

August 26, 2008

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

Mr. Rice,

Please find enclosed the Water Conservation, Reuse, and Storage Grant Application for 2008 from the City of Veneta. If you have any questions regarding this application, please contact Brian Issa or myself at the following:

Brian Issa (541) 935-2191 or email at [bissa@ci.veneta.or.us](mailto:bissa@ci.veneta.or.us)

Kyle Schauer (541) 935-2191 or email at [kschauer@ci.veneta.or.us](mailto:kschauer@ci.veneta.or.us)

Thank you for your time and consideration.

Sincerely,

A handwritten signature in black ink that reads "Kyle Schauer". The signature is written in a cursive, flowing style.

Kyle Schauer  
Public Works Superintendent

RECEIVED  
AUG 27 2008  
WATER RESOURCES DEPT.  
SALEM, OREGON



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

## I. Grant Information

Project Name: City of Veneta Water Conservation Project - Conservation of Backwash Water

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

Program Funding Dollars Requested: \$ \$13,000 Total cost of planning study: \$ \$26,000  
*Note: Request may not exceed \$500,000*

## II. Applicant Information

|   |                            |
|---|----------------------------|
| <b>Applicant Name:</b> <i>City of Veneta</i>                      | <b>Co- Applicant Name:</b> |
| Organization: <i>City of Veneta</i>                               | Organization:              |
| Address: <i>88184 Eighth Street, PO Box 458, Veneta, OR 97487</i> | Address:                   |
| Phone: <i>541-935-2191</i>  | Phone:                     |
| Fax: <i>541-935-1838</i>  | Fax:                       |
| Email: <i>bissa@ci.veneta.or.us</i>                               | Email:                     |

|   |   |
|---|---|
| <b>Fiscal Officer Name:</b> <i>Jerri Moore</i>                    | <b>Principle Contact:</b> <i>Brian Issa</i>                       |
| Organization: <i>City of Veneta</i>                               | Organization: <i>City of Veneta</i>                               |
| Address: <i>88184 Eighth Street, PO Box 458, Veneta, OR 97487</i> | Address: <i>88184 Eighth Street, PO Box 458, Veneta, OR 97487</i> |
| Phone: <i>541-935-2191</i>  | Phone: <i>541-935-2191</i>  |
| Fax: <i>541-935-1838</i>  | Fax: <i>541-935-1838</i>  |
| Email: <i>jmoore@ci.veneta.or.us</i>                              | Email: <i>bissa@ci.veneta.or.us</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 implement the project if awarded.

Applicant Signature: *Kyle Schauer* Date: *8-26-08*

Print Name: *Kyle Schauer* Title: *Public Works Superintendant*

## III. Planning Study Summary

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

*The City of Veneta submits this application for a \$13,000.00 Water Conservation Grant to fund an engineering study to evaluate the feasibility of conserving water lost in the process of cleaning water system filters. Veneta's water is supplied entirely from groundwater. During the process of pumping groundwater, filters help to remove excess iron from the water. It is necessary to scrub the filters daily by reversing the water flow through the filters and then disposing of that water and the accumulated unwanted material. This is called the "backwash" process. Veneta must make the most efficient use of its limited water supply. The engineering study will identify and assess a range of options for conservation and use of the "backwash" water and safely disposing of the accumulated iron and other particles. This project will also help Veneta to successfully advocate for increased conservation throughout the community.*

## 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.)

*It is anticipated that the planning study schedule will occur over approximately 4 months. Key planning study tasks and their durations are listed below:*

- 1. Characterization of backwash water quality and quantity: ~ 3 weeks*
- 2. Assessment of backwash water treatment alternatives: ~ 5 weeks*
- 3. Selection of preferred alternative: ~ 2 weeks*
- 4. Development of preliminary design concepts and final designs: ~ 6 weeks*

- b. When the planning study could begin.

*The City is prepared to proceed with the planning study in January 2009 upon receipt of grant funding.*

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.

