



2011
WATER CONSERVATION, REUSE AND STORAGE
GRANT APPLICATION

APPLICATION INSTRUCTIONS

1. Complete Sections I through VII in the spaces provided.
2. An application must be submitted on a form provided by the Department. An explanation must accompany the application if any of the information required cannot be provided [OAR 690-600-0020(6)].
3. If in hard copy - use 8 ½" x 11" single sided, unstapled pages. Provide any attachments to application also on 8 ½" x 11" single-sided, unstapled pages. Avoid color and detail that will not photocopy clearly.
4. Contact Bill Fujii 503 986 0887 or william.h.fujii@wrд.state.or.us if you have any questions.

A down-loadable MS Word application form and instructions can be obtained
from www.wrd.state.or.us/OWRD/LAW/conservation_reuse_storage_grant.shtml
If you need a copy of the application in a different format, please let the Department know by October 28, 2011.

Application Deadline: 5:00 PM, Thursday, December 15, 2011

(Application must be received by this date)

**Grant applications will be accepted in hard copy form or cd via mail or personal delivery if need
be; electronic submission is preferred.**

OREGON WATER RESOURCES DEPARTMENT

Attention: Bill Fujii
725 Summer Street NE, Suite A
Salem, OR 97301
Phone: 503-986-0927

KEY GRANT INFORMATION

To be eligible for funding applicants must clearly demonstrate funding from a source other than the Program of not less than a dollar-for-dollar match. For example, if \$100,000 is requested in Program Funds, then there must be a match of at least \$100,000 from another source. The matching funds must be secured or in the process of being secured. The maximum grant award is up to \$500,000 for each project.

To be eligible for funding for a project planning study associated with a proposed storage project that would: a) Impound surface water on a perennial stream; b) Divert water from a stream that supports sensitive, threatened or endangered fish; or c) Divert more than 500 acre-feet of surface water annually, the proposed project planning study must contain the following elements:

- 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;
- 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;
- Analyses of environmental harm or impacts from the proposed storage project;
- 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; and
- 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 Department will group applications into the following four types: Water Conservation, Reuse, Above Ground Storage, and Storage Other than Above Ground. An application that involves both Water Conservation and Reuse may be submitted as a joint application. All other applications must only include one application type. However, an applicant can submit two or more applications. For example, one application could be for Water Conservation and another application could be for Above Ground Storage. Applications will be evaluated according to two sets of criteria of equal value as follows:

Section A.

Common Criteria: Applied to all applications:

These criteria will be used to evaluate applicant readiness and ability to proceed, level and quality of support, and the degree to which the planning study will achieve an established or stated goal (the goal must be based on evaluating the feasibility of developing a water conservation, reuse or storage project).

Section B.

Unique Criteria: Specific to each of the four types:

These criteria will include statutory "priority" values and criteria uniquely suited to each type.

See [Application Criteria and Evaluation Guidance](#) for assistance in filling out this application.



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

I. Grant Information

Study Name: Reuse and Flow Restoration from Decentralized Wastewater Treatment

Type of Grant Requested: Water Conservation Reuse 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: \$ 57,000 Total cost of planning study: \$ 114,000
Note: Request may not exceed \$500,000

II. Applicant Information

Applicant Name: Clean Water Services	Co- Applicant Name:
Contact: <i>Bartholomew Martin</i>	Contact:
Address <i>2550 SW Hillsboro Hwy</i> <i>Hillsboro, OR 97123</i>	Address:
Phone <i>503-681-4457</i>	Phone:
Fax: <i>503-681-3641</i>	Fax:
Email: <i>martinm@cleanwaterservices.org</i>	Email:

Fiscal Officer Name: Katherine Leader	Principle Contact: Steve Kebbe
Organization: <i>Clean Water Services</i>	Organization: <i>Clean Water Services</i>
Address: <i>2550 SW Hillsboro Highway</i> <i>Hillsboro, OR 97123</i>	Address: <i>16060 SW 85th Avenue</i> <i>Tigard, OR 97224</i>
Phone: <i>503-681-3640</i>	Phone: <i>503-547-8198</i>
Fax:	Fax:
Email: <i>LeaderK@cleanwaterservices.org</i>	Email: <i>Kebbes@cleanwaterservices.org</i>

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: _____ Date: December 15, 2011

Print Name: Bartholomew McGuire Martin Title: Water Resources Analyst

III. Planning Study Summary

Please give a brief summary of the planning study using no more than 150 words.

