



OREGON WATER RESOURCE DEPARTMENT
WATER CONSERVATION, REUSE AND STORAGE
GRANT PROGRAM

I. Grant Information

Study Name: Big Creek Dams #1 and #2 Environmental Impact and Fiscal Feasibility Study

Type of Grant Requested: [] Water Conservation [] Reuse [X] Above-Ground Storage
[] Storage Other Than Above-Ground [Including Aquifer Storage and Recovery (ASR)]
Note: A Water Conservation and Reuse study may be submitted as a joint application. All other applications must only include one application type.

Program Funding Dollars Requested: \$ 150,000 Total cost of planning study: \$ 312,710
Note: Request may not exceed \$250,000

II. Applicant Information

Table with 2 columns: Applicant Name, Address, Phone, Fax, Email and Co-Applicant Name, Address, Phone, Fax, Email. Applicant: City of Newport.

Table with 1 column: Principle Contact: Timothy Gross, Dir. Public Works/City Eng. Address, Phone, Fax, Email.

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Certification:

I certify that this application is a true and accurate representation of the proposed work for a project planning study and that I am authorized to sign as the Applicant or Co-Applicant. By the following signature, the Applicant certifies that they are aware of the requirements of an Oregon Water Resources Department grant and are prepared to conduct the planning study if awarded.

Applicant Signature: [Signature] Date: April 10, 2014
Print Name: Timothy Gross Title: Dir. of Public Works/City Eng.

III. Planning Study Summary

Please give a brief summary of the planning study using no more than 150 words. Oregon's state dam engineer has identified Big Creek Dams #1 and #2 as two of the state's top three priority dams requiring remediation. A preliminary geotechnical and seismic evaluation completed in February 2013 confirmed serious deficiencies that could result in catastrophic failure during a seismic event—causing loss of the city's sole source of potable water as well as flooding. The City is currently conducting a site evaluation—funded by OWRD—to develop a seismic risk profile of the area and provide corrective action alternatives for improving the seismic integrity of the dams. This grant will fund an environmental impact assessment and cost feasibility analysis for the remediation alternatives identified in the current phase of exploration. The proposed activities will provide the City with a roadmap to help transition into the design phase of the project. The grant funding requested comprises 48% of the project cost.

GRANT PROGRAM
WATER & SEWERAGE DEPARTMENT
CITY OF WASHINGTON



1. Name of Applicant: _____
2. Address: _____
3. City: _____ State: _____ Zip: _____
4. Telephone: _____
5. Fax: _____
6. E-mail: _____

7. Project Title: _____
8. Project Description: _____
9. Estimated Cost: _____
10. Estimated Start Date: _____
11. Estimated End Date: _____

APPLICANT'S SIGNATURE
DATE

APPLICANT'S SIGNATURE
DATE

12. Project Justification: _____
13. Other Information: _____

14. Additional Comments: _____
15. Signature of Applicant: _____
16. Date: _____

IV. Grant Specifics

Section A. Common Criteria

Instructions: Answer all questions in this section by typing the answer below the question. It is anticipated that completed applications will result in additional pages.

1. Describe your goal (which must be based on evaluating the feasibility of developing a water conservation, reuse or storage project) and how this study helps to achieve the goal.

The proposed feasibility study represents the fourth and final phase of a multi-phase feasibility study designed to identify the most cost-effective, ecologically beneficial, and environmentally sound option for remediating Newport's Big Creek Dams. The goal of this phase – Phase IV – is to acquire detailed information for implementing the corrective action alternatives identified in the third phase of the study so that the City can make a responsible remediation decision.

At this time, the City and engineers lack enough data to determine the full extent of risk to the dams during a seismic event and are thus unable to select an appropriate remediation strategy. Work conducted in Phase III, which was originally expected to be completed in early 2015, but is now projected to conclude in November 2014 (and is supported by SB1069 grant funds), will provide this data and result in a short list of technically feasible remediation scenarios. Phase IV will evaluate the selected remediation solutions from an environmental and ecological perspective to provide the City with an accurate scope and cost estimate for each solution. This information will allow the City to make an informed decision, thereby providing a long-term solution for maintaining the integrity of the City's water supply and storage system.

2. Describe the water supply need(s) that the project associated with the planning study is intended to meet. Applicant should reference supporting documentation that would be available upon request.

This project addresses the only source of drinking water available for the City of Newport. Both reservoirs (at Big Creek Dam #1 and Big Creek Dam #2) provide essential water for the community of more than 10,000 residents. As the preliminary examinations have concluded, both dams are highly susceptible to structural damage or complete failure during a seismic event. This feasibility study will help the City determine the best holistic approach to maintaining the City's drinking water supply while ensuring the safety of downstream residents during a seismic event.

3. Explain how the project associated with the planning study will meet the water supply need(s), and indicate what percentage of that need will be met. (For example: If your water supply need is 20,000 acre-feet of additional water and the project will supply 10,000 additional acre-feet, 50% of your need will be met).

The remediation project addresses the only source of drinking water available for the City of Newport. Both reservoirs associated with the Big Creek Dams provide essential water for the community of more than 10,000 residents. Remediation will ensure that 100% of the current water supply needs are met. In fact, the project will also help meet future water supply needs as the technical team will evaluate projected growth estimates and plan accordingly.

4. Describe the technical aspects of the planning study and why your approaches are appropriate for accomplishing the goal of the planning study.

As stated in question 1 above, the goal of the proposed feasibility study is to acquire the information necessary for the City of Newport to reach an objective conclusion regarding the most ecologically sound and fiscally responsible method by which to remediate the two hazardous Big Creek Dams. Phase III of the study will yield two or three technically feasible correction action alternatives for remediation. Phase IV will build upon the outcomes of the previous phase by providing cost estimates, permitting requirements, and timelines for the proposed remediation projects. This approach is the most fiscally and environmentally

responsible path to take. By choosing a remediation option without the information obtained from the Phase IV activities, the City risks costly construction delays due to potential changes to design or scope, permitting delays, or unanticipated environmental requirements – any of which would put residents' water supply at continued risk and result in increased project costs. Tasks 1, 5 and 6 are primarily management and logistical tasks with no technical or engineering elements; therefore we did not include technical descriptions for these task items.