*Project Manager - Jim Helton, P.E. ~ Civil engineer with over 30 years experience in the planning, evaluation, design and construction of drinking water system infrastructure, including water treatment systems. Mr. Helton has completed numerous similar studies for drinking water systems throughout the Pacific Northwest.*

*Project Engineer - Brian Ginter, P.E. ~ Civil engineer experienced in all aspects of public water supply including regional water supply studies, water distribution system master planning, development of water management and conservation plans, water treatment, distribution, storage and pumping.*

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 for the planning study to be conducted. Consultation with the State of Oregon Department of Human Services-Drinking Water Division and the Oregon Department of Environmental Quality are planned during the study to confirm water use opportunities and contaminant disposal requirements.*

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 permits/government approvals are required for the planning 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 City of Veneta's goal, based on the proposed engineering study, is to identify the most efficient and effective method for conserving approximately 25,000 gallons per day of "backwash" water that cannot currently be put into the municipal water supply distribution system.*

*The City of Veneta has two water treatment plants. At the Broadway Water Treatment Plant, a decant tank was installed in an attempt to help separate excess iron from the backwash water and thereby allow that water to be placed back into the municipal treatment system for use in the community. Unfortunately, the decant tank has not been successful, as the iron would not adequately separate from the water using this technique.*

*At the Jeans Road Water Treatment Plant, an open basin filled with a sand media came online in the summer of 2007 as another possible method of removing excess iron from the backwash water. This method of removing iron has also not been successful, as the open basin cannot filter the iron at a sufficient rate to prevent water from overflowing the basin. Backwash water from the Jeans Road plant contains approximately 8.6 mg/L iron, as an average across the backwash cycle.*

*Since these two methods of removing excess iron have not been successful, the City of Veneta has been losing approximately 25,000 gallons per day of water through the backwash process. The engineering study that this grant would help to fund is critical for the City to identify other methods to separate excess iron from the backwash water and allow that water to be placed directly back into production within the municipal water system. By conserving the approximately 25,000 gallons per day of backwash water, the City will enhance its ability to maintain adequate storage levels and thereby meet peak daily demand within the water system during the summer months. Throughout the year, this conservation project will allow the City to pump less water than it has previously needed to pump in order to meet municipal demand. The City is confident that the proposed engineering study will directly assist in solving the backwash water problem and maximizing conservation of water within its water system.*

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

*The planning study consists of four major elements as outlined above. A description of each element is presented below:*

*1. Characterization of backwash water quality and quantity. The first step of this planning study is to characterize the quantity of backwash water used by the City and the quality of this water relative to potential drinking water contaminants. It is anticipated that this characterization will include a review of City records to determine backwash frequency and duration at each of the City's water treatment plants to determine annual backwash water volumes. As part of this analysis the backwash efficiency and backwash water quality will be assessed to determine if treatment plant operations are effectively maximizing run times and achieving the desired finished water quality. The backwash water quality will be assessed to identify backwash water treatment requirements.*

*2. Assessment of backwash water treatment alternatives. Based on the quantity and quality characterizations completed in element (1), above, a comprehensive list of treatment alternatives will be developed and evaluated based on criteria such as: capital cost, operations and maintenance costs, site constraints, regulatory/permitting requirements, and recovery efficiency.*

*3. Selection of preferred alternative. A preferred alternative that provides the greatest benefit across the evaluation criteria developed in element (2), above, will be selected for implementation.*

4. *Development of preliminary design concepts and final designs. The selected alternative identified in element (3), above, will be advanced to a preliminary design level to confirm design criteria and refine project cost estimates. Final design drawings and specifications will be developed based on the preliminary design concepts.*

*This approach provides a step-wise process for evaluating the volume of water currently used in backwash to determine if improved backwash efficiency is possible to reduce water usage, identify options for treating backwash water and using it in the drinking water system, identifying the most feasible alternative for the City to consider and moving forward with steps to implement the selected alternative.*

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.