The purpose of this study is to evaluate the feasibility of decentralized reuse water production facilities to reduce demands on irrigation and potable water supplies and to improve water quality in tributaries of the Tualatin River. It will focus on a range of options to improve the health of tributary streams through offsetting irrigation withdrawals and stored water usage; local water reuse by new industrial or residential developments; and stream flow-augmentation through hyporheic or wetland recharge. Clean Water Services (CWS) has demonstrated the benefits of summer time flow augmentation in tributaries over the last five years that suffer from low flows (due to low rainfall and agricultural irrigation withdrawals). This study will

therefore add to an existing body of work and support innovative approaches to wastewater management that benefit watershed health.

The study will evaluate:

- *Potential demand for reuse water from decentralized treatment facilities as the District expands.*
- *Strategies to utilize reuse water to indirectly restore tributary stream flow.*
- *treatment, conveyance and O&M requirements and costs necessary to protect public health and improve water quality*

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 how the planning study will be performed. Include:

- a. A description of the planning schedule/timeline, which includes identifying all key tasks. (Section VI provides an opportunity for a “graphical” representation of the schedule.)

Task 1 – Kickoff Meeting

Task 2 – Evaluation Criteria Development. Clean Water Services (CWS) and its contractors will develop evaluation criteria for the alternative evaluation.

Task 3 – Satellite Treatment Flows and Loads. CWS will evaluate potential service areas for potential decentralized reuse water production facilities and develop corresponding satellite treatment flows and loads.

Task 4 – Reuse Scenarios Development. CWS identify reuse water market demand and opportunities for local reuse adjacent to decentralized treatment facilities and opportunities to use reuse water to offset irrigation withdrawals and restore natural flows in the Tualatin basin tributaries. Develop a description of each of the reuse scenarios and identify the potential benefits and costs of each scenario in offsetting potable and irrigation water demand and restoring stream flows, regulatory constraints, water quality and decentralized treatment plant design criteria. The Reuse Scenarios will be described in a technical memorandum.

Task 5 – Reuse Scenarios Evaluation. CWS will evaluate each of the Reuse Scenarios on the basis of the evaluation criteria. Based upon the evaluation, identify a preferred alternative. This task includes a workshop to review the alternatives, and apply the evaluation criteria to arrive at a preferred alternative. The evaluation will be summarized in a technical memorandum.

Task 6 – Preferred Scenario Development. CWS will develop the preferred scenario in detail, identifying treatment requirements, treatment process sizing and configuration, project constraints, and implementation steps. This will be summarized in a technical memorandum.

Task 7 – Final Report Preparation. CWS will prepare a draft and final report summarizing the technical evaluations and the recommended implementation plan.

- b. When the planning study could begin.

The planning study would begin within one week of funding. CWS has the political and financial support to complete the study, a strong interest in improving the health of the Tualatin Basin, and a willingness to pursue new innovative strategies to improve stream flows.

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

The planning effort will have extensive involvement from CWS's engineering, operations, and planning staff. They will be supported by a professional engineering consultant with expertise in the production, conveyance, and usage of reuse water.

CWS has been producing reuse water for irrigation purposes since 1984 and is making large investments to enhance water quality in the entire Tualatin River Basin. The staff has extensive expertise in the production, usage constraints, public health protection measures, public acceptance issues, and costs associated with wastewater reuse.

3. What local, state or federal project permitting requirements/issues do you anticipate in order for the planning study to be conducted?

CWS has reviewed local, state, and federal requirements and determined no permits or approvals are necessary to conduct the proposed study. Approvals required for implementation of any recommended improvements will be identified in the planning study.

4. Are permits/governmental approvals required for the planning study? If yes, indicate whether you have obtained the necessary permits/governmental approval. If you have not obtained the necessary permits/governmental approval, describe the steps you have taken to obtain them.

CWS has reviewed local, state, and federal requirements and determined no permits or approvals are necessary to conduct the proposed study.

5. 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 goal of the study is to expand the reuse of wastewater treatment plant effluent, to reduce irrigation and potable water demands, to restore dry-season stream flows, and improve water quality in tributaries to the Tualatin River.

