



City of Sisters

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AUG 29 2008

August 28, 2008

WATER RESOURCES DEPT
SALEM, OREGON

Oregon Water Resources Department
Attention Bob Rice
725 Summer Street NE, Suite A
Salem, OR 97301

Dear Mr. Rice,

Enclosed herewith is an application from the City of Sisters for the Water Conservation, Reuse and Storage Grant Program. The City seeks \$20,000 to prepare a Water Management and Conservation Plan that will be in full compliance with OAR Chapter 690, Division 86.

The City is engaged on several fronts to address its water needs over the coming decades as growth is expected to continue to face us as a community. We appreciate the assistance we are receiving from the Oregon Water Resources Department in processing our water rights applications and perfecting our existing rights. This grant will help us develop the tools we need to craft sound conservation strategies to guide that growth.

Sincerely,

Eileen Stein
City Manager

Enclosure



GC0005 09

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

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AUG 29 2008
WATER RESOURCES DEPT
SALEM, OREGON

I. Grant Information

Project Name: City of Sisters Water Management and Conservation Plan

Type of Grant Requested: [X] Water Conservation [] Reuse [] Above Ground Storage
[] Storage Other Than Above-Ground [Including Aquifer Storage and Recovery (ASR)]

Program Funding Dollars Requested: \$ 20,000 Total cost of planning study: \$ 40,000
Note: Request may not exceed \$500,000

II. Applicant Information

Table with 2 columns: Applicant Name: City of Sisters, Co-Applicant Name: (blank), Organization: City of Sisters, Address: Sisters City Hall, 520 E. Cascade, PO Box 39, Sisters, OR 97759, Phone: (541) 323-5205, Fax: (541) 549-0561, Email: estein@ci.sisters.or.us

Table with 2 columns: Fiscal Officer Name: Lisa Young, Principle Contact: Eileen Stein, Organization: City of Sisters, Address: Sisters City Hall, 520 E. Cascade, PO Box 39, Sisters, OR 97759, Phone: (541) 323-5204, Fax: (541) 549-0561, Email: lyoung@ci.sisters.or.us

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 implement the project if awarded.

Applicant Signature: [Signature] Date: 8-28-08

Print Name: Eileen Stein Title: City Manager, City of Sisters

III. Planning Study Summary

Please give a brief summary of the planning study using no more than 150 words. The City of Sisters requests a \$20,000 Water Conservation Grant to fund preparation of the best possible Water Management and Conservation Plan (WMCP) for the City, under Oregon Administrative Rules Chapter 690, Division 86. Although many municipalities are required to prepare WMCPs, the City views the WMCP process as a critical opportunity to thoroughly research and identify the most effective and efficient means of pursuing conservation. The City's water use is greatly influenced by tourism. The City must rely heavily on conservation, in addition to new water sources, to meet growing demand. The City intends that the WMCP will be of direct, daily assistance as the City engages in careful management of its water supply, water system, and water use. Such a WMCP will greatly assist this community in meeting its water needs in the most efficient manner.

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.)

The City of Sisters will issue a Request for Proposals (RFP) to solicit proposals from various consulting companies to prepare the WMCP. For purposes of this grant application, the City will refer to the entity that will prepare the WMCP as the "Consultant." Since the City has not issued the RFP, the City has not yet identified the Consultant that will prepare the WMCP.

The City originally submitted a WMCP in 1997, as required by a condition in Permit G-11418. The Oregon Water Resources Department (OWRD) approved the WMCP on August 25, 1997. An updated City WMCP was required to be submitted by PMR Development because its project, Pine Meadows Village, was annexed into the City. The updated WMCP was approved by OWRD on July 13, 1999. The order approving the updated WMCP required that a new updated WMCP "will be required in ten years, or on July 13, 2009." In 2005, a part of its Water System Capital Facilities Plan, the City developed the foundation of its WMCP update. Final preparation of the WMCP update will likely begin in January, 2009, and would be submitted to OWRD on or before the current deadline of July 13, 2009.

