

# Technical Memorandum BCWA

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**Date:** March 24, 2020  
**To:** Bear Creek Watershed Association  
**From:** Russell N. Clayshulte, Manager  
**Re:** BCWA TM 2019.10 Fishery

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## Contents

|                                                                 |   |
|-----------------------------------------------------------------|---|
| 2019 Survey Sites and Data.....                                 | 1 |
| 2019 Comparison of Fish Surveys .....                           | 2 |
| 2019 Fishery Graphs .....                                       | 3 |
| 2014-2019 Comparison of Fishery Summaries .....                 | 4 |
| Long-Term Fishery Trends .....                                  | 5 |
| Brown Trout Station Trends.....                                 | 6 |
| <br>                                                            |   |
| Figure 1 Fish Collection Method.....                            | 2 |
| Figure 2 2019 Total Number of Fish per Mile .....               | 3 |
| Figure 3 2019 Total Number of Fish per Acre .....               | 4 |
| Figure 4 2019 Total Pounds of Fish per Acre .....               | 4 |
| Figure 5 Comparison of Trout per Mile from 2014 to 2019 .....   | 4 |
| Figure 6 Total Trout Pounds per Acre from 1988-2019.....        | 5 |
| Figure 7 Segment 1e Total Trout per Acre from 1988-2019.....    | 5 |
| Figure 8 Average Trout per Acre after 2013 Flooding Event ..... | 5 |
| Figure 9 Average Brown Trout Trends .....                       | 6 |
| Figure 10 Dedisse Park Trend .....                              | 6 |
| Figure 11 Bear Creek Cabins Trend .....                         | 6 |
| Figure 12 O’Fallon Trend .....                                  | 7 |
| Figure 13 Lair O’ Bear Trend .....                              | 7 |
| Figure 14 Morrison Trend.....                                   | 7 |
| Figure 15 Golden Willow .....                                   | 8 |
| <br>                                                            |   |
| Table 1 2019 Bear Creek Watershed Fishery Survey Sites .....    | 2 |
| Table 2 2019 Fishery Data Summary.....                          | 2 |
| Table 3 2016 to 2019 Fishery Summary Comparison .....           | 3 |

## 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 1 Fish Collection Method**

**Table 1 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     |
| Dedissee Park (Keys on the Green) | 368            | 33        | 9/12/2019   | 60870     |
| Just above Golden Willow Rd.      | 342            | 23        | 9/12/2019   | 60871     |

**Table 2 2019 Fishery Data Summary**

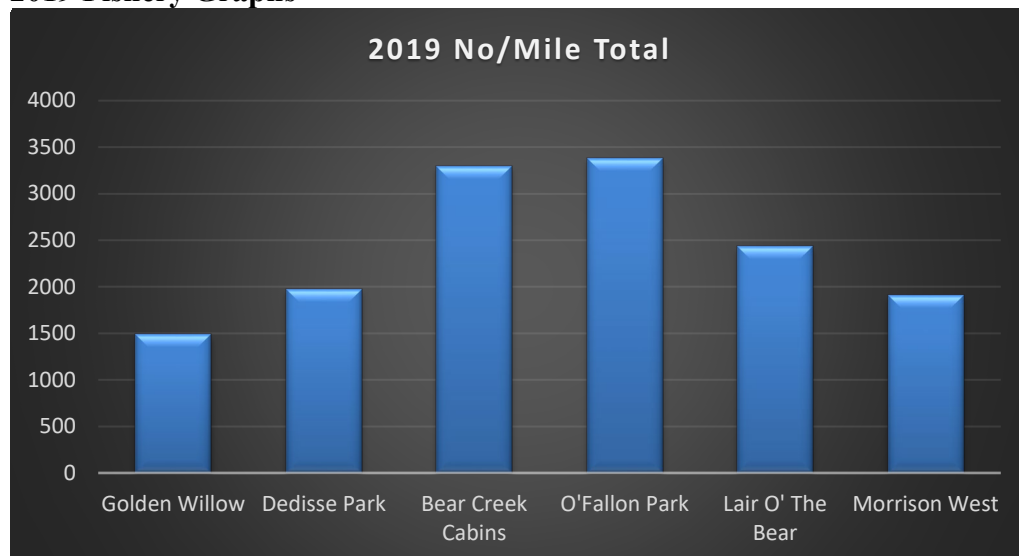
| Station                                                        | Width<br>(ft) | Length<br>(ft) | Species | 2019<br>No/Mile<br>Total | 2019<br>No/Acre<br>Total | 2019<br>lb/Acre<br>Total |
|----------------------------------------------------------------|---------------|----------------|---------|--------------------------|--------------------------|--------------------------|
| Golden Willow                                                  | 23            | 342            | Brown   | 1491                     | 535                      | 119                      |
|                                                                |               |                | Rainbow | 0                        | 0                        | 0                        |
|                                                                |               |                | Total   | 1491                     | 535                      | 119                      |
| Dedissee 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