*No "external" entities have been identified as supporting the project Veneta is pursuing to address the backwash problem, and therefore the City has not provided any such letters of support.*

*The City of Veneta is a small community of approximately 4,700 people, located in the southwest corner of the Willamette Valley in Lane County, Oregon. The conservation project that this grant would help fund will directly benefit the entire City throughout the year, and especially during the hot summer months. Naturally, this conservation project has strong interest and support within the City of Veneta. The City's water system is entirely based on groundwater and the City has no water system interties with other communities.*

*The City of Veneta is a member of the Southern Willamette Municipal Water Providers (SWMWP), which is led by the Eugene Water and Electric Board (EWEB). The SWMWP applied for and received an Oregon Water Supply and Conservation Initiative grant to conduct an evaluation of opportunities and obstacles for obtaining water from federal storage projects in the Willamette Basin for municipal and industrial use. This demonstrates that the City of Veneta is actively pursuing all available opportunities to increase its water supply and water efficiency.*

## 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 has included Attachment 1 to this grant application, which shows production and consumption data, as well as backwash data for years 2007 and 2008. The City of Veneta obtains its water entirely from four wells, identified as wells 4, 9, 10, and 11. Please see Attachment 1 for data on production and use of water from these wells by the City. The City's wells cannot produce enough water to meet peak demand at certain times of the year. The City's ability to meet peak demand would be even further reduced in the event of a fire or pump failure. Approximately 25,000 gallons per day are lost during the backwash process to remove excess iron from filters in the water system. The City of Veneta is committed to pursuing water conservation wherever possible. The goal of the proposed engineering study is to identify the most effective and efficient method to remove the excess iron and conserve the backwash water by placing it directly back into the municipal water treatment system for use in the community. In so doing, the City will be able to reduce the total amount of groundwater it must pump by approximately 25,000 gallons per day, thus conserving both the backwash water and the groundwater supply in general. Pumping less water from the City's four wells will also reduce the cost associated with such pumping.*

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 proposed engineering study, and the resulting identification of methods to effectively and efficiently remove excess iron from the backwash water and conserve that water, will allow the City of Veneta to reduce the amount of groundwater that must be appropriated each day by approximately 25,000 gallons. The City's wells cannot produce enough water to meet peak demand at certain times of the year. The City's ability to meet peak demand would be even further reduced in the event of a fire or pump failure. This conservation project will help to extend the amount of time that the City can rely on the four existing wells without drilling new wells. The proposed study will also help the City to use its existing water supply in the most efficient manner through conservation of the backwash water. Each day, the City has to stop producing water from the wells into the water treatment plant during the backwash process. The proposed engineering study may identify options to allow the wells to remain in production on a more regular basis and still remove the excess iron. The proposed engineering study will identify options to directly enhance the efficiency and conservation of the City's water supply.*

*The recovery of backwash water in water treatment systems is becoming more common throughout the drinking water industry as the demand on limited water resources continues to increase. The potential alternatives for treating the backwash water to remove iron and other contaminants before returning to the potable water supply system are proven technologies used in drinking water treatment throughout the world. These alternatives include the use of membrane treatment to produce high quality drinking water from the original backwash water and produce a much smaller volume of backwash water that is not usable, or the use of microfiltration cartridges to recover 100 percent of the backwash water. The second system is commonly used in small drinking water systems (less than 50 gpm) and has been recently been successfully implemented at the United States Fish & Wildlife's Quilcene National Fish Hatchery in Washington State to treat groundwater under the influence of surface water with similar water quality characteristics to the City's backwash water.*

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 proposed engineering study will identify options to effectively and efficiently remove excess iron from the backwash water and thereby conserve approximately 25,000 gallons per day of water. The 25,000 gallon number is an estimated average, since the frequency and degree of backwash varies depending on the amount of iron in the water that has been pumped, the amount of water being pumped, and other factors. The amount of backwash can vary between 16,000 to 42,000 gallons per day depending on the time of year. This equates to approximately 750,000 gallons per month that could be conserved (25,000 gallons per day x 30 = 750,000), on average. The City's four wells can produce a maximum of approximately 43,848,000 gallons per month. Thus, the conserved water could be up to 1.7% of the City's maximum well production capacity each month. On average, the backwash water is equal to 4.8% of total water use in any given month throughout the year. This project presents a significant opportunity to conserve 4.8% of the City's average monthly water use throughout the year. The City is strongly committed to pursuing conservation and views this project as a significant conservation opportunity.*