The City anticipates that preparation of the WMCP will include the following key tasks. First, the Consultant in coordination with City staff will develop, review and update information regarding the City's existing water users, water use patterns, water rights and near-term water supply. Second, the Consultant in coordination with City staff will review and update projections for when the capacity of the existing supply system (currently 3 wells) and water rights may be exceeded by growing demand. Third, the Consultant, in coordination with City staff will identify and update options to increase water supply and make recommendations for maximizing the City's water rights. Fourth, the Consultant in coordination with City staff will conduct research and identify options for maximizing water efficiency and conservation opportunities within the community as a critical part of helping to meet current and future municipal water demand. Fifth, the Consultant will draft the WMCP document, addressing all elements required by OAR Chapter 690 Division 86 including, but not limited to, water supplier description and assessment, customer classes and specific issues associated with Sisters' significant tourist influx, demand forecasting, water supply forecasting, conservation plan, and water curtailment plan. The City anticipates that the WMCP will be submitted prior to the current deadline of July 13, 2009.

- b. When the planning study could begin.

It is anticipated that the Consultant would commence work on the WMCP immediately upon contracting with the City and receiving notice to proceed. This would likely occur in early January 2009.

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 City will issue a Request for Proposals (RFP) to solicit proposals from various consulting companies to prepare the WMCP. The Consultant to be selected by the City will have substantial experience and technical expertise in water system planning, management, water rights, and conservation, and will have a strong track record of preparing successful municipal WMCPs in Oregon. The City anticipates that the Consultant's staff may include engineers and specialists in geographic information systems, project management, water resources, and water conservation, and other highly qualified natural resource specialists who are familiar with the process of preparing WMCPs in Oregon. The grant funds sought herein will assist the City in being able to retain the most qualified Consultant, and thereby have the highest likelihood of developing an outstanding WMCP customized for the needs and attributes of this community.

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

No local, state, or federal project permitting requirements/issues are anticipated in order for this planning study to be conducted.

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.

No.

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 City of Sister's goal, based on the WMCP, is to meet its current and future water supply needs in the manner best calculated to maximize water use efficiency and conservation. The conservation measures that will be identified and evaluated in the WMCP will inform the City's efforts to maximize the efficient use of its water supply as it works to meet growing municipal demand. The implementation of conservation measures can reduce demand on groundwater that is in hydraulic connection with Whychus Creek, stabilize water supplies and provide an additional supply option for meeting future needs for economic development and growth. The City is confident that the grant funds requested for this project, and the eventual WMCP, will directly and greatly assist the City in reaching its stated goals.

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

As explained above, the City will issue a Request for Proposals (RFP) to solicit proposals from various consulting companies to prepare the WMCP. Since the RFP has not been issued, the City does not yet have any proposals from Consultants. The City will require Consultants responding to the RFP to describe the technical aspects of preparing a WMCP, and why those approaches are appropriate for accomplishing the goals set forth by the City and for meeting the requirements of OAR Chapter 690 Division 86. The Consultant selected by the City will have demonstrated in their proposal that their technical methodology for preparing WMCPs in Oregon has been highly successful in the past, and that those methodologies would also be appropriate for their preparation of a WMCP for the City of Sisters. This will ensure that the technical aspects of the planning study to be performed by the Consultant will be appropriate for accomplishing the City's goals for the WMCP.

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.

This project will directly benefit the entire City of Sisters and the water resources that are present in that area. In addition, conservation measures that will be implemented following completion of the WMCP will benefit a wider area as well. The City of Sisters has included Attachment 1 to this grant application, which is a Joint Letter of Support from external entities expressing their strong support for Sisters' proposed WMCP and the associated conservation grant application. This broader regional support is indicative of the benefits that can be shared among different communities by expanding the use of water conservation and efficiency practices.

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.

