized representatives, including, without limitation, the staff of any Metro department and the Metro Auditor, to inspect, examine, copy, and audit the books and Project Records of Grant Recipient, including tax returns, financial statements, other financial documents relating to this Agreement or the Project. Metro shall keep any such documents confidential to the extent permitted by Oregon law, subject to the provision of Section 12(F) below.

F. Grant Recipient agrees to disclose Project Records requested by Metro and agrees to the admission of such records as evidence in any proceeding between Metro and Grant Recipient, including, but not limited to, a court proceeding, arbitration, mediation or other alternative dispute resolution process.

G. In the event the Project Records establish that Grant Recipient owes Metro any sum of money or that any portion of any claim made by Grant Recipient against Metro is not warranted, Grant Recipient shall pay all costs incurred by Metro in conducting the audit and inspection.

15. Public Records

All Project Records shall be public records subject to the Oregon Public Records Law, ORS 192.410 to 192.505. Nothing in this Section shall be construed as limiting Grant Recipient's ability to consider real property transactions in executive session pursuant to ORS 192.660(1)(e) or as requiring disclosure of records that are otherwise exempt from disclosure pursuant to the Public Records Law (ORS 192.410 to 192.505) or Public Meetings Law (ORS 192.610 to 192.690).

16. Law of Oregon; Public Contracting Provisions

The laws of the state of Oregon shall govern this Agreement and the parties agree to submit to the jurisdiction of the courts of the state of Oregon. All applicable provisions of ORS chapters 187, 279A, 279B, and 279C, and all other terms and conditions necessary to be inserted into public contracts in the state of Oregon, are hereby incorporated as if such provisions were a part of this Agreement. Specifically, it is a condition of this Agreement that Grant Recipient and all employers working under this Agreement are subject to and will comply with ORS 656.017 and that, for public works subject to ORS 279C.800 to 279C.870 pertaining to the payment of prevailing wages as regulated by the Oregon Bureau of Labor and Industries, Grant Recipient and every contractor and subcontractor shall comply with all such provisions, including ORS 279C.836 by filing a public works bond with the Construction Contractors Board before starting work on the project, unless exempt under that statute.

17. Notices and Parties' Representatives

Any notices permitted or required by this Agreement shall be addressed to the other party's representative(s) as set forth below and shall be deemed received (a) on the date they are personally delivered, (b) on the date they are sent via facsimile, or (c) on the third day after they are deposited in the United States mail, postage fully prepaid, by certified mail return receipt requested. Either party may change its representative(s) and the contact information for its representative(s) by providing notice in compliance with this Section of this Agreement.

Grant Recipient's Designated Representatives:

Kaitlin Lovell
Bureau of Environmental Services
1120 SW Fifth Avenue, Room 1000
Portland, OR 97204
Kaitlin.Lovell@BES.CI.PORTLAND.OR.US

Metro's Designated Representatives:

Natural Areas Bond Program Manager
Metro Regional Center
600 N.E. Grand Ave.
Portland, OR 97223
Fax (503)-797-1849

with copy to:

Metro Attorney
600 N.E. Grand Ave.
Portland, OR 97223
Fax (503) 797-1792

18. Assignment

Grant Recipient may not assign any of its responsibilities under this Agreement without prior written consent from Metro, which consent shall not be unreasonably withheld.

19. Severability

If any term or provision in this Agreement shall be adjudged invalid or unenforceable, such adjudication shall not affect the validity or enforceability of the remainder of the Agreement, which remaining terms and provisions shall be valid and be enforced to the fullest extent permitted by law.

20. No Waiver of Claims; Modifications

Metro's failure to enforce any provision of this Agreement shall not constitute a waiver by Metro of that or any other provision of this Agreement. This Agreement may be amended only by written instrument signed by both Metro and Grant Recipient and no waiver, consent, or change of terms of this Agreement shall bind either party unless in writing and signed by both parties.

21. Integration of Agreement Documents

All of the provisions of any proposal documents including, but not limited to, Requests for Proposals, Grant Proposals and Scopes of Work that were utilized in conjunction with the award of this Grant are hereby expressly incorporated herein by reference; provided, however, that the terms described in Sections 1 through 21 of this Agreement and in Exhibit A shall control in the event of any conflict between such terms and such other incorporated documents. Otherwise, this Agreement represents the entire and integrated agreement between Metro and Grant Recipient and supersedes all prior negotiations, representations or agreements, either written or oral. The law of the state of Oregon shall govern the construction and interpretation of this Agreement. The Parties, by the signatures below of their authorized representatives, hereby acknowledge that they have read this Agreement, understand it, and agree to be bound by its terms and conditions.

IN WITNESS WHEREOF, the parties hereto have set their hands on the day and year indicated below.

CITY OF PORTLAND**METRO**_____
Signature_____
Michael Jordan

Metro Chief Operating Officer

Print Name:_____
Title:_____
Date:_____
Date:

APPROVED AS TO FORM BY:

Pete Kasting
Signature_____
Paul A. Garrahan

Senior Assistant Metro Attorney

Print Name: *Pete Kasting*_____
Title: *City Attorney*_____
Date: *4/15/10*_____
Date:

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Scope of Work – Exhibit A

Metro Contract No. 929861

CAPITAL GRANTS PROGRAM GRANTS AGREEMENT

Project Title/Project Number: Crystal Springs Restoration Project

 Grant Recipient contact: City of Portland
 Kaitlin Lovell
 1120 SW Fifth Ave, Rm 1000
 Portland, Oregon 97204
 503-823-7032
 Kaitlin.Lovell@BES.CI.PORTLAND.OR.US

Fiscal Sponsor Same as above

Budget at time of award

Total cost of project:	\$975,591
Grant award	\$311,480
Financial match	\$638,427
In-kind match	\$ 25,684

Project location

Four properties along Crystal Springs:

- Brannen property, 8220 SE 21st Avenue, Portland
- Green property, 2103 SE Tacoma St., Portland
- Sericko property (no listed address, adjacent to Green property)
- Duffy's property, 8427 SE 23rd Avenue, Portland

Scope of Work

This scope of work specifies the work and requirements the City of Portland shall undertake as part of Metro's Nature in Neighborhoods Capital Grants program grant award. Except as modified herein, the original grant application (see attached Attachment 1) sets forth the scope of work.

- The project budget is revised as indicated in Attachment 2.
- The deconstruction of the house is not included in the budget.
- Grant Recipient's acquisition of conservation easements: The Grant Recipient shall provide Metro with a copy of the conservation easement document at least two weeks prior to closing. Metro reserves the right to revise the easement language in order to ensure protection of the site's conservation values and compliance with bond funding requirements.
- While the grant application specifies that conservations easements for three properties will be acquired, two of these properties may end up being fee simple acquisitions. If that is the case, the Grant Recipient will be required to grant Metro a conservation easement in accordance with the IGA. A Baseline Report documenting the conservation values and



Scope of Work – Exhibit A

existing conditions of the site will be required two weeks prior to closing. In addition, BES will be required to send escrow instructions to Metro three business days prior to closing.

Project Benchmarks and Deliverables

- | | |
|-----------------|---|
| Benchmark 1: | Provide documentation of all pre-agreement costs approved in Attachment 2 as well as for the acquisition of the Brannen property. |
| Deliverable 1: | Provide documentation for time spent with negotiation and due diligence. Provide final settlement statement for Brannen property. |
| Benchmark 2: | Completion of river restoration project at Brannen property. |
| Deliverable 2: | Photos of Project in process and completed work; Invoice documentation. |
| Benchmark 3: | Completion of viewing area, trail and signage that acknowledges the Nature in Neighborhoods Capital Grants Program participation. |
| Deliverable 3a: | Draft design of the interpretive signage for Metro review |
| Deliverable 3b: | Installation of viewing area, trail and signage. Photos of project and invoice documentation. |
| Benchmark 4: | Grant Recipient's acquisition of conservation easements and/or fee simple acquisitions. |
| Deliverable 4: | Final Settlement Statement and a copy of the recorded easement or deed. |

Publicity

Grant Recipient shall place at the Project's location signage that communicates that funding for the Project came from the Metro Natural Areas Bond Measure's Nature in Neighborhoods Capital Grants Program. Metro may withhold final reimbursement payment until such signage has been placed. In addition, Grant Recipient shall recognize in any publications, media presentations, or other presentations referencing the Project, produced by or at the direction of Grant Recipient, that funding for the Project came from the Metro Natural Areas Bond Measure's Nature in Neighborhoods Capital Grants Program.

Reporting Requirements:

Progress reports shall be included with every reimbursement request submitted by Grant Recipient. Progress reports associated with reimbursement requests shall include a statement regarding Grant Recipient's progress on meeting benchmarks, a statement as to whether the Project is on schedule or behind schedule, and a description of any unanticipated events.

At the completion of Benchmark 3, Grant Recipient shall submit a more extensive progress report including:

- Description of work completed
- Unanticipated events
- Public relations outcomes such as a newspaper article and celebration events.



Scope of Work – Exhibit A

Final Report: Grant Recipient must submit a final report and final reimbursement request within 60 days of the earlier of (a) the Project completion date or (b) the expiration date of the Intergovernmental Agreement. The final report shall include full and final accounting of all expenditures, the value and source of matching funds, a description of work accomplished, volunteer hours and participation, Project photos (including a photo of the signage acknowledging the Nature in Neighborhoods Capital Grants Program participation), and information on performance measures.

Project Payment and Reimbursement

Metro will reimburse Grant Recipient \$1.00 for every \$3.00 of costs expended to complete the project, consistent with the original grant application, up to but not exceeding Metro's total grant award of Three Hundred Eleven Thousand Four Hundred Eighty and 00/100 dollars (\$311,480). In no event shall Grant Recipient request or expect reimbursement from Metro in excess \$311,480. In addition, Metro will not reimburse Grant Recipient for any out-of-pocket costs expended before April 1, 2010, however, such costs may be used to satisfy the match requirement to permit Grant Recipient to be reimbursed for expenses incurred after the effective date of this Grant Agreement.

Payment for Benchmark 2 and 3 will be processed as reimbursement for costs incurred and paid by the Grant Recipient. Grant Recipient shall submit reimbursement requests associated with meeting the benchmarks identified above after such benchmarks have been achieved. Grant Recipient shall not submit a reimbursement request more frequently than once a month.

For Benchmark 4, Metro will transfer the purchase price amounts specified in Attachment 2, into the escrow account prior to closing on each of the acquisitions, minus a 5% retainage. At least one week prior to each closing, Grant Recipient shall provide an estimated settlement statement for the acquisition, escrow instructions, an electronic funds transfer form for escrow, the amount and source of other funding being used for the acquisition, a completed Reimbursement Request Form, and, for fee acquisitions, a signed copy of the Conservation Easement that will be recorded naming Metro as the easement holder, approved as to form by Grant Recipient.

RETAINAGE: Metro will reserve as retainage from any reimbursement payment an amount equal to 5% of the requested reimbursement amount. The retainage will not be disbursed to Grant Recipient until the Project is fully completed and finally approved by Metro. Following completion of the Project and approval by Metro, Metro will deliver to Grant Recipient the entire retainage as part of the final reimbursement payment.

To request a reimbursement, Grant Recipient will complete Metro's Reimbursement Request Form, submit an itemized statement of work associated with completing Benchmarks 2 and 3 and complete a final report. This documentation shall be sent to:



Scope of Work – Exhibit A

Metro
Attn: Mary Rose Navarro
600 NE Grand Ave
Portland, OR 97232

Substitutions or changes of elements of the Project that have not been approved by Metro are not eligible for reimbursement.

Metro will process the all reimbursement requests made by Grant Recipient within 30 days after receiving complete documentation of expenses.

Performance Measures

Grant Recipient shall monitor the Project for three consecutive years following the completion of the Project and report the following data to Metro on an annual basis.

- Performance Measure 1
This project is intended to serve as a catalyst for riparian restoration throughout the watershed within a 10 year time frame. Grant Recipient shall document efforts to secure funding to remove culverts upstream and downstream from this project. Grant recipient shall also document efforts to complete restoration work on the conservation easement acquisition sites funded by the Capital Grant program.
- Performance Measure 2
Partnerships: Document how stakeholders and neighbors are engaged in environmental stewardship throughout the Crystal Springs subwatershed to raise the profile of Crystal Springs as a vital habitat for threatened species of wild salmon and steelhead.
- Performance Measure 3
Provide the results of the five-year monitoring effort described in the application. Include a description of how the monitoring of this project help inform future projects in Crystal Springs as well as other tributaries in the City. This monitoring includes revegetation monitoring, biological monitoring, physical monitoring, and photo monitoring.



Nature in Neighborhoods Capital Grants F1 - Cover Sheet

Metro Contract 929861

Attachment 1

RECEIVED

OCT 30 2009

Check one:
☐ Letter of Interest

☒ Final Proposal

183741

Project Name	Crystal Springs Restoration Partnership	Applicant Organization	City of Portland Environmental Services
Contact Name	Shannah Anderson	Address	1120 SW Fifth Ave Suite 1000 Portland, OR 97204
Phone	(503) 823-2605	Fax	(503) 823-6995
Email	shannah.anderson@bes.ci.portland.or.us	Fed. Tax ID #	93-6002236

Fiscal Agent Organization (if different from applicant) City of Portland Management & Finance (Grants)

Contact Name	Eileen Roe	Address	1120 SW Fifth Ave Suite 1250 Portland, OR 97204
Phone	(503) 823-6819	Fax	(503) 823-5877
Email	eroe@ci.portland.or.us		

Site Name	Crystal Springs - Brannen Property	Address or Location info.	8221 SE 21st Ave Portland, OR 97202
Property Owner	City of Portland Environmental Services	Contact Name	Nick Atanasov
Address	1120 SW Fifth Ave Suite 1000 Portland, OR 97204	Phone	(503) 823-2887
Email	nick.atanasov@bes.ci.portland.or.us	Metro District	6

Project Summary (50 words or less)

The Crystal Springs Restoration Partnership will restore habitat and water quality for Endangered Species Act listed Chinook, coho and steelhead trout; improve conditions for declining lamprey; create the potential for reintroducing a one-of-a-kind urban chum (also ESA listed) in Portland; and engage stakeholders in environmental stewardship throughout the Crystal Springs subwatershed.

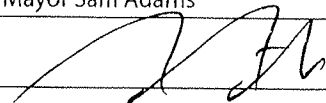
Nature in Neighborhoods Capital Grant funding request \$ 312,480

If submitting more than one proposal,
please rank this proposal in order of priority

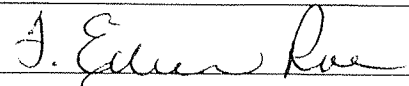
Total project cost \$ 938,081

We, the undersigned, attest that to the best of our knowledge the information in this application is true and that all signatories have authorization to submit this grant application to Metro's Nature in Neighborhoods Capital Grants Program.

Applicant

Organization Name City of Portland (Environmental Services)
Printed Name Mayor Sam Adams
Signature  Date 10/28/09

Fiscal Agent

Organization Name City of Portland (Office of Management & Finance - Grants)
Printed Name Eileen Roe
Signature  Date 10-29-09



CITY OF PORTLAND ENVIRONMENTAL SERVICES



1120 SW Fifth Avenue., Room 1000, Portland, Oregon 97204-1912 Dean Marriott, Director Dan Saltzman, Commissioner

October 28, 2009

Metro

Natural Areas Program, Nature in Neighborhoods Capital Grants

600 NE Grand Ave.

Portland, OR 97232

To Whom it May Concern:

We are pleased to submit this *Crystal Springs Restoration Partnership* (Partnership) proposal to Metro's Nature in Neighborhood Capital Grants Program to restore habitat and water quality for Endangered Species Act listed Chinook, coho and steelhead trout; improve conditions for declining lamprey; create the potential for reintroducing a one-of-a-kind urban chum (also ESA listed) in Portland; and engage stakeholders in environmental stewardship throughout the Crystal Springs subwatershed. The Partnership project will affect the entire 2.7 mile river from its mouth to headwaters,. Specifically, the City requests Metro funding to remove a culvert that blocks juvenile fish passage, daylight the stream, restore floodplain and riparian habitat, and install an interpretive overlook on a recently-acquired public property. The City is also requesting funding to acquire conservation easements in the lower watershed to provide for future restoration of channel and riverbank habitat and connectivity between Crystal Springs and its floodplain.