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

The technical approach has been developed to identify the opportunities and potential impediments to decentralized production of reuse water to offset irrigation withdrawals in the Tualatin basin

The technical team will:

- evaluate the potential demand for reuse water within the planning area. This information will be summarized in a technical memorandum.*
- evaluate the potential opportunities to use reuse water to offset irrigation withdrawals and restore dry season stream flows.*
- evaluate the potential opportunities to reduce potable water demand with reuse water. The evaluations will be summarized in a technical memorandum.*

- *identify the required water delivery infrastructure improvements and associated cost necessary to meet the identified demand and opportunities. This information will be summarized in a technical memorandum.*

In summary, the study will provide the technical information needed to clarify the benefits and public acceptance of water reuse projects. Technical information will include design, land, and construction costs associated with conveyance facilities and proposed reuse projects. It also includes on-going operation and maintenance costs. Costs and benefits will be identified in sufficient detail to enable informed policy decisions regarding the feasibility of potential water reuse projects.

7. 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.

The study supported by this grant will complement other water supply planning already underway in the Tualatin Basin. The Tualatin Valley Irrigation District, which serves agricultural lands on the Westside of the Tualatin Basin, has expressed interest in evaluating the introduction of reuse water into their enclosed conveyance system for use by its patrons. Doing so would provide the irrigation district with more security, through diversifying their water sources, and might provide other water users in the basin with access to their stored water.

Municipalities with obligations to serve areas that have recently been added to the urban reserves also stand to benefit from this study. Being able to support the irrigation and industrial demand of new developments with reuse water will lessen the demand on existing potable systems and stand as an effective bridging strategy if new water sources are needed.

The Natural Resource and Conservation Service (NRCS) has a strong interest in water conservation and natural resource protection. Providing agricultural producers with new sources of water that could be used to replace water withdrawn from the streams will benefit the tributaries and also support traditional agricultural practices. Please see the attached letter of support from NRCS for more information.

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. 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.

Reuse: Local and regional governments recently identified areas for urban expansion in Washington County. These areas include industrial and light industrial land-use designations in the northwest portion of the Tualatin Basin that could be served reuse water for irrigation.

Irrigation: Many agricultural producers in the Tualatin Basin use surface water, withdrawn from tributaries, to irrigate their crops. Often, during the dry season, this leaves little water in these tributaries. As a result, the water in the streams heats quicker, contains lower amounts of dissolved oxygen and higher amounts of algae. Providing reuse water to agricultural producers would leave more natural flow in the streams which helps with many of these water quality issues.

Flow Restoration: In addition to leaving more existing flow in tributaries, Clean Water Services actively seeks to restore flows using high-quality stored water. Reuse water from decentralized infrastructure could provide a new source of water for these efforts, assuming the water that is introduced meets water quality standards.

3. 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.

The use of reuse water could increase flow in East Fork Diary or McKay Creek by reducing withdrawals for irrigation purposes and adding flow directly to a stream in need of additional dry season (and shoulder season) flows. The feasibility study will assist in identifying opportunities for mitigating the increased water supply needs associated with downtown growth and redevelopment.

4. 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).

Determining water supply need is part of the study work scope. No potable water would be used to meet the identified need.

5. 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 location of the associated project is in the Tualatin Basin in Washington County. The project will be focused in Township 1N and Ranges 2W and 3W.

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

McKay Creek and East Fork Dairy Creek discharge to the Tualatin River at River Mile 45.

- c. Environmental flow needs and water quality requirements of supply source water bodies and water bodies downstream of associated and/or affected return flows.

East Fork Dairy and McKay Creeks are measured at multiple USGS gages including DAIRY (Dairy Creek at Hwy 8), MCKP (McKay Creek at Padgett Road) and MCSC (McKay Creek at Scotch Church Rd). The low stream flow in McKay Creek is about 1 cfs (This information is not available for East Fork Dairy). The monthly mean flow for both is frequently less than 5 cfs during July and August. The low flows in McKay and East Fork Dairy Creek contribute to higher stream temperatures. The monthly mean stream temperature in these creeks during July and August is approximately 20 degrees Celsius. This exceeds the criteria temperature of 18 degrees Celsius established to protect cold water fish migration and rearing. Additional flow in these creeks would improve the temperature regime and the health of the creek during the summer season.