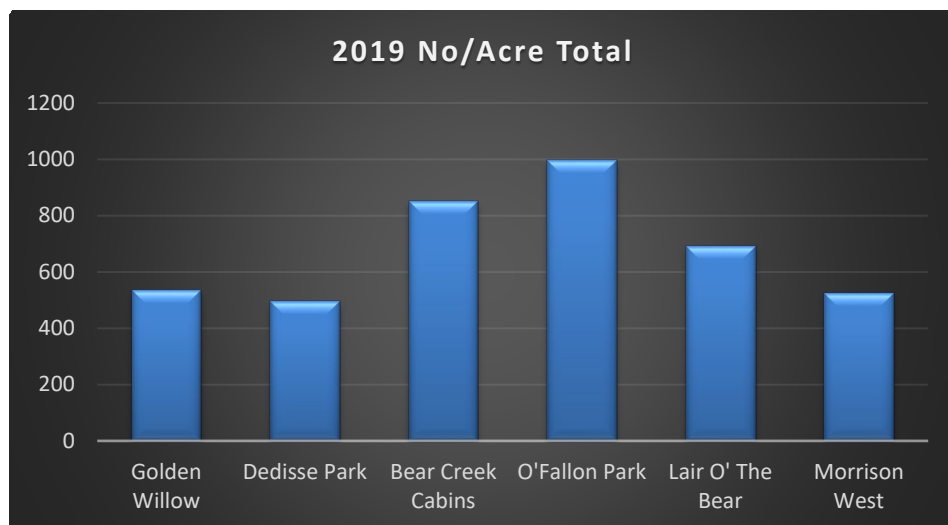
**Table 3**      **2016 to 2019 Fishery Summary Comparison**