The City of Sisters' population projections and water demand are detailed in Attachment 2 to this grant application. The sources of information are the City's 2005 Water System Capital Facilities and Water Management and Conservation Plan prepared by HGE, Inc. and Sisters' Comprehensive Land Use Plan, adopted in 2005.

The City's projected population in the year 2025 is 3,747. The projected population in 2028 is 4,110. The City anticipates a 3.13% rate of growth in population on an annual basis. The City's water use in 2003, with a population of 1,430, resulted in an average daily demand per capita of 346 gpcd, a maximum daily demand per capita of 1,118 gpcd, and a maximum daily demand (MDD) of 1.6 million gallons per day. These per capita values are for all water use sectors combined. The City's projected future water demand in the year 2028, with a projected population of 4,110, is a MDD of 4.6 million gallons per day. The City's water use is heavily influenced by seasonal tourism, both as a destination and as a corridor to Central Oregon thus per capita values are highly skewed. As described above, a goal of this project is to better understand the City's water use patterns and develop conservation measures that are specific to the City's needs.

The City currently holds two groundwater rights for municipal use which is what makes up the City's potable water supply. The City also holds seven surface water rights for municipal and irrigation use, one storage right for municipal use, and five groundwater and surface water rights on the Lazy Z Ranch for irrigation use. Using the City's surface water rights is currently not feasible, as the operations and maintenance costs for a new surface water treatment plant are prohibitively expensive. Additionally, the majority of the City's municipal surface water rights have junior priority dates, meaning they would be unreliable as a long-term water supply source.

The City currently has groundwater rights authorizing use of 5.12 cfs (3.31 million gallons per day). However, the City's current pumping capacity for wells #1 and #2 is only 3.23 cfs (1,550 gpm or 2.09 mgd). Since the City expects that it will need 4.6 million gallons per day to meet peak demand in year 2028, the City must find another 1.29 million gallons per day beyond the face value of its groundwater rights, or 2 cubic feet per second of water through new water rights, conservation, or some combination thereof.

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.

Conservation and efficiency measures that will be researched, identified, and evaluated in the WMCP will, upon implementation, reduce the water demand faced by the City and thereby help to reduce or delay the need to develop new water supplies. This is a direct benefit of conservation, which the City intends to maximize through preparation of the best possible WMCP addressing the particular needs and attributes of this community.

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).

The exact amount of conservation that will occur based on measures identified in the WMCP is not known at this time, since the WMCP has not yet been prepared or implemented. Therefore, the City cannot provide a percentage, as requested in this question. The OWRD has copies of WMCPs submitted by other municipalities in Oregon. Although those other WMCPs do not apply specifically to the City of Sisters, they illustrate that conservation measures can have a significant reduction in municipal water demand and are a critical part of wise management of municipal water systems. The City anticipates that the efficiency and conservation measures that will be identified in the WMCP will be similar to measures contained in other WMCPs and that other cities have successfully implemented. Based on the broad range of conservation that has resulted from WMCPs in Oregon over the years, the City of Sisters can reasonably expect that the potential benefits of increased conservation will be substantial. This is precisely why the City seeks grant funds to help support preparation of the best possible WMCP for the City.

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 WMCP will address water supply, use, and conservation throughout the City of Sisters, which is located in Deschutes County, Oregon, within Township 15S, Range 10E, in the Deschutes Basin. The City has included a map, which is Attachment 3 to this grant application, showing the location of the City, its wells and other significant geographic features.

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

As noted above, the City of Sisters currently holds two groundwater rights for municipal use which is the City's sole source of potable water supply. The City also holds seven surface water rights for municipal and irrigation use, one storage right for municipal use, and five groundwater and surface water rights on the Lazy Z Ranch for irrigation use. The City's current water demands are met exclusively from groundwater. Using the City's surface water rights is currently not feasible, as the operations and maintenance costs for a new surface water treatment plant are prohibitively expensive. Additionally, the majority of the City's municipal surface water rights have junior priority dates, meaning they would be unreliable as a long-term water supply source.

