Technical Memorandum BCWA

**Date:** March 24, 2020

**To:** Bear Creek Watershed Association

From: Russell N. Clayshulte, Manager

Re: BCWA TM 2019.10 Fishery

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# 2019 Survey Sites and Data

The Colorado Parks and Wildlife (“CPW”) collects aquatic data from both internal sources and a variety of external governmental and non-governmental agencies. CPW provides this data, upon request, solely as a public service. In September 10 to 12, 2019, personnel from the CPW conducted fishery surveys on Bear Creek. The fishery data is graphically summarized in this technical memorandum as processed by the BCWA. CPW makes no warranty, representation, or guarantee as to the content, accuracy or completeness of any of the data provided.

Fishery surveys were done at 6 sites (Table 1). No data was collected from the Evergreen downtown station (Little Bear) or the Idledale station. Table 2 is the 2019 fishery data (only Brown Trout and Rainbow Trout) supplied to the BCWA for use in its watershed management program and reporting to the Water Quality Control Commission as part of the BCWA annual report. This data may not be re-published without approval of the BCWA. Table 3 compares the 2016 to 2019 fishery summaries.



Figure Fish Collection Method

Table 2019 Bear Creek Watershed Fishery Survey Sites

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Station Location** | **Station Length** | **Avg Width** | **Survey Date** | **Survey ID** |
| Morrison Park Just BLW Bridge | 476 | 30 | 9/10/2019 | 60867 |
| Lair O Bear Picnic Areas (#13) | 491 | 29 | 9/10/2019 | 60868 |
| O’Fallon Park Picnic Areas (#14) | 372 | 28 | 9/11/2019 | 60869 |
| BLW Bear Creek Cabins (#1) | 441 | 32 | 9/11/2019 | 60967 |
| Dedisse Park (Keys on the Green) | 368 | 33 | 9/12/2019 | 60870 |
| Just above Golden Willow Rd. | 342 | 23 | 9/12/2019 | 60871 |

Table 2019 Fishery Data Summary

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Station** | **Width (ft)** | **Length (ft)** | **Species** | **2019 No/Mile Total** | **2019 No/Acre Total** | **2019 lb/Acre Total** |
| **Golden Willow** | 23 | 342 | Brown | 1491 | 535 | 119 |
| Rainbow | 0 | 0 | 0 |
| Total | 1491 | 535 | 119 |
| **Dedisse Park** | 33 | 368 | Brown | 1803 | 451 | 62 |
| Rainbow | 174 | 43 | 6 |
| Total | 1976 | 494 | 68 |
| Bear Creek Cabins | 32 | 441 | Brown | 2682 | 691 | 114 |
| Rainbow | 615 | 159 | 26 |
| Total | 3297 | 850 | 140 |
| **O'Fallon Park** | 28 | 372 | Brown | 3280 | 967 | 148 |
| Rainbow | 102 | 30 | 5 |
| Total | 3383 | 997 | 152 |
| **Lair O' the Bear** | 29 | 491 | Brown | 2334 | 664 | 146 |
| Rainbow | 98 | 28 | 6 |
| Total | 2432 | 692 | 152 |
| **Morrison West** | 30 | 476 | Brown | 1877 | 516 | 112 |
| Rainbow | 33 | 9 | 2 |
| Total | 1910 | 525 | 114 |
| No fish surveys at Evergreen Little Bear Site or Idledale Site  No Rainbow Trout found at the Golden Willow Site | | | | | | |