Task 2 – Conceptual Planning and Environmental Permitting: In order to estimate construction cost and schedule, the logistical activities for each remediation option must be evaluated in detail. While some of these activities will be dependent upon the chosen alternatives (e.g. a new fish ladder vs. improvements to the existing fish ladder), other, more general actions can be described. HDR Engineering (The City's engineer of record for this study) will conduct:

- Evaluation of the spillway to ensure current spillway codes and standards are met;
- Determination of outlet structure alternatives combined with pipeline or pump station.
- Assessment of roads and power supply to dams will ensure stable and reliable access to the water source and that all power supply needs are met;
- Structural and site civil analysis to determine the structural stability of the remediation alternatives and adjust the grading around the modifications.
- Constructability of each remediation option to ensure a reliable water source to the treatment plant during construction.

Task 3 – Determination of Environmental Permitting: This task will not only identify the permits required for each remediation option, it will also provide a timeline and level of effort for obtaining each permit. For each required permit, HDR will assess related site conditions and highlight fatal flaws or high-risk elements for each permit activity. This task will ensure remediation activities comply with land use, floodplain, cultural and historical, water quality, water rights, water supply, endangered species and hazardous materials regulations. Mitigation alternatives for any identified permitting or regulatory risks will be provided.

Task 4 – Public Outreach Planning: The City is committed to encouraging the participation of Newport citizens in the public process and engaging knowledgeable stakeholders (e.g., community-based organizations and other government agencies) in the planning and design process. It will be critical to have the public outreach component in place and ready to launch when starting the project design process. Therefore, in Phase IV, the City will identify and convene a group of community partners to involve early in the design phase. Assembling this group – the Technical and Citizen Advisory Task Force – will provide the perfect opportunity to involve local stakeholders that haven't been involved up until now. For example, the Oregon Fish and Wildlife Department (OFWD) will be an important technical advisor during the permitting and design phases; this task will allow the City the opportunity to inform and engage OFWD to a much greater extent than has been necessary thus far.

The information learned in this proposed study will also form the basis for Newport's Case for Support for the solution that is ultimately selected—a case which will be made to Newport City Council, the public, the media, the state legislature, other state agencies, and potential funding partners.

5. Describe how the planning study will be performed. Include:
 - a. General summary statement that describes the study progression.
The project for which OWRD funds are being requested is the fourth and final phase of a multi-phase feasibility study, the overall goal of which is to determine what repairs/remediation will be necessary to bring Big Creek Dams #1 and #2 into an appropriate level of seismic stability. Phase I is complete and Phase II is currently being conducted. Phase III will be underway by the time the OWRD grant-funded period begins. Funds from the April grant cycle are requested to complete Phase IV as described below. However, brief overviews of the first

three phases are provided here for context and to demonstrate the overall progression of the entire feasibility study.

Phase I – Initial Site Characterization: In February 2013, HDR completed an initial assessment of the static and seismic stability of Big Creek Dams #1 and #2. This evaluation consisted of a limited site investigation to characterize the dams' earthen and foundation materials, a probabilistic seismic hazard analysis (PSHA), a geologic hazard assessment, and geotechnical analyses to determine the stability of the dams in the event of potential seismic occurrences. The assessment found that the overall stability of Big Creek Dam #1 is marginal, while a "significant safety deficiency" exists at Big Creek Dam #2. Both dams are classified as high hazard dams by Oregon's state dam engineer, and remediating them is a top state priority. However, further study was necessary to determine the full extent of the structural weaknesses and to determine the most reasonable, effective remediation strategy.

Phase II – Additional Field Exploration and Laboratory Testing: Based on the results of the initial site characterization, it was determined that the City of Newport needed more information in order to select a remediation strategy to secure the dams against failure during or after a seismic event. Additional field exploration and testing was conducted to refine the stratigraphic and engineering models of the dam structures, reduce uncertainties related to engineering properties, and identify the most reasonable and cost effective modification requirements.

Phase III – Development of Seismic Risk Profile, Corrective Action Options, and Final Recommendations: Phase III will consist of several essential tasks necessary to capitalize on the site characterization work performed to date. As the "Preliminary Geotechnical Investigation and Seismic Evaluation" report presented to the City of Newport in February 2013 emphasized, "significant uncertainties exist" as to the true subsurface conditions at each dam. Therefore, the purpose of Phase III is to confirm the mineralogical origin of the soils and the reasons for low densities, further refine the understanding of engineering properties of the soils for engineering analysis and design, conduct a risk analysis and to refine the subsurface stratigraphic models of the site. The results of these analyses will help identify a set of feasible options for remediating the seismic integrity of the Big Creek Dams.

Phase IV (proposed for this grant) – Environmental Assessment and Fiscal Impact Feasibility: The City of Newport requests OWRD funding to conduct the fourth and final phase of this multi-phase feasibility study. Phase IV will consist of the environmental due diligence and preliminary cost estimation for the two corrective action alternatives identified in Phase III. Conceptual planning for each alternative will be necessary to adequately inform the determination of cost and permitting. The specific tasks associated with Phase IV are detailed in Question c. below.

b. When the planning study could begin.
The tasks proposed for this phase of the feasibility study are scheduled to begin as early as November 2014, upon completion of Phase III tasks. Although Phase III was originally scheduled for completion in early 2015, the City recently revised the Phase III timeline to be completed this fall so Phase IV work could be completed by the end of June 2015. There are no dependencies within the individual tasks planned for Phase IV; all work can be executed concurrently.

c. Listing of Key tasks to be accomplished with each task having:

- i. Title
- ii. Timeline for completion
- iii. Description of the activities to be performed in this key task
Example: Seepage Loss Measurements: June to July – Measurements will be taken to determine...
(Key Tasks listed here are to be placed in Section VI. Project Planning Study Schedule for a quick reference "graphical" representation of the schedule.)