Crystal Springs has all the inherent characteristics for an excellent salmon stream. It is low gradient, making it accessible and very desirable for some of the City's most threatened fish species. Crystal Springs is entirely spring fed, resulting in a relatively constant year-round flow and low temperatures. And because most of Crystal Springs is located within the City's combined sewer system, almost all of the stormwater and its associated pollutants and peak flows are absent from the stream. The major constraint to fish passage and habitat in the Crystal Streams system are culverts.

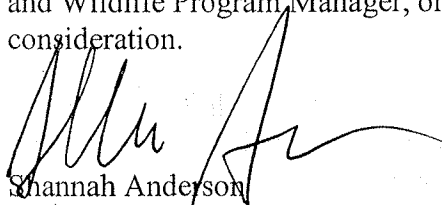
Through the City of Portland's Grey to Green Initiative, \$2 million has been dedicated to remove 8 culverts on Crystal Springs. The intent is that the culvert effort will serve as a catalyst, triggering riparian restoration throughout the watershed in a very short period of time. Thanks to instream and riparian habitat efforts by Reed College, Tri-Met, Portland Parks, Johnson Creek Watershed Council, and SOLV – all of which are partnerships with Environmental Services and Metro – we are already realizing increased momentum and benefits of these efforts. The outlook for this effort is not 25 or 50 years, but 10 years for full restoration.

This proposal compliment's Metro's investment in Westmoreland Park and Reed College, ensuring salmon can access the upstream park to make use of the existing and forthcoming habitat improvements.

The City of Portland is highly capable of implementing and maintaining the restoration proposed, and is working in concert with Johnson Creek Watershed Council, Friends of Crystal Springs, Native Fish Society, Reed College, Sellwood-Moreland Improvement League, and Portland Parks and Recreation to ensure the project is sustainable and embraced by the community.

This proposal has been approved by the Bureau of Environmental Services. Formal approval will be granted at City Council ordinance hearing on Nov 6, 2009.

If you have any questions about this grant proposal, please contact Kaitlin Lovell, Science, Fish, and Wildlife Program Manager, or me at (503) 823-7740. Thank you for your time and consideration.



Shannah Anderson
Land Conservation Specialist

Full Proposal: Crystal Springs Restoration Partnership

submitted to

Metro Nature in Neighborhoods Capital Grant Program

A. PROJECT DESCRIPTION

In-Depth Project Description

The City of Portland is requesting \$313,000 from Metro's Nature in Neighborhoods Capital Grant program to remove a fish-blocking culvert at 8220 SE 21st Avenue (Brannen Property) and restore the entire reach and riparian area of Crystal Springs through the parcel to improve habitat for threatened fish species. The City is also requesting funding for the acquisition of key conservation easements: two parcels that will synergize a future culvert replacement with larger instream restoration around Tacoma Street (Tacoma parcels), and one parcel at SE Sherrett with floodplain habitat potential and instream water rights (Sherrett parcel).

Portland is home to four (4) threatened salmon and steelhead listed under the federal Endangered Species Act (ESA)—Lower Columbia Chinook, Coho, Steelhead, and Columbia River Chum; all but chum have been documented in Crystal Springs Creek as recently as 2009 by Oregon Department of Fish and Wildlife (adults and juveniles).¹ Since the first listings of steelhead, the City of Portland has been committed to helping sustain and recover these key ecologically and economically important species. Degraded habitat is the primary limiting factor threatening salmon and steelhead survival and impeding their recovery within the City, and it is the one factor we can affect the most. Restoration of habitat, especially in Crystal Springs Creek, is one of the City's priority management actions included in the State of Oregon's federally mandated *Lower Columbia River Conservation and Recovery Plan for Oregon Populations of Salmon and Steelhead* (hereinafter "Oregon Salmon Recovery Plan").

Crystal Springs Creek is located entirely within the City of Portland, is the first accessible tributary in Johnson Creek, and has important spawning, rearing, and refuge habitat. There are no fish barriers between the confluence of Crystal Springs and the ocean. Crystal Springs is a low gradient stream, making it accessible and very desirable for some of the City's most threatened fish species. Even rarer, Crystal Springs is entirely spring fed, resulting in a relatively constant year-round flow of 13 ft³/sec. with low temperatures typically at 12.6° C. In a city where stream flashiness and temperatures are lethal to salmon and other native fish, Crystal Springs is a potential year-round sanctuary. Furthermore, chum salmon (locally extirpated) are highly correlated to spawning near springs and cold water upwellings, and Crystal Springs has at least 7 known springs, making it a possible chum reintroduction stream.

In the *Willamette Subbasin Plan* and the *Johnson Creek Restoration Plan*, Crystal Springs is prioritized as a restoration opportunity with significant benefits for salmon and steelhead.² Because most of Crystal Springs is located within the City's combined sewer system, almost all of the stormwater and its associated pollutants and peak flows are absent from the stream. In fact, Crystal Springs has very clean water. Crystal Springs has all the inherent characteristics for an excellent salmon stream, urban or pristine, and nearly 80% of the riparian area is in public or institutional ownership. These conditions are even more critical today in the face of climate change. All research on salmon recovery and climate change recommends restoring instream flow, cold water influences, access to headwaters, and improving riparian conditions as salmon survival strategies, exactly the conditions and strategies targeted in Crystal Springs Creek.

There are only two problems with the Crystal Springs system. It is very difficult for salmon to access the entire 2.7 mile stream, and the riparian habitat is heavily altered. Metro has already recognized the inherent salmon potential in Crystal

¹ There are thirteen (13) other ESA listed salmon and steelhead that use Portland's waterways and many more imperiled native fish are struggling to survive, including lamprey (which are also found in Crystal Springs Creek), eulachon (smelt), and sturgeon.

² The Willamette River Subbasin Plan, using the Ecosystem Diagnosis and Treatment (EDT) model, concluded that with restoration of Crystal Springs Creek, salmonid abundance will increase 140% for coho salmon and 121% for steelhead; productivity will increase 416% for coho salmon and 531% for steelhead; and diversity will increase 111% for coho salmon and 144% for steelhead. Chinook were not evaluated but are currently being modeled along with updates of coho and steelhead, for the City of Portland by ICF Jones and Stokes.

Springs Creek by funding instream restoration efforts at Reed College and Westmoreland Park. This proposal compliments those investments to ensure that salmon can consistently access those much needed upstream improvements.

The Brannen property, site of one key culvert in the lower watershed and the subject of this proposal, was built in the 1960's and solely owned by the Brannen family ever since. The carport on the property straddles an undersized culvert to Crystal Springs Creek that acts as a velocity barrier to juvenile salmon and, in some cases, adults. In the summer of 2009, the Brannen family made a very generous decision to donate a portion and sell the remainder of their entire property to the City for the purpose of restoring the site, knowing removal of residential structures was likely. Today, because of this generosity, we are not just submitting a culvert replacement project to Metro. Instead, we are requesting funding for a full scale river restoration project to occur in 2010 on approximately 0.37 acres of land and over 350 feet of stream, which includes completely removing a fish passage barrier and subsequently restoring aquatic habitat (including wetlands) throughout the site. This project will permanently remove a triplex, private carport, driveway, and culvert from the property. The stream will be daylighted and floodplain re-graded. Non-native and invasive vegetation will be removed from the site and the riparian corridor will be planted with native plant species. The design also calls for a small trail and overlook area at the former driveway. Designed to allow maximum habitat restoration, these small efforts to directly connect and educate the community about their local watershed will hopefully engage and promote strong stewardship of the river.

Concurrently in 2010, the City will replace the impassible culverts downstream at Umatilla Street and upstream at Tenino Street.

The City is also requesting funding from Metro to acquire conservation easements on key parcels upstream and downstream of the Brannen property. The upstream properties are near the Tacoma Street culvert, targeted for upgrading as soon as 2011, dependant on funding. On these proposed easements, the stream is confined to a hardened channel that makes unnaturally sharp turns, disconnecting the stream from the riparian area and preventing natural fluvial processes critical for native fish and wildlife. The conservation easements will provide an opportunity to restore more than just fish passage by removing instream concrete, restoring natural meanders, and installing large wood and riparian vegetation. The easement proposed downstream at SE Sherrett includes a reach of Crystal Springs with bank armoring, artificial ponds, pedestrian bridges, and invasive species. The easement would provide for significant floodplain function post-restoration; and includes water rights approximating half the normative flow of the entire stream (7 cfs).

Existing site description

Crystal Springs Creek was historically a series of interconnected springs and wetlands, much like Oaks Bottom, providing important habitat and refuge for fish, wildlife, and a myriad of birds. Over the years, Crystal Springs has been altered to accommodate creekside development. Today, most of Crystal Springs is channelized with little erosion due to the artificial reinforcement of the banks. The channel slope in the area is an average of 0.5%. The culverts are undersized with increased stream velocities slightly above and below the culverts. A majority of the streambank in the project area is made up of stacked concrete, cinderblocks, or grouted stacked rocks. Fluvial processes such as gravel transport, creation of pools and riffles, instream wood recruitment, creation of permanent and ephemeral off channel habitat, and floodplain connectivity are heavily impaired. Despite the alterations, the water quality remains very good, and today provides significant opportunities for salmon and steelhead recovery. Furthermore, because Crystal Springs Creek is only 2.7 miles long, it is a very manageable restoration effort.

The Brannen property is located in the lower section of Crystal Springs Creek. The property is 0.34 acres, with 100 feet of frontage along SE Umatilla Street (which forms its southern boundary) and 150 feet of frontage on SE 21st Avenue (which forms its western boundary). Most of the residential structures (triplex, carport, and storage sheds) are located on the northern 5,000 square feet of the site. The entire parcel is bisected by Crystal Springs Creek. The river downstream of the Brannen culvert is constrained by concrete blocks with a gently sloping manicured lawn and very little riparian vegetation. Upstream of the culvert, the stream channel is more natural; however, the riparian area is dominated by invasive species. There are three trees that have fallen across the stream and are an important source of shade, food, and nutrients. Existing access to the property currently consists of a driveway and carport built over a culvert of Crystal Springs.

The properties proposed as conservation easements are similar to the Brannen property, with artificially reinforced banks, limited riparian habitat, invasive plant species, and a disconnection between channel and floodplain. The Sherrett property has extensive infrastructure built instream, including bridges, concrete diversions, and a water wheel with associated pumphouse.

Project Background

In 2008, the City launched the Grey to Green Initiative (G2G) aimed at accelerating the implementation of the Portland Watershed Management Plan. G2G focuses on seven key components. Most pertinent to this proposal are the removal and/or repair of 8 fish barrier culverts, the acquisition of over 400 acres of land, and invasive species removal. Of the \$50 million earmarked by the City Council, \$2 Million was specifically targeted to the culvert effort. After an exhaustive inventory, ranking, and review by a steering committee comprised of professional representatives from NOAA Fisheries, US Fish and Wildlife Service, Oregon Department of Fish and Wildlife, Johnson Creek Watershed Council, and Portland Bureaus of Transportation, Parks, and Environmental Services, the City selected the 8 fish barrier culverts in Crystal Springs Creek as the top priority for replacement. Drawing from basic principles of conservation biology, the consensus was that focusing all of the culvert effort in a watershed with high quality habitat is the best strategy for salmon recovery.

The idea to focus in Crystal Springs Creek is not new. In 2000, Oregon Department of Fish and Wildlife (ODFW) and the City of Portland inventoried impassible culverts in the City of Portland and identified over 200 barriers. Each culvert was scored based on a matrix of factors including condition of the culvert, condition of the habitat, presence of ESA listed salmonids, distance to next upstream and downstream barrier, and land use. Several of the Crystal Springs Creek culverts scored in the top 25, and when grouped together, the eight culverts were in the top five for replacement. In 2003, the City partnered with the Army Corps of Engineers to include the lower four culverts in Crystal Springs Creek (Umatilla Street, Brannen property, Tenino Street, and Tacoma Street) and restoration in Westmoreland Park as a Water Resources Development Act Section 206 project. A feasibility study was completed, and the City purchased an easement over the Brannen property's carport, but the funding dried up and the project languished until G2G revived and expanded it.

Phase I targets culverts at both ends of Crystal Springs Creek – focusing on the lower three barriers for biological reasons, while simultaneously taking advantage of Reed College's restoration efforts at the headwaters to replace the highest culvert at SE 28th Street. Future phases will continue to move upstream and downstream until meeting at the Bybee Street culvert. The intent is that the culvert effort will serve as a catalyst, triggering riparian restoration throughout the watershed in a very short period of time. Thanks to instream and riparian habitat efforts by Reed College, Tri-Met, Portland Parks, Johnson Creek Watershed Council, and SOLV – all of which are partnerships with Environmental Services and Metro – we are already realizing increased momentum and benefits of these efforts. The outlook for this effort is not 25 or 50 years, but 10 years for full restoration. Because of the holistic, comprehensive, partnership approach, we refer to this entire effort as the *Crystal Springs Restoration Partnership* (Partnership).

It is important to note that the proposed efforts in Crystal Springs Creek, including the restoration at the Brannen Property, are completely voluntary and not required by any local, state or federal law, regulation or policy, although it is strongly motivated by the Endangered Species Act. In addition, although this is a capital project because it involves assets belonging to the City of Portland, it did not follow the traditional review and selection by the City's capital projects protocol. Were it not for the City's new Grey to Green Initiative, community partnerships, and outside financial support, such as that requested in this proposal from Metro, the Partnership would not be moving forward.

The City of Portland has already submitted permits to the Army Corps of Engineers and Department of State Lands for approval, and has consulted with NOAA Fisheries and Oregon Department of Fish and Wildlife on fish passage design in the hopes that the permit consultation process will proceed expeditiously. We anticipate the receipt of permits in early January or February with a targeted bid release in early February.

Community that will benefit from the project

The community surrounding this project area is within the 97202 zip code and includes three Portland Neighborhood Associations: Sellwood-Moreland Improvement League (SMILE), Eastmoreland, and Reed. These neighborhoods are predominantly owner occupied (particularly Eastmoreland at 90%) with the exception of student housing within the Reed

neighborhood. Average household size ranges from 1.91-3.08. Total population of the three neighborhoods is about 15,000 within approximately 1,500 acres.

The Crystal Springs Restoration Partnership will benefit the community by raising the profile of Crystal Springs Creek. While the benefits of healthy streams and rivers to a community are generally understood because of their contribution to aesthetics, livability, and recreation, current research suggests an economic value component to ecosystems. The Partnership highlights Crystal Springs as a vital habitat element for threatened species of wild salmon and steelhead. By facilitating community partnerships and engaging neighbors in the restoration and stewardship of Crystal Springs, we will raise the profile of the area as a place where salmon can return to the Pacific northwest aided by the humans who call it home. A table of partners and their respective roles is included as Table 1. Those directly involved in and benefitting from the project include:

Reed College: Staff at Reed have been active stewards for Crystal Springs for over a decade. Lead facilities personnel took it upon themselves to spearhead a Master Plan for Reed Canyon, which includes water quality and habitat goals. Students, City of Portland, and Johnson Creek Watershed Council participate directly in implementation of the Master Plan. To date Reed's efforts include several habitat improvement efforts and two major fish passage projects. The Partnership will help leverage Reed College's investments in Crystal Springs and build on the stewardship base they have created on campus and in the local community.

Friends of Crystal Springs: Friends of Crystal Springs is a newly formed group led by a resident whose home is just blocks from Crystal Springs. The Partnership will serve as a catalyst for further engaging the community around the improvements that will be made to fish habitat and offer stewardship opportunities that can be integrated into residential backyards. The community connections made via the Partnership will bring neighbors together and serve as a base for long-term stewardship of Crystal Springs.

Johnson Creek Watershed Council (JCWC): JCWC is partnering with the City to coordinate outreach and stewardship efforts in the subwatershed, including volunteer opportunities. The focus on restoring an entire system within the broader Johnson Creek Watershed helps build momentum, visibility, and membership development for JCWC.

