

NFRWQPA 2011 WATER QUALITY PLAN UPDATE
Major Point Source Inventory Data

Operating Agency: **Metro Wastewater Reclamation District**

Utility Plan Approved: 9/2010

CDPS Permit #: NA

Permit Expires: NA

Description of Treatment Facilities: (Proposed Facility) Northern Treatment Plant (NTP): Influent Pumping, screening, grit removal, screening/grit washing and compacting, primary clarification, activated sludge treatment with biological nutrient removal, secondary clarification, deep-bed filtration, ultraviolet (UV) disinfection, and effluent pumping. The Effluent Pump-Back System includes a pump station located on the NTP site and force main to pump a portion of the treated effluent upstream of the Fulton Ditch Headgate. In addition, a new interceptor (South Platte Interceptor) will be construction to convey wastewater to the NTP.

Treatment Facility Location: NE ¼, SW ¼, Section 31, T1N, R66W.

Discharge Location: COSPUS15, Upper South Platte River Segment 15.

Stream Segment Classification: Use Protected, Class 2 Warm Water Aquatic Life, Recreation Class E, Water Supply, and Agriculture.

Service Area Population (Population Equivalent):

Existing	2015	2020	2025	2030
127,500 (currently served by other facilities)	158,000	204,500	255,000	287,000

Capacities:

	Design Capacity	Existing Load	2015	2020	2025	2030	Year at 80% Design	Year at 95% Design
Flow (mgd)	28.8	NA	16.1	20.9	26.2	29.4	2022	2026
Organic (lbs/day BOD ₅)	55,300	NA	30,800	40,000	50,100	56,400	2022	2026

Biosolids treatment and disposal: Gravity thickening and fermentation of primary sludge, dissolved air flotation thickening of waste activated sludge, pre-and post-digestion storage, anaerobic digestion, biosolids dewatering, and land application. Cogeneration for beneficial use of digester gas.

Treatment level: The planned degree of treatment based on preliminary effluent limits issued by the Colorado Department of Public Health and Environment (CDPHE) on April 16, 2010. In addition, limits for total phosphorus and total nitrogen were assumed based on preliminary information for the proposed Barr/Milton pH Total Maximum Daily Load (TMDL) and CDPHE's proposal for statewide nutrient reductions, scheduled for rulemaking in March 2012.

Estimated 5-year construction needs: The site application for the proposed NTP and Effluent Pump-Back System is currently under review by CDPHE. The site application for the South Platte Interceptor will be submitted late 2011 or in 2012. Construction of the NTP is expected to begin in 2012 with startup in 2015. Construction of the Effluent Pump-Back Force Main and South Platte Interceptor is expected to begin in 2013 with completion prior to NTP startup in 2015.