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 City of Veneta, its wells, and water treatment plants are located in the southwest corner of the Willamette Valley in Lane County, Oregon, within the Willamette Basin. The City's four wells and two water treatment plants are located as follows:*

*Well 4: T17S, R5W, S31*

*Well 9: T17S, R5W, S31*

*Well 10: T17S, R5W, S30*

*Well 11: T17S, R5W, S30*

*Broadway Water Treatment Plant: T17S, R5W, S31*

*Jeans Road Water Treatment Plant: T17S, R5W, S30*

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

*The City of Veneta obtains its entire water supply from its four wells. Thus, the City's source water is not associated with river miles or tributaries.*

- 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 obtains its water from groundwater. The City has not identified "environmental flow needs" for the groundwater resource. From a water quality perspective, the groundwater developed from the City's four wells contains excess iron. The purpose of the engineering study is to resolve the backwash problem associated with the excess levels of iron and other particles in the groundwater. The City has not identified any other surface water sources, environmental flow needs, or water quality requirements. To the extent that any backwash overflow may eventually migrate to surface water sources, any reduction in overflows of backwash water would help improve water quality in downstream drainages and water bodies by lowering the amount of iron and other particles.*

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

*The City is not aware of any downstream water right holders that rely on overflow of backwash water from the City's water treatment plants.*

## 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"> <li>The value of in-kind labor, equipment rental and materials essential to the planning study provided by the applicant or partner*.</li> </ul> | <ul style="list-style-type: none"> <li>Secured funding commitments from other sources.</li> </ul>   |
| <ul style="list-style-type: none"> <li>Cash is direct expenditures made in support of the planning study by the applicant.</li> </ul>   | <ul style="list-style-type: none"> <li>Associated and documented expenditures for the planning study from non-program sources incurred on or after July 1, 2005.</li> </ul>   |
|   | <ul style="list-style-type: none"> <li>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.</li> </ul> |

\*"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<br>(if in-kind, briefly describe the nature of the contribution)   | Type<br>(✓ One)  | Status<br>(✓ One)  | Amount/ Dollar<br>Value | Date Match Funds Available<br>(Month/Year) |
|---|--|--|-------------------------|--|
| <i>Funds included in the City of Veneta's Budget to Address the Backwash Problem, and that are available as match funds for this grant.</i> | <input checked="" type="checkbox"/> cash<br><input type="checkbox"/> in kind | <input checked="" type="checkbox"/> secured<br><input type="checkbox"/> expended<br><input type="checkbox"/> pending | \$13,000                | January 09                                 |
|   | <input type="checkbox"/> cash<br><input type="checkbox"/> in kind            | <input type="checkbox"/> secured<br><input type="checkbox"/> expended<br><input type="checkbox"/> pending            |                         |  |
|   | <input type="checkbox"/> cash<br><input type="checkbox"/> in kind            | <input type="checkbox"/> secured<br><input type="checkbox"/> expended<br><input type="checkbox"/> pending            |                         |  |
|   | <input type="checkbox"/> cash<br><input type="checkbox"/> in kind            | <input type="checkbox"/> secured<br><input type="checkbox"/> expended<br><input type="checkbox"/> pending            |                         |  |
|   | <input type="checkbox"/> cash<br><input type="checkbox"/> in kind            | <input type="checkbox"/> secured<br><input type="checkbox"/> expended<br><input type="checkbox"/> pending            |                         |  |
|   | <input type="checkbox"/> cash<br><input type="checkbox"/> in kind            | <input type="checkbox"/> secured<br><input type="checkbox"/> expended<br><input type="checkbox"/> pending            |                         |  |
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|   | <input type="checkbox"/> cash<br><input type="checkbox"/> in kind            | <input type="checkbox"/> secured<br><input type="checkbox"/> expended<br><input type="checkbox"/> pending            |                         |  |
|   | <input type="checkbox"/> cash<br><input type="checkbox"/> in kind            | <input type="checkbox"/> secured<br><input type="checkbox"/> expended<br><input type="checkbox"/> pending            |                         |  |
|   | <input type="checkbox"/> cash<br><input type="checkbox"/> in kind            | <input type="checkbox"/> secured<br><input type="checkbox"/> expended<br><input type="checkbox"/> pending            |                         |  |

