

DECISION MEMORANDUM

**TO: COMMISSIONER KJELLANDER
COMMISSIONER REDFORD
COMMISSIONER SMITH
COMMISSION SECRETARY
LEGAL
WORKING FILE**

FROM: MICHAEL W. MORRISON

DATE: AUGUST 27, 2014

**RE: COMPLIANCE FILING OF SPIRIT LAKE EAST WATER COMPANY
REGARDING EVALUATION OF THE ADDITION OF FIRE
HYDRANTS; CASE NO. SPL-W-13-01**

On October 11, 2013, the Commission issued Order No. 32904 in Case No. SPL-W-13-01 directing Spirit Lake East Water Company (Company) to evaluate the addition of fire hydrants to its water distribution system. On June 23, 2014, the Company submitted a Preliminary Engineering Report for Fire Flow Analysis conducted by Welch, Comer, and Associates, Inc. (Welch-Comer).

SYSTEM DESCRIPTION AND HISTORY

The Company serves the Spirit Lake East Development in Kootenai County, and the adjacent Treeport Development in Bonner County. The system provides water to 293 residential customers and is projected to provide water to 366 residential customers when both developments are complete. Major system components include a 600 foot well, pumps, a 192,400 gallon storage tank, sodium hypochlorite (chlorine) injection system, back-up generator, and 126,585 feet of distribution line ranging in size from 1 inch to 12 inches. Most water mains are either 6 inches or 8 inches in diameter, and laterals vary in size from 1 inch to 6 inches.

REGULATORY REQUIREMENTS

Neither the Idaho Department of Environmental Quality (IDEQ) nor Idaho Fire Code rules require the Company to provide its customers with water for fire protection; however, the

IDEQ requires that if installed, hydrant operating pressure be not less than 20 psi, and that laterals feeding those hydrants be at least 6 inches in diameter (IDAPA 58.08.08 sections 550 and 552). The IDEQ also requires that water supplies used for fire protection provide sufficient storage for 120 minutes of concurrent fire flow and peak customer demand. Idaho Rules for Public Drinking Water (IDAPA 58.01.08 sections 501 and 513) require that drinking water systems that are substantially modified after 2002, and that obtain their water from a well, incorporate a second well and other redundant components.

Appendix C of the Idaho Fire Code requires that hydrants be located so that no frontage point is more than 250 feet from a fire hydrant, and that each hydrant supply at least 1,750 gpm. These requirements can be modified by local fire officials, and the Spirit Lake Fire Department has agreed that spacing can be increased to 1,000 feet and flow reduced to 1,000 gpm.

REVIEW OF THE 2014 WELCH-COMER ENGINEERING REPORT

The 2014 Welch-Comer Engineering report concludes that the existing system is undersized to meet fire flow requirements specified by the IDEQ and Spirit Lake Fire Department: Modifications totaling at least \$5,833,700 will be necessary to upgrade the system to provide water for fire protection. The report's analysis includes the costs of installing a new well system, 19 fire hydrants, replacing undersized laterals with 6 inch lines, upgrading mains, increasing storage volume, and adding booster pumps. The Welch-Comer cost analysis assumes a 20-year loan with a 3% interest rate. Depending on whether system cost is distributed over the system's potential 366 customers, or its current 293 customers, the analysis predicts that the monthly payment per customer will increase by between \$89 and \$112. The report also includes an option to upgrade the system in 5 phases over 20 years. Under this option, monthly payments would be \$119 per month for the first five years, but fall to \$60 per month by year twenty.

STAFF ANALYSIS

Staff generally agrees with Welch-Comer's analysis and conclusions. Staff did not consider Welch-Comer's phasing option because it requires the entire development to subsidize the system, even though some customers may have to wait 20 years before receiving its benefits.

In its 2013 rate case, the Commission approved an annual revenue requirement of \$143,525, or about \$41 per customer per month (Order No. 32904). The Commission received

written comments from 22 Spirit Lake East Water Company customers: Most customers opposed the Company's requested increase in customer charge from \$12.50 to \$24.75 per month. Only one customer supported the proposed increase, and only two customers mentioned the desirability of a fire protection system. Staff believes it unlikely that the majority of current customers would support the rate structure necessary to upgrade the system to include fire protection given its relatively high monthly incremental cost of \$89 - \$112.

STAFF RECOMMENDATION

Although desirable, there is no governmental requirement for the Company to provide a water system capable of supporting fire flow requirements. Staff recommends that the Welch-Comer report be accepted, and that no further action be required of the Company at this time; however, if in the future, the Company can provide evidence showing that the majority of customers are willing to bear the costs of providing fire protection, a specific proposal could be considered.

COMMISSION DECISION

Does the Commission wish to accept the Company's Preliminary Engineering Report for Fire Analysis with no further action to be taken on this matter at this time?



Michael W. Morrison

Udmemos/Spirit Lake East fire hydrants dec memo