

NFRWQPA 2011 WATER QUALITY PLAN UPDATE
Major Point Source Inventory Data

Operating Agency: **Town of Johnstown**

Utility Plan Approved: 2/2009

CDPS Permit #: Central WWTF: CO-0021156
 Low Point WWTP: CO-0047058

Permit Expires: 6/30/2010
 8/31/2010

Description of Treatment Facilities: Central WWTF: A two cell aerated pond system followed by a four compartment concrete nitrification basin (with fixed film media), followed by dissolved air floatation, and chlorination / dechlorination. Low Point WWTF: A two-basin concrete SBR (activated sludge) facility with headworks screening / grit removal, and chlorination / dechlorination.

Treatment Facility Location: Central WWTF: S ½, SW ¼, Section 3, T4N, R67W. Low Point WWTF: NW ¼, SW ¼, Section 24, T5N, R68W.

Discharge Location: Central WWTF: COSPBT09, North of State Hwy 60 approximately one mile east of Johnstown in the S ½, Section 3, T4N, R67W. Low Point WWTF: COSPBT05, East of I-25 approximately one mile at Larimer Co. Rd. 3 in the NW ¼, SW ¼, Section 24, T5N, R68W.

Stream Segment Classification: Central: Little Thompson River Segment 9, Warm Water Aquatic Life Class 2, Recreation Class 1a, and Agriculture. Low Point: Big Thompson River Segment 05, Warm Water Aquatic Life Class 2, Recreation Class 1b (May 1 - Oct. 15), Recreation Class 2(Oct. 16 – Apr. 30), and Agriculture.

Service Area Population:

	Existing	2015	2020	2025	2030
Combined for all facilities	8,725	9,995	11,180	12,403	13,627

Capacities: (at a low growth rate)

	Design Capacity Current	Upgrade Capacity	Existing	2015	2020	2025	2030	Year at 80% Design	Year at 95% Design
<u>Central Flow (mgd)</u>	0.75	0.99	0.68	0.75	0.81	0.88	0.95	Currently	(following upgrade) 2026
<u>Organic (lbs./day BOD₅)</u>	1,600		1,418	1,676	1,810	1,967	2,123	Currently	2013
<u>Low Point Flow (mgd)</u>	0.5		0.023	0.035	0.047	0.059	0.071	>2030	>2030
<u>Organic (lbs./day BOD₅)</u>	1,000		48	73	98	123	148	>2030	>2030

Biosolids treatment and disposal: Aerobic digester / stabilization followed by land application.

Treatment level: The degree of treatment required and effluent limitations are outlined in Permit #CO-0021156 for the Central WWTF and Permit # CO-0047058 for the Low Point WWTF.

Estimated 5-year construction needs: The existing Central WWTF is over 80% capacity and will need to be expanded to 0.99 mgd in the near term to stay ahead of demand. This capacity increase will include the expansion of the MBBR system, on-site piping replacements, influent flow metering upgrades, an additional DAF unit. The Low Point Plant has sufficient capacity to serve projected loads through the 20 year planning period. The former Cross Point WWTF (now the Berthoud Regional WWTF) received a recommendation for approval from NFRWQPA in 2005. The plant will be constructed by Berthoud and an IGA has been developed between Johnstown and Berthoud for joint use of capacity at the facility.