## VI. Project Planning Study Schedule

Estimated Project Duration: January 1, 2009 to April 30, 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<br>&<br>Beyond |
|---|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|---------------------|
|   | 1 <sup>st</sup><br>Qtr | 2 <sup>nd</sup><br>Qtr | 3 <sup>rd</sup><br>Qtr | 4 <sup>th</sup><br>Qtr | 1 <sup>st</sup><br>Qtr | 2 <sup>nd</sup><br>Qtr | 3 <sup>rd</sup><br>Qtr | 4 <sup>th</sup><br>Qtr |                     |
| <i>Characterization of backwash water quality and quantity</i>      | X                      |                        |                        |                        |                        |                        |                        |                        |                     |
| <i>Assessment of backwash water treatment alternatives</i>          | X                      |                        |                        |                        |                        |                        |                        | X                      |                     |
| <i>Selection of preferred alternative</i>                           | X                      |                        |                        |                        |                        |                        |                        |                        |                     |
| <i>Development of preliminary design concepts and final designs</i> | X                      | X                      |                        |                        |                        |                        |                        |                        |                     |
|   |                        |                        |                        |                        |                        |                        |                        |                        |                     |
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*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.

|  | <b>Example<br/>Capital Conservation Project</b>                               | <b>Example<br/>Programmatic Conservation Project</b>                                     |
|--|---|--|
| <b>Project Description</b><br>Provide brief sentence   | Line 3 miles of unlined ditch.  | Toilet rebate program for residential customers  |
| <b>Estimated Future Savings</b><br>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 |
| <b>Seasonality</b><br>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.  |
| <b>Estimated Future Costs</b><br>Provide brief sentence.   | \$500,000 total project costs.  | \$40,000 a year.   |
| <b>Implementation Schedule</b><br>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.                         |
| <b>Project Funded?</b><br>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.

