

NFRWQPA 2011 WATER QUALITY PLAN UPDATE
Major Point Source Inventory Data

Operating Agency: *City of Greeley*

Utility Plan Approved: 6/2009

CDPS Permit #: CO-0040258

Permit Expires: 1/31/2011

Description of Treatment Facilities: Primary and secondary settling, activated sludge secondary treatment, UV disinfection, anaerobic digestion, and land application of biosolids.

Treatment Facility Location: SW ¼, SW ¼, Section 4, T5N, R65W

Discharge Location: COSPCP12, Cache la Poudre River Segment 12, approximately 5 miles above the confluence with the South Platte River, SW ¼, SW ¼, Section 4, T5N, R65W.

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

Service Area Population:

| | | | | |
|----------|--------|---------|---------|---------|
| Existing | 2012 | 2017 | 2022 | 2027 |
| 95,288 | 95,989 | 116,854 | 130,605 | 145,971 |

Capacities:

| | Design Capacity | Existing | 2012 | 2017 | 2022 | 2027 | Year at 80% Design | Year at 95% Design |
|--------------------------------------|-----------------|----------|--------|--------|--------|--------|--------------------|--------------------|
| Flow (mgd) | 14.7 | 7.87 | 8.42 | 10.25 | 11.45 | 12.80 | 2024 | >2027 |
| Organic (lbs./day BOD ₅) | 39,000 | 20,221 | 22,092 | 26,876 | 30,039 | 33,573 | 2024 | >2027 |

Note: Flows from major industrial users continue to decrease.

Biosolids treatment and disposal: The current biosolids treatment is a Class B dewatering process using one dewatering centrifuge and two thickening centrifuges. The process produces a 20% T.S. cake that is land applied on City site-specific tracts by a private contractor. The City has completed a comprehensive biosolids management and treatment study and may pursue a Class A biosolids program in the near future.

Treatment level: The degree of treatment required and effluent limitations are outlined in Permit #CO-0040258.

Estimated 5-year construction needs: Digester cover replacement and possible upgrades to treatment facility blower and aeration system. Various treatment options for meeting anticipated ammonia nitrogen limits in the near future, including the possibility of total inorganic nitrogen and/or phosphorus limits are currently being evaluated. The 2009 Utility Plan outlines treatment system and collection system improvement for both the short term (5 years) and long term (20 years). The current treatment facility has adequate capacity to handle the projected flows through the 20 year planning period however potential for changes to effluent limit were evaluated. In addition to the Utility Plan, the City also completed a Sanitary Sewer Master Plan in 2008. The deficiencies identified in this plan for the collection system have been included in the Capital Improvements Plan.