

Spokane County Regional Water Reclamation Facility, Spokane, Washington

- \$127-million, 8-mgd, design-build-operate water reclamation facility, expandable to 24-mgd to accommodate future growth
- State-of-the-art membrane bioreactor treatment process to meet stringent phosphorous and ammonia nutrient removal standards
- 20-year operations and maintenance including administration of Industrial Pretreatment Program

The Spokane County Board of Commissioners awarded the design, permitting, construction, and long-term operations of a new 8-mgd water reclamation facility to CH2M HILL in January 2009. The Spokane County Regional Water Reclamation Facility will significantly improve the County's wastewater treatment capabilities, meet anticipated population growth, and meet septic tank elimination goals, while improving water quality and the environment by reducing phosphorous discharges to the Spokane River.

CH2M HILL will design and construct the treatment facility and operate and maintain the facility for 20 years. The single, integrated, design-build-operate delivery contract includes \$127 million for design, permitting, and construction plus an annual operation and maintenance fee of \$5.5 million per year.



The new facility's treatment process includes chemically enhanced primary treatment in conjunction with membrane bioreactor technology to produce Class A effluent reuse water quality for initial discharge into the Spokane River. The effluent criteria to be met by the Spokane County Regional WRF are some of the most stringent in the country, including a seasonal phosphorus average of less than 50 micrograms per liter (50 parts per billion).

The 8-mgd water reclamation facility includes a 20-year operations period and the administration of an industrial pretreatment program and the ability to expand to 24-mgd ultimate capacity. Construction began in spring 2009 and is expected to be completed in 2011, with the facility fully operational in 2012. Upon completion, CH2M HILL will operate and maintain the facility, including provision of onsite staffing, chemicals, capital maintenance repair and replacement, membrane maintenance and replacement, and residual solids disposal.