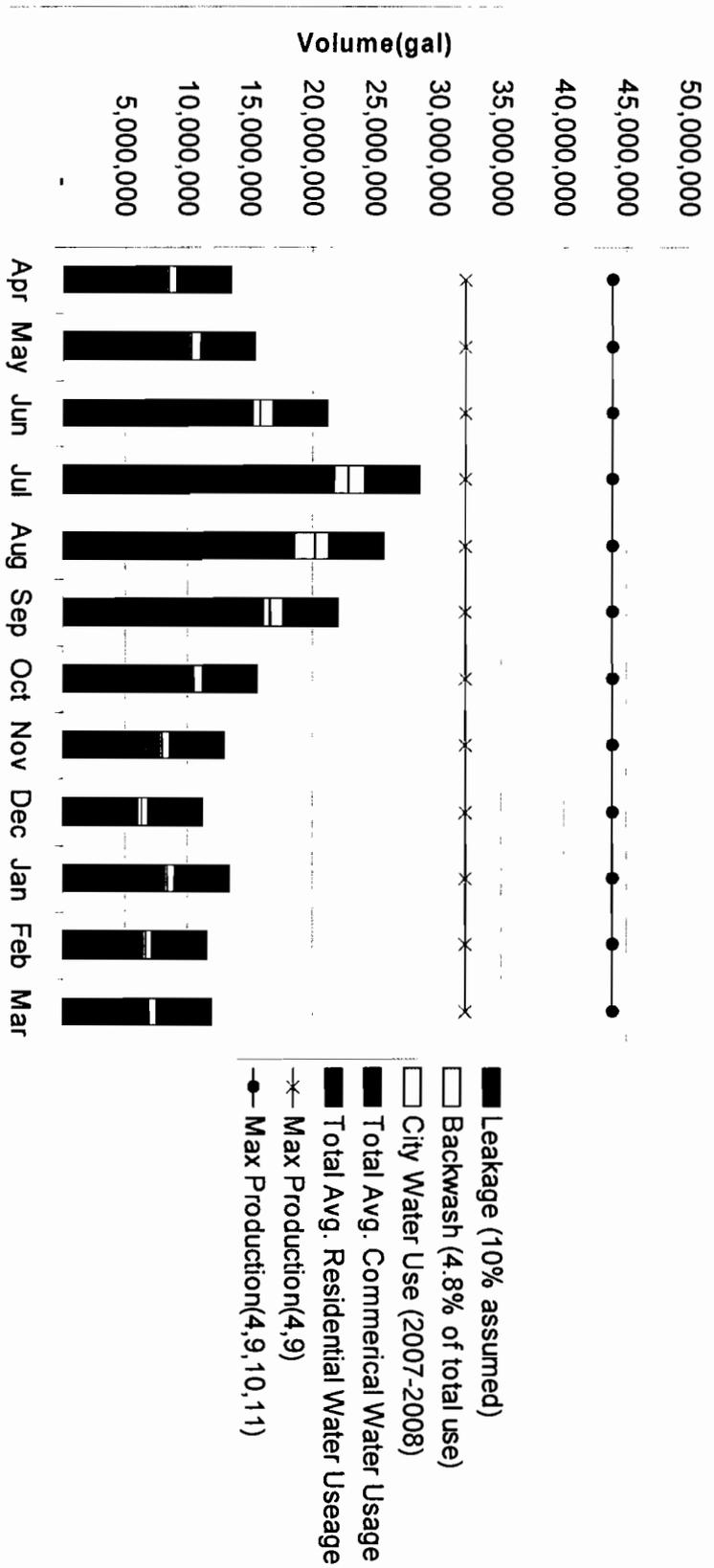
|   |   |
|---|---|
| This is a <input checked="" type="checkbox"/> Capital Conservation Project <input type="checkbox"/> Programmatic Conservation Project |   |
| <b>Project #/Name</b>   | <b>City of Veneta Water Conservation Project Addressing the Backwash Problem</b>  |
| <b>Project Description</b>  | The City of Veneta has requested a \$13,000.00 Water Conservation Grant to fund an engineering study to evaluate the feasibility of conserving water lost in the process of cleaning water system filters. Veneta's water is supplied entirely from groundwater. During the process of pumping groundwater, filters help to remove excess iron from the water. It is necessary to scrub the filters daily by reversing the water flow through the filters and then disposing of that water and the accumulated unwanted material. This is called the "backwash" process. Veneta must make the most efficient use of its limited water supply. The engineering study will identify and assess a range of options for conservation and use of the "backwash" water and safely disposing of the accumulated iron and other particles. This project will also help Veneta to successfully advocate for increased conservation throughout the community. |
| <b>Estimated Future Savings</b>   | ~ \$7,000 / YR.   |
| <b>Seasonality</b>  | Annual  |
| <b>Estimated Future Costs</b>   | ~ \$30,000 Capital Cost, less than \$2,500/yr O&M   |
| <b>Implementation Schedule</b>  | Summer and Fall 2009  |
| <b>What are the barriers to implementation, e.g. funding?</b>   | Funding, Permitting   |
| This is a <input type="checkbox"/> Capital Conservation Project <input type="checkbox"/> Programmatic Conservation Project            |   |
| <b>Project #/Name</b>   |   |
| <b>Project Description</b>  |   |
| <b>Estimated Future Savings</b>   |   |
| <b>Seasonality</b>  |   |
| <b>Estimated Future Costs</b>   |   |
| <b>Implementation Schedule</b>  |   |
| <b>What are the barriers to implementation, e.g. funding?</b>   |   |

**- Include this form with your application -**

**ATTACHMENT 1 – PRODUCTION vs. CONSUPTION 2007 and 2008**

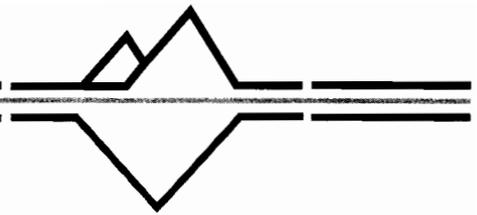
**CITY OF VENETA'S SB 1069 GRANT APPLICATION**