The City's municipal supply wells (currently constructed wells are wells 1-3) are not associated with river miles and are not tributary to any surface water bodies but are likely hydraulically connected to Whychus Creek. The surface water sources are tributary to various other surface water bodies, as indicated below:

** Pole Creek, tributary to Whychus Creek*

** Sisters Reservoir, tributary to Whychus Creek*

- * 9 Springs, tributary to Whychus Creek
- * Pole Creek Swamp Springs, tributary to Whychus Creek
- * Springs, tributary to Whychus Creek
- * Whychus Creek, tributary to Deschutes River

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

The City currently obtains its water from groundwater that is likely in hydraulic connection with Whychus Creek. OWRD holds several instream water rights on Whychus Creek, including certificates 73223 and 73224 for 33.0 and 20.0 cfs, respectively during summer months for fishery resources. The Oregon Department of Environmental Quality (ODEQ) has produced some resources concerning water quality in the Deschutes Basin. Those resources include the "Oregon Water Quality Index Summary Report 1997-2006 (<http://www.deq.state.or.us/lab/wqm/docs/OWQISummary06.pdf>), "Deschutes River, Whychus Creek, and Tumalo Creek Temperature Modeling (<http://www.deq.state.or.us/wq/tmdls/docs/deschutesbasin/DeschutesModeling08May2008.pdf>), and "Groundwater Quality Report for the Deschutes Basin, Oregon March 2006" (<http://www.deq.state.or.us/lab/techrpts/groundwater/dbgroundwater/dbgwreport.pdf>). The City of Sisters may or may not agree with information contained in the aforementioned ODEQ reports, but they are existing sources of information that include some discussion of water quality in the Deschutes Basin. Additionally water quality data has been collected and evaluated by the Upper Deschutes Basin Watershed Council.

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

The City's wastewater is currently land applied (during the irrigation season) and is regulated by DEQ. The City does not propose to modify its wastewater discharge and reuse as part of this project. The conservation measures that will be identified in the WMCP and implemented by the City should reduce average and peak day demands. The City is unaware of any downstream water right holders that would be adversely affected by the City's increased efforts to conserve water.

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, 2005. Resources expended prior to July 1, 2005 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, 2005.
	<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>Funds allocated within the City's 2008-2009 budget.</i>	<input checked="" type="checkbox"/> cash <input type="checkbox"/> in kind	<input checked="" type="checkbox"/> secured <input type="checkbox"/> expended <input type="checkbox"/> pending	\$10,000	August 08
<i>Labor - In kind</i>	<input type="checkbox"/> cash <input checked="" type="checkbox"/> in kind	<input checked="" type="checkbox"/> secured <input type="checkbox"/> expended <input type="checkbox"/> pending	\$10,000	August 08
	<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		
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	<input type="checkbox"/> cash <input type="checkbox"/> in kind	<input type="checkbox"/> secured <input type="checkbox"/> expended <input type="checkbox"/> pending		
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	<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: January 1, 2009 to July 13, 2009

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)	2009				2010				2011 & 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>Consultant (to be selected by the City of Sisters) researches and drafts the Water Management and Conservation Plan, with review by the City, ensuring compliance with OAR Chapter 690 Division 86.</i>	X	X	X						

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 <i>Note: Administrative costs may not exceed 10% of the total funding requested by the Department.</i>	Unit Number (e.g. # of hours)	Unit Cost (e.g. hourly rate)	In-Kind Match	Cash Match Funds	OWRD Grant Funds	Total Cost
<i>As described above, the City has not yet selected the Consultant that will prepare the WMCP. The City is requesting \$20,000 in grant funds and has at least \$20,000 in match funds. The total project budget is at least \$40,000. The City does not have a breakdown of hourly rate information, materials, equipment, or administrative costs at this time. However, the City is planning on spending a total of at least \$40,000 on "Consulting Services" to accomplish its goals for preparation of the WMCP.</i>			\$10,000	\$10,000	\$20,000	\$40,000
<i>Labor - In Kind</i>						
<i>Paul Bertagna- Project Coordinator</i>	150	\$31.00	\$4,650			
<i>Brad Grimm - Public Works Director</i>	50	\$47.00	\$2,350			
<i>Richard Nored - City Engineer</i>	21	\$120.00	\$2,520			
<i>Eileen Stein - City Manager</i>	10	\$48.00	\$480			
Administrative Costs						
Total for Section A			\$10,000	\$10,000	\$20,000	\$40,000
Percentage for Section A			25	25	50%	100%