Task 1 – Project Management & Grant Reporting (Nov. 2014 - June 2015): The City of Newport will complete all contractual and fiscal paperwork required of the OWRD and the contracted

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engineering firm. City staff will carefully monitor project expenditures for adherence to the grant agreement. Proper documentation will be required as funds are expended, including but not limited to properly executed and approved invoices, receipts, or purchase orders. City staff will also be responsible for completing all fiscal and performance reports required by OWRD, and providing regular update reports to Newport City Council. The Director of Public Works will maintain regular in-person or phone meetings with the contracted HDR Project Manager to track progress toward each project task and adherence to the timeline. Any unanticipated adjustments to the timeline or scope will be documented and reported to OWRD staff. Additionally, City Staff will advance other components of the planning process, such as the completion of UGB expansion to include the Big Creek Reservoirs, annexation of the reservoir parcels, and coordination with Lincoln County for the transfer of Big Creek Road and its associated joint management plan.

- **Task 2 – Conceptual Planning for Two Corrective Action Alternatives (Nov. 2014 - June 2015):** Phase III will identify, evaluate, and describe numerous corrective action alternatives and make recommendations for a select few. Based on the Phase III outcomes, the City will select the two or three best alternatives for further investigation in Phase IV. Conceptual planning activities will include preliminary analysis of hydraulic, structural, civil, and geotechnical impacts as well as fish passage requirements and intake modifications for the preferred remediation options. Cost estimate and timeline of construction will be included as part of each conceptualization. This task will culminate in the delivery of conceptual drawings and a draft pre-planning report.
- **Task 3 – Determination of Environmental Permitting (Nov. 2014 - June 2015):** Remediation or expansion of an existing dam requires various environmental permits and actions. This task will provide a basis for the necessary environmental permits that would be required for each alternative. This task will not include the actual permitting process but rather a thorough exploration of what permits will be necessary and the associated costs of each permit. Task 3 will deliver an environmental due diligence memorandum, which will include a proposed permitting timeline and a list of permit requirements.
- **Task 4 – Public Outreach Planning (Nov. 2014 - June 2015):** The City intends to implement a public outreach campaign to occur during the design stage of the selected remediation approach (after completion of Phase IV study activities). The campaign will involve a two-pronged approach involving relevant stakeholder organizations and local citizens. During the implementation of Phase IV, the City will meet with representatives from potential partner organizations to build a cohort of knowledgeable community partners that can provide valuable feedback during the design of the dam remediation project. These organizations will include, but are not limited to:
 - Lincoln Soil and Water Conservation District (SWCD)
 - Mid-Coast Watershed Council (MCWC)
 - Lincoln County Department of Emergency Management
 - Oregon Department of Fish and Wildlife
 - Oregon Department of Environmental Quality
 - Oregon Office of Emergency Management
 - Oregon Water Resources Department

The City has already had initial discussions with all of the organizations listed above (except OFWD) about participating in planning discussions.

- **Task 5 – Presentation of Concept (June 2015):** Findings from the proposed feasibility study will be presented to the Newport City Council and the Oregon State Dam Engineer. The City will then select a final, preferred option for the remediation of the dams.
- **Task 6 – Strategic Grants Planning (Nov. 2014 - June 2015):** Throughout the course of this project, the City of Newport is developing a strategic funding plan and will secure funding for

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planning, design, and construction. The City will continue work with its technical consultants to execute the funding plan, receive grant-related technical assistance, cultivate relationships with funding agencies, and prepare and submit additional government grant applications in 2015.

6. Provide data and information on the associated project and the project's sources of water supply:

- a. The location of the associated project. (Include the basin, county, township, range and section.)

The project is located in the Big Creek Watershed, Lincoln County, OR. The reservoirs extend across Township 10S, Range 11W, Section 33 (10S11W33) and Township 10S, Range 11W, Section 34 (10S11W34). Both dam structures are located within Township 10S, Range 11W, Section 33, (10S11W33). A map of the project area is included with this application package (Big Creek Project and Tsunami Map.pdf).

- b. The name(s) and river mile(s) of the source water and what they are tributary to, if applicable.

Big Creek and the Siletz River are the source waters for the reservoirs impounded by Big Creek Dams #1 and #2. The Siletz River is a tributary to the Pacific Ocean, and the City holds a point of diversion water right and intake at river mile 41.78. Big Creek is tributary to the Pacific Ocean. Big Creek Dam #1 is located at river mile 0.91 and impounds water between 0.91 and 1.72 miles. Big Creek Dam #2 is located at river mile 1.72 and impounds water between 1.72 and 2.79.

- d. Whether the project will be off-channel or on-channel.

On-channel

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- e. Water availability to meet project storage. (Typically, the Department evaluates new storage projects using a 50 percent water availability analysis.)

The proposed feasibility study does not affect a new storage project, but rather an existing storage facility. Sufficient water exists to meet the current facilities' storage needs. The total authorized volume of the reservoir impounded by Dam #1 is 200 acre-feet, authorized under Certificates 21358 and 21357. The total authorized storage volume of the reservoir impounded by Dam #2 is 970 acre-feet, being the total of 625 acre-feet authorized under Permit R-6171 and 345 acre-feet authorized under Certificate 48627. The water stored in Big Creek Reservoir #1 and #2 is released for municipal use by the City of Newport under Certificate 48628 and Permit S-38220.

- f. Proposed purposes and uses of stored water.