Three Rivers Land Conservancy: The City of Portland proposed that Three Rivers Land Conservancy manage the conservation easements identified in this document. Due to negotiations between Three Rivers and the Columbia River Land Trust for a potential merger, their partnership on this effort is not yet confirmed. Should the new land trust not be willing or able to manage these sites, BES will work in concert with Portland Parks and Recreation to manage them appropriately. BES has extensive experience managing sensitive natural areas through its Johnson Creek Willing Seller Program, which targets floodplain habitat.

B. KEY CRITERIA

The Restoration Partnership meets several of Metro's key criteria for the Capital Grant Program:

Renature: This criterion is the primary focus of the project through its restoration of the biological function of the stream for salmon and wildlife.

Multiple Benefits: This project is premised on bringing multiple benefits to the entire system. Not only will it restore local salmon habitats and improve the floodplain capacity, but it will provide access to upstream areas proposed for restoration and currently receiving significant support from Metro. Removal of invasives and restoration of native vegetation will serve wildlife as well. Lastly, the Partnership will foster community awareness and stewardship of natural resources.

Cost Effective Ecological Design: The City is bringing considerable resources to this effort. The entire \$2 million G2G culvert effort will be expended in Crystal Springs even though only a small portion of it is being used as match for this grant request. Thus, for Metro's contribution of \$313,000 the entire watershed will see tenfold and more benefit. However, without this project and Metro's contribution, the synergy of the individual projects will go unrealized and the \$2 million will incrementally benefit the river, but not necessarily the entire watershed. Furthermore, Metro's investments upstream at Westmoreland Park and Reed College will not benefit from as many returning fish as could be the case with

this downstream access project. The acquisition of the conservation easements near Tacoma Street will ensure that future restoration and improvements can occur in a cost effective manner.

Increase the Region's Fish and Wildlife Inventory: Similar to the first criteria, this project will increase salmon habitat in the 300+ feet of stream on this property and provide accesses to the remaining 2 miles of Crystal Springs upstream.

Restore and/or Improve Habitats of Concern: Crystal Springs is a habitat of concern because of the existing and diverse fish and wildlife potential including ESA listed chinook, coho, steelhead, chum, and sensitive lamprey. In addition, Crystal Springs is home to native freshwater mussels, beavers, and amphibians. The Brannen property is a keystone property for the entire watershed, so this project not only enhances natural resources onsite but is also a key link for improving connectivity throughout the entire river system.

Provide Universal Access to the public: The overlook area on the Brannen property will be ADA accessible.

C. SUPPLEMENTAL CRITERIA

This proposal meets the following supplemental criteria:

Identified in jurisdictional plans: Several planning documents highlight the Crystal Springs subwatershed as high priority including City of Portland's Johnson Creek Restoration Plan (2001), the Johnson Creek Watershed Council's Watershed Action Plan (2003), the Portland Watershed Management Plan (2005), the City of Portland's Grey to Green Initiative Charter (2008), and the Oregon Salmon Recovery Plan (draft, April, 2009).

Increases networks, corridors, and other linkages between them: This project is the first phase of several projects within Crystal Springs that will open up 2.7 miles of valuable salmonid spawning and rearing habitat. Approximately 80 percent of Crystal Springs Creek is in public ownership including Johnson Creek Park, Westmoreland Park, and Eastmoreland Golf Course. Metro has provided funding for other instream restoration projects at the headwaters in the Reed College Canyon and in Westmoreland Park. Metro's investment in Westmoreland is to improve habitat for resident fish and for salmon that rarely access that area under current conditions. Implementation of this proposal will ensure salmon make use of the forthcoming habitat improvements at Westmoreland. In addition, Metro's upstream investments at Westmoreland and Reed will ensure that our investment downstream to provide access is in fact providing benefit to recovering salmon populations.

Project demonstrates innovation and there is no other source of funding: The Partnership is innovative in that it is not obligatory (by government policy directive) and because it focuses on restoration of the entire system. Aside from the City of Portland's matching funds, no other funding is currently identified. The City of Portland is seeking additional support from other sources for the other geographic areas within the Partnership boundary. Without Metro's funding, the chances of the entire restoration project moving forward is significantly reduced. Individual funders are being sought to make discrete pieces of the project happen and without combined resources, the vision and synergy of a mouth to headwaters stream restoration will go unrealized to the detriment of salmon and the community.

Project uses sustainable construction techniques and materials: The residential structures on the Brannen property will be removed using a deconstruction process. This process allows for the reuse and recycling of as much material as possible. Any logs or trees that require removal will be incorporated into the project when possible. Soil removed from areas within the site will be reused in other areas to the greatest extent possible to minimize off-site import and/or removal. This will result in reduction of fill disposal and intermediate hauling.

D. PROJECT FEASIBILITY

Project Design Approach

As mentioned above, the City's approach was to work with stakeholders and partners early in the process. Once the project was identified, the City quickly assembled a diverse team of designers, fisheries biologists, structural engineers, construction engineers, public involvement specialists and managers. The project is being designed and managed by the City of Portland, Bureau of Environmental Services (BES). Oversight for the Crystal Spring Restoration Partnership is

coordinated between BES' Watershed Services Group and Engineering Services Group. Primary managers are Kaitlin Lovell, Esq., Manager of the City's Science, Fish and Wildlife (formerly the Endangered Species Act) Program, and Lloyd Stauning, P.E., Senior Engineer for the West Willamette Design group. Both have extensive experience in salmon recovery efforts, project management, and engineering design. Together, they bring complimentary design and management talents to the team. Curriculum Vitae's are attached.

The design and primary daily management are conducted by Janet Corsale, P.E., and Chad Smith, respectively; their resumes are also attached. Janet designed Kelly Confluence and Brownwood/Schweitzer Restoration Projects for the City of Portland. She has decades of local and regional stream restoration design and engineering expertise, and brings extensive hydraulic engineering and modeling to the team. Chad Smith has been the fisheries biologist responsible for salmon monitoring for the City of Portland for 10 years. He has recently expanded to project design, implementation, and management for salmon recovery. He has more knowledge of salmon in Portland and where they have the best chance of success than any other City employee.

Land acquisition is a unique element of this application and plays a central role to the success of this effort due to the synergy it provides to the culvert program. Shannah Anderson is responsible for all aspects of the G2G Land Acquisition Program, including the acquisition of the Brannen property and the conservation easements sought through this proposal. The public involvement and community engagement pieces of the Partnership is being managed and implemented by Maggie Skenderian, manager of the Johnson Creek Watershed Program for BES. Maggie has been engaging the community to restore Johnson Creek and its tributaries for more than 10 years.

Technical Aspects of Design

The project team conducted extensive investigations before evaluating all alternatives for the Brannen property culvert. Preliminary data collection included an evaluation and prioritization of all fish barrier culverts and a bathymetric and geo survey of all culverts in Crystal Springs Creek by InterFluve. Geotechnical sampling occurred in the vicinity of all culverts, and the City contracted with Pacific Habitat Services for a wetland delineation around the project site. The City also contracted with ODFW to conduct a citywide inventory and assessment of biological integrity of urban tributaries, including Crystal Springs. Pebble counts were made along two riffles located within the project reach to characterize the streambed substrate gradation. The City investigated flow records and water withdrawal permits. The WRDA 206 feasibility study completed by the Corps in 2003 estimated 32 cfs and 70 cfs for the 2-year and 100-year floods, respectively. July 1997 through January 2000 was a period of prolonged high baseflow and flooding along Crystal Springs Creek. An investigation completed by the USGS determined that two successive winters of heavy precipitation (> 50 inches of rainfall) in 1996-1997 raised the regional groundwater table and caused the flooding. During this period of prolonged flooding, the maximum baseflow measured in the stream by the USGS was 21.6 cfs. Based on a review of discharge data, the low and high fish passage flows are determined to be 9 cfs and 22 cfs, respectively. Notably, although the rains occurred in the winter months, the higher flows did not appear instream until May/June, representing a 5 month groundwater lag time.

Alternatives Analysis: Leaving the culverts in their existing condition would be a missed opportunity for aquatic habitat enhancement and improved/expanded fish and wildlife habitat, resulting in a net loss for species recovery of listed Chinook, coho, and steelhead in the Willamette and Columbia River systems. At this time there is no other reason for removing or replacing these culverts (eg. such road maintenance/ improvement, localized flooding). The original 2003 design for the culvert replacement at the Brannen property consisted of simply replacing the culvert with a larger culvert and rebuilding the carport. With Grey to Green and new data on Crystal Springs Creek, the project team re-evaluated the preliminary design against the Anadromous Salmonid Passage Facility Design (NMFS 2008) beginning with 1) abandonment, 2) bridge or stream simulation (spanning the stream floodplain), 3) embedded pipe culvert, bottomless arch designs or non-floodplain, and 4) hydraulic design method (limited to low stream gradient 0 to 1%).

The city looked at abandonment of the carport culvert, which included two subalternatives: acquisition of the entire property with demolition and restoration of the entire stream, or demolition of the culvert and replacement with a pedestrian bridge and a lease or resale of the property with a conservation easement. We discussed leasing the property with the Johnson Creek Watershed Council, American Rivers, and the Native Fish Society but the arrangement was lacking for each of those organizations for varying reasons. We also informally discussed alternatives with neighbors

during site visits. We reevaluated the original design to replace the culvert and rebuilt the carport. A cost benefit analysis was conducted for each alternative and the project team was nearly unanimous in acquiring the entire property, demolishing all existing infrastructure, and restoring the entire site. Additional partnership opportunities and financial support from Portland Parks and Recreation and the G2G Land Acquisition Program proved crucial to that decision.

The Team also collaborated with Greg Aptke, fish passage coordinator from the Oregon Department of Fish and Wildlife, and Larry Swenson, the fish passage engineer for NOAA Fisheries. In addition, the Team presented the project to the City's environmental permitting team, known as the Streamlining Team, which coordinates and advises on federal, state and local environmental permits and includes regulating representatives from the Army Corps of Engineers, the U.S. Fish and Wildlife Service, NOAA Fisheries, Oregon Department of State Lands, Oregon Department of Environmental Quality, Oregon Department of Fish and Wildlife, and the City's Bureau of Development Services. This group raises issues and provides direction in a preapplication setting prior to submitting the designs for permit review. The group strongly encouraged reviewing the abandonment alternative for the Brannen Property and was very supportive of the efforts to voluntarily restore fish passage through Crystal Springs Creek.

Design Development: Once the decision was made to demolish all structures and restore the entire creek, the design was relatively easy. We designed the restoration around the site conditions and the primary limiting conditions for salmon and steelhead. Coho and steelhead mainly utilize the stream for overwintering refuge habitat. Therefore, the design focuses on creating instream complexity and hiding places using large wood. We also noted that coho have been found spawning in Crystal Springs Creek between Tenino and Tacoma Streets; therefore, we are also including appropriately sized spawning gravel in the riffles and slackwater areas of the creek. The 60% design drawings are included in this packet.

Preliminary hydraulic analysis using HEC-RAS indicates the proposed project will lower the base flood approximately 1.6 feet upstream of the existing carport culvert location. Based on the active channel width of 22 cubic feet per second (a velocity measure that drives width) the average width of the stream through the project will be 13 feet and instream velocities will match ambient conditions of a fully restored stream (i.e. upstream and downstream culvert barriers are replaced).

More recently, we collaborated with our in-house landscape architects from our Sustainable Stormwater Division and our Revegetation program to design the planting plan, public trail, and overlook. The collaborative decision is to restore the site in a way that maximizes restoration and benefits to the stream and fluvial function, but also recognizes people will want to access the property. The overlook area and trail will enable stakeholders to safely approach the stream, which will hopefully promote stewardship and teach streamside owners how to plant their own backyard designs to benefit salmon and Crystal Springs Creek. The decision on the trail and overlook was not made in time to include in the 60% design drawings, but conceptual drawings are included with this submission.

Implementation Plan

Currently, the project is at 60% design, with 95% projected at the end of the calendar year. Permit applications have already been submitted. We anticipate opening bids in February with construction during the summer water work window of 2010. See the attached project timeline for dates associated with major milestones.

Organization's capacity

BES is responsible for designing and implementing major habitat restoration projects throughout the city, including Brownwood/Schweitzer, Tideman-Johnson, Kelly Confluence, Mitchell Creek Culvert Replacement, Stephens Creek Confluence, 4th Avenue/Tryon Creek, and Columbia Slough Confluence. The internal expertise to plan, design, permit, implement, construct, monitor, and manage restoration projects within urban watersheds is incomparable to any other entity within Oregon. Because all aspects of the project are conducted internally and only contracted when internal expertise is unavailable, the projects receive the highest level of communication and oversight and are tracked continuously and consistently for years after construction.

Ongoing monitoring of the project site allows for an adaptive management approach. Through the process of successfully implementing restoration projects, we have developed trust and excellent working relationships with federal, state, and local permitting agencies. Environmental Services Watershed Services Division has a team of staff dedicated to the

restoration of Johnson Creek. Environmental Services Science Fish and Wildlife Division provides technical expertise specific to Fish and Wildlife and have led other major habitat improvement projects.

E. PARTNERSHIPS

SEE TABLE 1

F. PROJECT EVALUATION AND MONITORING

This project is the first of 8 fish passage barriers within Crystal springs. The restoration on this site will inspire and inform the remaining culvert projects upstream. This project is unique to the City of Portland in that it is a small area densely surrounded by residential properties. Lessons learned from this project will help inform future projects in Crystal Springs Creek and other tributaries within the city that are either on public property, surrounded by development, or on private property. It is our hope that this project will also inspire streamside property owners, throughout the city, to become better stewards to the creek. Furthermore, it will provide an excellent template for urban restoration in the face of climate change.

In efforts to learn whether the project is successful and to inform future projects, several monitoring methods will be implemented, described below. These monitoring efforts will be conducted for the first five years after project completion. After that, Crystal Springs Creek will be included in the city's overall watershed monitoring program.

Revegetation Monitoring

Comprehensive revegetation monitoring will be conducted at the Brannen property for the first five growing seasons by BES' Watershed Revegetation Team. This monitoring includes assessment and quantification of the survival/mortality and resultant stocking level of planted and seeded vegetation as well as a description the composition of the groundcover (herbaceous) stratum. Comprehensive monitoring will be conducted annually and occur at the end of the growing season but before leaf fall, typically September through October.

Biological Monitoring

Macroinvertebrate sampling may be conducted annually following Department of Environmental Quality protocol by the BES Johnson Creek Watershed Team. The samples may be assessed on site to a family level or sent to a lab to be assessed to a genus level depending on feasibility. Spawning and juvenile salmon surveys may be conducted annually by the BES Science, Fish and Wildlife Team, between November and April. This will entail determining presence/absence of redds, live adult salmonids, salmonid carcasses, and juvenile fish presence. Electrofishing may be conducted once per season to determine species abundance and richness.

Physical Monitoring

The hydrology of the stream will be monitored by conducting cross-sectional surveys at known locations within the project area. This will show how the channel is changing over time. Pebble counts will also be conducted in riffles on the site to show the change in substrate over time. Visual observations and photo documentation will be conducted during high-flow events to determine that the project is performing as designed.

Habitat monitoring will be conducted during low flow to determine if habitat is changing over time. This will include measuring habitat unit frequency, residual pool depths, percent wetted area, and canopy cover. Visual observations will include inspecting streambanks for exposed soil, slumped banks, torn or loose erosion control fabrics, detached logs, failed earth anchor installations, backfill washing from log revetments, or other indications of erosion.

Photo Monitoring

Pre-project and post-project photo monitoring will be conducted at set photo locations twice a year (leaf-on and leaf-off) to document change of the project over time.

Monitoring results will be analyzed and reported as required by permitting agencies or grant agreement. Reporting will also be conducted by the BES Johnson Creek Watershed Team to inform project effectiveness and future project design.

Table 1: Crystal Springs Restoration Partnership Stakeholders and Partners

Vision: Galvanize community engagement in the protection and restoration of Crystal Springs through outreach, education, and stewardship unique to the watershed.

