

**RESOLUTION NO. 2900  
(Superseding Resolution 2867)**

**A RESOLUTION SETTING FORTH A MODIFIED PLAN TO RETAIN BEND'S DUAL  
WATER SOURCE AT REDUCED COST TO RATEPAYERS, DIRECTING A LIMITED  
RE-EVALUATION OF CERTAIN ASPECTS OF THE SURFACE WATER  
IMPROVEMENT PROJECT, AND INSTITUTING A PROGRAM TO INCREASE  
FLOWS IN TUMALO CREEK**

Findings:

- A. Certain assumptions and values have formed the basis of the City Council's decision related to the Surface Water Project, and the Council finds that it is beneficial to document those values so that citizens fully understand the reason for its judgment and the decisions Council has made. These have been stated in numerous prior council meetings and resolutions but are worth restating (*see* Resolutions 2814, 2817, 2846 and 2853).
- B. The City Council is fully aware that the project has generated controversy. This can be normal for large and costly infrastructure projects, but Council desires to be responsive to the community's concerns related to the timing, economics and environmental impacts of the project.
- C. The City Council is especially aware of the rate impacts of large infrastructure projects at a time when the Bend economy continues to struggle.
- D. The Bridge Creek source has been studied and evaluated many times, including in the 1980 Water System Master Plan, the Bridge Creek Pipelines Evaluation (2009), the Brown and Caldwell Water Supply Alternatives Study (2009), the HDR Surface Water/ Ground Water Cost Comparison (2010), the Value Engineering Study (March 2011), the Optimization Study (2011), and the HDR Technical Report Timing of Hydro Project (August 2011). The City Council has held numerous public work sessions and other public meetings related to the proposed project. In addition, the City's Infrastructure Advisory Committee held a more recent public forum, receiving input from the public and City consultants, and indicated its firm support of the project. The IAC is made up of members of the public that have expertise in engineering, water utilities, geology, environmental law, as well as representatives of the public and business interests. Over-studying a project may not serve the community well in terms of time, expense and resources. Still, Council values the importance of a thorough risk/benefit assessment, and desires to ensure that its approach to the problem remains the most viable in light of current economic and regulatory conditions.
- E. The City Council also must be cognizant that it is currently under a regulatory obligation to meet the requirements of the Safe Drinking Water Act, and the requirements of the Long Term 2 Enhanced Surface Treatment Rule ("LT2 rule"),

that it has received a two year extension through October of 2014, and that the extension is dependent on meeting a tight project schedule that will be put in jeopardy by much more delay in the project. Nonetheless, the Council believes that pausing design and delaying construction of the treatment aspect of the project is in the best interest of the community for the reasons set forth in this Resolution.

- F. This Resolution is intended to again articulate the City Council's values and assumptions related to the Surface Water Project, and to describe a new approach with the goals of reducing cost, improving stream flows in Tumalo Creek and the Deschutes River, and continuing to provide exceedingly high-quality drinking water for the City's residents..

Values and Assumptions:

- G. The City of Bend is extremely fortunate and prior councils were farsighted and perceptive in securing and protecting two sources (a dual source) of water, especially a high quality and pristine source such as the Bridge Creek surface water supply. Bend has used water from Bridge Creek for approximately 85 years. It gets half of its water, annually, from Bridge Creek, which flows from the flank of Broken Top through a protected watershed, owned by the USDA Forest Service ("Forest Service"). It would be irresponsible of this Council to forsake half of the City's water supply.
- H. A dual source is an especially valuable asset in the modern era—other communities are paying a high price to find a second or multiple source of water due to climate change/drought risks, water quality concerns, regulatory requirements, and water rights uncertainty. Specifically in Oregon, the City has received letters from the Tualatin Valley Water District, the Oak Lodge Water District, and the Eugene Water and Electric Board, all confirming that a second source of water supply brings invaluable flexibility and reliability into the future, and that as water utilities, they have relentlessly been pursuing strategies to develop a second source of water. Those letters are attached to this Resolution.
- I. The City has received the attached letter of support from EDCO for a similar reason—the recognition that a high quality surface water source is the envy of communities that do not have it, that it is in the best interest of Bend residents and businesses to keep the surface water source, longtime water rights, and the transmission system to deliver surface water to Bend residents and businesses. EDCO mirrored the Council's view that dual system provides valuable reliability for future needs, that a gravity system is cost effective long term, and that without such a system, the City's infrastructure could be hampered, limiting job growth and economic development.
- J. Gravity flow provides a reliable, energy efficient, lower operation and maintenance cost water supply with low carbon footprint into the future.