The reservoirs at Big Creek Dams #1 and #2 are the only raw water storage facilities in the City of Newport. One hundred percent of the City's potable water supply is stored in the reservoirs secured by the upper and lower Big Creek dams. In addition to providing water to residents, the stored water is used for fish passage and protection, fire suppression, and for commercial and industrial purposes.

- g. Environmental flow needs and water quality requirements of supply source water bodies.

In order for the City to accurately consider the impact of the final remediation alternatives, they must conduct a robust and thorough evaluation of the environmental and water quality impacts of both remediation scenarios. As part of the environmental due diligence task, HDR will investigate potential water quality, wetland, supply and habitat impacts associated with each remediation alternative. The intent is for the remediated dam/s to continue meeting the City's water needs.

7. What local, state or federal project permitting requirements/issues/approvals do you anticipate in order for the planning study to be conducted? If approvals are required, indicate whether you have obtained them. If you have not obtained the necessary permits/governmental approval, describe the steps you have taken to obtain them.

No permits or governmental requirements are necessary for these feasibility study activities. Although Phase III will include a general list of anticipated permits for remediation, this list will not be comprehensive enough to make a final recommendation nor will it include important details about the permits/permitting process. The proposed Phase IV feasibility analysis will equip the City with adequate technical details to make a final determination, including which environmental permits and other approvals are required. In addition to identifying permitting requirements, HDR will provide estimates about level of effort, timeline, cost, potential risks, and mitigation alternatives, if needed.

8. Describe the level of involvement, interest and/or commitment of different entities associated with the planning study (attach letters of support). Describe how these entities will benefit or be impacted by the planning study.

While the proposed feasibility study itself is not likely to involve or affect different entities, many stakeholders will clearly be affected by the results of this study and whatever remediation strategy the City of Newport decides to pursue (or if there is no remediation and a catastrophic failure occurs). Those include the entire population of the City of Newport and several major industries (including a commercial fishery, brewery, and aquarium). Furthermore, multiple state agencies are interested in seeing this study executed, because what is learned can be applied to other Oregon communities in the future.

Letters of support are included from the following entities:

- *Lincoln County Department of Emergency Management (Virginia Demaris)*
- *Lincoln Soil and Water Conservation District (Josh Lambert)*
- *Mid-coast Watershed District (Wayne Hoffman)*
- *State Representative for District 10 (David Gomberg)*
- *Mayor of Newport (Sandra Roumagoux)*

The letters included with this application are in addition to the letters expressing support for this project that were submitted with the City's November 2013 SB1069 application, as noted below:

- *Confederated Tribes of the Siletz Indians (Bonnie Peterson)*
- *Oregon Emergency Management (Dennis Sigrist)*
- *Oregon Department of Environmental Quality (David Waltz)*
- *Oregon Health Authority Drinking Water Services (Jay MacPherson)*
- *Infrastructure Finance Authority (Louise Birk)*
- *State Representative for District 10 (David Gomberg)*
- *Mayor of Newport (Sandra Roumagoux)*
- *Surfrider Foundation (Charlie Plybon)*

9. Identify when matching funds will be secured and the term of matching funds availability.

A total of \$162,710 in matching funds (cash and in-kind contributions) have been budgeted in the City's next fiscal year budget, which begins on July 1, 2014. Although the 2015 budget is still under review, we expect that the City Council will provide the final approval in May or June 2014.

10. Provide a description of the relevant professional qualifications and/or experience of the person(s) that will play key roles in performing the planning study. If the personnel have not been decided upon, include a description of the

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professional qualifications and/or experience of the person(s) you anticipate will play key roles in performing the planning study.

City of Newport Key Personnel

Tim Gross, Director of Public Works for the City of Newport, will manage and oversee this grant. Tim has worked with the City of Newport for 3 years; 2 years as the Director of Public Works/City Engineer. Prior to joining the City of Newport, Tim spent 12 years working in the municipal sector and 6 years running the municipal engineering division for 2 different engineering consulting firms. He has a successful track record of managing complex public works projects to completion, on time and within budget. He also has extensive experience managing large federal, state and local grants, contract administration, managing consultants, and collaborating with diverse groups to achieve common goals.

Derrick Tokos, Community Development Director for the City of Newport. Derrick has been Newport's Community Development Director for nearly 5 years. Prior to that he served as Multnomah County's Principal Land Use Planner and has more than 21 years of local government planning experience having practiced in Colorado, Idaho, and Oregon. Derrick obtained a Bachelor's Degree from the University of Oregon and Masters in Urban and Regional Planning from the University of Colorado. He is also active in economic development and housing initiatives within Newport, administering the City's Urban Renewal Program and serving as a member of the Board of Directors for the Lincoln Community Land Trust.

Additional Key Personnel

Most of the Phase IV tasks for this OWRD grant will be completed by the engineering firm HDR, which was selected by the City of Newport through a competitive qualifications-based selection process.

Verena Winter, PE, HDR Project Engineer/Project Manager. Verena is a skilled project manager, having led a variety of projects, including the City of Newport's CM/GC water treatment facility, the initial Newport dam explorations project, and other projects in Oregon. She understands the situation with the Big Creek Dams, having been on this project since the issue was discovered. Her insight, experience, and leadership will enable her to manage the HDR team and outside assistance to determine the design parameters and develop practical solutions. Verena holds a B.S. in Engineering Management from Bauhaus University (Germany) and an M.S. in Environmental Engineering from Portland State University. She has been employed by HDR for 11 years.

Verena has also served as project manager for Scoggins Dam Corrective Action Study and Raise Appraisal Study, Clean Water Services, OR; Newport Dam Seismic Analysis and Evaluation, Newport, OR; Biosolids Upgrade to Wastewater Treatment Plan, City of Silverton, OR; Wastewater Treatment Plant Repair, Restoration, and Expansion, City of Newberg, OR.

