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CH2MHILL

December 15, 2005

Dwight French
Oregon Water Resources Department
North Mall Office Building
725 Summer Street NE
Salem, OR 97301-1271

RE: Request for an Exception to the Willamette Basin Program Pursuant to ORS 536.295 City of Monroe Application S-86270

Dear Mr. French:

Southwood Engineering represents the City of Monroe in connection with the above referenced surface water application. CH2M HILL is a sub-consultant to Southwood Engineering.

This letter represents Monroe's request that, pursuant to ORS 536.295, the Water Resources Commission (Commission) allow the Water Resources Department (Department) to consider Monroe's surface water application S-86270 notwithstanding the Willamette Basin Program classification for the Long Tom River, a tributary of the Willamette River. The City of Monroe requests that the Commission consider this matter at its January 2006 meeting.

The City of Monroe's water supply is inadequate to meet its current and future needs. For the reasons outlined below, Monroe must turn to the natural flow of the Long Tom River as a water supply option. However, despite water being available year-round, under the Willamette Basin Program at OAR 690-502-0090(1) (b), the Long Tom River is not classified for municipal use. Unless an exception is granted by the Commission, Monroe's application S-86270 will likely be denied. For the reasons outlined below, the use proposed in Monroe's application S-86270 is necessary to ensure public health, welfare and safety and is necessary to avoid extreme hardship. We look forward to working with the Commission and Department as they consider this critical water supply option for the City of Monroe.

I. Background

A. Monroe's Current Water Supply Situation

The City of Monroe is a small community located along Highway 99W between Corvallis and Junction City in Benton County. The current population of Monroe is approximately 630. By the year 2025, it is projected that the City will grow to a population of approximately 900. The current peak day demand for water is 275 gallons per minute (gpm). The City's current supply capacity is only 113 gpm. The City's new 1 million gallon storage tank has enabled the City to provide water during peak periods. However, reliance on the

entire storage capacity for daily use can dangerously deplete reserves needed for fire protection and water supply system emergencies. By 2020, it is estimated that the City's peak day demands will reach 350 gpm. Since the development of Monroe's Water System Master Plan in 1999, the City has understood it must make improvements to its water system and augment its current supply. The adopted Water System Master Plan specifically recommended the City develop a water supply of 350 gpm to meet its 20 year demand needs.

B. History of Monroe's Water Supply

From 1924 through 1998 the City relied on two springs located 3 miles southwest of town. However, this water supply was ultimately abandoned due to a number of factors including: decreased production, leaking transmission lines, and public health and source water protection concerns expressed by the Oregon Health Division. Historically, the springs provided about 20 percent of the City's summer water supply.

Between 1967 and 1986 the City's main supply was from an infiltration gallery adjacent to the Long Tom River. To address siltation and turbidity problems, in 1981 a treatment plant was constructed to filter the water being produced from the infiltration gallery. Overtime, the persistent turbidity and siltation clogged the infiltration gallery, reducing yield and ultimately resulting in the City abandoning the infiltration gallery and its water right permit for 202 gpm from the Long Tom River.

Since 1986 the City has turned to ground water as its water supply. In 1986 the City constructed Well #1 which produces approximately 100 gpm and is the City's main water supply. The water from Well #1 is high in iron and manganese and requires treatment prior to delivery. Well #2 constructed in 1998 only produces 13 gpm and has extremely poor water quality. Well # 2 is only used in peak demand situations when Well #1 is insufficient. In 2002, the City constructed an additional well (Well #3) that produces about 100 gpm. However, the water produced from Well #3 contains over 2,000 parts per million (ppm) of total dissolved solids and would require treatment by reverse osmosis prior to delivery. Based on an analysis by CH2M HILL, the capital cost for the reverse osmosis treatment would be \$4,032,000 with an annual operation and maintenance cost of approximately \$650,000. This cost estimate evaluation is provided in **Attachment 1**.

To date, the City has been unable to find a feasible alternative water supply that could come from the transfer of an existing ground water or surface water right.

C. Long Tom River - Opportunities and Impediments

Given the City's critical water supply situation and lack of feasible alternatives, the City has turned to "natural flow" from the Long Tom River, a tributary to the Willamette River.

However, despite water being available year-round, under the Willamette Basin Program the Long Tom River is not classified for municipal use. This restrictive classification, adopted by the Commission in 1992, was meant to further the Commission's policy objectives of having new appropriations on the Long Tom River rely on the release of stored water in Fern Ridge Reservoir (at the head of the Long Tom River) as compared to relying on the river's natural flow.

Ideally, the City could comply with the Commission's objectives and obtain a water right permit to use the abundant unallocated stored water from Fern Ridge Reservoir. Unfortunately, this opportunity is currently not an option for Monroe because:

(1) the water right certificate issued by the Department for Fern Ridge Reservoir does not include municipal water use; therefore, a permit to use stored water for municipal water use cannot be issued by the Department, and

(2) even if the Fern Ridge Reservoir certificate included municipal water use, the Bureau of Reclamation (BOR), which handles the stored water contracts from Fern Ridge Reservoir, would not likely issue a long-term stored water contract because of the uncertainty associated with the Endangered Species Act (ESA) consultation initiated in 1999 between BOR, Army Corp of Engineers, National Marine Fisheries Service, and the U.S. Fish and Wildlife Service to determine how operation of the Willamette Basin reservoirs impact fish species listed under the federal ESA.