# Production vs. Consumption 2007-2008



|                                    | Apr        | May        | Jun        | Jul        | Aug        | Sep        | Oct        | Nov        | Dec        | Jan        | Feb        | Mar        |
|------------------------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Total Avg. Residential Water Usage | 7,673,273  | 8,150,090  | 14,514,304 | 20,638,378 | 17,319,507 | 14,890,565 | 9,339,233  | 7,160,801  | 5,421,458  | 7,459,846  | 5,969,336  | 6,377,778  |
| Total Avg. Commercial Water Usage  | 601,999    | 971,212    | 647,792    | 1,083,788  | 1,176,330  | 1,259,331  | 1,052,305  | 597,228    | 612,493    | 689,735    | 489,422    | 556,205    |
| City Water Use (2007-2008)         | 137,000    | 125,000    | 631,000    | 1,137,000  | 1,647,000  | 494,000    | 72,300     | 220,000    | 283,000    | 204,000    | 142,000    | 217,000    |
| Leakage (10% assumed)              | 4,384,800  | 4,384,800  | 4,384,800  | 4,384,800  | 4,384,800  | 4,384,800  | 4,384,800  | 4,384,800  | 4,384,800  | 4,384,800  | 4,384,800  | 4,384,800  |
| Backwash (4.8% of total use)       | 614,259    | 702,293    | 988,539    | 1,307,758  | 1,177,327  | 1,008,897  | 712,735    | 593,416    | 513,694    | 610,482    | 527,307    | 553,718    |
| Avg Daily backwash                 | 20,475     | 22,655     | 32,285     | 42,186     | 37,878     | 33,630     | 22,991     | 19,781     | 16,570     | 19,693     | 18,183     | 17,862     |
| Backwash as % of max production    | 1.4%       | 1.6%       | 2.2%       | 3.0%       | 2.7%       | 2.3%       | 1.6%       | 1.4%       | 1.2%       | 1.4%       | 1.2%       | 1.3%       |
| TOTAL USE                          | 13,411,331 | 15,333,395 | 21,146,435 | 28,552,724 | 25,704,964 | 22,027,594 | 15,561,372 | 12,956,245 | 11,215,435 | 13,328,864 | 11,512,885 | 12,089,500 |
| Max Production(4,9)                | 32,184,000 | 32,184,000 | 32,184,000 | 32,184,000 | 32,184,000 | 32,184,000 | 32,184,000 | 32,184,000 | 32,184,000 | 32,184,000 | 32,184,000 | 32,184,000 |
| Max Production(4,9,10,11)          | 43,848,000 | 43,848,000 | 43,848,000 | 43,848,000 | 43,848,000 | 43,848,000 | 43,848,000 | 43,848,000 | 43,848,000 | 43,848,000 | 43,848,000 | 43,848,000 |
| Difference (bill wells online)     | 30,436,669 | 28,514,605 | 22,701,565 | 15,295,276 | 18,143,096 | 21,820,406 | 28,296,628 | 30,991,755 | 32,632,565 | 30,519,138 | 32,335,135 | 31,758,500 |

**ATTACHMENT 2 – FISCAL LETTER OF SUPPORT  
CITY OF VENETA'S SB 1069 GRANT APPLICATION**



August 21, 2008

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

RE: Letter of Support for the City of Veneta Water Conservation Project Addressing a Backwash Problem

Dear Mr. Rice,

The City of Veneta has included in its Operating Budget for the 2008-2009 fiscal year adopted appropriations for addressing a backwash problem within the City's water system. These appropriations are secured and available to be used for the City's required matching funds of \$13,000.00 for the grant application referenced above.

I would be happy to provide additional information in this regard should you find it necessary.

Respectfully,

A handwritten signature in black ink, appearing to read "Jerri Moore". The signature is written in a cursive, flowing style.

Jerri Moore  
Finance Director  
City of Veneta