Groundwater, while also a valuable water source and beneficial to the City, requires pumping from 400-700 feet below surface, which is an energy intensive activity and highly likely to be more expensive in the long run (however, electricity costs fluctuate over the years).

- K. A dual source provides operational flexibility and gives high confidence in water availability as demand changes with season and population growth into the future.
- L. A dual source provides environmental flexibility so that if quantity, quality or regulatory problems with one source occur, the other can still be used. Equally important, in the event that something happens to one source, the second source gives the City potential for lower cost solutions to enable the City to maintain two sources. A recent study by DEQ found that out of 253 wells for drinking water systems within the Deschutes Watershed, 101 of them have had contamination events. The EPA has indicated it is "likely" to further regulate groundwater in a manner that could require costly filtration of that source. A dual source also maximizes potential for renewable energy.
- M. The surface water source is secured by water rights, including senior and certificated rights, the value of which cannot be underestimated or lightly put at risk. This is especially true in light of the complexities of Oregon water law, further complicated by the intricacies of the Deschutes Groundwater Mitigation Program and its requirements to provide for offsets to impacts to the Lower Deschutes Scenic Waterway flows caused any newly permitted groundwater withdrawals within the upper basin's defined study area. The Deschutes Groundwater Mitigation Program is itself a temporary and, in some circles, controversial program, without which newly permitted groundwater withdrawals in the upper basin would be impossible. In the event the Mitigation Program's detractors are successful in further limiting it or preventing its reauthorization in the future, a sole reliance upon groundwater would significantly hamper the City's ability to meet water demand.
- N. As stewards of Bend's infrastructure and long term water system and community and economic growth, the time frame the City Council has determined is appropriate to consider in making long term water infrastructure decisions is at least 50 years in Bend's future. The City Council recognizes that the existing water infrastructure related to the surface water source is over 80 years old and that any replacement of this infrastructure will utilize materials and design that will last in excess of 100 years.
- O. There are three primary threats to the continued use of Bridge Creek:
  - a. The EPA LT2 was implemented by the federal government to address real problems with surface water in some parts of the country. The deadline is currently October 1, 2014;

- b. The risk of wildfire in the watershed which would potentially increase long term turbidity and sedimentation issues to the water source; and
  - c. Deteriorating pipe infrastructure, including a pipe that was constructed in 1926, the tar lining of which is currently fragmenting and traveling down the pipe (see photo exhibits showing lining in bottom of tank). 1926 and 1950s pipes, both of which are subject to tree and root encroachment further increasing risk failure.
- P. Environmentally, the project will not alter the upper diversion at the source springs which has operated continuously since the 1950's, and therefore will cause no change to the existing flow regime established to minimize turbidity into Bridge Creek by keeping diverted flows constant. The proposed project will have an environmental benefit in that the City's existing system has lacked flow control so that the City has diverted water at a constant rate of 18.2 cfs, even when actual city use is lower. The new system will have flow controls so that only water needed will be diverted, eliminating downstream return flows and related turbidity events and now passing unused flow beginning at the intake location through 9.5 miles of stream.
- Q. The City Council has considered changing the point of diversion to farther downstream on Tumalo Creek, as a cost saving measure in that it would result in a shorter pipe which would create a new intake upstream of Shevlin Park. However, as in the past, the City rejected this idea due to water quality concerns (possibility of water pollution due to upstream development, vehicle traffic and human activity, increased fire probability, turbidity issues further downstream, etc.), legal risks to water rights in changing the point of diversion, environmental concerns in moving the diversion through the rocky/steep canyons further down the river, and uncertainties as to constructing a new diversion on/across Forest Service lands.
- R. The City received the attached letter of support from Central Oregon Irrigation District in which they state, "... perfected and certificated water rights in the Deschutes Basin are not held by many entities, and are rarely if ever voluntarily relinquished. COID would only consider relinquishment of its water rights if there was a 100% guarantee of replacement of that supply...and Bend has only the promise of future supply..."
- S. The City has received the attached letter of support from Tumalo Irrigation District and through ongoing discussions throughout the project development with Tumalo Irrigation District, and as evidenced by its State approved 2005 update to its Water Management and Conservation Plan (WMCP), that it has identified estimated annual water losses of over 31,000 acre feet, much of it within its delivery system, which it intends to reduce by completing conservation projects.