Keith Ferguson, PE, HDR Principal Designer. Keith specializes in dam safety, dam engineering, soil and rock mechanics, foundation engineering, and design, including specialized experience related to the Cascadia Subduction Zone (CSZ). Since 1978, he has participated in more than 350 civil and mining engineering projects including evaluation, design and/or construction services for more than 160 dams and appurtenant structures (e.g. spillways, outlet works, diversion dams), pipelines and tunnel designs. Keith is a recognized expert in dam safety, seepage, and stability analysis of dams. Keith holds a B.S. and an M.S. in Civil Engineering from the University of Colorado at Boulder and has 32 years of experience in the field.

Selected similar projects on which Keith has been involved include Newport Dam Seismic Analysis and Evaluation; Scoggins Dam Corrective Action Study and Raise Appraisal Study, CWS OR; Fern Ridge Dam Remediation, OR; Lake Isabella Dam Potential Failure Modes Analysis, CA; Howard Hansen Dam Safety Evaluation, WA; Creekside Irrigation Water Reservoir Design and Construction, OR.

Tia Cavender, MA, GPC, President, Chase Park Grants will provide strategic grants planning services for remediation of the Big Creek Dams. Tia is a certified grant professional with more than 15 years of grant experience in various public and private settings. As principal and lead consultant for Chase Park Grants, Tia counsels local government agencies and technical experts on innovative ways to secure funding for water infrastructure projects. She holds two masters degrees from the University of Colorado, and is a published author and frequent presenter at professional conferences.

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Section B. Unique Criteria

Instructions: Answer the set of questions below that applies to the type of planning study that this grant will fund.

Water Conservation or Reuse

1. Water Conservation or Reuse projects that may result from this planning study are requested to be included in the Water Resources Department's "Inventory of Potential Conservation Opportunities". Though you may have already submitted this information earlier in the year through a separate survey, we ask that all applicants complete the information on the form provided at the end of this application.
 I have filled out the application or I have not filled out the application.
2. Explain how the associated project will mitigate the need to develop new water supplies and/or use water more efficiently. Reference documentation and/or examples of the success of similar or comparable water conservation/reuse projects that would be available upon request.

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Above-Ground Storage

Please answer the following three questions **BEFORE** proceeding:

Will the project divert greater than 500 acre-feet of surface water annually?

Yes No

Will the project impound surface water on a perennial stream?

Yes No

Will the project divert water from a stream that supports sensitive, threatened or endangered species?

Yes No

If you answered "Yes" to any one of these questions, by signature on this application, you are committing to include the following required elements in your planning study.

Describe how you intend to address the required elements in your planning study:

- a) **Analyses of by-pass, optimum peak, flushing and other ecological flows of the affected stream and the impact of the storage project on those flows.**

When each dam was constructed – in 1951 and 1968 – they met all code requirements at that time, including by-pass, optimum peak, and other ecological flows. In order to determine the impacts of the final remediation options, the City will analyze its current and projected seasonal water demands to identify the preferred storage modification. A more detailed assessment of hydrological and environmental investigations will occur when the project has progressed to planning and design.

- b) **Comparative analyses of alternative means of supplying water, including but not limited to the costs and benefits of water conservation and efficiency alternatives and the extent to which long-term water supply needs may be met using those alternatives.**

In the past, the City of Newport has examined alternatives for water supply, including Rocky Creek. However, that project lacked sufficient regional support making it too expensive for Newport to pursue on its own at the time. Even if the City decided to develop a new acquisition and storage site, the existing dams pose a significant danger to life and property in their current condition, and must be addressed in some fashion.

- c) **Analyses of environmental harm or impacts from the proposed storage project.**

The environmental due diligence task associated with the proposed feasibility study will identify all environmental permitting requirements and regulations. As part of these efforts, HDR will identify and address any potential environmental risks or negative impacts and provide mitigation alternatives for each.

- d) **Evaluation of the need for and feasibility of using stored water to augment in-stream flows to conserve, maintain and enhance aquatic life, fish life and any other ecological values.**

The City will evaluate fish passage and protection needs associated with each preferred scenario. The activities conducted in Phase IV and the planning and design stages will help identify the implications of incorporating these types of design features into the project.

Is the proposed storage project for municipal use?

Yes No

If you answered "Yes," then describe how you intend to address the following required element in your planning study:

- e) **For a proposed storage project that is for municipal use, analysis of local and regional water demand and the proposed storage project's relationship to existing and planned water supply projects.**

The City of Newport has a Water Supply Master Plan that includes an analysis of local and regional water demand. Any improvements ultimately made to the dams as a result of the recommendations derived from this feasibility study would allow the City of Newport to meet its projected demand through 2030.

The only other community in close proximity to Newport (Toledo) maintains its own municipal water supply. Any modifications to Newport's water storage facilities will have no impact on Toledo. Newport also frequently supplies water to Seal Rock Water District in emergency situations and would be able to

continue to do so, regardless of the remediation strategy undertaken as a result of this feasibility study. If the dams are not remediated and Newport loses its sole water supply, then it will also be unable to supply Seal Rock in emergency situations.

Proceed in answering the following questions:

1. Describe when and to what extent the project associated with the planning study includes provisions for using stored water to augment instream flows to conserve, maintain and enhance aquatic life, fish life or other ecological values.

The City will conduct preliminary evaluations on the implications of stream flow augmentation during Phase IV, and in greater depth during the design stage. The City has met with OWRD staff on multiple occasions to explore the possibility of augmenting instream flows, as it relates to water supply development funding through the SB839 program.

2. Present convincing argument that there are no other reasonably achievable alternatives that would be able to meet the water supply need(s). Applicant may reference supporting documentation that would be available upon request.

The primary purpose for remediating the Big Creek Dams is to protect the City's sole source of drinking water in the event of an earthquake, rather than to remedy an unmet water supply need. Nevertheless, the City sees this remediation as an opportunity to increase the water storage capacity at the reservoirs to meet its supply needs through 2030.