| 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           |

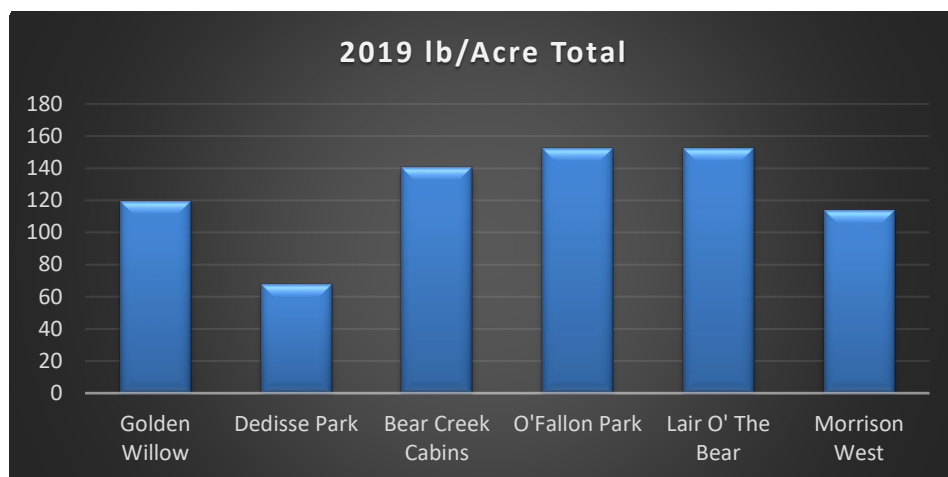
## 2019 Fishery Graphs



**Figure 2**      **2019 Total Number of Fish per Mile**

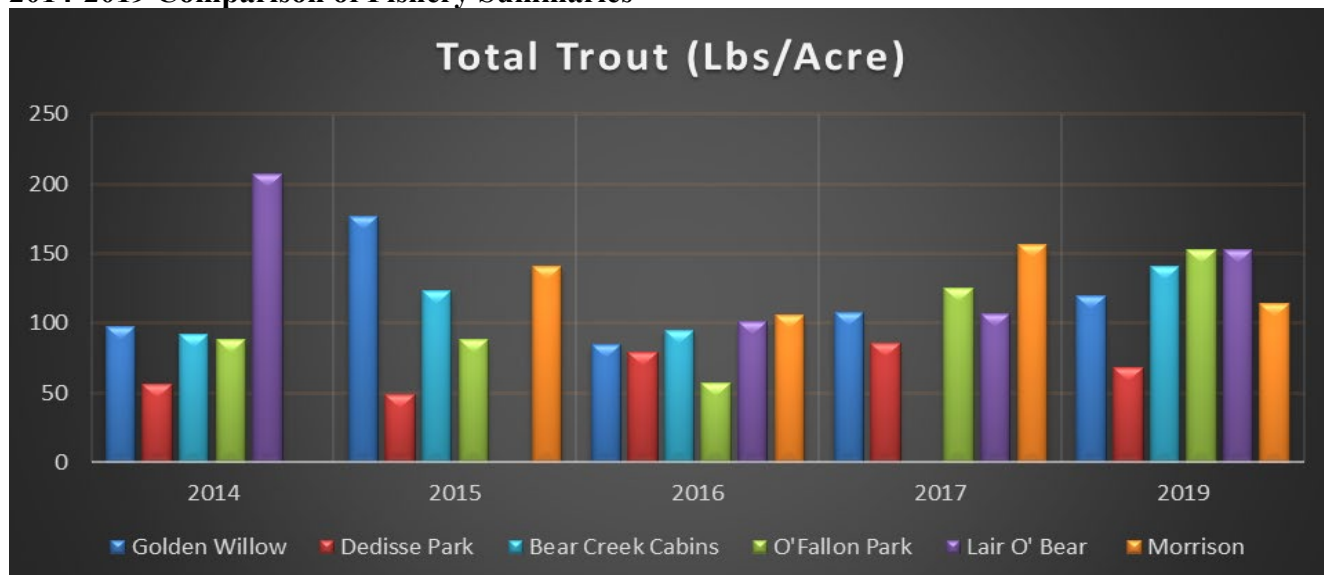


**Figure 3** 2019 Total Number of Fish per Acre



**Figure 4** 2019 Total Pounds of Fish