- d. Reliance on return flows by downstream water right holders.

Not applicable.

6. Provide a review of the local, state, and/or federal permitting requirements and issues posed by the implementation of the project associated with the planning study.

Implementing the project would demand multiple permits and permit modifications. Developing a comprehensive list of permit impacts is therefore a critical part of the project's scope of work. For example, CWS's watershed-based NPDES permit would be modified, most-likely, to account for a new outfall if a decentralized wastewater treatment option was pursued.

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.**

- 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. 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.

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

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).

4. 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.

5. 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.)

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

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

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

 - e. Proposed purposes and uses of stored water.

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

6. Provide a review of the local, state, and/or federal permitting requirements and issues posed by the implementation of the project associated with the planning study.

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. 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.

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).

4. 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.

5. 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.)

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

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

 - d. Proposed purposes and uses of stored water.

 - e. Environmental flow needs and water quality requirements of source water.

 - f. Water quality, storage capacity, and geologic aspects of the associated aquifer(s) and/or recharge zones.

6. Provide a review of the local, state, and/or federal permitting requirements and issues posed by the implementation of the project associated with the planning study.

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, 2011. Resources expended prior to July 1, 2011 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, 2011.
	<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.

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)
<i>Clean Water Services administration and staff expertise</i>	<input type="checkbox"/> cash <input checked="" type="checkbox"/> in kind	<input checked="" type="checkbox"/> secured <input type="checkbox"/> expended <input type="checkbox"/> pending	<i>10,000</i>	<i>July 1, 2012</i>
<i>Clean Water Services</i>	<input checked="" type="checkbox"/> cash <input type="checkbox"/> in kind	<input checked="" type="checkbox"/> secured <input type="checkbox"/> expended <input type="checkbox"/> pending	<i>47,000</i>	<i>July 1, 2012</i>
	<input type="checkbox"/> cash <input type="checkbox"/> in kind	<input type="checkbox"/> secured <input type="checkbox"/> expended <input type="checkbox"/> pending		
	<input type="checkbox"/> cash <input type="checkbox"/> in kind	<input type="checkbox"/> secured <input type="checkbox"/> expended <input type="checkbox"/> pending		
	<input type="checkbox"/> cash <input type="checkbox"/> in kind	<input type="checkbox"/> secured <input type="checkbox"/> expended <input type="checkbox"/> pending		
	<input type="checkbox"/> cash <input type="checkbox"/> in kind	<input type="checkbox"/> secured <input type="checkbox"/> expended <input type="checkbox"/> pending		
	<input type="checkbox"/> cash <input type="checkbox"/> in kind	<input type="checkbox"/> secured <input type="checkbox"/> expended <input type="checkbox"/> pending		
	<input type="checkbox"/> cash <input type="checkbox"/> in kind	<input type="checkbox"/> secured <input type="checkbox"/> expended <input type="checkbox"/> pending		
	<input type="checkbox"/> cash <input type="checkbox"/> in kind	<input type="checkbox"/> secured <input type="checkbox"/> expended <input type="checkbox"/> pending		

VI. Project Planning Study Schedule

Estimated Project Duration: July 1, 2012 to June 30, 2013

Place an "X" in the appropriate column to indicate when each element (key task) of the project will take place.

Project Planning Study Element (Key Tasks)	2012		2013			
	3 rd Qtr	4 th Qtr	1 st Qtr	2 nd Qtr	3 rd Qtr	4 th Qtr
<i>Task 1 - Kickoff Meeting</i>	X					
<i>Task 2 – Evaluation Criteria Development</i>	X	X				
<i>Task 3 – Satellite Treatment Flows and Loads</i>		X	X			
<i>Task 4 – Reuse Scenarios Development</i>			X			
<i>Task 5 – Reuse Scenarios Development and Evaluation</i>				X		
<i>Task 6 – Preferred Scenario Development</i>				X		
<i>Task 7 – Final Report Preparation</i>				X		

APPLICATION CHECKLIST

Instructions: Use this form as an important cross-check to ensure that your application is complete. An incomplete application will jeopardize your application's review. **This form does not need to be included in your application packet.**

General

If submitting electronically the preferred format is either a Microsoft word or Adobe pdf

- Only one application is included with the packet (other applications must be sent separately).