Section B

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

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 checked="" type="checkbox"/> Programmatic Conservation Project	
Project #/Name	City of Sisters Water Management and Conservation Plan
Project Description	The City of Sisters has requested a \$20,000 Water Conservation Grant to help fund preparation of the best possible Water Management and Conservation Plan (WMCP) for the City, pursuant to Oregon Administrative Rules Chapter 690, Division 86. The City views the WMCP process as a critical opportunity to thoroughly research and identify the most effective and efficient means of pursuing water conservation. The City's water use is greatly influenced by tourism. The City must rely heavily on conservation, in addition to new water sources, to meet growing demand. The City intends that the WMCP will be of direct, daily assistance as the City engages in careful management of its water supply, water system, and water use. Such a WMCP will greatly assist this community in meeting its water needs in the most efficient manner.
Estimated Future Savings	Unknown at this time.
Seasonality	Annual.
Estimated Future Costs	Unknown at this time.
Implementation Schedule	Unknown at this time.
What are the barriers to implementation, e.g. funding?	Funding. Any permitting that may be required to implement substantive elements of the WMCP.
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 -

ATTACHMENT 1 – JOINT LETTER OF SUPPORT
CITY OF SISTERS WATER CONSERVATION GRANT APPLICATION

**JOINT LETTER OF SUPPORT FOR THE CITY OF SISTERS'
CONSERVATION GRANT APPLICATION TO HELP FUND DEVELOPMENT
OF A WATER MANAGEMENT AND CONSERVATION PLAN**

We, the undersigned, wish to jointly express our strong support for the City of Sisters' application to the Oregon Water Resources Department for a Water Conservation Grant to help fund preparation of the best possible Water Management and Conservation Plan (WMCP) for the City under Oregon Administrative Rules Chapter 690 Division 86.

We are stakeholders in the Deschutes Basin and are deeply committed to the wise long-term management of the area's water resources. We encourage all water users in the area to undertake robust conservation measures to help sustain water resources in this area. The funding requested by the City of Sisters will help it to afford the most highly qualified consulting firm to prepare the WMCP.

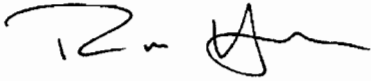
The City of Sisters' WMCP will comprehensively examine its existing and future water sources and supply needs, analyze options to best configure its water system infrastructure and water rights to meet growing demand, and identify a robust portfolio of opportunities to maximize conservation and prudent utilization of water resources. The overall goal is to meet the City's water supply needs in the most efficient manner possible.

We all know that resource users must be wise resource stewards in order to sustain both the user and the resource over time. Water is a crucial resource in the Deschutes Basin, and it is incumbent on the City of Sisters, as a significant water user, to thoroughly examine options for meeting growing demand in the most efficient and conservation-minded manner over the long-term. This is the essence of the conservation project that the City of Sisters is undertaking.

Each individual and entity that has signed this letter reserves the right to participate fully in the public process associated with submission and review this WMCP, and may or may not support specific recommendations reached in the WMCP. Nonetheless, we strongly believe that the City of Sisters must undertake this type of water conservation planning. As the community grows, it is essential that the City of Sisters aggressively pursues the most prudent management of its water resources. By integrating efficiency and conservation so thoroughly into its water supply planning efforts, the City will uphold its responsibility to its residents and user groups as well as the natural environment for many years to come.