- T. It is the City's understanding that Tumalo Irrigation District has completed the following projects to date:
- a. Completed the Bend Feed Canal that returned 5.82 cfs of senior water, and 11.3 cfs of junior water (State project CW-9);
  - b. Completed two phases of the Tumalo Feed Project (State project CW-37), which when fully completed is estimated to return an additional 20 cfs of water for instream purposes (depending on funding). Phase 3 is underway this winter, expected to be completed by start of irrigation season; and
  - c. Completed annual instream leases over the past ten years averaging approximately 5.4 cfs of senior water placed instream (Source DRC).

The district expects to continue this trend of conserving water and increasing the instream flows within Tumalo Creek.

- U. The City Council also finds it fortunate to have an existing 1926 agreement with the Forest Service which created the Bend Municipal watershed and laid the basis for subsequent special use permits and memorandums of agreement that continues the protection and management of the watershed today with a recognized priority for the production of municipal drinking water.
- V. At the request of this City Council, Bend sought successful inclusion and assisted in creation of the Deschutes Skyline Collaborative Forest Landscape Restoration Project with the potential for up to \$10 Million dollars of additional funding for this collaborative with the Deschutes National Forest through the Collaborative Forest Landscape Restoration Act of 2009, and that the Bend Municipal Watershed is included in the study area with the goal of finding additional cost effective methods of reducing the risk of fire that work in conjunction with the surface water project and continuing to assist agencies and organizations who continue to work towards improving water quality (temperature), enhancing riparian and aquatic habitat, and improving stream bank stability in Tumalo and Whychus Creeks.

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

Section 1. The Council is committed to continuing with the pipeline and intake facility design/construction on schedule, and obtaining the Special Use Permit from the Forest Service (including the National Environmental Policy Act (NEPA) process), to coincide with the Federal Highway Administration and Deschutes County rebuild of the existing Skyliners Road occurring in 2013. Council reaffirms its commitment to retaining the current diversion point because it minimizes potential contamination, and legal risk of environmental compliance costs and risk to water rights, as further set forth in the above Findings.

Section 2. Council is equally committed to retaining the Bridge Creek source at the lowest possible cost. The City is currently seeking to delay compliance with the

treatment requirement of the LT2 rule, thereby significantly reducing water rate increases. To this end, the City has initiated aggressive efforts on behalf of its constituents, by working with:

- The Oregon Health Department to seek an Alternative Compliance Schedule for treatment under a negotiated administrative order; and
- The EPA and Congressional delegation to seek flexibility in the LT2 treatment rule, including delaying treatment improvements as the EPA reviews the LT2 rule, and rebalancing the costs and benefits of rule compliance as applied to Bend and other similarly situated cities with high quality water sources.

Because of the risk of fire, City staff is directed to work with the Forest Service to mitigate the fire risk to the greatest extent possible, as the City works through the issues related to the staging of the surface water treatment improvements.