We refer interested parties to both the City of Newport's Water Supply Master Plan (<http://www.thecityofnewport.net/dept/pwk/mwp.asp>), which contains an analysis of water needs and other possible sources of water, and the Preliminary Geotechnical Investigation and Seismic Evaluation report prepared for the City in February 2013 by engineering firm HDR (submitted with November 2013 application and available again on request). The State of Oregon's dam safety engineer, Keith Mills, has stated that Big Creek Dams #1 and #2 are the state's top priority dams for immediate attention to avoid catastrophic loss of life and property during or after a seismic event.

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Storage Other Than Above-Ground [Including Aquifer Storage and Recovery (ASR)]

Please answer the following three questions **BEFORE** proceeding:

- Will the project divert greater than 500 acre-feet of surface water annually? Yes No
- Will the project impound surface water on a perennial stream? Yes No
- Will the project divert water from a stream that supports sensitive, threatened or endangered species? Yes No

If you answered "Yes" to any one of these questions, by signature on this application, you are committing to include the following required elements in your planning study.

Describe how you intend to address the required elements in your planning study:

- a) Analyses of by-pass, optimum peak, flushing and other ecological flows of the affected stream and the impact of the storage project on those flows.
- b) Comparative analyses of alternative means of supplying water, including but not limited to the costs and benefits of water conservation and efficiency alternatives and the extent to which long-term water supply needs may be met using those alternatives.
- c) Analyses of environmental harm or impacts from the proposed storage project.
- d) Evaluation of the need for and feasibility of using stored water to augment in-stream flows to conserve, maintain and enhance aquatic life, fish life and any other ecological values.

Is the proposed storage project for municipal use?

- Yes No

If you answered "Yes," then describe how you intend to address the following required element in your planning study:

- e) For a proposed storage project that is for municipal use, analysis of local and regional water demand and the proposed storage project's relationship to existing and planned water supply projects.

Proceed in answering the following questions:

1. Water Conservation or Reuse projects that may result from this planning study are requested to be included in the Water Resources Department's "Inventory of Potential Conservation Opportunities". Though you may have already submitted this information earlier in the year through a separate survey, we ask that all applicants complete the information on the form provided at the end of this application.
 I have filled out the application or I have not filled out the application.
2. Present convincing argument that there are no other reasonably achievable alternatives that would be able to meet the water supply need(s). Applicant may reference supporting documentation that would be available upon request.

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V. Match Funding Information

Applicants must demonstrate a minimum dollar-for-dollar match based on the total funding request. The match may include a) secured resources, b) previously expended resources, and/or c) pending resources. For secured funding, you must attach a letter of support from the match funding source that specially mentions the dollar amount shown in the "Amount/Dollar Value" column. For pending resources, documentation showing a request for the matching funds must accompany the application. For resources that have been previously expended, the expenditure must have occurred on or after July 1, 2013. Resources expended prior to July 1, 2013 are not eligible for match purposes.

The Type of matching funds may include:	The Status of matching funds may include:
<ul style="list-style-type: none"> The value of in-kind labor, equipment rental and materials essential to the planning study provided by the applicant or partner*. 	<ul style="list-style-type: none"> Secured funding commitments from other sources.
<ul style="list-style-type: none"> Cash is direct expenditures made in support of the planning study by the applicant. 	<ul style="list-style-type: none"> Associated and documented expenditures for the planning study from non-program sources incurred on or after July 1, 2013.
	<ul style="list-style-type: none"> Pending commitments of funding from other sources. In such instances, Department funding will not be released prior to securing a commitment of the funds from other sources. Pending commitments of the funding must be secured within 12 months from the date of the award.

*"Partner" means a non-governmental or governmental person or entity that has committed funding, expertise, materials, labor, or other assistance to a proposed planning study. OAR 690-600-0010.

The City of Newport can provide a minimum dollar-for-dollar match based on the total funding request. The match requirement will be met with a combination of previously expended resources (consultant fees and in-kind contributions), and secured sources (City of Newport General Fund and in-kind contributions). Please see that attached letter of support from the Mayor of Newport, which provides documentation to the expended matching funds and the secured matching commitment. For previously expended resources, we only included expenditures that were incurred on or after July 1, 2013. We also excluded all matching support for Phases II and III because those matching funds are associated with another OWRD SB1069 grant application that was approved by OWRD in March 2014.

Match Funding Source (if in-kind, briefly describe the nature of the contribution)	Type (✓ One)	Status (✓ One)	Amount/ Dollar Value	Date Match Funds Available (Month/Year)
Salary & fringe for the City's Project Team (City Engineer/Public Works Dir and Community Development Director) Task 1. In-kind contribution includes: project management time and effort, grant reporting and tracking, researching City matters such as property acquisition, and Urban Boundary expansion.	<input type="checkbox"/> cash <input checked="" type="checkbox"/> in kind	<input checked="" type="checkbox"/> secured <input type="checkbox"/> expended <input type="checkbox"/> pending	\$9,710	July 1, 2014
HDR Engineering – Environmental & Engineering Services Tasks 2, 3, and 6	<input checked="" type="checkbox"/> cash <input type="checkbox"/> in kind	<input checked="" type="checkbox"/> secured <input type="checkbox"/> expended <input type="checkbox"/> pending	\$90,000	July 1, 2014
Legal Fees for Urban Growth Boundary Application (Speer Hoyt, PC) Task 5	<input checked="" type="checkbox"/> cash <input type="checkbox"/> in kind	<input checked="" type="checkbox"/> secured <input type="checkbox"/> expended <input type="checkbox"/> pending	3,000	July 1, 2014
Chase Park Grants – Strategic Grants Planning Task 7	<input checked="" type="checkbox"/> cash <input type="checkbox"/> in kind	<input checked="" type="checkbox"/> secured <input type="checkbox"/> expended <input type="checkbox"/> pending	\$40,000	July 1, 2014
Travel Expenses for Consultant Site Visits Tasks 1-7	<input checked="" type="checkbox"/> cash <input type="checkbox"/> in kind	<input checked="" type="checkbox"/> secured <input type="checkbox"/> expended <input type="checkbox"/> pending	\$5,000	July 1, 2014
Administrative Costs (City staff for admin support, printing, postage, mileage) Tasks 1-7. In-kind administrative support includes: administrative staff member, grant administration time, and project expenses such as printing, postage and mileage.	<input type="checkbox"/> cash <input checked="" type="checkbox"/> in kind	<input checked="" type="checkbox"/> secured <input type="checkbox"/> expended <input type="checkbox"/> pending	\$15,000	July 1, 2014
Total Matching Funds			\$162,710	

