



Bear Creek Watershed Association

Wastewater Treatment Facility Information Sheet 05

Town of Morrison

Facility: Morrison Water Reclamation Facility	
TYPE OF PERMIT	Domestic-Minor Municipal, Mechanical Plant, Renewal
Permit Number:	CDPS Permit No.: CO-0041432
Permit Issue Date	7-24-09
Permit Expire Date	Applied for a new 5 yr permit 4-22-14
Facility Location:	Intersection of C-470 and Morrison Rd - NE corner. SE1/4 of SW1/4, Sec 36, T4S, R70W. Latitude 39.65435 Longitude 105.1798
SIC Code:	4952 Sewerage System
Facility Classification:	Class B per Section 100.5.2 of the Water and Wastewater Facility Operator Certification Requirements
Facility Hydraulic Capacity:	0.35 MGD (Peak Hour Hydraulic Capacity 1.05 MGD)
Facility Organic Capacity:	876 lbs. BOD5/day
Other Permit Parameters:	TSS = 30 mg/l (30-day average), Total Ammonia (monthly) ranges from 7.7-13 mg/l, E. coli = 169 cts/100ml, Temperature report, BOD5 (30-day average) = 30 mg/l
Treatment Works:	A new Sequencing Batch Reactor facility was put on line 9/25/2013. It includes a mechanically cleaned fine screen (1/4" openings) with a screening washer press (with a manual bar screen provided as backup), a 3-inch Parshall flume (within a 9-inch Parshall flume), ultrasonic flow sensing, a mechanical vortex grit chamber, grit pump, and grit classifier. After screening, grit removal, and odor scrubbing uses granular activated carbon, a lift station with three pumps (using variable frequency drives for energy efficiency) pumps flow to parallel Sequencing Batch Reactor basins. Each basin includes a pre-react zone and a combination aerobic/anoxic/settling zone. Cycling of fine bubble aeration and anoxic treatment with pre-determined settling and decanting periods provides robust nitrification, denitrification, and clarification. After clarification, two fully redundant ultraviolet light (UV) contactors are used to disinfection the water before discharge into Bear Creek.
Lift Stations:	None
Service Areas:	Town of Morrison, City and County of Denver Red Rocks (Contract), Mt. Carbon.
Compliance Schedules	none
Industrial Pretreatment Program	There are no categorical discharges, but discharges with significant volumes are regulated pursuant to the Town Code section 8-3

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2014 Service Area Population Esti-	433 (243 EQR)
2035 Service Area Population Estimate:	An additional 100 residential EQRs + 80 commercial EQRs west of the Hogback, and as many as another 2,300 EQRs in the Mount Carbon Metro District (NE of the intersection of C-470 and Morrison Road). The Utility Plan assumes 3 people per residential
2014 Average Daily Effluent Treated:	.071 MGD
Plant Expansion:	New plant completed in 2013; no other plant expansions
Discharge Point:	As shown in permit - 001A, Latitude 39° 39' 11.27"N, Longitude 105° 10' 39.78"W; Outfall at Latitude 39.652993, Longitude -
Waterbody Identification:	Bear Creek, Mainstem of Bear Creek from Harriman Ditch to the inlet of Bear Creek Reservoir
Receiving Water Designation	COSPBE01 B, Bear Creek.
Receiving Water Classification (Segment):	Aq. Life Cold 2, Recreation E, Water Supply, Agriculture
Threatened and Endangered Species	None
Control Regulation #74	Because the discharge from this facility ultimately impacts Bear Creek Reservoir, it is subject to the Bear Creek Control Regulation, Regulation 74. This regulation imposes a total phosphorus concentration limitation of 1.0 mg/l on all dischargers in the watershed. In addition, the regulation specifies a mass limitation for dischargers of record.
Control Regulation #74 Wasteload Allocation	Cumulative annual limitation is 600 pounds of total phosphorus
Control Regulation #74 Total Phosphorus Limit	1.0 mg/l as monthly average
303(d) Listing Regulation #93	None
Temporary Modifications	None
Water Quality Pollutants of Concern	Biological Oxygen Demand, Total Suspended Solids, E. coli, phosphorus, ammonia, nitrogen, and temperature
Water Quality Assessment	WQCD 9-11-2012 completed for Bear Creek, Troublesome Gulch, Mount Vernon Creek, and an unnamed tributary to Bear Creek, near the Evergreen Metropolitan District Wastewater Treatment Facility (WWTF), Bear Creek Cabins WWTF, Kittredge Sanitation and Water District (S&WD) WWTF, West Jefferson County Metro District WWTF, Genesee Water and Sanitation District WWTF, the Forest Hills Metropolitan District WWTF, and the Town of Morrison WWTF.
BCWA Factsheets	BCWA Factsheet 34 - New Morrison Water Reclamation Facility, BCWA Factsheet 26 BCW Demographics, BCWA Factsheet 41 Wastewater Demographics
Web Site	http://town.morrison.co.us/

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