Partners	Contact	Status	Role
*AmeriCorps	NW Service Academy Ernie Guerrero 55 Main St. Portland, OR 97214 Phone (503)-234-2383 Fax (503)-232-0166	Application in progress	<ul style="list-style-type: none"> Lead in establishing and facilitating partnership for outreach within the Crystal Springs Watershed
*Friends of Crystal Springs	Janet Johnson Phone (503)-771-8386	Participation confirmed	<ul style="list-style-type: none"> Partner on stakeholder outreach and stewardship development
*Johnson Creek Watershed Council	Matt Clark 1900 SE Milport Rd; Suite B; Milwaukie, OR 97222 Phone (503) 652-7477 Fax (503) 652-7188	Participation confirmed	<ul style="list-style-type: none"> Organizer of restoration workdays at Brannen property, Union Manor, etc. and outreach efforts
*Native Fish Society	Bill Bakke 1830 SW 40 th Street, Suite #6 Portland, OR 97219 Phone (503)-977-0287	In communication	<ul style="list-style-type: none"> Partner on restoration and outreach efforts Trainings on fish-friendly management practices (<i>River Stewards</i>) for creekside property owners
*Reed College	3203 SE Woodstock Blvd. Portland, OR 97202 Phone (503)-771-1112 Fax (503)-777-7769	Participation confirmed	<ul style="list-style-type: none"> Partner on restoration and outreach efforts
Tri-Met	4012 SE 17 th Ave. Portland, OR 97202 Phone (503)-962-7505	Participation confirmed	<ul style="list-style-type: none"> Partner on restoration and outreach efforts Installation of watershed-oriented art for educational purpose
Portland Parks	1120 SW 5 th Ave, Suite 1302; Portland, OR 97204 Phone (503)-823-7529 Fax (503)-823-6007	Participation confirmed	<ul style="list-style-type: none"> Implementation of Westmoreland Park Master Plan Naturescape of Eastmoreland Golf Course Management of Brannen property, post-restoration
*Portland Office of Neighborhood Involvement	Amalia Alarcon de Morris 1221 SW 4 th Ave, Room 110 Portland, OR 97204 Phone (503)-823-4519 Fax (503)-823-3050	Will approach	<ul style="list-style-type: none"> Partner on restoration and outreach efforts

*Union Manor Retirement home	6404 SE 23 rd Ave., Portland, OR 97202 Phone (503)-233-5671 Fax (503)-234-4006	Approached and willing	<ul style="list-style-type: none"> • Partner on restoration and outreach efforts • Host site for volunteer restoration days
East Multnomah County Soil and Water Conservation District	5211 N. Williams Ave., Portland, OR 97217 Phone (503)-222-7645 Fax (503)-935-5359	Will approach	<ul style="list-style-type: none"> • Partner on restoration and outreach efforts
*Sellwood-Moreland Improvement League (SMILE)	8210 SE 13 th Ave., Portland, OR 97202 Phone (503)-200-9953	Presentation to league scheduled for November 4, 2009	<ul style="list-style-type: none"> • Partner on restoration, stewardship development, and outreach efforts
*Rhododendron Garden	SE 28 th Ave. and Woodstock Blvd. Portland, OR Phone (503)-771-8386	Will approach	<ul style="list-style-type: none"> • Partner in restoration, stewardship development, and outreach efforts
Fresh Water Trust	65 SW Yamhill #200 Portland, OR 97204 Phone (503)-222-9091	Will approach	<ul style="list-style-type: none"> • Integrate Salmon in the Classroom program in Crystal Springs Watershed • Research and administration on water rights
American Rivers	320 SW Stark St. Portland, OR 97204 Phone (503)-827-8648	In communication	<ul style="list-style-type: none"> • Partner in restoration, stewardship development, and outreach efforts

*Denotes Outreach Capacity Builders

Partnership components:

- Bureau of Environmental Services and Johnson Creek Watershed Council oversees outreach effort, with potential support by AmeriCorps staff (AmeriCorps application in progress)
- Targeted mailing to streamside property owners to describe stewardship opportunities and build sense of place (salmon education, naturescaping of creekside yards, etc.)
- Design and implementation of naturescaping program, Crystal Springs walking tour
- Pre- and post-program monitoring to determine effectiveness of program for environmental awareness and involvement

**NATURE IN NEIGHBORHOODS CAPITAL GRANT: CRYSTAL SPRINGS RESTORATION PARTNERSHIP
(F4) LAND ACQUISITION BUDGET WORKSHEET**

PROFESSIONAL SERVICES/PROJECT MANAGEMENT/STAFF COSTS

Includes staff and other professional service personnel. Pre-Agreement costs must occur AFTER the Invitation to Submit a Final Application has been received and are not reimbursable.

	financial match	in-kind match	grant request	TOTAL
A. Pre-Agreement				
1. Professional realtor services	2,967			2,967
2. Acquisition coordination		1,320		1,320
3. Restoration planning/design	1,050	500		1,550
B. Post-Agreement Costs				
1. Professional realtor services	3,960			3,960
2. Acquisition coordination		2,400		
3. Restoration design, cost estimates, bid documents		25,000	2,000	27,000
4. Permitting	2,000	8,000		10,000
5. Volunteer coordination		3,000		3,000
6. Volunteer hours		1,984		1,984
Totals for Professional Services	\$ 9,977	\$ 42,204	\$ 2,000	\$ 51,781

ACQUISITION COSTS

Please estimate the cost for all work elements. Please feel free to change the list.

	financial match	in-kind match	grant request	TOTAL
A. Purchase price - Brannen property	475,000			475,000
B. Conservation easement acquisition	65,000		75,000	140,000
C. Appraisal & Appraisal Review*	10,000			10,000
D. Title Report, insurance & documents	4,000			4,000
E. Phase I Enviro Assessment	7,500			7,500
F. Site stabilization - conservation easements		5,000		5,000
G. Management Plan Development		1,400		1,400
H. Baseline Documentation	6,000			6,000
Totals for Acquisition Costs	\$ 567,500	\$ 6,400	\$ 75,000	\$ 648,900

Stabilization & Capital Improvement Costs

	financial match	in-kind match	grant request	TOTAL
A. Site preparation				
1. Mobilization and Demobilization (5%+bid items)			22,712	22,712
2. Erosion control (3% + bid items)			12,295	12,295
3. Clear and Grub			3,000	3,000
4. Common Excavation			18,560	18,560
B. Demo work (carport, buildings, driveway, pavement)				
1. Deconstruct/recycle residential structures incl. Carport			56,000	56,000
2. Demo driveway			565	565
3. Demo culvert			773	773
C. Instream work (streambank stabilization, log/rootwad installation, substrate)				
1. Diversion and Dewatering (10%)			22,164	22,164
2. Streambank stabilization			27,500	27,500
3. Imported logs			1,800	1,800
4. Imported rootwads			4,800	4,800
5. Streambed substrate			37,368	37,368
D. Vegetation management (removal of trees and invasives, riparian plantings)				

1. Tree Removal			6,832	6,832
2. Revegetation		1,920	2,311	4,231
E. Fencing, signage, viewing area				
1. Viewing area and trail			10,000	10,000
2. Cedar fencing			5,300	5,300
3. Signage			3,500	3,500
Totals for Stabilization & Capital Improvement Costs	\$ -	\$ 1,920	\$ 235,480	\$ 237,400

OTHER COSTS				
A. Travel (use current State of Oregon rates)				
B. Overhead/Indirect costs - these can only be used as match.				
Totals for Other Costs				

TOTAL PROJECT COSTS	\$ 577,477	\$ 50,524	\$ 312,480	\$ 938,081
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Budget Narrative: Crystal Springs Restoration Partnership**Professional Services/Project Management/Staff Costs**Pre-Agreement

A.1. Professional realtor services: \$2,967 (contracted svcs)

These services include communications and negotiations with property owners and preparation/review of draft contractual agreements for the Tacoma Street properties proposed as conservation easements. BES' on-call real estate agent fee is \$129/hour, with 23 hours completed pre-agreement.

A.2. Acquisition coordination: \$1,320 (personnel)

This in-kind match is for the Grey to Green Land Acquisition Coordinator (Shannah Anderson) to research site conditions and documents, conduct field assessments, and oversee on-call real estate agents. 33 hours at \$40/hour.

A.3. Restoration planning/design: \$1,050 (professional svcs)
\$500 (personnel)

Janet Corsale, Project Designer, provided 15 hours of work at \$70/hr for project management and engineering design. Kaitlin Lovell, Program Manager, provided 5 hours of work at \$60/hr for overall project supervision for the biological elements and design review. Chad Smith, fish biologist, provided 5 hours of work at \$40/hr for project planning of biological elements and permit preparation.

Post-Agreement Costs

B.1. Professional realtor services: \$3,960 (contracted svcs)

This financial match is for completing negotiations on the proposed conservation easement and acquisition above Tacoma Street, and includes communication with property owners, preparation of sales agreements, title report review, and communication with title company. BES on-call real estate services contract, beginning November 1, 2009, is \$165/hour. Total 24 hours.

A.2. Acquisition coordination: \$2,400 (personnel)

This in-kind match is for the Grey to Green Land Acquisition Coordinator (Shannah Anderson) to research site conditions and documents, conduct field assessments, oversee on-call real estate agents, order/review appraisals, develop and coordinate ordinance review and approval. 60 hours at \$40/hour.

B.3. Restoration design, cost estimates, bid documents:

\$27,000 (professional svcs)

This refers to the design of the project, development of bid documents including cost estimates, and continued design through construction. The project is currently at 60% design, which is roughly halfway through the design process (including construction design). The total design estimate for this project is \$54,000, thus we have included half of that cost as the post-agreement costs. The initial cost was based on an estimate of 25% of total project cost. To date, this estimate has proved accurate. Source: BES Engineering Services. 385 hours at \$70/hour

B.4. Permitting: \$8,000 (personnel)
\$2,000 (fees)

The project requires federal, state and local permits because of the instream work and the floodplain restoration. This includes preapplication meetings (Streamlining Team), site visits, permit application development and submission, responding to regulators and public comment during the permit review, and ensuring that design and construction reflect permit requirements through construction. Bureau of Environmental Services has a unique in house staff and structure to do this work so this estimate was based on similar projects that utilized consultants. Source: BES, Science, Fish and Wildlife. 200 hours at \$40/hour

B.5. Volunteer coordination: \$3,000 (volunteer)

This in-kind match is for Johnson Creek Watershed Council and Friends of Crystal Springs representatives to coordinate volunteer work on the Brannen property (native plant restoration) and outreach to neighborhood. 148 hours at \$20.25/hour. Source: Independent Sector.

B.6. Volunteer hours: \$1,984 (volunteer)

This in-kind match is for local volunteers to help with native plant restoration/maintenance on the Brannen property. 98 hours at \$20.25/hour. Source: Independent Sector

Acquisition Costs

A. Purchase price – Brannen property. \$475,000 (land acquisition)

The Brannen property was appraised at \$550,000. A \$75,000 contribution from PPR Local Share was deducted from the price as that funding is not eligible as a match. Remaining funds for acquisition came from BES' Grey to Green Land Acquisition Program.

B. Conservation easement acquisition. \$140,000 (land acquisition)

Three properties have been targeted for protection and restoration purposes. Appraisals for the lots total \$140,000. Negotiations are in progress, so exact acquisition costs are not yet known.

D. Appraisal and appraisal review: \$10,000 (contracted svcs)

BES holds on-call contracts with two appraisers. Appraisals and appraisal reviews will be conducted for the two Tacoma Street properties identified in this proposal.

E. Title report, insurance, and documents: \$4,000 (fees)

Title report, insurance, and documents associated with the two Tacoma Street properties are estimated to be \$4,000. Source: Fidelity National Title.

F. Phase I Environmental Assessment: \$7,500 (contracted svcs)

Phase I's will be conducted on both properties by BES' Combined Site Assessment (CSA) staff and/or on-call contractors.

G. Conservation easement stabilization: \$5,000 (personnel)

Initial stabilization of sites post-acquisition, including vegetation management, trash clean-up.

H. Management Plan Documentation: \$1,400 (personnel)

BES will prepare management plans for the Brannen property and two Tacoma Street Properties, and are identifying match for plan development by Land Acquisition Coordinator (20 hours at \$40/hour) and Program Manager (10 hours at \$60/hour).

I. Baseline Documentation: \$6,000 (contracted svcs)

Surveys will be conducted on newly acquired properties, and are estimated at \$6,000. Source: Marx Associates.

Stabilization and Capital Improvement Costs

A. Site Preparation: Total \$56,567 (contracted svcs)

A.1. Mobilization/Demobilization (+ add'l bid items): \$22,712

Mobilization refers to assembling machinery, establishing staging areas for equipment and materials, ensuring the staging meet all permit conditions for pollution control. Through the bidding process this is estimated at 5% of construction costs (\$221,640). In this particular instance, the estimate also includes specific bid items for creation of a construction entrance to the property, exclusion zone fencing, security fencing and pavement improvements needed to existing roads after the construction (pavement overlay). Source: BES Construction Services.

Mob/Demob: \$11,082

Construction Entrance: Total \$2000.

Exclusion Zone Fencing at \$4.00 per linear foot for 580 linear feet to separate and protect equipment and staging from sensitive natural areas, totaling \$2,320.

Security Fence (6' chain link) at \$15.00 per linear foot for 170 linear feet to protect against theft and vagrancy during construction. Total: \$2,550.

Pavement overlay 68 tons \$70/ton=\$4,760

A.2. Erosion Control: \$12,295 (+ add'l bid items):

Erosion control refers to limiting the potential for temporary and permanent degradation to the aquatic and terrestrial habitat by containing disturbed areas and preventing pollution. Generally this is estimated at 3% of total construction costs (\$221,640) through the bidding process. In this particular instance it also includes specific bid items: dust control, coir fabric, and sterile straw bales. Source: BES Construction Services

Erosion control: \$6,650

Dust control: \$1000

Coir erosion control fabric at \$1.50 per square yard for 1430 square yards totaling to \$2,145. Source: BES, Errol Confluence Bid.

Sterile straw rolls at \$5.00 per linear foot for 500 linear feet totaling to \$2,500.

A.3. Clear and Grub project site: \$3,000

The entire project site contains non-native and some invasive species. Revegetation experts recommend digging up the non-native and invasives and removing them from the site at the time of mobilization and deconstruction/ Source: BES Engineering Services

A.4. Common Excavation: \$18,560

The removal earthen material from the project site and the regrading of the site to create the "foundation" of the restoration project. This includes removing the foundation of the house, sloping the river bank, and creating any backwater channels and floodplain benches.

Common excavation at \$16.00 per cubic yard for 1160 cubic yards totaling to \$18,560.
Source: BES, Errol Confluence Bid

B. Deconstruction and Demolition Work: Total \$57,338 (contracted svcs)

B.1. Deconstruct Residential Buildings: \$56,000

In an effort to increase recycling and sustainability, all residential structures are now deconstructed, which is more expensive in the short term but has a cheaper "cradle to grave" cost. This includes the carport. Deconstruction and recycling of residential structures for a lump sum of \$56,000. Source: Facilities Service Division.

B.2. Demo Driveway at \$4.62 per square foot at 122 square feet, totaling \$565. Source: RSMeans, 2008.

B.3. Demo the Culvert: \$773.00

The culvert will be the last thing demolished on the project site. It will be needed to support the driveway for access onto the portion of the project site across the creek. Demolition of driveway culvert at \$18.40 per linear foot for 42 linear feet totaling to \$773. Source: RSMeans 2008.

C. Instream Work: Total \$93,632 (contracted svcs)

C.1. Diversion and Dewatering: \$22,164

Because this involves significant instream work over 300 linear feet of stream, the stream will have to be dewatered and diverted around the project site. This involved process includes fish salvages, equipment, construction, any required pumps, sediment control, fish screens, attenuation of discharge, among other costs. Because of the cost savings associated with repairing an upstream and downstream culvert at the same time, only a portion of the true diversion and dewatering cost is included here at the rate of 10% of the total construction cost (\$221,640). Source: BES, Engineering Services

C.2. Streambank Stabilization: \$27,500

The utilization of organic materials, through labor intensive methods, to prevent the streambank sediments from migrating unnaturally into the aquatic environment. This allows for vegetation, wood, and other means of properly stabilizing the bank in both the short and long term without having to use any artificial structures. Cost is based on \$50 per face foot of constructed bank at 500 feet, totaling \$27,500. Source: BES, Engineering Services.