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VI. Project Planning Study Schedule

Estimated Project Duration: 9/1/2014 to 6/30/2015

Place an "X" in the appropriate column to indicate when each Key Task of the project will take place.

Project Planning Study Key Tasks	2014				2015				2016 & Beyond
	1 st Qtr	2 nd Qtr	3 rd Qtr	4 th Qtr	1 st Qtr	2 nd Qtr	3 rd Qtr	4 th Qtr	
<i>Task 1 – Project Management & Grant Reporting</i>				X	X	X			
<i>Task 2 – Conceptual Planning for Two Corrective Action Alternatives</i>				X	X	X			
<i>Task 3 – Determination of Environmental Permitting</i>				X	X	X			
<i>Task 4 – Public Outreach Planning</i>				X	X	X			
<i>Task 5 – Presentation of Concept</i>						X			
<i>Task 6 – Strategic Grants Planning</i>				X	X	X			

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VII. Project Planning Study Budget

Section A

Please provide an estimated line item budget for the project planning study. An example would include: labor, materials, equipment, contractual services and administrative costs.

Line Items	Number of Units* (e.g. # of Hours)	Unit Cost (e.g. hourly rate)	In-Kind Match	Cash Match Funds	OWRD Grant Funds	Total Cost
Staff Salary/Benefits—City Engineer/Public Works Director	120	\$63	\$7,560			\$7,560
Staff Salary/Benefits—Community Dev. Dir.	50	\$43	\$2,150			\$2,150
Contractual Services – Legal Fees for Urban Growth Boundary Expansion				\$3,000		\$3,000
Contractual Services – Environmental & Engineering Services (HDR Engineering)				\$90,000	\$150,000	\$240,000
Contractual Services – Technical Assistance (Chase Park Grants)				\$40,000		\$40,000
Travel Expenses (travel for 3 consultants, 2 trips each)				\$5,000		\$5,000
Administrative Costs**			\$15,000			\$15,000
Total for Section A			\$24,710	\$138,000	\$150,000	\$312,710
Percentage for Section A			8%	44%	48%	100%

* Note: The "Unit" should be per "hour" or "day" – not per "project" or "contract." $Units \times Unit\ Costs = Total\ Cost$

** Administrative Costs may not exceed 10% of the total funding requested from the Department

Section B

If Grant amount requested is \$50,000 or greater, you **MUST** complete Section B. Key Tasks in Section B should be the same as the Key Tasks in Section VI (Project Planning Study Schedule).

Project Planning Study Key Tasks	In-Kind Match	Cash Match Funds	OWRD Grant Funds	Total Cost		
Task 1. Project Management & Grant Reporting	\$7,560			\$7,560		
Task 2. Conceptual Planning for Two Corrective Action Alternatives			\$150,000	\$150,000		
Task 3. Determination of Environmental Permitting		\$65,000		\$65,000		
Task 4. Public Outreach Planning	\$2,150	\$3,000		\$5,150		
Task 5. Presentation of Concept		\$25,000		\$25,000		
Task 6. Strategic Grants Planning		\$40,000		\$40,000		
Task 1-7. Travel Expenses		\$5,000		\$5,000		
Task 1-7. Administrative Costs (support staff, postage, printing, mileage)	\$15,000			\$15,000		
Total for Section B			\$24,710	\$138,000	\$150,000	\$312,710

Totals in Section B must match the totals in Section A

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169 SW COAST HWY
NEWPORT, OREGON 97365

COAST GUARD CITY, USA



www.thecityofnewport.net

MOMBETSU, JAPAN, SISTER CITY

April 8, 2014

Ms. Nancy Pustis
Oregon Water Resources Department
725 Summer Street NE, Suite A
Salem, OR 97301

RE: Letter of Financial Commitment for the City of Newport's Water Conservation, Reuse & Storage Grant Application

Dear Ms. Pustis and Members of the Review Committee:

First of all, please accept my enthusiastic appreciation to the Oregon Water Resources Department (OWRD) for its generous support of Newport's efforts to remediate and improve the water storage and delivery system at Big Creek Dams 1 and 2.

We are honored to be stewards of the OWRD funding, and appreciate the opportunity the grant will provide to the City's planning efforts.

Receiving a grant from the OWRD will enable the City to more thoroughly evaluate the ecological, environmental, and fiscal impacts of the two most feasible remediation alternatives.

Consequently, the City can make the best-informed decision about which remediation option is best for the City and its citizens.

In preparation for the proposed project, the City has budgeted adequate funds in its fiscal year 2015 budget to cover the City's matching contribution, which will supplement the matching funds already contributed in this fiscal year.

Again, please accept my sincere appreciation for the support the OWRD is providing to help implement Phase III, and for considering the City's grant request for the final phase of the feasibility study.

With gratitude,

A handwritten signature in cursive script that reads "Sandra Roumagoux".