per Acre

### 2014-2019 Comparison of Fishery Summaries



**Figure 5** Comparison of Trout per Mile from 2014 to 2019

Long-Term Fishery Trends

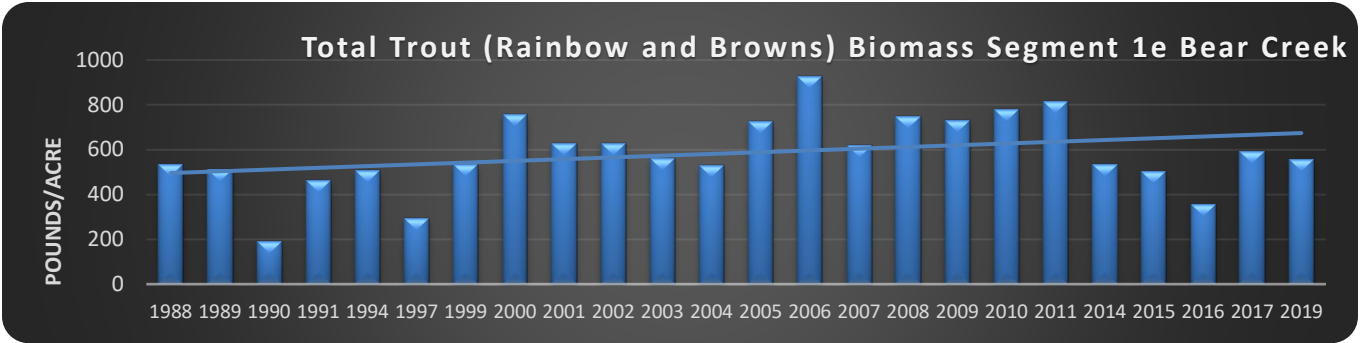


Figure 6 Total Trout Pounds per Acre from 1988-2019

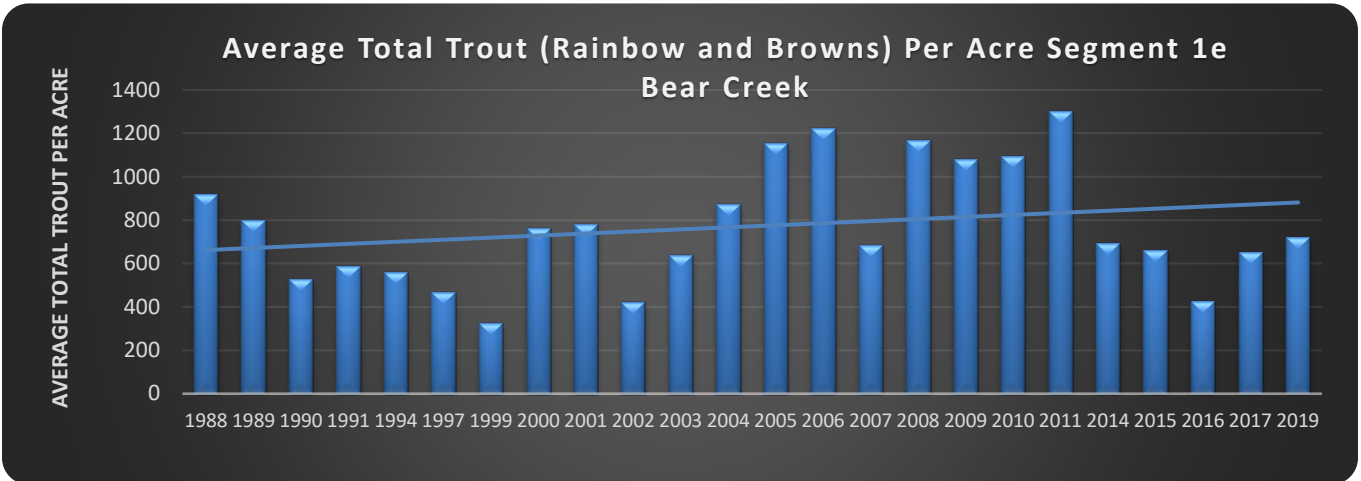
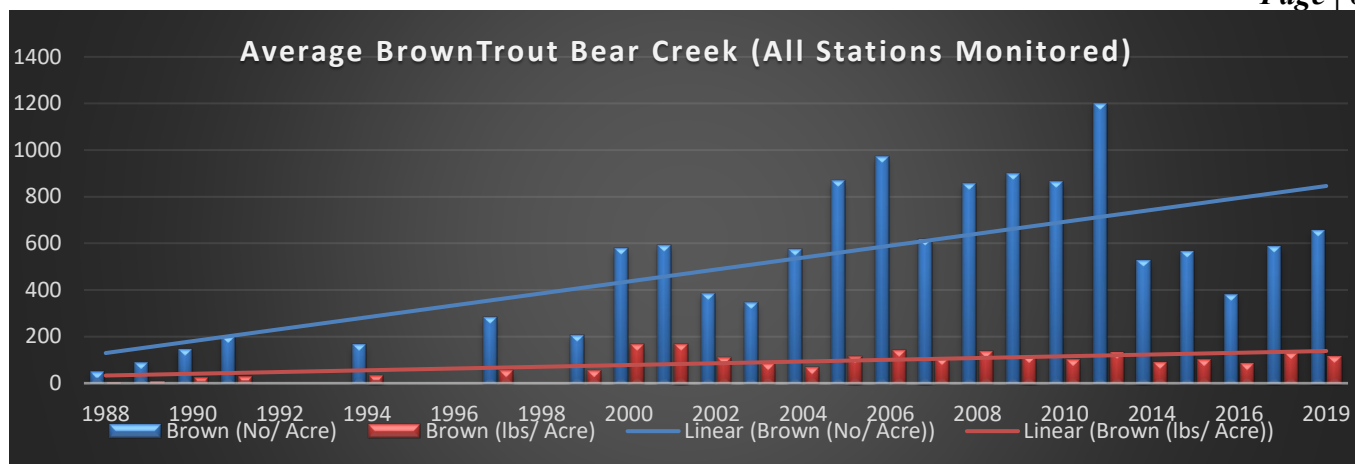