# 2019 Comparison of Fish Surveys

Table 2016 to 2019 Fishery Summary Comparison

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Station** | **Width (ft)** | **Species** | **2016** | | | **2017** | | | **2019** | | |
| **No/Mile Total** | **No/Acre Total** | **lb/Acre Total** | **No/Mile Total** | **No/Acre Total** | **lb/Acre Total** | **No/Mile Total** | **No/Acre Total** | **lb/Acre Total** |
| **Golden Willow** | **23** | Brown | 1543 | 553 | 83 | 1,551 | 556 | 107 | 1491 | 535 | 119 |
| Rainbow | 15 | 6 | 1 | - | - | - | 0 | 0 | 0 |
| TOTAL | 1558 | 559 | 84 | 1,551 | 556 | 107 | 1491 | 535 | 119 |
| **Dedisse Park** | **33** | Brown | 2583 | 646 | 75 | 2,666 | 666 | 80 | 1803 | 451 | 62 |
| Rainbow | 158 | 39 | 5 | 184 | 46 | 5 | 174 | 43 | 6 |
| TOTAL | 2740 | 685 | 79 | 2,849 | 712 | 85 | 1976 | 494 | 68 |
| **Evergreen** | **34** | Brown | 1427 | 346 | 103 | 1,932 | 469 | 147 |  |  |  |
| Rainbow | 399 | 97 | 29 | 726 | 176 | 55 |  |  |  |
| TOTAL | 1827 | 443 | 131 | 2,658 | 645 | 202 |  |  |  |
| **Bear Creek Cabins** | **32** | Brown | 1126 | 290 | 77 |  |  |  | 2682 | 691 | 114 |
| Rainbow | 263 | 68 | 18 |  |  |  | 615 | 159 | 26 |
| TOTAL | 1389 | 358 | 95 |  |  |  | 3297 | 850 | 140 |
| **O'Fallon Park** | **28** | Brown | 909 | 268 | 54 | 2,364 | 697 | 122 | 3280 | 967 | 148 |
| Rainbow | 57 | 17 | 3 | 57 | 17 | 3 | 102 | 30 | 5 |
| TOTAL | 966 | 285 | 57 | 2,421 | 713 | 125 | 3383 | 997 | 152 |
| **Lair O' Bear** | **29** | Brown | 1293 | 368 | 94 | 1,363 | 388 | 95 | 2334 | 664 | 146 |
| Rainbow | 86 | 24 | 6 | 176 | 50 | 12 | 98 | 28 | 6 |
| TOTAL | 1379 | 392 | 101 | 1,538 | 438 | 107 | 2432 | 692 | 152 |
| **Idledale** | **25** | Brown |  |  |  | 2,130 | 703 | 203 |  |  |  |
| Rainbow |  |  |  | 151 | 50 | 14 |  |  |  |
| TOTAL |  |  |  | 2,281 | 753 | 217 |  |  |  |
| **Morrison** | **30** | Brown | 1353 | 372 | 99 | 2,163 | 595 | 144 | 1877 | 516 | 112 |
| Rainbow | 91 | 25 | 7 | 177 | 49 | 12 | 33 | 9 | 2 |
| TOTAL | 1443 | 397 | 105 | 2,341 | 644 | 156 | 1910 | 525 | 114 |

# **2019 Fishery Graphs**

Figure 2019 Total Number of Fish per Mile

Figure 2019 Total Number of Fish per Acre

Figure 2019 Total Pounds of Fish per Acre

# **2014-2019 Comparison of Fishery Summaries**

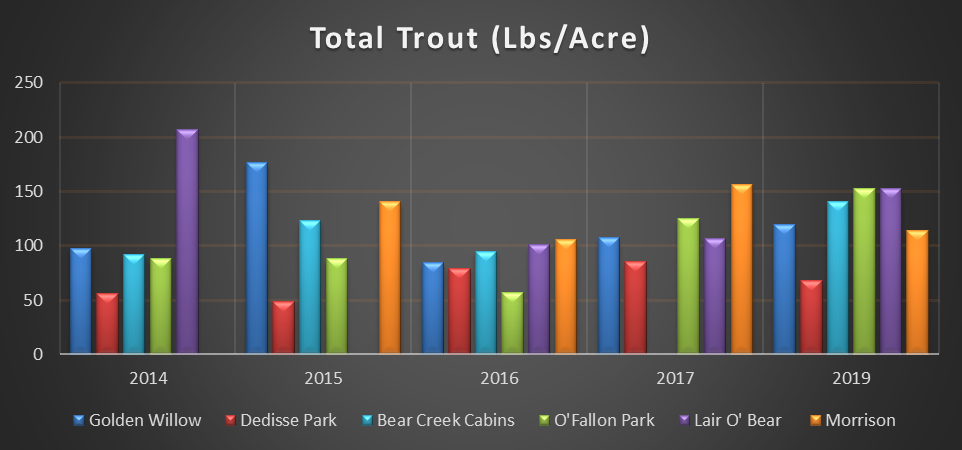


Figure Comparison of Trout per Mile from 2014 to 2019

# **Long-Term Fishery Trends**

Figure Total Trout Pounds per Acre from 1988-2019

Figure Segment 1e Total Trout per Acre from 1988-2019

Figure Average Trout per Acre after 2013 Flooding Event

Figure Average Brown Trout Trends

# **Brown Trout Station Trends**

Figure Dedisse Park Trend

Figure Bear Creek Cabins Trend

Figure O’Fallon Trend

Figure Lair O’ Bear Trend

Figure Morrison Trend

Figure Golden Willow