Sandra Roumagoux
Mayor, City of Newport

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OWRD





23 N. Coast Hwy – Newport, OR 97365

www.lincolnswd.org

P: 541.265.2631 – F: 541.265.9351

April 1st, 2014

Nancy Pustis
Oregon Water Resources Department
725 Summer Street ND, Suite A
Salem, OR 97301

Dear Ms. Pustis:

Please accept this letter of support for the grant request the City of Newport is submitting to your agency for its Dam Remediation Feasibility Study. We've recently learned about the City's feasibility study, reviewed the site with City personnel and fully support its efforts to identify the best remediation option possible.

Lincoln Soil and Water Conservation District (SWCD) works with State agencies and local governments to promote municipal and residential approaches that succeed in adopting low impact infrastructure as it meets our goals for protecting water quality and natural resources.

In fact, this project is peripherally related to another joint venture the SWCD is leading in tandem with the Cities of Newport, Toledo, and Siletz. The project is funded in part with 319 nonpoint source pollution reduction funding from the Oregon Department of Environmental Quality (ODEQ), and involves studying total suspended solids (TSS) and turbidity in the Siletz River, which serves as a source of water for the City of Newport in summer months.

Undoubtedly, the City's efforts to address its seismic vulnerability at the Big Creek Dams #1 and #2 are important to the vitality of our region. We support the City's efforts to avoid and mitigate water contaminates, and its pursuit of funding.

We hope you will accept this letter as our endorsement for the dam project. Thank you for considering the City's application.

Sincerely,

A handwritten signature in black ink, appearing to read "Josh Lambert".

Josh Lambert
Watershed Specialist
541-265-2631 josh@lincolnswd.org

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Lincoln County Sheriff's Office

Dennis L. Dotson, Sheriff

"The only limits are those of vision."

Administration

April 6, 2014

Nancy Pustis
Oregon Water Resources Department
725 Summer Street NE, Suite A
Salem, OR 97301

Dear Ms. Pustis:

Lincoln County Sheriff's Office, Emergency Management would like to extend our support for the City of Newport's grant request for the feasibility study of Big Creek Dams remediation planning.

After the completion of the The Oregon Resilience Plan, February 2013 we fully support those municipalities that are taking a proactive approach to evaluate and mitigate the effects of earthquakes to our public infrastructure.

From our conversations and emergency planning efforts it is our understanding the City of Newport is actively taking steps to remediate the seismic risks associated with the Big Creek dam structures initially identified in 2012. The study the City is currently conducting is clearly a pivotal step to mitigate the City's risk of losing its sole source of potable water. The results of the study will enable the City to implement mitigation treatments to improve the resiliency of its dam facilities from a seismic event.

As Lincoln County's Emergency Manager working with local governments to identify and mitigate natural hazard risks, I can attest to the importance of proactively addressing infrastructure deficiencies that come with aging facilities in coastal communities. Therefore, I am pleased to provide this letter of support as a local endorsement of the City's efforts to identify feasible mitigation alternatives to address dam deficiencies.

Thank you for considering the City's grant request, and for making this grant program available to local government agencies in the state.

Sincerely,

Dennis L. Dotson, Sheriff

Virginia "Jenny" Demaris, Emergency Manager

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DAVID GOMBERG
STATE REPRESENTATIVE
DISTRICT 10



HOUSE OF REPRESENTATIVES

Ms. Nancy Pustis
Oregon Water Resources Department
725 Summer Street NE, Suite A
Salem, OR 97301

March 27, 2014

RE: CITY OF NEWPORT'S GRANT APPLICATION FOR SB 1069 FUNDING

Dear Ms. Pustis:

As the State Representative for Oregon House District 10, I wish to express my support for the City of Newport's application for funding under the Water Conservation, Reuse, and Storage grant program. This money will support the next phase in the feasibility process will help the city identify solutions for remediating the Big Creek Dams.

I am strongly in support of resolving the current risk to local residents posed by a dam failure. Given the City's coastal location, having available drinking water in the aftermath of an earthquake or tsunami emergency is critical.

Indeed, any circumstances that interrupt the availability of potable water not only will affect Newport residents, but also nearby communities, in addition the thousands of tourists traveling through the State of Oregon each month.

With the help of SB1069 funding, the City can identify the ideal approach to ensure the safe delivery of water for years to come. I therefore concur with the state dam engineer's assessment that repairing the Big Creek Dams should remain one of the state's highest priorities.

Sincerely,

David Gomberg

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Mid-Coast Watersheds Council
23 North Coast Highway
Newport, Oregon 97365



SALMON RIVER, SILETZ RIVER, YAQUINA RIVER, ALSEA RIVER, YACHATS RIVER, AND OCEAN TRIBUTARIES

March 29, 2014

Mr. Tim Gross
Public Works Director & City Engineer
City of Newport
169 SW Coast Highway
Newport, OR 97365

RE: The City of Newport's Grant Request to the Water Conservation, Reuse and Storage grant program

Dear Tim:

I am writing on behalf of the MidCoast WatershedsCouncil to express our support for the City of Newport's feasibility study to research the best options for remediating the two Big Creek Dams in Newport, Oregon.

We appreciate the City's proactive approach to mitigating flood risk, and support your pursuit of grant funding from the Oregon Water Resources Department for this purpose. We are specifically interested in the project because of its potential impact on the Big Creek and Yaquina-Siletz Watersheds.

The Feasibility Study the City is advancing aligns well with the mission of the Mid-Coast Watershed Council (MCWC). Adequate planning will not only help protect local watersheds, but also the citizens residing there.

In summary, the Mid-coast Watersheds Council supports the City's application for grant funding, and its efforts to protect local watersheds.

Good luck with your grant submission!

Sincerely,

A handwritten signature in black ink, appearing to read 'Wayne Hoffman', written over a horizontal line.

Wayne Hoffman
Coordinator, Mid-coast Watersheds Council
mcwc@midcoastwatershedscouncil.org