C.3. Imported Logs: \$1,800

The project will utilize as many on site logs as possible, but estimates that it will not be enough to construct the entire project design. Additional logs need to be purchased offsite, transported on site, and installed. Imported logs at \$300.00 per log for 6 logs totaling to \$1,800. Source: BES, Engineering Services

C.4. Imported Root Wads: \$4,800

The project will utilize any available on site root wads but does not estimate that any will be available. Root wads are regarded as the highest quality habitat component to healthy rearing areas. These will be purchased off site, transported on site, and installed in and along the stream margin. Imported root wads at \$800.00 per root wad for 6 root wads totaling to \$4,800. Source: BES, Errol Confluence Bid

C.5. Streambed Substrate: \$37,368

The substrate of the creek will be enhanced by the addition of spawning and rearing sized gravels that promote healthy spawning activity. These gravels will be purchased off site,

transported on site and added to the existing substrate. Streambed substrate at \$90.00 per ton for 415 tons totaling to \$37,368.

Source: BES Errol Confluence Bid.

D. Vegetation Management: \$11,063

D.1. Removal of Trees: \$6,832 (contracted svcs)

There are several varieties of trees on site that are either invasive species or are unfortunately in the way of the restoration project. They will be removed, utilized on site if possible and if not they will be transported off site and stored for other possible projects. Tree removal \$976.00 per tree for 7 trees totaling \$6,832. Source: RSMeans 2008.

D.2. Revegetation: (\$1,425 materials, \$886 services, \$1,920 personnel)

The entire site and riparian area will be planted with many native plants that are needed for healthy populations of wildlife and promote clean cold water for aquatics. Source: BES, Revegetation Program.

E. Fencing and Signage: \$18,800 (contracted svcs)

E.1. Viewing area and trail: \$10,000

The site of the former driveway will be converted to an overlook and kiosk with a bench and sign and will be ADA accessible. Conceptual designs are complete and will be incorporated at the 90% design drawings. Estimated cost is derived from similar overlooks and kiosks at other projects. Total: \$10,000. Source: BES, Sustainable Stormwater.

E.2. Fencing: \$5,300.00

To delineate the project area to promote the scenic beauty of the restoration project while still sending a message that recreational activity is limited and generally discouraged beyond what's provided. 600 lf cedar fence with two gates. Source: BES Engineering Services/Custom Cedar Products

E.3. Signage: \$3,500.00

To better inform the public, there will be signage explaining the benefits created by the supporting parties. Amount includes construction and installation. Source: BES Communications.

F2 - Nature in Neighborhoods Capital Grants Match Form

Instructions:

1. If utilizing volunteers, indicate this in the "Match Source" and choose the "In Kind" field and estimate the number of hours the volunteers will be contributing to the project. The "Amount" will be those hours multiplied by the hourly rate found at the Independent Sector website: www.independentsector.org/programs/research/volunteer_time.html.
2. If your "Match Source" is a professional or technical service received as "In Kind," use the market average or actual salary or bid for that individual or service. Use the "Notes" field to document your methodology.

Match Source	Choose One	Choose One	Amount	Notes
Portland Environmental Services	<input checked="" type="radio"/> Financial <input type="radio"/> In Kind	<input type="radio"/> Pending <input checked="" type="radio"/> Secured	\$ 577,477	FY 08-09 and FY 09-10 capital budget (Grey to Green)
Portland Environmental Services	<input type="radio"/> Financial <input checked="" type="radio"/> In Kind	<input type="radio"/> Pending <input checked="" type="radio"/> Secured	\$ 45,540	FY 08-09 and FY 09-10 capital budget (Grey to Green) (personnel)
Johnson Creek Watershed Council	<input type="radio"/> Financial <input checked="" type="radio"/> In Kind	<input type="radio"/> Pending <input checked="" type="radio"/> Secured	\$ 4,984	FY 09-10 volunteer coordination and volunteer restoration activities
	<input type="radio"/> Financial <input checked="" type="radio"/> In Kind	<input checked="" type="radio"/> Pending <input type="radio"/> Secured	\$	
	<input type="radio"/> Financial <input type="radio"/> In Kind	<input type="radio"/> Pending <input type="radio"/> Secured	\$	
	<input type="radio"/> Financial <input type="radio"/> In Kind	<input type="radio"/> Pending <input type="radio"/> Secured	\$	
	<input type="radio"/> Financial <input type="radio"/> In Kind	<input type="radio"/> Pending <input type="radio"/> Secured	\$	
	<input type="radio"/> Financial <input type="radio"/> In Kind	<input type="radio"/> Pending <input type="radio"/> Secured	\$	

Total \$ 628,001

Print Form



CITY OF PORTLAND ENVIRONMENTAL SERVICES



1120 SW Fifth Avenue, Room 1000, Portland, Oregon 97204 ■ Dan Saltzman, Commissioner ■ Dean Marriott, Director

October 28, 2009

Metro
Natural Areas Program
Nature in Neighborhoods Capital Grants
600 NE Grand Ave.
Portland, OR 97232

To Whom it May Concern:

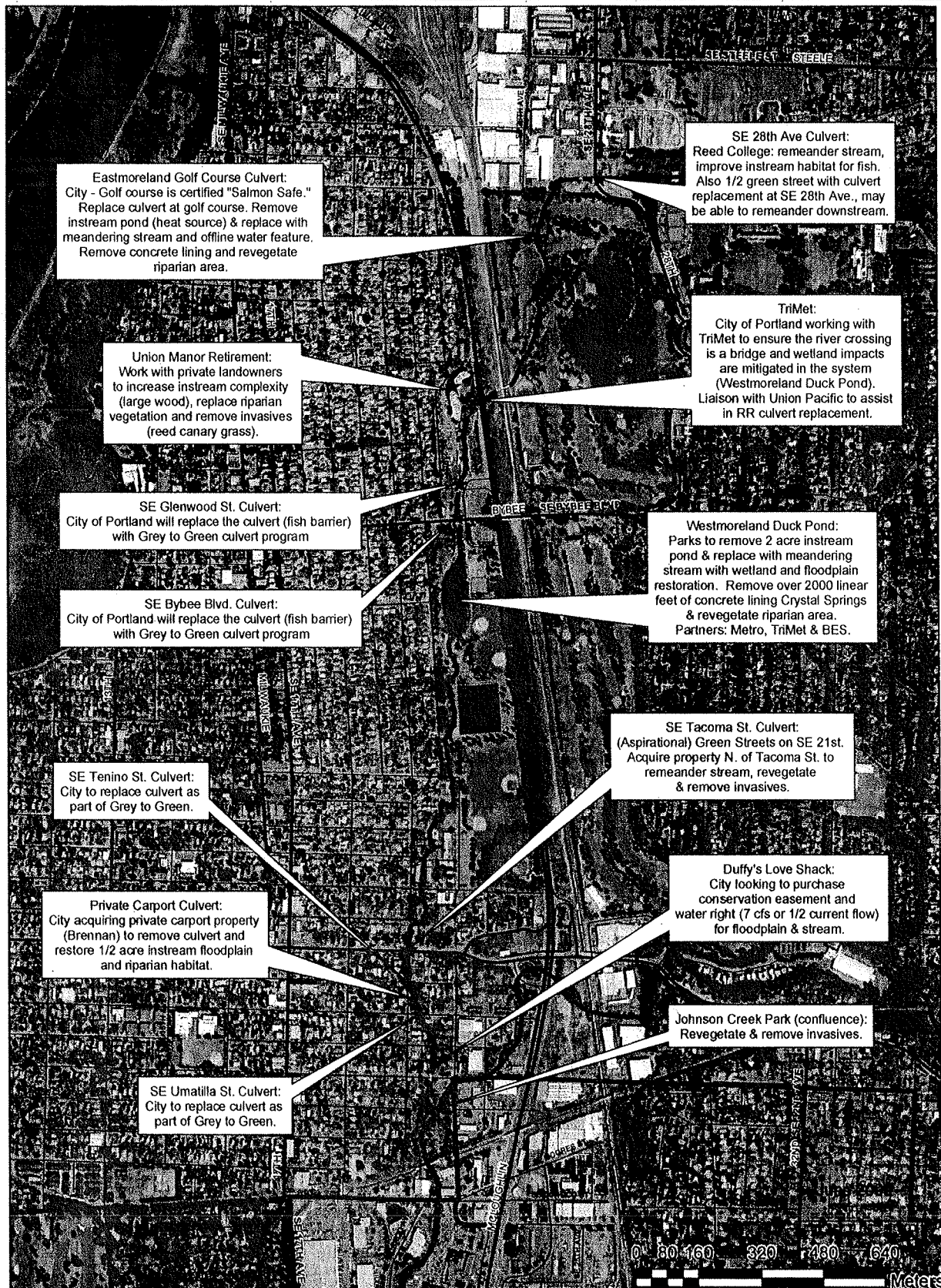
This letter supports the City of Portland's proposal to Metro Nature in Neighborhoods Capital Grant Program for the *Crystal Springs Restoration Partnership*. The properties identified in the proposal for acquisition via fee title or conservation easement will be properly recorded as fixed assets in the City of Portland's audited financial statement. In addition, the accounting treatment for these acquisitions and easements are consistent with other similar transactions for the City, including the Johnson Creek Willing Seller Program and the Grey to Green Land Acquisition Program. We also acknowledge that, if our proposal is funded, the City will be required to enter into an Intergovernmental Agreement with Metro.

If you have any questions about this letter, please contact me at (503) 823-7226. Thank you for your time.

Sincerely,

Daniela Cargill
Grey to Green Program Manager

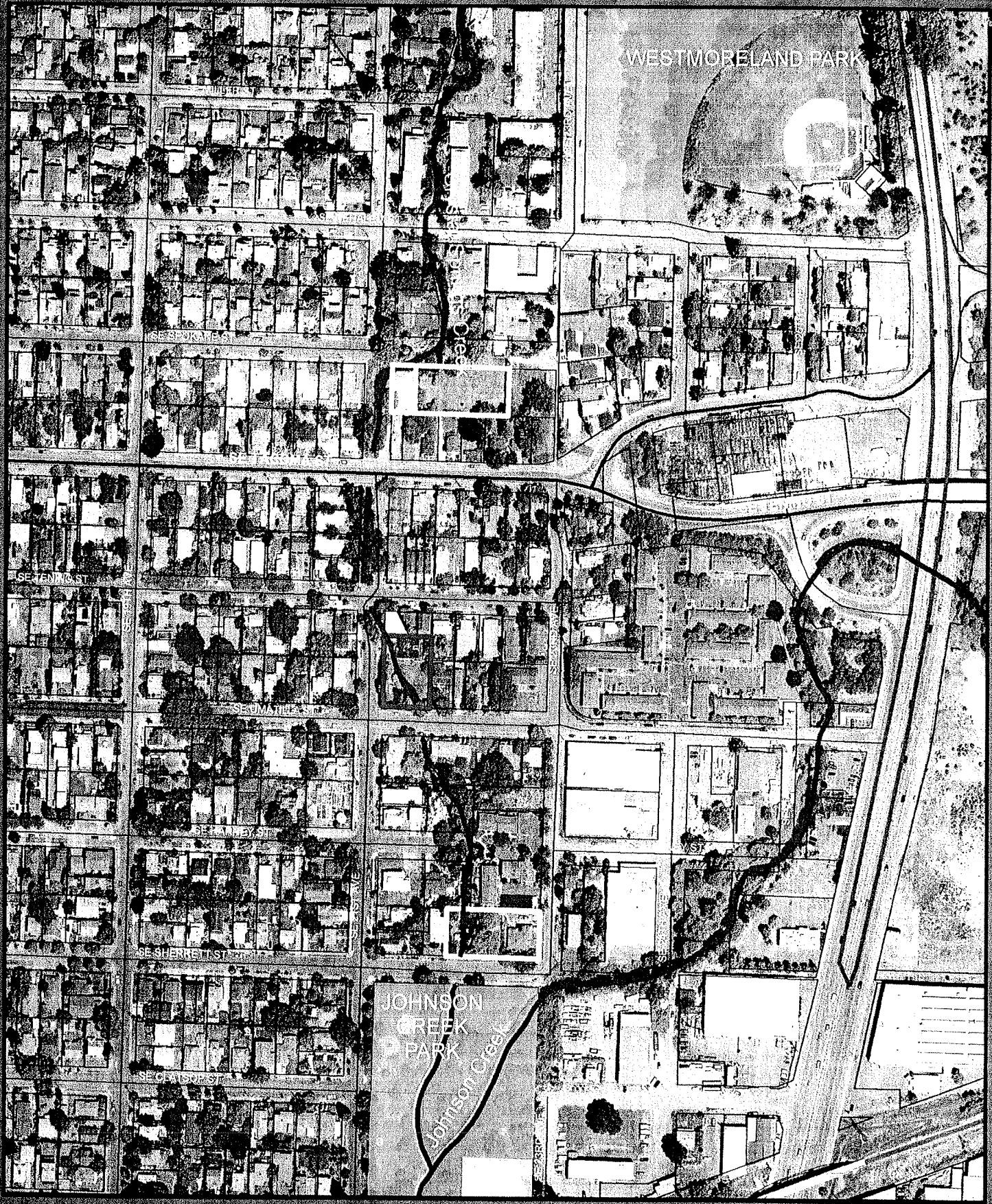
Crystal Springs Restoration Partnership






- ★ Projects
- City of Portland
- Major Highway/Freeway
- Local Highway
- Local Street (Public/Private)

- Open Channel
- Roadside Ditch
- Water Body
- Stormwater Pipe or Culvert
- Combined Stormwater/Sewer Pipe





-  Brannen property
-  Proposed Tacoma St easements
-  Proposed Sherrett St easement




