



# CITY OF RAPID CITY

## RAPID CITY, SOUTH DAKOTA 57701

### Public Works Department Engineering Services Division

300 Sixth Street

Telephone: (605) 394-4154 Fax: (605) 355-3083

Web: [www.rcgov.org](http://www.rcgov.org)

May 29, 2012

To: Mayor, Public Works Committee, Common Council

From: Dale Tech – City Engineer

RE: Request Authorization to Seek Proposals for Professional Services for Design and Construction of the Water Reclamation Facility Trickling Filter and Effluent Solids Reduction Improvements; Project No. 12-2031 / CIP No. 50910

The Public Works Department, Water Reclamation Division, is requesting authorization to seek proposals for professional services for improvements to the trickling filter system and the effectiveness of the disinfection system at the Water Reclamation Facility (WRF). The project shall consist of evaluating, designing, and constructing improvements at the WRF that will address the following items:

- The WRF Trickling Filter System consists of two 202 ft. diameter trickling filters which are fed by four pumps sharing a common wet well. The WRF has experienced multiple failures of these pumps and flow issues with the trickling filter distributors. This project will address improving the operational life expectancy of these pumps and improving the overall efficiency of the trickling filter system.
- On occasion the WRF experiences excessive solids in its final effluent discharge. The solids obstruct the facility's Ultraviolet (UV) Disinfection System, at times, inhibiting the ability to adequately disinfect the final effluent discharge. The WRF staff suspects the source of these solids is the Rotating Biological Cylinders (RBC) and algae from the tertiary clarifier weirs. This project will address elimination and/or removal of these solids from the effluent stream to allow for adequate disinfection of the final effluent discharge.

The Public Works Department proposes to obtain professional engineering services for evaluation of these two items. Based on this evaluation and the course of action chosen by the City and the selected firm, the selected firm will develop the documents necessary for bidding and construction of the proposed improvements.

The project has a total budget of \$1,200,000.00, including engineering services and construction. Funding for the project is from the 833 Sewer Enterprise Fund.

Cc: Terry Wolterstorff, Public Works Director