Paper submissions only

- The application and attachments are on 8 ½" x 11" paper.
- The application and attachments are single sided.
- The application and attachments are not stapled or bound.

Section I – Grant Information

- All questions in this section have been answered.
- The Grant Dollars Requested and the Total Project Cost mirror the totals shown in Section VII.

Section II – Applicant Information

- All contact information – for the applicant(s) and fiscal officer – is complete and current.
- The certification is signed by an authorized signer.

Section III – Planning Study Summary

- A brief summary, of no more than 150 words, is complete.

Section IV – Grant Specifics

- All questions in Section A have been answered.
- If the type of planning study is Water Conservation, Reuse or Storage Other Than Above-Ground, a Request to be added to the Oregon Water Resources Department's Inventory of Potential Conservation Opportunities has been completed. (Form is located at the end of this document.)
- All applicable questions for the type of grant requested have been answered.

Section V – Match Funding Information

- Applicant has identified that at least 50% match has been sought, secured or expended.
- Letters of support are included for "secured" match funding sources.
- Documentation is included for "expended" match funds.
- Documentation is included for "pending" match funds.

Section VI – Project Planning Study Schedule

- Estimated project duration dates have been supplied.
- All elements (key tasks) of the project are listed.

Section VII – Project Planning Study Budget

- Section A is complete.
- Administration costs do not exceed 10% of the requested OWRD Grant Funds.
- If grant amount requested is \$50,000 or greater, Section B has been completed.
- All elements (key tasks) listed in Section B mirror the elements listed in Section VI.

Request to be added to the Oregon Water Resources Department's
Inventory of Potential Conservation Opportunities

The purpose of this inventory is to catalogue potential conservation projects that water users themselves have identified but not yet pursued because of financial, institutional, or other barriers. For the purpose of this application, water storage other than above-ground are included as conservation opportunities and are most likely capital conservation projects.

As a water provider or user, you know your water demands and water conservation opportunities better than anyone. We would appreciate your assistance with this important data collection effort by completing this survey. Your participation will help provide the building blocks we need to begin to identify and achieve potential future water supplies. Please answer the questions as completely as possible, to the best of your ability. We appreciate your help with this important effort.

This inventory of already-identified, potential conservation projects includes both capital and programmatic projects. Capital projects are defined as one-time, large investments resulting in water savings. Examples include reclaimed water plants, reservoir covering, transmission line upgrades reducing leaks, or industrial engineering modifications to re-use process water. Programmatic projects are defined as ongoing investments resulting in water savings. Examples include facilitating upgrades to more efficient water using devices (e.g., distributing free showerheads, toilet rebates) and distribution system leak detection programs. The conservation inventory is primarily intended to include “planned” projects rather than projects that are currently being implemented. However, currently active programmatic projects may be listed if they will continue or expand in future years. The inventory of projects submitted will be compiled by county or basin.

Examples are provided below.

	Example Capital Conservation Project	Example Programmatic Conservation Project
Project Description Provide brief sentence	Line 3 miles of unlined ditch.	Toilet rebate program for residential customers
Estimated Future Savings Provide brief sentence, including information regarding savings seasonality.	20 acre feet of water per year	If we spend our full budget each year, we estimate 50,000 gallons of water save per year
Seasonality Indicate what part of the year savings are generated (e.g. year-round; summer only; etc.).	Peak (irrigation) season savings.	Savings should occur throughout the year.
Estimated Future Costs Provide brief sentence.	\$500,000 total project costs.	\$40,000 a year.
Implementation Schedule Provide brief sentence.	Not set. Have conducted cost and savings estimate, but still seeking funding.	We started the program in 2005 and plan to implement until 2015.
Project Funded? Designate either “yes”, “no”, or provide brief sentence if necessary	No. Pursuing grant funding.	Yes. IN our CIP through the next 5 years.

To add a project to the inventory of potential conservation opportunities, please provide the following information for each conservation project.