Crystal Springs Restoration Partnership
Vicinity Map

Date Printed: 10/29/09





 Brannen property

0 4 8 16
Feet



Crystal Springs Restoration Partnership
Brannen Property Site Map

Date Printed: 10/29/09

 **City of Portland**
Environmental Services

183741

SITE MATERIALS

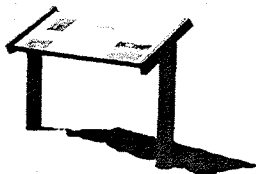
SEATING



SPLIT RAIL FENCE



INTERPRETIVE SIGNAGE



BARK MULCH TRAIL

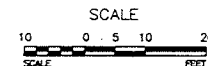
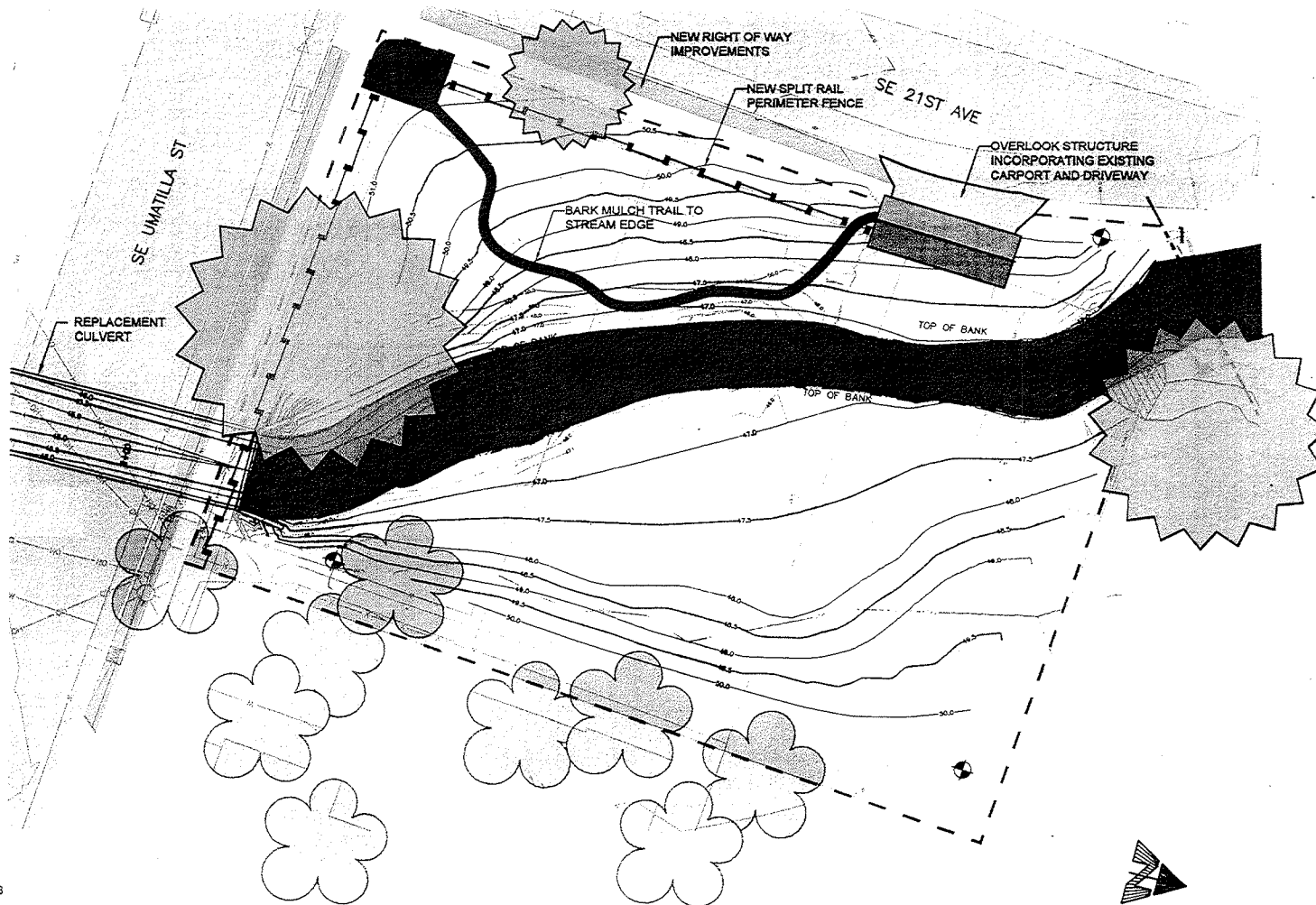


LEGEND

- Channel Thalweg and Stationing
- Existing Ground Contour (0.5 FT)
- Grading Contour (0.5 FT)

- Shrub
- Deciduous Tree
- Coniferous Tree

- Restoration Planting
- Survey Control



CITY OF PORTLAND DATUM AND NAD 1983-91

DESIGNED BY	DATE	APPROVED
DRAWN BY	PROGRAM	MO.
CHECKED BY	CONSULT.	MO.
APPROVED BY	CHECKED BY	
NO.	DATE	DESCRIPTION
APPRO.	REVISION	
DRAWING NAME: E09112_C01-S.DWG		

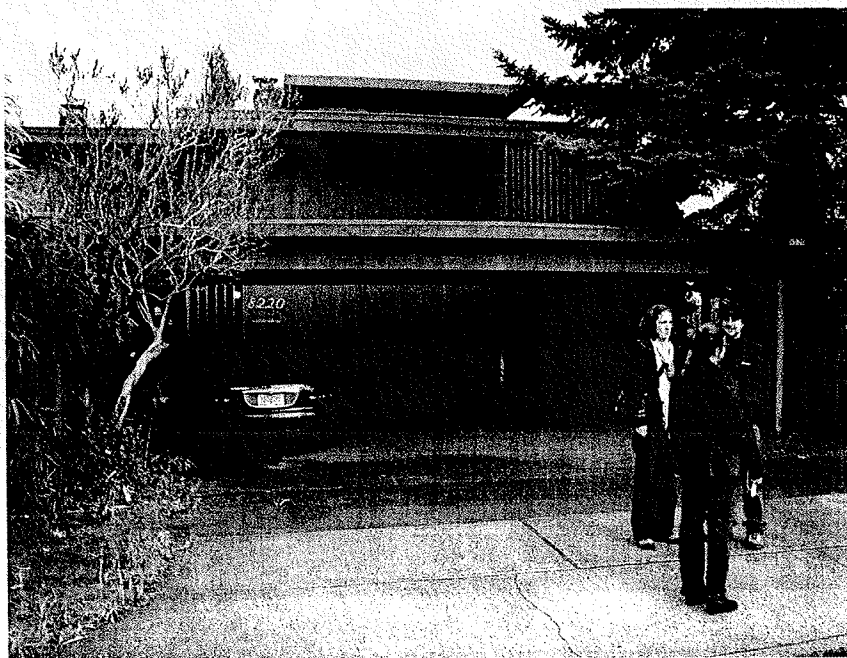
CITY OF PORTLAND
ENVIRONMENTAL SERVICES



BRANNEN PROPERTY
CONCEPT PLAN

1/4 SECTION
3832
JOB NO.
E09112
SHEET NO.

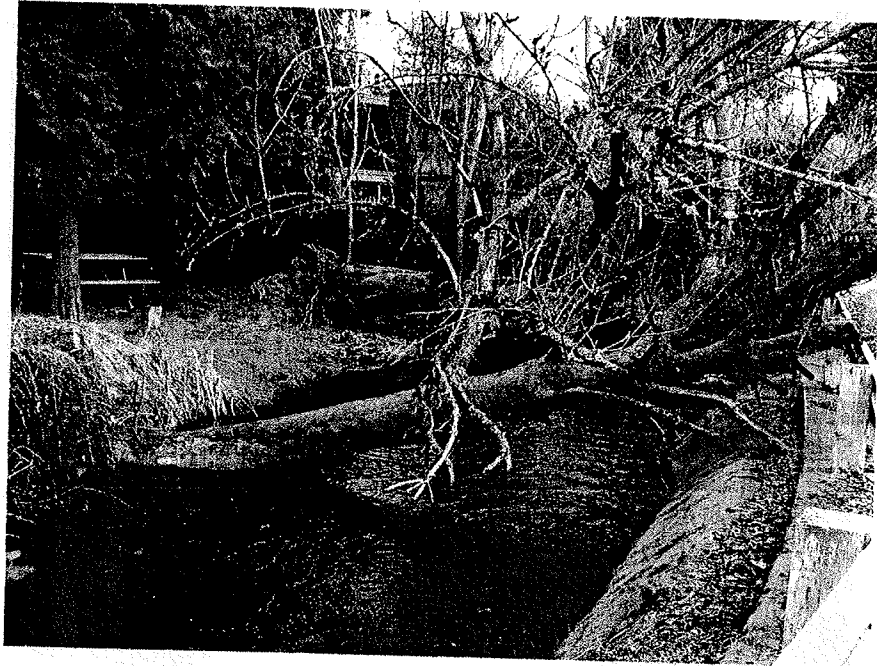
D:\NCS\09112\112 TENINO-UMATILLA CULVERTS\DWG\NO_PERCENT\E09112_C01-S.DWG 10/13/2009 11:38:25 AM NSD\JHALL.Z

Brannen Property

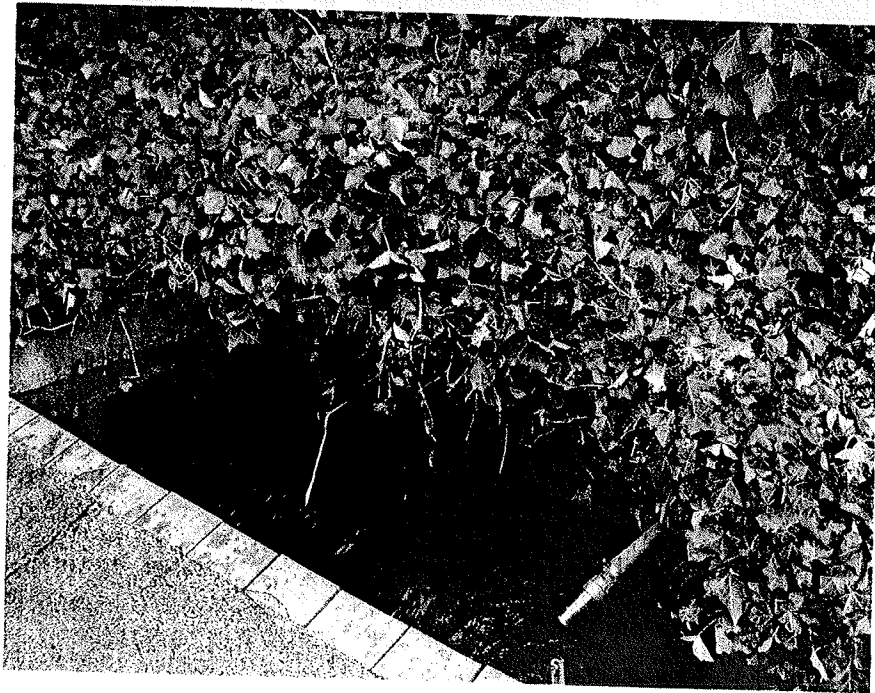
Driveway and carport over Crystal Springs



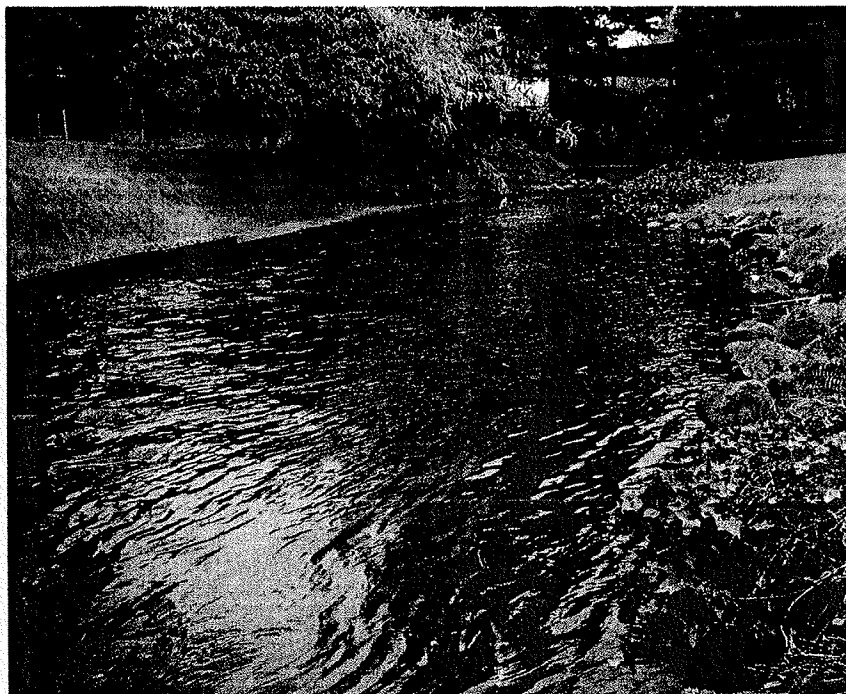
Tenino St. culvert upstream of Brannen property