We are confident that the grant funds requested by the City, and the resulting Water Management and Conservation Plan, will directly and substantially assist the City in meeting these important goals, and will have benefits to the entire area including fostering additional conservation by other water users. Therefore, we are pleased to support this important conservation project and the associated grant application.

**SIGNATURE PAGE FOR THE
JOINT LETTER OF SUPPORT FOR THE CITY OF SISTERS'
CONSERVATION GRANT APPLICATION TO HELP FUND DEVELOPMENT OF A
WATER MANAGEMENT AND CONSERVATION PLAN**



Signature

Ryan Houston

Print Name of Person Signing

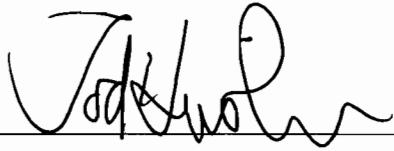
Upper Deschutes Watershed Council

Print Name of Organization or Entity, if Applicable

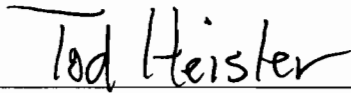
August 27, 2008

Date

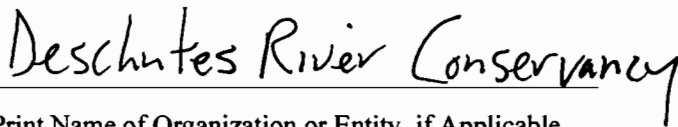
**SIGNATURE PAGE FOR THE
JOINT LETTER OF SUPPORT FOR THE CITY OF SISTERS'
CONSERVATION GRANT APPLICATION TO HELP FUND DEVELOPMENT OF A
WATER MANAGEMENT AND CONSERVATION PLAN**



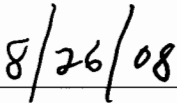
Signature



Print Name of Person Signing

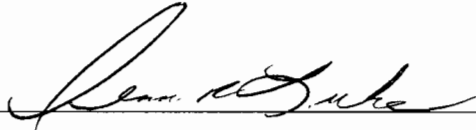


Print Name of Organization or Entity, if Applicable



Date

**SIGNATURE PAGE FOR THE
JOINT LETTER OF SUPPORT FOR THE CITY OF SISTERS'
CONSERVATION GRANT APPLICATION TO HELP FUND DEVELOPMENT OF A
WATER MANAGEMENT AND CONSERVATION PLAN**



Signature

Dennis R. Luke, Chair

Print Name of Person Signing

Deschutes County
Board of Commissioners

Print Name of Organization or Entity, if Applicable

August 27th, 2008

Date

**SIGNATURE PAGE FOR THE
JOINT LETTER OF SUPPORT FOR THE CITY OF SISTERS'
CONSERVATION GRANT APPLICATION TO HELP FUND DEVELOPMENT OF A
WATER MANAGEMENT AND CONSERVATION PLAN**

Mara Thalacker

Signature

Mara Thalacker

Print Name of Person Signing

Three Sisters ID

Print Name of Organization or Entity, if Applicable

8/27/08

Date

ATTACHMENT 2 – POPULATION AND DEMAND PROJECTIONS
CITY OF SISTERS WATER CONSERVATION GRANT APPLICATION

Future Demand Projections - Supporting Information

Application for a Permit to Use Ground Water

City of Sisters

Information Sources:

City of Sisters, [Water Master Plan] *Water System Capital Facilities and Water Management and Conservation Plan*. Prepared by HGE, Inc., September 2005.

City of Sisters, *Comprehensive Plan - Adopted in 2005 - Appendix A Coordinated Population Forecast*. <http://www.ci.sisters.or.us/downloads/apa.pdf>

Population Projection:

Goal - Project population to the year 2028, 20 years from submittal date of Groundwater Application

Using the 2025 population estimate in the Sisters Comprehensive Plan as the starting point and using the same annual increase the population at 2028 is as follows:

Year	% Increase	Projected Population
2025	3.13%	3,747
2026	3.13%	3,864
2027	3.13%	3,985
2028	3.13%	4,110

City's Projected Future Water Demands (Year 2028):

Goal - Project the future water demands for the City based upon the current data from the HGE 2005 - Water Master Plan and the projected population for 2028.

