

RESOLUTION NO. 2817

A RESOLUTION DIRECTING STAFF TO PROCEED WITH MEMBRANE FILTRATION TREATMENT FOR THE CITY'S SURFACE WATER REINVESTMENT PROJECT

Findings:

- A. The City of Bend uses both surface water and ground water to provide domestic water to customers in the City. The City has begun the planning process for replacing the aging surface water supply lines that will continue to transport water from a diversion point to a new water treatment plant at the City's Outback site.
- B. The City is required to treat its surface water system for Cryptosporidium by October 2012, in order to comply with federal regulatory requirements under the Safe Drinking Water Act, 42 U.S.C. Sections 300f to 300j-26 (SDWA), and the Environmental Protection Agency's rules implementing the SDWA, known as the LT2 rule. Preliminary discussions with DHS indicate a two year extension would be obtainable, but even with an extended deadline, it remains critical that the City proceed with the project at this time to meet design and construction timelines for the pipeline construction and treatment facility.
- C. The City is aware of the significant health risk associated with the presence of Cryptosporidium in potable water supplies and the ability of membrane filtration to minimize that risk.
- D. The City also faces significant risk of fire in its watershed, with the resulting risk of serious wildfire degradation of water quality should a fire event occur.
- E. Bend is one of the few surface water sources exempt from DHS/EPA filtration requirements; however, this exemption is not guaranteed and new water quality standards and/or problems with the system could result in the loss of this exemption, which would independently require filtration treatment.
- F. The City has extensively considered various treatment options with the goal of providing the most effective protection at the least cost to its utility customers, including seeking a variance from the LT2 rule, ozone treatment, conventional filtration, UV disinfection and membrane filtration.
- G. The City has been reviewing the options for two years, including an Alternatives Study completed in November 2009, Council work sessions and meetings, public and stake holder meetings. The City has hired two qualified consultants under two separate and independent contracts, Brown and Caldwell and HDR Engineering, Inc, to provide expert analysis, data and information in assessing its options. This information was also peer reviewed internally by those firms and shared with their sub consultants comprised of four additional engineering firms who also were experts in the field of water systems and water resource planning.

- H. The City Council formed an "Infrastructure Advisory Committee" of well-qualified local citizens in October of 2010, who reviewed and analyzed the options and data, and made a recommendation to Council on November 8, 2010. The Council has thoroughly reviewed and considered that recommendation, which is consistent with this Resolution.
- I. The Council finds the following key benefits associated with membrane filtration:
- Provides a more reliable surface water supply that reduces water quality health risks, accommodates long-term regulatory compliance needs and supports economic development;
 - Reduces time when surface water system needs to be shut down due to turbidity;
 - Ensures that surface water source can be used after a fire in the watershed; and
 - Provides opportunity to use the City portion of the \$10 million Collaborative Forest Landscape Restoration Grant, which will implement a more robust forest management program to reduce fire risk in the watershed.
- J. The approximately \$5 million estimated cost difference between membrane filtration and UV disinfection treatment is not great enough to justify foregoing the significant benefit of enhancing the system's ability to handle a fire event, particularly given the higher cost of the need to retrofit the membrane filtration system and replace the UV treatment in the event of a fire.
- K. It is more cost effective for the structural elements needed for post and pre treatment to be built with the initial construction, omitting the installation of the mechanical systems associated with pre and post treatments. However, Council finds that the mechanical systems associated with pre and post treatment could be included in the initial construction if project cost savings are realized, to be determined at a later date.

Based on these findings, the Bend City Council resolves as follows:

- Section 1. City staff shall proceed with the planning and design for a membrane filtration system as part of a new water treatment plant at the Outback Water Distribution site.
- Section 2. The structural elements that are needed for post and pre treatment shall be built with the initial construction, omitting the installation of the mechanical systems associated with pre and post treatments. However, the mechanical systems associated with pre and post treatment should be considered for inclusion in the initial construction if project costs savings are realized. If the mechanical systems associated with pre and post treatment are not installed during the initial construction, the City shall

maintain adequate reserves in the Water Fund to allow the prompt purchase of the mechanical systems in the event of an emergency, and establish a reasonable timeline for the installation of the mechanical systems in the Water Capital Improvement Program, rather than waiting for a fire to occur.

Section 3. This resolution commits the City to proceeding with membrane filtration treatment system, but does not commit the City to include hydropower as part of the project. Decisions on the hydropower option, and how to fund that option if it is pursued, will be made at a later date when more information is brought back to the City Council.

Section 4. This resolution shall take effect immediately upon passage.

Approved by roll call vote on ^{1st} 17th day of ^{December} ~~November~~, 2010.

YES: 5 NO: 2

Authenticated by the Mayor on ^{1st} 17th day of ^{December} ~~November~~, 2010



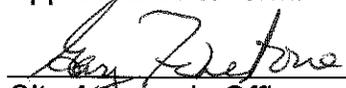
Kathie Eckman, Mayor

ATTEST:



Patricia Stell, City of Bend Recorder

Approved as to form:



City Attorney's Office