Crystal Springs upstream as it enters the Brannen Property



Downstream end of culvert under Brannen carport

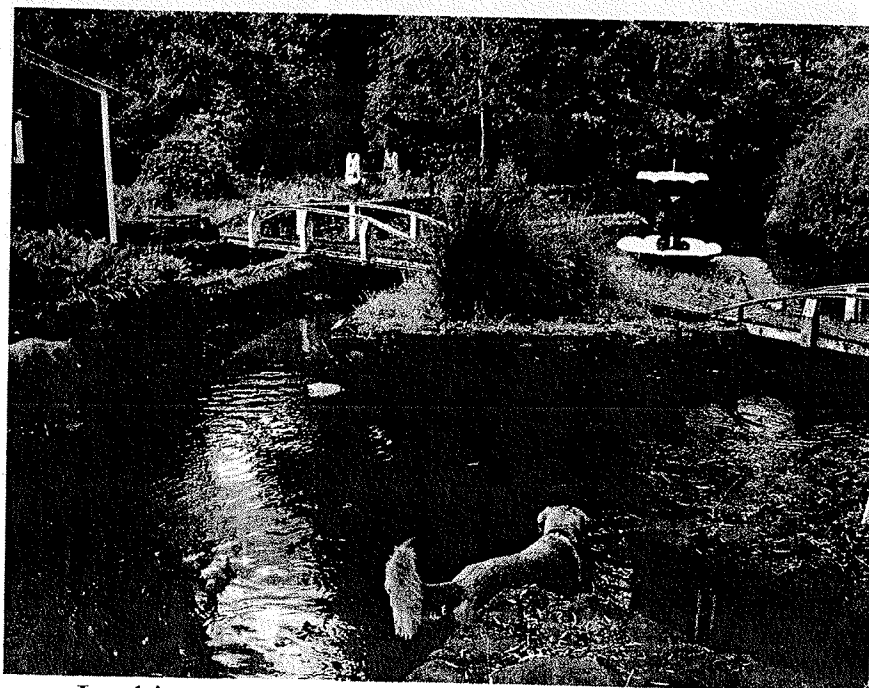


Crystal Springs looking upstream at Brannen house

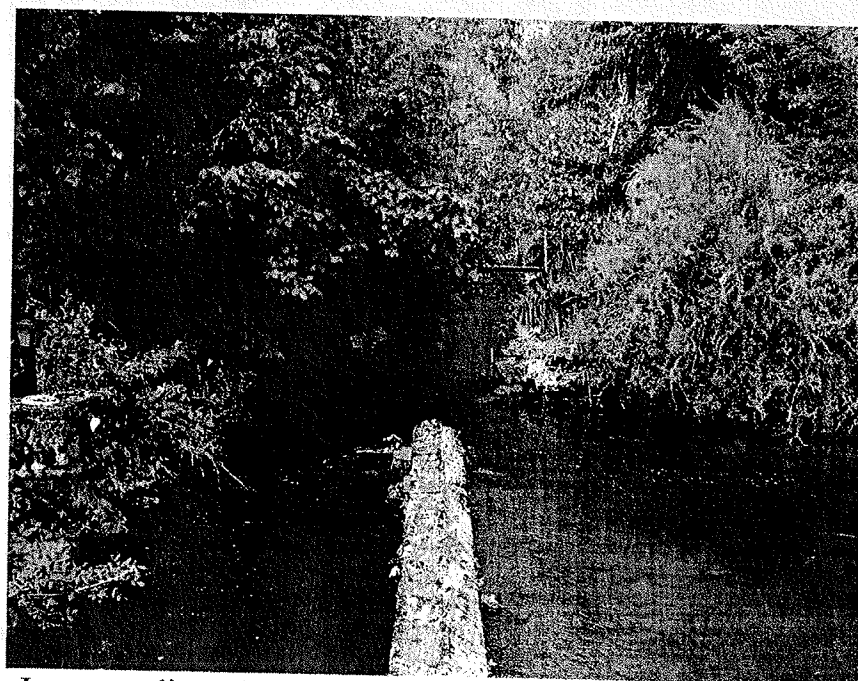


Brannen back yard and looking downstream at Umatilla culvert

Sherrett Street Conservation Easement

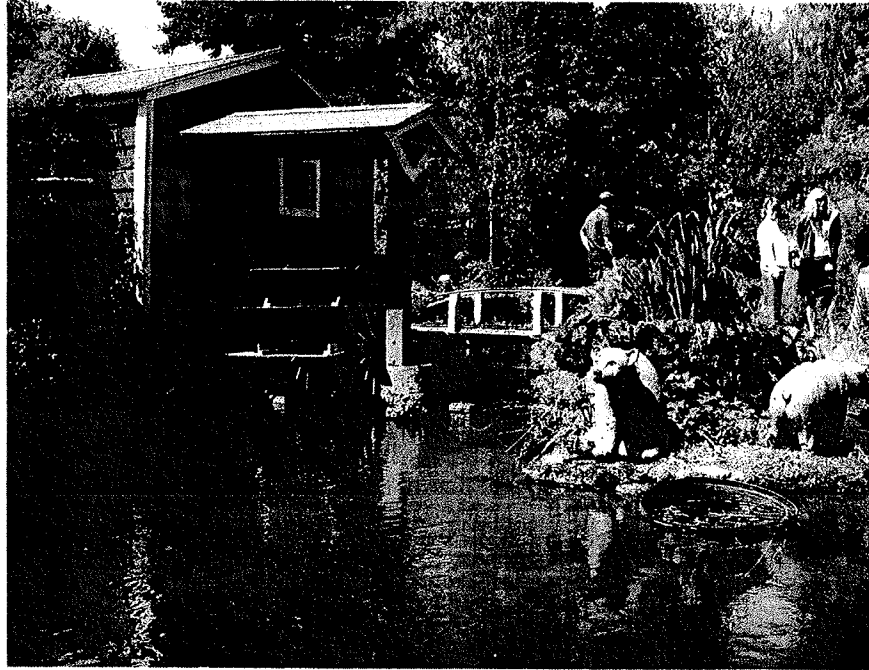


Looking upstream at multiple in-water structures

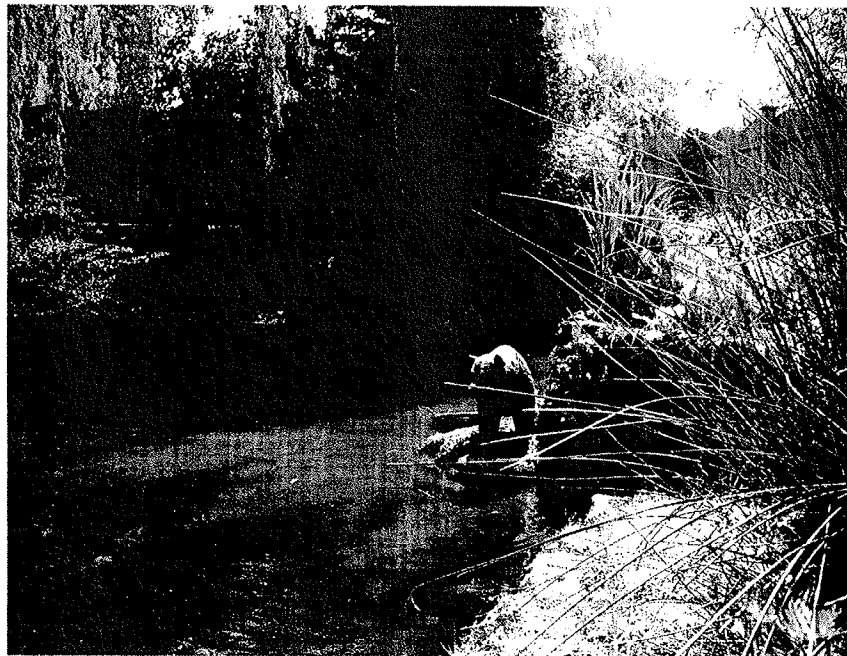


In-water diversion structure diverts water to water wheel

183741



Power producing water wheel and associated shed on right bank of creek



Looking downstream at Sherrett St. culvert

Johnson Creek Watershed Council



1900 SE Milport Rd, Suite B • Milwaukie, OR 97222
 ph: (503) 652-7477 • fx: (503) 652-7188
 info@jcwec.org • www.jcwec.org

October 20, 2009

Metro Nature in Neighborhoods
 Capital Grants Review Committee
 600 NE Grand Avenue
 Portland, OR 97232

Dear Capital Grants Review Committee:

On behalf of the Johnson Creek Watershed Council, I write in strong support of Portland Bureau of Environmental Services' grant application for funding for culvert replacement and full-scale river restoration on Crystal Springs Creek at the Brannen property at 8221 SE 21st Avenue in Portland. As someone who stood transfixed last winter at the top of Reed Canyon fish ladder, within feet of the source of Crystal Springs, and watched two steelhead swimming, I can't fully express how excited I am that the City has such an ambitious, comprehensive, and well-conceived plan to fully restore salmonids in this sub-basin of Johnson Creek Watershed.

With its clean, cold water and consistent flows, Crystal Springs Creek is ground zero for salmonid restoration within the City of Portland, which is why the City's steering committee has selected all nine fish barrier culverts in Crystal Springs as its top priorities for replacement. Portland's strategy is to focus resources in one watershed with the highest potential for salmon recovery and with a strong history of investment and community support (as examples, Reed College's successful restoration of Crystal Springs in Reed Canyon, and Portland Parks and Recreation's concrete channel removal in Westmoreland Park funded by Metro).

The Johnson Creek Watershed Council has met with Portland BES several times in the last two months to learn the full extent of their restoration plans and to determine the best way for us to be involved. We intend to support the overall restoration efforts by utilizing our expertise in riparian habitat restoration (invasive weed treatment and native revegetation). We have a proven track record engaging successfully with private landowners; we will play a critical restoration role in the 20% of the riparian area not in public or institutional ownership.

The City of Portland has devoted \$2 million from its Grey to Green Program specifically to culvert removal in Crystal Springs Creek, and is actively and aggressively leveraging those funds to turn this ambitious vision of full-scale salmon restoration in Crystal Springs Creek into a reality. Metro has a unique opportunity to continue to play an integral role in advancing this vision. Thank you in advance for your serious consideration of the City's application. I think it's a wonderful project and an integral part of a worthy effort.

Sincerely,

Matthew Clark
 Executive Director

Inspiring and facilitating community investment in the Johnson Creek Watershed for the protection and enhancement of its natural resources.



PORTLAND PARKS & RECREATION

Healthy Parks, Healthy Portland

October 29, 2009

Metro

Attn: Mary Rose Navarro
600 Northwest Grand Avenue
Portland, OR 97232-2736

Dear Ms. Navarro:

On behalf of Portland Parks & Recreation, I wish to express strong support for the grant application from the Bureau of Environmental Services (BES) to Metro to support creek bank restoration and re-vegetation on Crystal Springs in Westmoreland Park. The project intends to remove a culvert that blocks juvenile fish passage, daylight the stream, and restore floodplain and riparian habitat on a recently-acquired public property. BES also hopes to acquire conservation easements in the lower watershed to provide for future restoration of channel and riverbank habitat.

Environmental restoration in Westmoreland Park is a priority for Portland Parks & Recreation (PP&R) and the community at large. In 2008, PP&R was awarded a Nature in Neighborhoods Capital Grant to re-vegetate and restore the creek in Westmoreland Park. This BES project aligns perfectly with our effort, further improving fish passage at this location. The Bureau of Environmental Services' proposed project would enhance the significant community investment already made toward ecological restoration of Westmoreland Park.

Based on its ecological merit, the proposed project has been identified as a priority in numerous planning documents. It is included in the Westmoreland Park Master Plan developed in 2004. It was also one of the elements proposed to address water temperature and sedimentation during an Army Corps of Engineers design review.

Crystal Spring restoration aligns with the Council's mission to inspire and facilitate community investment in the Johnson Creek Watershed for the protection and enhancement of its natural resources. Portland Parks & Recreation will take over long-term maintenance of the site post-restoration. We respectfully urge Metro to approve the Bureau of Environmental Services' grant application.

Sincerely,

Zari Santner
Director Portland Parks & Recreation

Administration
1120 S.W. 5th Ave., Suite 1302
Portland, OR 97204
Tel: (503) 823-7529 Fax: (503) 823-6007

www.PortlandParks.org
Nick Fish, Commissioner
Zari Santner, Director





183741

REED COLLEGE

COLLEGE RELATIONS

3203 Southeast

Woodstock Boulevard

Portland, Oregon

97202-8199

telephone

503/777-7573

fax

503/777-7798

October 27, 2009

Dear Members of the Grants Review Committee,

I am writing in enthusiastic support of the City of Portland Bureau of Environmental Services' grant application for restoration work in Crystal Springs.

Since 1999, Reed College has embarked on an ambitious and successful restoration project to improve fish passage between the headwaters of Crystal Springs and areas located downstream of our property. The City of Portland has been a crucial partner in our efforts—the current phase of our restoration strategy involves the replacement of a culvert lying beneath SE 28th Avenue, and the Bureau of Environmental Services has provided valuable support and advice for our work. They are an ideal project partner.

Beyond the immediate impact that BES has had with our work is the importance their work has for the watershed itself. They have identified culverts that impede fish passage, they have worked to restore degraded stretches of stream to their original form, and they have crafted a plan to restore the Johnson Creek Watershed so that it can provide suitable habitat for threatened and endangered species of fish.

We are proud to partner with the City of Portland on our work, and we are proud to write in support of their efforts beyond our campus border. If I can offer any additional information, or support for their activities, please do not hesitate to contact me at (503) 788-6673.

Sincerely,

David D. Frazee Johnson
Faculty Grants Manager

EXPERIENCE

City of Portland, Bureau of Environmental Services, 4/87 -

Present. I am the manager for the West Willamette Design Section, which develops environmental projects (e.g., river restoration, wetland development, water quality enhancement) and storm and sanitary sewer facilities. My duties include:

- Assignment of staff work; budgeting; review of work for completeness and technical accuracy. Stamping of work done by subordinates.
- Participation in hiring and performance review process
- Mentoring of other engineers

My previous position (pre-managerial) was as a project manager for Environmental Services. My duties included:

- Project management and engineering design on civil engineering projects. Preparation of plans, specifications and bid packages. Stamping of plans and spec packages. Preparation of ordinance packages. Typical projects include pipeline design, force mains, sumps, and water quality facilities.
- Development and implementation of scope, schedule and budget on capital and non-capital projects. Preparation of operating budgets and program-wide schedules.
- Hiring and management for professional services contracts
- Permitting (City/State/Federal), inter-governmental coordination, public involvement and easement acquisition
- Preliminary designs, studies, and peer review of other projects

Oregon Public Utility Commission, 8/85 - 4/87. Engineering Analyst with the PUC. Duties included:

- In-house consulting on engineering and technical issues
- Mediation between public utilities and private power producers regarding power sales contracts
- Interpretation of and development of state Oregon Administrative Rules
- Handling of public inquiries and complaints

Pacific Power & Light Company, 2/82 - 6/84. While with Pacific Power & Light (PP&L) I served in two capacities: as a scheduler and

estimator, and as a water systems designer. Water systems design duties included:

- Preparation of water systems computer models and analysis of municipal water systems owned by Pacific Power
- Sizing of pumps and piping systems, and design of reservoirs and reservoir foundations

Estimator/scheduler duties included:

- Preparation and tracking of construction schedules in the office and in the field. (I tracked the schedule for a major turbine overhaul and other power plant improvements).
- Tracking of costs and cost variances on construction projects
- Cost estimating on power plant improvement projects

EDUCATION

Bachelor of Science in Civil Engineering, Oregon State University, 12/81

Manager and Supervisor Training, City of Portland

Supervisory Skills, Portland Community College

Principles of Management, Oregon Institute of Technology

Project Management, Cadence Management Corporation

Managing Scope, Schedule and Budget, Wynnlee Crisp

Risk Perception/Risk Communication, Dr. Peter Sandman

Introduction to Urban Tunnel Design, American Society of Civil Engineers

Cost-Effective Design of Storm Water Detention Facilities, American Society of Civil Engineers

Urban Storm Water Quality Management, American Society of Civil Engineers

LICENSES

Oregon professional engineer #13,719 (July 1987) – registered in civil and environmental engineering



Janet Corsale, PE, Principal

Summary

Janet Corsale founded Salmon River Engineering PLLC in 2008. She is a regionally respected water resources engineer with over 21 years of professional experience. Janet has focused on open channel hydraulics, natural channel design and construction, sediment transport, fisheries engineering and stormwater management. She has expertise in the application of hydraulic models to address water resources issues. Janet's restoration projects include stream restoration and relocation, wetlands creation, stream and river bank stabilization, fish passage, dam removal, aquatic habitat enhancement, stream process assessment and prediction of sediment transport loads. She enjoys implementing restoration projects through all stages including feasibility analysis, conceptual design, design development, permitting, bid and construction support, and performance monitoring. Her project experience also includes flood mitigation, storm water management, and infrastructure planning.

Janet manages a wide range of projects including on-call services contracts, technical studies, planning, permitting, design and construction projects. She has successfully managed multi-year and multi-phase professional services contracts with fees up to \$500,000/year. With a background in biology and engineering, she enjoys working with and coordinating multi-disciplinary teams. Janet strives to provide superior client service by facilitating communication and teamwork.

Janet has excellent written and verbal presentation skills and experience tailoring presentations of technical information to target audiences that include federal, state and local agencies, elected officials, professional organizations, and industry, environmental and citizen groups. She has lectured at the University of Wisconsin, University of California Berkeley, Oregon State University and Portland State University. Janet regularly participates in teaching short courses on natural channel design and construction.

Expertise

Stream, River, and Wetland Restoration Design
 River Engineering and Channel Relocation
 Bioengineered Bank Stabilization
 Engineered Log Jams
 Fish Passage and Dam Removal
 Construction and Field Engineering
 Hydrologic and Hydraulic Analysis & Modeling
 Scour and Sediment Transport Analysis
 Bridge and Culvert Hydraulic Design
 Stormwater Management
 Project Management

Registration

Registered Civil Engineer in Oregon and Washington
 Certified Professional Erosion and Sediment Control

Education

University of Wisconsin, Madison, M.S., Civil & Environmental Engineering, 1989
 University of Colorado, Boulder, B.A., Biological Sciences, 1978

**Representative
Project
Experience**

Whychus Creek Restoration and Management Plan, Sisters, OR. The Upper Deschutes Watershed Council retained the Watershed Professionals Network to develop a restoration and management plan for Whychus Creek. Through much of the Sisters area, the stream has been channelized and subsequently experienced incision and loss of aquatic habitat. Janet's role on the consulting team was to develop conceptual designs and planning level cost estimates for stabilization, flood mitigation, and aquatic and riparian habitat enhancement for a high risk reach of the stream that threatening existing neighborhoods. She also provided recommendations for design and construction phasing. The plan was completed in June 2009.

Brownwood Floodplain Restoration, Portland, OR. Project manager and principal engineer for restoration of a 20-acre site located in the floodplain of Johnson Creek to provide flood relief and habitat for endangered salmonids. Developed final designs, construction documents, and monitoring plans. Excavation occurred over 16 acres to reconnect the floodplain, create wetlands and backwater channels and relocate 2000 feet of channel. Over 500 pieces of large woody debris were installed to provide lateral channel stability and floodplain roughness. Janet provided technical assistance for permitting and on-site assistance during construction. Construction completed in 2007. Performance monitoring plans and field training for City staff completed 2008.

Kelley Creek Confluence Restoration, Portland, OR. Project manager and engineer for final design and construction to relocate the lower reach of Kelley Creek into a natural channel, lower the adjacent floodplain, construct wetlands and backwater channels, restore riparian vegetation, and create fish and wildlife habitat. Provided technical assistance for public meetings, permitting and long-term performance monitoring. Prepared construction documents for competitive bid and provided on-site construction assistance. Construction completed 2004.

Fanno Creek, Portland, OR. Served as project manager and engineer for planning, design and construction of bed and bank stabilization and in-stream habitat enhancement of 800 feet of Fanno Creek located between SW Shattuck Road and SW 45th Avenue. Provided technical assistance for permitting and on-site assistance during construction. Project constructed 2001.

Rock Creek, Stevenson, WA. Extensive sediment deposition beneath the Rock Creek Drive Bridge contributes to capacity issues that threaten to damage infrastructure critical to the City of Stevenson during flood events. The bridge is located at a slope break between a steep canyon above the bridge and an alluvial fan below the bridge. Janet was the principal investigator to characterize channel hydraulics and geomorphic conditions to explain the cause of deposition at the bridge and to evaluate and recommend design solutions to protect the bridge and other existing infrastructure.

**Professional
Memberships**

American Society of Civil Engineers
International Erosion Control Association
River Restoration Northwest

Chronology

2008-present. Salmon River Engineering PLLC. President & Principal Engineer.
2000-2008. Inter-Fluve, Inc. Senior Engineer.
1996-2000. Thomas-Wright Engineers & Surveyors, Senior Engineer.
1990-1996. Woodward-Clyde Consultants, Project Engineer.
1988-1990. Warzyn Engineering, Staff Engineer.
1987-1988. Wisconsin Department of Natural Resources, Engineering Intern.