The HGE 2005 report documented an Average Daily Demand (ADD) and a Maximum Daily Demand (MDD) for the Year 2003 (latest accurately recorded data, Table 5.2). The report acknowledges and elevated unaccounted percentage of water during this year, and therefore predicted the future water demand using a 15% unaccounted for water value (HE 2005; Table 5.5). Predicting the 2028 water demands followed this same approach.

Year	Population	ADD per capita (15% loss - gpcd)	*MDD per capita (15% loss - gpcd)	MDD (mgd)
2003	1,430	346	1,118	1.6
2028	4,110	346	1,118	4.6

*MDD is driven by significant tourist influx during peak season days which skews per capita values. Data for residential and multifamily use from 2006 and 2007 indicate a annual average per capita use of approximately 160-180 gallons per capita per day.

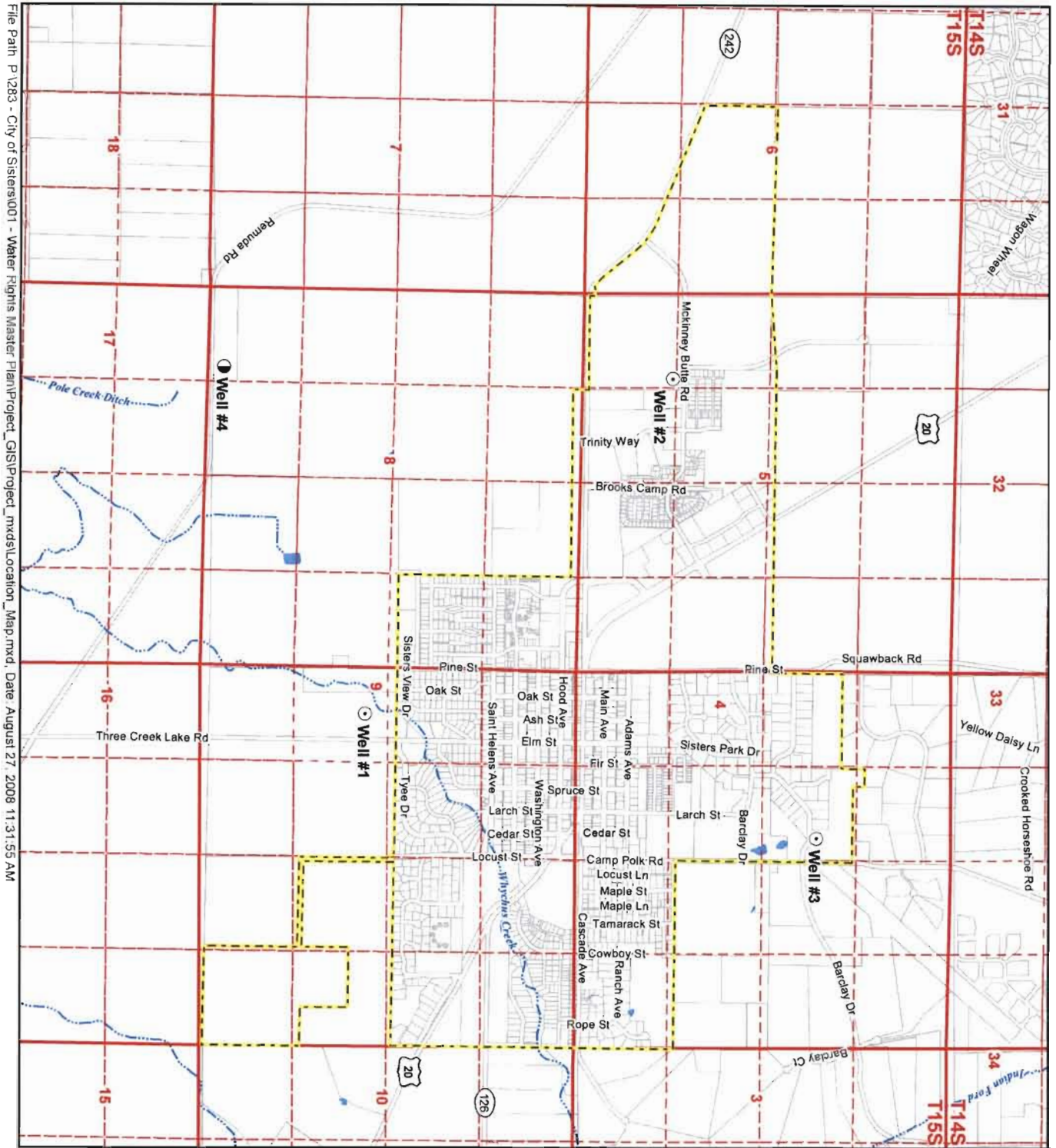
Additional Water Right Needs:

City currently has groundwater rights for 3.31 million gallons per day (mgd); therefore

$$4.6 \text{ mgd} - 3.31 \text{ mgd} = 1.29 \text{ mgd}$$

$$1.29 \text{ mgd} \times 1.547 \text{ cfs/mgd (conversion factor)} = 2.0 \text{ cfs}$$

ATTACHMENT 3 – PROJECT AREA MAP
CITY OF SISTERS WATER CONSERVATION GRANT APPLICATION



File Path P:\283 - City of Sisters\001 - Water Rights Master Plan\Project_GIS\Project_mxd\Location_Map.mxd, Date: August 27, 2008 11:31:55 AM




Location Map

City of Sisters

Deschutes County, Oregon

Township 15 South, Range 10 East (W.M.)

LEGEND

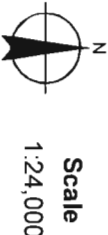
-  Existing Wells (constructed)
-  Future Well (to be constructed)
-  Urban Growth Boundary
-  Tax Lots
-  Waterbodies
-  Watercourses

POA LOCATION DESCRIPTIONS

- Existing Well #1**
Located 2,950 feet South and 650 feet East from the NW corner of Section 9, Township 15 South, Range 10 East (W.M.)
- Existing Well #2**
Located 1,355 feet North and 1,210 feet East from the SW corner of Section 5, Township 15 South, Range 10 East (W.M.)
- Existing Well #3**
Located 1,890 feet South and 2,325 feet East from the NW corner of Section 4, Township 15 South, Range 10 East (W.M.)
- Future Well #4**
Located 230 feet North and 1,125 feet East from the SW corner of Section 8, Township 15 South, Range 10 East (W.M.)

DISCLAIMER

This map was prepared for the purpose of identifying the location of a water right only and it is not intended to provide legal dimensions or location of property ownership lines



MAP NOTES:

Project: Oregon State Plane State Zone
Data Source: Deschutes County GIS, Oregon
Date: August 27, 2008
Map: Water Statistics, Inc.



ATTACHMENT 4 – FISCAL LETTER OF SUPPORT
CITY OF SISTERS WATER CONSERVATION GRANT APPLICATION



City of Sisters

August 26, 2008

Oregon Water Resources Department
Attn: Bob Rice
725 Summer St NE, Suite A
Salem, OR 97301

RE: Fiscal Letter of Support for the City of Sisters Water Conservation Grant Application

Dear Mr. Rice:

The City of Sisters has included in its operating budget for the 2008-2009 fiscal year appropriations that are available for developing the City's updated Water Management and Conservation Plan. These appropriations are secured and available to be used for the City's matching funds of \$10,000 for the grant application referenced above.

I would be happy to provide additional information as needed.

Sincerely,

Lisa Young
Finance Director
City of Sisters