



## Bear Creek Watershed Association

### Wastewater Treatment Facility Information Sheet 01

## Evergreen Metropolitan District

Approved BCWA Board September 10, 2014

|                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
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| <b>TYPE OF PERMIT</b>                         | Domestic - Minor Municipal, Mechanical Plant, Sixth Renewal                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Permit Number:</b>                         | CO-0031429                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Permit Issue Date</b>                      | 41358                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Permit Expire Date</b>                     | 43190                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Facility Location:</b>                     | Evergreen Metropolitan District - wastewater treatment facility (WWTF) located at in the NE 1/4 of the NE 1/4 of S10, T5S, R71W; 27892 Meadow Drive in Evergreen, CO; at 39.635426° latitude North and 105.314337° longitude West                                                                                                                                                                                                                            |
| <b>SIC Code:</b>                              | 4952 Sewerage Systems                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Facility Classification:</b>               | Class B per Section 100.5.2 of the Water and Wastewater Facility Operator Certification Requirements                                                                                                                                                                                                                                                                                                                                                         |
| <b>Facility Hydraulic Capacity:</b>           | Based on Site Approval 1742, the design capacity of this domestic wastewater treatment works is 0.99 million gallons per day (MGD) for hydraulic flow (30-day average)                                                                                                                                                                                                                                                                                       |
| <b>Facility Organic Capacity:</b>             | 2085 lbs. BOD5 per day for organic loading (30-day average)                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Treatment Works:</b>                       | The facility consist of a headworks, including bar screens, grit removal and influent flow measurements via a 9-inch Parshall flume equipped with ultrasonic meter, followed by a primary clarifier, chemical addition (sodium aluminate) for phosphorus removal, three aeration basins in series, a final clarifier, four sand filters, ultraviolet disinfection, and effluent flow measurement via a 9-inch Parshall flume equipped with ultrasonic meter. |
| <b>Lift Stations:</b>                         | 4                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Service Areas:</b>                         | Evergreen Metropolitan District and Upper Bear Creek Association                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Compliance Schedules</b>                   | Conduct threshold tests for exclusion from further analysis under Mixing Zone Regulations. Total Inorganic Nitrate final limits.                                                                                                                                                                                                                                                                                                                             |
| <b>Industrial Pretreatment Program</b>        | The pretreatment program includes a combination of the Kittredge WWTF District, the Evergreen WWTF District, and the West Jefferson County WWTF District. It was established in 2001.                                                                                                                                                                                                                                                                        |
| <b>2014 Service Area Population Estimate:</b> | 6,670 (Taps Served 2,615), See BCWA Fact Sheet 41 Wastewater Demographics and BCWA Fact Sheet 26 Watershed Demographics                                                                                                                                                                                                                                                                                                                                      |
| <b>2035 Service Area Population Estimate:</b> | 7,500 (no major expansion of service area planned, system near build-out)                                                                                                                                                                                                                                                                                                                                                                                    |

## Evergreen Metropolitan District

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| <b>2014 Average Daily Effluent Treated:</b>          | 0.52/0.42/0.96 (Avg/Min/Max)                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Plant Expansion (5-year):</b>                     | None planned                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Discharge Point:</b>                              | Bear Creek - 001A following disinfection and prior to mixing with the receiving stream. Mixing zone.                                                                                                                                                                                                                                                                                                                                                  |
| <b>Mixing Zone:</b>                                  | The WWTF is not exempt from the need for a mixing zone analysis, as the ratio of the facility design flow to the chronic low flow (30E3) is equal to 0.68:1, while the ratio of the chronic low flow to the design flow is equal to 1.5:1.                                                                                                                                                                                                            |
| <b>Waterbody Identification:</b>                     | Bear Creek at 39.635° N, 105.309° W.                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Receiving Water Designation:</b>                  | COSPBE01e, Bear Creek                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Receiving Water Classification:</b>               | Aq. Life Cold 1, Rec. Class E, Ag., Water Supply                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Treatened and Endangered Species</b>              | No                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Colorado WQCC Control Regulation #74</b>          | Because the discharge from this facility ultimately impacts Bear Creek, 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 to the creek. In addition, the regulation specifies a mass limitation for dischargers of record.                                                                                                        |
| <b>Control Regulation #74 Wasteload Allocation</b>   | Cumulative annual limitation is 1,500 pounds of total phosphorus                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Control Regulation #74 Total Phosphorus Limit</b> | 1.0 mg/l as monthly average                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>303(d) Listing Regulation #93</b>                 | Aquatic life and temperature                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Temporary Modifications</b>                       | None                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Water Quality Pollutants of Concern</b>           | phosphorus, nitrogen, temperature, ammonia                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Water Quality Assessment</b>                      | 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 |
| <b>BCWA Factsheets</b>                               | BCWA Factsheet 26 BCW Demographics, BCWA Factsheet 41 Wastewater Demographics                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Web Site</b>                                      | <a href="http://www.evergreenmetrodistrict.com/">http://www.evergreenmetrodistrict.com/</a>                                                                                                                                                                                                                                                                                                                                                           |