On top of these issues, there is much work that needs to be done by the federal agencies and the Department to ensure the cost of stored water for municipal and industrial use is affordable. Under current federal procedures, the cost of stored water for municipal and industrial use can be up to \$1700 an acre-foot. In comparison, irrigation water from the same projects can range from \$9 to \$12 per acre foot.

II. Exception to the Willamette Basin Program

Under ORS 536.295 the Commission may allow the Department to consider an application for a use not classified in the applicable basin program if one of the criterion under ORS 536.295(1) (a) – (g) are met and upon an evaluation of whether the use is consistent with the general policies established in the applicable basin program.

A. The Proposed Use is Necessary to Ensure Public Health, Welfare and Safety

As a municipal water provider, the City of Monroe has an obligation to provide a safe, clean, reliable and adequate water supply to its citizens. As described above, the City's water supply is not adequate to meet its current peak water use periods. Current peak day demand

is 275 gpm; currently supply capacity is 113 gpm. The City's 1 million gallon storage tank (constructed in 2001) enables the City to limp through peak water use periods but falls dangerously below the storage needed in the event of a fire or an emergency interruption of the water supply. As an example of the critical nature of the City's water supply, in the summer of 2005, a temporary leak in the City's storage infrastructure resulted in the curtailment of water delivery from 10:00 pm to 5:00 am for 5 days.

The Oregon Legislature has recognized the need for adequate water supplies under ORS 536.241(1) which finds "the availability of an adequate water supply is essential to the continued health and safety of all Oregonians." The additional water supply proposed in Application S-86270 is critical for meeting Monroe's public health, welfare and safety obligations.

B. The Proposed Use is Necessary to Avoid Extreme Hardship

The term "extreme hardship" is not defined by statute or administrative rule. However, based on a number of previous Commission decisions on extreme hardship under ORS 536.295, an extreme hardship has been defined to include a situation where denial of the use and the need for the applicant to seek an alternative water supply would cause a burden that is not easily overcome. In addition, past Commission decisions on extreme hardship have recognized that the extreme hardship analysis can include the burdens on those that depend on the water as well as the burdens on the applicant. *See* for example Oregon Water Resources Department, Staff Report Agenda Item H, April 14, 2005 *Request for an Exception to the Willamette Basin Program by Springfield Utility Board Under ORS 536.295*.

In this case, the level of financial hardship that would be caused by the denial of Application S-86270 would be "extreme."

- Monroe's water supply situation is critical and must be resolved immediately.
- Monroe's immediate options are limited because Department and federal actions currently preclude the City from accessing stored water from Fern Ridge Reservoir.
- Treatment of the 100 gpm of water available from the City's Well #3 requires reverse osmosis treatment due to the high level of dissolved solids and is estimated to have a capital cost of over \$4 million and an annual operations and maintenance cost of \$648,000. (*See* Attachment 1)
- No existing surface water rights have been identified that are feasible (or available) to transfer to the City.
- Based on discussions with area ground water users, the purchase and transfer of a ground water right to the City (if one were available) and the associated conveyance and required treatment is estimated to carry a capital cost of approximately \$3.0 million.

- In contrast, the treatment and use of Long Tom River water, whether natural flow or stored water released from Fern Ridge reservoir, has an estimated capital cost of \$1.6 million. (See Attachment 1) The annual operations and maintenance cost, **if** the City could purchase stored water from Fern Ridge Reservoir during the low-flow months of June through October (at a cost of \$1700 per acre-foot) is approximately \$252,500.

Given that the alternatives to the Long Tom River are two or more times more costly, denial of S-86270 would place a burden on the City of Monroe and its customers that is not easily overcome.

Finally, similar to the Springfield Utility Board hardship exception request, denial of Monroe's application would constitute an extreme hardship by resulting in an inability to provide a safe, adequate and reliable water supply to the residences and businesses that rely on the City for water. As mentioned above, Monroe's water supply is already inadequate to meet its peak water demands. Denial of Application S-86270 would result in the inability to meet growing peak water demands and could lead to water shortages and place the population of the City of Monroe at risk of not having an adequate water supply. Water shortages could also cause extreme hardship by degrading water reserves for fire protection and other emergencies, thus resulting in burdens for Monroe and its residents that are not easily overcome.

C. The Proposed Use is Not Inconsistent with the General Policies of the Willamette Basin Program

Monroe's proposed use of the Long Tom River for municipal use is not inconsistent with the general policies of the Willamette Basin Program under OAR 690-502-0020.

Monroe's proposed point of diversion is downstream of U.S. Geological Survey gage 141700 at Monroe. In the stretch of river downstream from the gage to the Willamette River, there are no instream water rights, minimum perennial streamflows or pending instream water right applications. Moreover, in this stretch of river, according to the Department's water availability database, water is available year-round for new uses and will not result in over-appropriation as defined by the Commission under OAR 690-400-010(11). In terms of the general surface water allocation policies under OAR 690-502-0020, Monroe's proposed use balances instream and out-of-stream uses, preserves opportunities for future economic development and does not result in over-appropriation. With respect to other relevant general basin program policies, Monroe's proposed use would protect adequate and safe drinking water supplies for human consumption, promote water conservation through the