This is a <input checked="" type="checkbox"/> Capital Conservation Project <input type="checkbox"/> Programmatic Conservation Project	
Project #/Name	
Project Description	West Basin Reuse Facility Plan
Estimated Future Savings	3 cfs for 120 days (around 720 acre-feet)
Seasonality	Summer only for reuse. Flow restoration would occur all year long.
Estimated Future Costs	Unknown
Implementation Schedule	Unknown
What are the barriers to implementation, e.g. funding?	Feasibility and Permitting
This is a <input type="checkbox"/> Capital Conservation Project <input type="checkbox"/> Programmatic Conservation Project	
Project #/Name	
Project Description	
Estimated Future Savings	
Seasonality	
Estimated Future Costs	
Implementation Schedule	
What are the barriers to implementation, e.g. funding?	

- Include this form with your application -



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

I. Grant Information

Study Name: Reuse and Flow Restoration from Decentralized Wastewater Treatment

Type of Grant Requested: Water Conservation Reuse 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: \$ 57,000 Total cost of planning study: \$ 114,000
Note: Request may not exceed \$500,000

II. Applicant Information

Applicant Name: Clean Water Services	Co- Applicant Name:
Contact: <i>Bartholomew Martin</i>	Contact:
Address: <i>2550 SW Hillsboro Hwy Hillsboro, OR 97123</i>	Address:
Phone: <i>503-681-4457</i>	Phone:
Fax: <i>503-681-3641</i>	Fax:
Email: <i>martinm@cleanwaterservices.org</i>	Email:

Fiscal Officer Name: Katherine Leader	Principle Contact: Steve Kebbe
Organization: <i>Clean Water Services</i>	Organization: <i>Clean Water Services</i>
Address: <i>2550 SW Hillsboro Highway Hillsboro, OR 97123</i>	Address: <i>16060 SW 85th Avenue Tigard, OR 97224</i>
Phone: <i>503-681-3640</i>	Phone: <i>503-547-8198</i>
Fax:	Fax:
Email: <i>LeaderK@cleanwaterservices.org</i>	Email: <i>Kebbes@cleanwaterservices.org</i>

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: *Bartholomew McGuire Martin* Date: *December 15, 2011*

Print Name: *Bartholomew McGuire Martin* Title: *Water Resources Analyst*

III. Planning Study Summary

Please give a brief summary of the planning study using no more than 150 words.

The purpose of this study is to evaluate the feasibility of decentralized reuse water production facilities to reduce demands on irrigation and potable water supplies and to improve water quality in tributaries of the Tualatin River. It will focus on a range of options to improve the health of tributary streams through offsetting irrigation withdrawals and stored water usage; local water reuse by new industrial or residential developments; and stream flow-augmentation through hyporheic or wetland recharge. Clean Water Services (CWS) has demonstrated the benefits of summer time flow augmentation in tributaries over the last five years that suffer from low flows (due to low rainfall and agricultural irrigation withdrawals). This study will

United States Department of Agriculture



Natural Resources Conservation Service
1080 SW Baseline, Suite B2
Hillsboro, OR 97123

Phone: (503) 648-3174, x113
FAX: (503) 681-9772
dean.moberg@or.usda.gov

December 13, 2011

Mr. William Fuji
Oregon Water Resources Department
725 Summer Street NE, Suite A.
Salem, OR 97301

Dear Mr. Fuji,

I am writing to you in support of Clean Water Services' *2011 Water Conservation, Reuse and Storage* grant application to the Oregon Water Resources Department (OWRD). Over the years, CWS has demonstrated a firm commitment to meeting emerging water quantity and quality challenges in the Tualatin Basin with innovative solutions and widespread community involvement. The study to be supported by this grant application represents an important extension of this philosophy and I urge OWRD to fund it.

The Natural Resource and Conservation Service (NRCS) works with landowners through conservation planning and assistance designed to benefit the soil, water, air, plants, and animals that result in productive lands and healthy ecosystems. We currently work with CWS on a variety of formal and informal initiatives that benefit landowners and the natural resources they control.

The work proposed in CWS' application contributes to the mission of the NRCS by supporting traditional agricultural practices, while also recognizing the need to mitigate the increasing impact of human development. The potential of reuse water to be used in agricultural settings is largely untapped in the Tualatin Basin. More specifically, decentralized wastewater treatment and reuse may increase flows in degraded streams and support farmers in need of reliable water supplies—objectives that compliment those of NRC. I therefore support this application and look forward to its results.

Sincerely,

A handwritten signature in black ink, appearing to read "D. Moberg", with a long horizontal flourish extending to the right.

Dean Moberg
District Conservationist

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