Kaitlin L. Lovell

Work Address: Bureau of Environmental Services
1120 SW 5th Ave. Room 1000
Portland, OR 97204

EDUCATION

Cornell Law School, J.D., Public Law Concentration

Bucknell University, B.S. Environmental Science, *summa cum laude*

Thesis: *Periphyton Responses to Nutrient Enrichment in Acid-Mine Drainage Streams.*

Additional Education: Coastal and Oceanic Law and Policy, Shoals Marine Laboratory/Cornell University; DiS: Denmark's International Study Program (Marine Biology), Copenhagen, Denmark

EXPERIENCE

City of Portland, Bureau of Environmental Services (Oregon) *Senior Manager, Science, Fish and Wildlife Program, 2007-current*

Manage 5 scientists, to ensure that city activities benefit wild salmon, native fishes and terrestrial species. The scientists serve as project team members for individual restoration and development projects, conduct field studies to better understand the city's fish populations and monitor and evaluate fishery responses to restoration projects, develop and implement the scientific basis for the Portland Watershed Management Plan and the local salmon recovery plan to be incorporated into the federal Lower Columbia River salmon recovery plan. The Science, Fish and Wildlife Program staffs and facilitates the City's Streamlining process, a joint venture between the federal government, the State of Oregon and the City of Portland to bring together all of the regulatory parties to review and engage in pre-consultation conferencing on City projects that require Clean Water Act, Endangered Species Act, Dredge and Fill and local city permits.

Trout Unlimited (Portland, OR) *Salmon Policy Coordinator, 2001-2007*

Oversee and implement the day to day policy development and advocacy for wild Pacific salmon and steelhead in Washington, Idaho, and Oregon by synthesizing the best science into sound, effective local, state and federal policies. Includes participation in federal and state recovery planning, working with scientists to ensure their research is incorporated into policies, contributing to administrative processes, initiating and coordinating litigation, legislation, public education and outreach in the areas of federal and state fish protection and recovery, hatchery reform, public and private hydropower reform, and harvest management through the implementation of environmental laws, such as the Endangered Species Act, Clean Water Act, National Environmental Policy Act and state laws such as the Native Fish Conservation Policy and Oregon Plan.

Cornell University Office of Counsel (Ithaca, NY) *Assistant University Counsel; 2000-2001; Law Clerk, 1998-2000*

Advised individual departments and employees on state and federal environmental compliance, real estate transactions, environmental and land use permitting, including zoning and variances, and litigation.

Chad T. Smith

1111 NE Roselawn • Portland, OR 97211 • (503) 260-2423 • standard88@hotmail.com

Objective:

Obtain a position in the environmental field that will allow me to learn new skills and progress toward a position at the management level in the City of Portland.

Experience:

1999-present City of Portland/Science, Fish and Wildlife Program Portland, OR

Environmental Technician 2

- Project manager for the culvert portion of Grey to Green program. This is an effort to replace or remove eight culverts in a five year period in order to allow access of ESA listed fish species and native resident fish species to upstream habitat with an under funded budget of \$2.5 million. I am directing the work of professional subordinates (consultants) and overseeing all phases of this project including predesign, design, advertising, construction and start up/close out. Prioritizing culvert projects requires populating and refining databases, mapping, presenting options, conducting alternative analysis and analyzing the best cost/benefit for replacing culverts that will allow historical use of habitat for ESA listed fish. I convened a Steering Committee comprised of representatives from U.S. Fish and Wildlife Service, National Marine Fisheries Service, Johnson Creek Watershed Council, Oregon Department of Fish and Wildlife, and Portland Bureaus of Parks, Transportation and Environmental Services.
- Manage a contract with Oregon Department of Fish and Wildlife (ODFW) to conduct a fish study on streams throughout the city. This requires acquiring the proper state and federal permits, meeting with watershed managers and watershed councils to prioritize and plan which specific areas are of interest to each manager. This study will deliver valuable information on fish communities listed under the Endangered Species Act (ESA), as well as native and nonnative fish assemblages in each water body.
- Project manager of the fish-monitoring program for the COP since 2000. This requires planning, coordinating, reporting, implementing and designing a fish monitoring program and associated database for fish presence/absence activities in various streams within the City. This includes obtaining an ESA - 4(d) authorization permit (through National Oceanic and Atmospheric Administration (NOAA) and the State of Oregon) that is required to fulfill the City's obligation per NOAA requirements for post monitoring of in-water construction (mostly stream restoration projects).
- Manage fish salvage efforts for instream construction projects by implementing, designing, budget, gathering supplies and permits, reporting, mobilizing crews and supervise technical staff and volunteers.
- Managed a stream scour study on various streams in the city in an effort to understand scour rates. This requires developing, implementing, planning and constructing the devices, as well as researching the proper methods for our region and acquiring field staff.
- Managed, design, and implement a two-year volunteer based fish spawning survey in Tryon Creek.
- Process and apply for environmental permits (Army Corps Section 7, Clean Water Act - 404, Division of State Land - Oregon Removal/Fill Law Permit, BOM - 4(d) Rule limit 10(i) for Road Maintenance Activities, Bureau of Development Services (BDS) Land Use Reviews, DSL General Authorizations, annual NOAA 4(d) Rule limit 2 for Ongoing Scientific Research and a Scientific Taking Permit issued by the Oregon Department of Fish and Wildlife.

- Prepare clear, concise, comprehensive project completion and yearly monitoring reports for NOAA, Oregon Department of Fish and Wildlife (ODFW) and the U.S. Army Corps of Engineers on instream restoration projects.
- Plan, design and implement surface water flow and fish monitoring projects (Kelley Creek grade control structures, confluence restoration and culvert replacement projects).
- Prepare and review Biological Assessments for ESA Section 7 consultations which determine the effects of projects on environmental conditions and develop and analyze alternative approaches to conservation measures.
- Participate in Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), Superfund (Portland Harbor) related contaminant exposure determination for Pacific lampreys, white sturgeon, and sub-yearling Chinook research investigation teams with local, state and federal partnerships.
- Research the latest advancements in macroinvertebrate sampling protocols then implement those protocols by field collection in Tryon Creek.

2000-2000 (summer) State of Oregon/DEQ – Water Quality Monitoring Portland, OR

Natural Resource Specialist 1

- Collected water quality field samples from surface and ground water on Clean Water Act - 303(d) List.
- Conducted stream and habitat surveys and gathered macroinvertebrates from CWA 303(d) listed streams.
- Deployed and maintained water quality monitoring data loggers throughout Oregon streams.
- Entered water quality data into Excel, Access, and ArcView software.

1998-1999 City of Portland/Johnson Creek Watershed Program Portland, OR

Internship

- Performed stream reconnaissance located in the Pleasant Valley Urban Reserve.
- Photo documented code violations regarding erosion control, floodplain fill and illicit discharge.
- Used FEMA maps to distinguish flood areas and quality assured results by ground-truthing.
- Spoke with landowners to gather historical and current environmental conditions.

1996-1996 Multnomah County District Attorney Office Portland, OR

Americorps National Service

- Manage volunteers in graffiti removal on SE Hawthorne and on mural projects.
- Work with businesses to evaluate graffiti abatement alternatives on their property.
- Enforce the City of Portland policy on graffiti removal.

Education:

2007-2008 Portland State University Portland, OR

- River Restoration Professional Certificate

2004-2005 Portland State University Portland, OR

- Watershed Management Professional Program Certificate

1996-2000 Portland State University Portland, OR

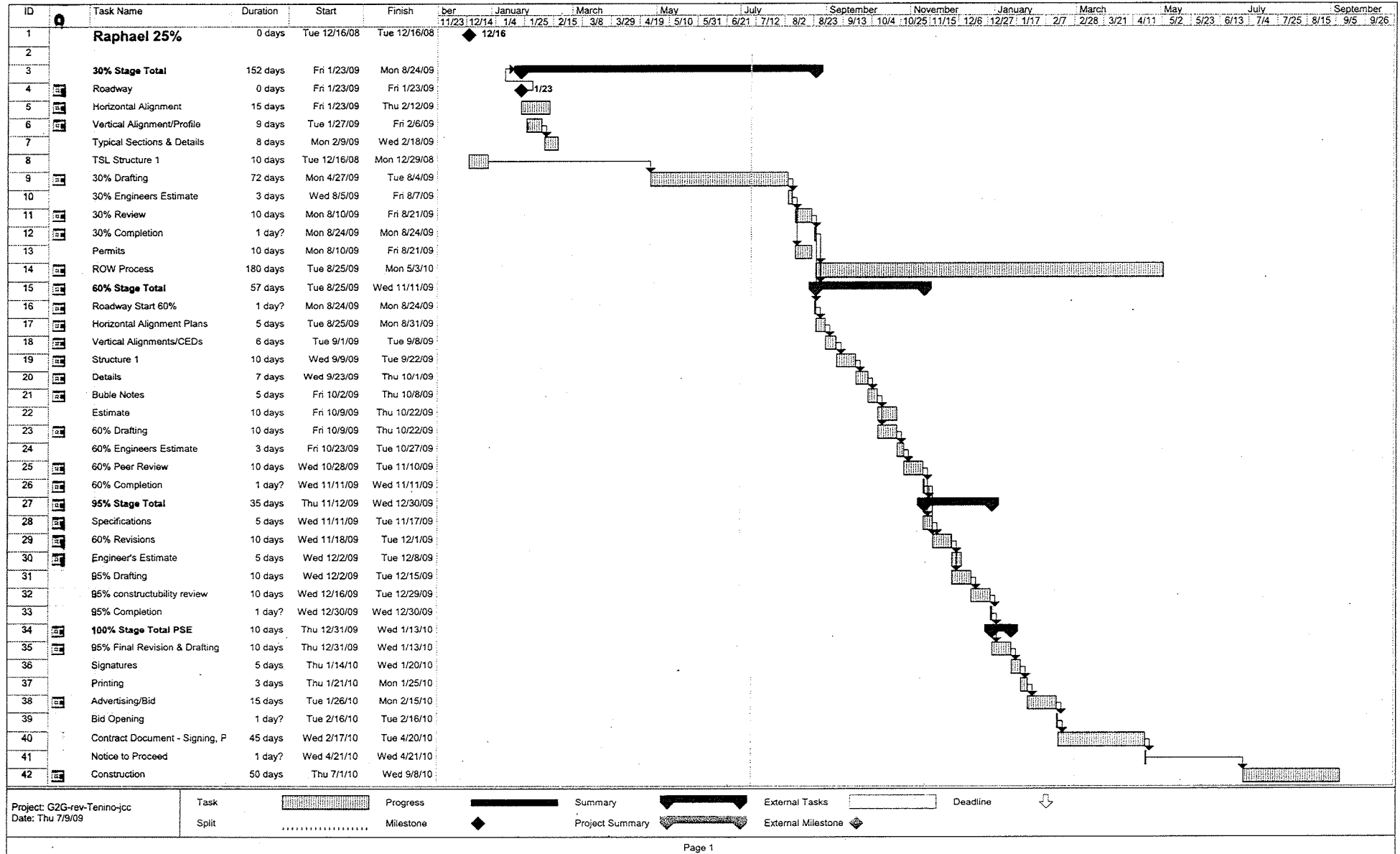
- B.S. in Environmental Policy with a minor in Geography.

Training/Licenses:

- Microsoft Access, and Excel, ESRI ArcMap, Map Info, GARTH, CPR and first aid training, valid Oregon Drivers License, Boaters License, and a certified in Backpack Electrofishing.

PROJECT TIMELINE

183741





CITY OF PORTLAND
ENVIRONMENTAL SERVICES



1120 SW Fifth Avenue, Room 1000, Portland, Oregon 97204-1912

(503) 823-7740, FAX (503) 823-6995

Dean Marriott, Director

<http://www.bes.ci.portland.or.us>

MEMORANDUM

Date: October 28, 2009
To: Mary Rose Navarro, Metro
From: Shannah Anderson, (503) 823-2605
Re: Appraisal Review Letters: Crystal Springs Restoration Partnership Proposal

Dear Mary Rose:

As per our phone conversation earlier this week, we are submitting our proposal to Metro's Nature in Neighborhoods without the appraisal review letters for the proposed conservation easements. Those will be submitted to you under separate cover upon completion by our appraiser.

Thank you for your time, and for accommodating later submission of the letters.

Regards,


Shannah

NATURE IN NEIGHBORHOODS CAPITAL GRANT: CRYSTAL SPRINGS RESTORATION PARTNERSHIP
(F4) LAND ACQUISITION BUDGET WORKSHEET

PROFESSIONAL SERVICES/PROJECT MANAGEMENT/STAFF COSTS				
<i>Includes staff and other professional service personnel. Pre-Agreement costs must occur AFTER the Invitation to Submit a Final Application has been received and are not reimbursable.</i>				
	financial match	in-kind match	grant request	TOTAL
A. Pre-Agreement (October 1, 2009 through April 1, 2010)				
1. Professional realtor services	2,967			2,967
2. Acquisition coordination		1,320		1,320
3. Restoration planning/design, cost estimates, bid documents	43,900	500		44,400
4. Permitting	2,000	8,000		10,000
B. Post-Agreement Costs				
1. Professional realtor services	3,960			3,960
2. Acquisition coordination		2,560		2,560
3. Restoration design, cost estimates, bid documents	10,000		2,000	12,000
5. Volunteer coordination		3,000		3,000
6. Volunteer hours		1,984		1,984
Totals for Professional Services	\$ 62,827	\$ 17,364	\$ 2,000	\$ 82,191

ACQUISITION COSTS				
<i>Please estimate the cost for all work elements. Please feel free to change the list.</i>				
	financial match	in-kind match	grant request	TOTAL
A. Purchase price - Brannen property	475,000			475,000
B. Easement or acquisition	68,100		130,000	198,100
C. Appraisal & Appraisal Review*	15,000			15,000
D. Title Report, insurance & documents	4,000			4,000
E. Phase I Enviro Assessment	7,500			7,500
F. Site stabilization - conservation easements		5,000		5,000
G. Management Plan Development		1,400		1,400
H. Baseline Documentation	6,000			6,000
Totals for Acquisition Costs	\$ 575,600	\$ 6,400	\$ 130,000	\$ 712,000

Stabilization & Capital Improvement Costs				
	financial match	in-kind match	grant request	TOTAL
A. Site preparation				
1. Mobilization and Demobilization (5%+bid items)			22,712	22,712
2. Erosion control (3% + bid items)			12,295	12,295
3. Clear and Grub			3,000	3,000
4. Common Excavation			18,560	18,560
B. Demo work (carport, buildings, driveway, pavement)				
1. Demo driveway			565	565
2. Demo culvert			773	773
C. Instream work (streambank stabilization, log/rootwad installation, substrate)				
1. Diversion and Dewatering (10%)			22,164	22,164
2. Streambank stabilization			27,500	27,500
3. Imported logs			1,800	1,800
4. Imported rootwads			4,800	4,800
5. Streambed substrate			37,368	37,368
D. Vegetation management (removal of trees and invasives, riparian plantings)				
1. Tree Removal			6,832	6,832
2. Revegetation		1,920	2,311	4,231
E. Fencing, signage, viewing area				
1. Viewing area and trail			10,000	10,000
2. Cedar fencing			5,300	5,300
3. Signage			3,500	3,500
Totals for Stabilization & Capital Improvement Costs	\$ -	\$ 1,920	\$ 179,480	\$ 181,400

TOTAL PROJECT COSTS	\$ 638,427	\$ 25,684	\$ 311,480	\$ 975,591
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Changes from October 2009 proposal:

- 1) Shifted \$56,000 deconstruction cost from grant request to financial match because decon needs to occur this spring.
- 2) Increased appraisal financial match to \$15,000 due to higher cost of appraisal reviews than anticipated and additional water rights appraisal.
- 3) Increased post-agreement acquisition coordination to \$2,560 due to complexity of negotiations.
- 4) Lowered financial match for acquisitions due to Grey to Green funding constraints for this target area.
- 5) Increased acquisition request to \$130,000. Please see additional spreadsheet for acquisition scenarios.