Section 3. By Resolution No. 2817, the City Council directed staff to proceed with design and construction of the Membrane Filtration Treatment for the City's Surface Water Reinvestment Project. The engineering design of the treatment facility is currently at about 75%. City staff has recently worked with its design consultant, HDR, to reduce monthly expenditures by slowing down the pace of design, so that the tasks that were scheduled for completion by March, are now scheduled for completion by June, at no corresponding increase in cost.

The City Council continues to find that it is in the best interest of the City to continue to 90% design for the Membrane Treatment Facility in order to avoid significant work stop/start charges. However, prior to proceeding to 100% design, the City desires to "pause" to take the actions set forth in Section 6 below. Council believes that 100% design is likely desirable to show good faith progress with its obligations under the LT2 rule, to have a ready design in the event of a wildfire in the watershed, and to receive the full benefit of the City's investment to date, but it believes further community input on this decision would be valuable.

Council directs staff to delay construction of the Membrane Treatment Facility as it works through the issues identified in Section 2 above. A delay in construction costs is expected to reduce the immediate need for significant rate increases. A recognized risk is that it could increase project construction costs in the future, compared to the costs projected currently.

Section 4. The City Council directs staff to generate information on additional treatment options to comply with the LT2 rule, for Council's review and assessment. Consistent with Section 6 below, the City will conduct a series of meetings with a report and recommendation on treatment options due to Council by the summer of 2013. Council will appoint a task force consisting of citizens and Council members to work with an independent third party water treatment specialist as outlined in Section 6.

Section 5. By Resolution No. 2846, the City Council directed staff to proceed with the construction of the hydroelectric facility as part of the Surface Water Improvement Project. The Hydro portion of the project was to operate on water used by Bend for beneficial use, based on current demand and its water rights—in other words, no additional water would be diverted for hydroelectricity other than what is needed to serve utility customers.

The design of the Hydro project and permitting has been stopped pending further direction from Council. The City Council desires to re-evaluate Hydro at this time, and delay the cost of design, turbine procurement, construction and permitting, in order to reduce the up-front cost of the surface water project.

The City Council understands that the trade-off in doing so is that a hydroelectric facility produces a valuable revenue stream which would provide ratepayer relief as well as the potential for investment in stream flow improvement efforts, offsetting operational and construction costs in relatively few years, and produces clean, green energy. However, without vocal community support, the City Council is willing to defer construction to a future date, or further explore private investment.

Section 6. As part of its commitment to being responsive to community questions about the project, the City Council is willing to take an additional third party, independent look at the treatment methods, timing and hydro aspects of the project, with a neutral and knowledgeable third party facilitating the discussion. The City Council does not intend to review the underlying values and assumptions for the Council decisions to retain the dual source and to replace the transmission line.

Section 7. In taking the steps described in Sections 1 through 4, it is Council's intent to reduce project costs so that rate increases in fiscal year 2012-2013 will be reduced from 15% to no more than 5%, with corresponding reduction in rates in the years thereafter. The estimated rate increase for a fiscally constrained surface water project would equate to an additional monthly charge ranging from \$.85-\$1.70 each year for the average Bend household.


Section 8. The Council directs the formation of a Tumalo Creek restoration subgroup, at first comprised of at least one council member, supported by city staff, to create a collaborative dialogue with the Tumalo Irrigation District board and staff, to establish a mutually agreeable flow restoration target; identify a mutual list of priority projects; determine related funding requirements and potential partners; and seek other mutually beneficial projects, processes or agreements that may be necessary to meet restoration and long term water supply goals of each entity.

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Adopted by roll call vote on February 20, 2013.

YES: Councilor Jodie Barram  
Councilor Scott Ramsay  
Councilor Mark Capell  
Councilor Victor Chudowsky


NO: Mayor Jim Clinton,  
Councilor Doug Knight  
Councilor Sally Russell

  
\_\_\_\_\_  
Jim Clinton, Mayor

ATTEST:

  
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Robyn Christie, City Recorder

Approved as to form:

  
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Mary A. Winters, City Attorney