Figure 7 Segment 1e Total Trout per Acre from 1988-2019



Figure 8 Average Trout per Acre after 2013 Flooding Event

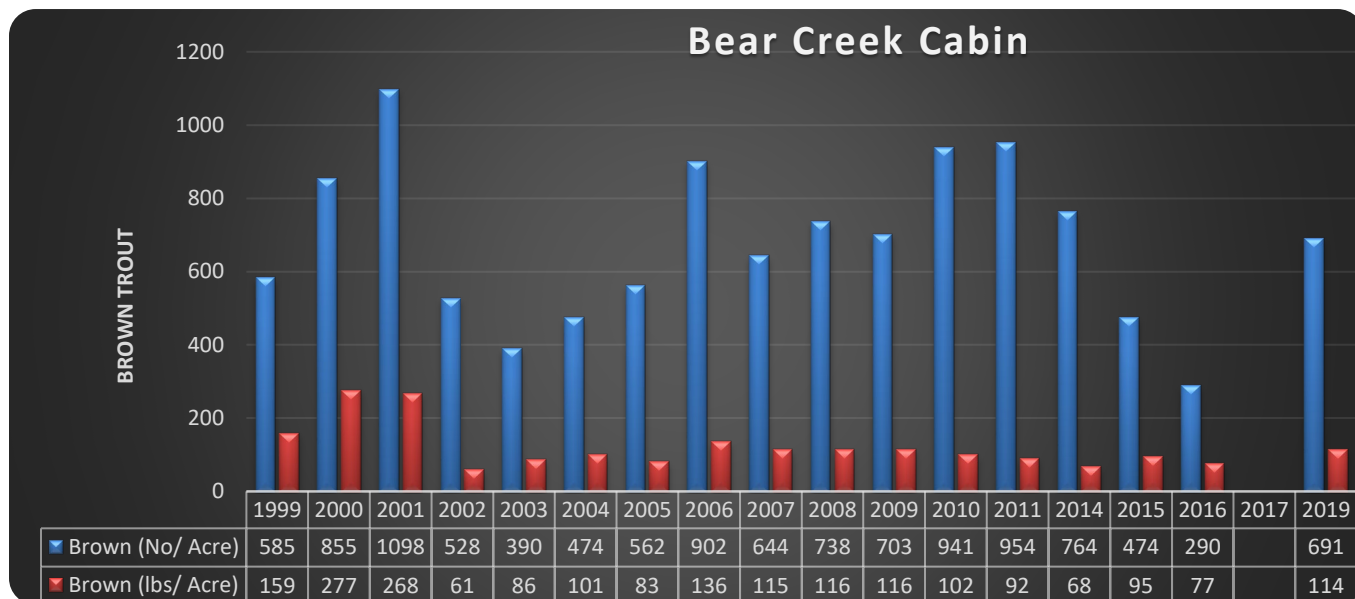


**Figure 9 Average Brown Trout Trends**

### Brown Trout Station Trends



**Figure 10 Dedisse Park Trend**



**Figure 11 Bear Creek Cabins Trend**

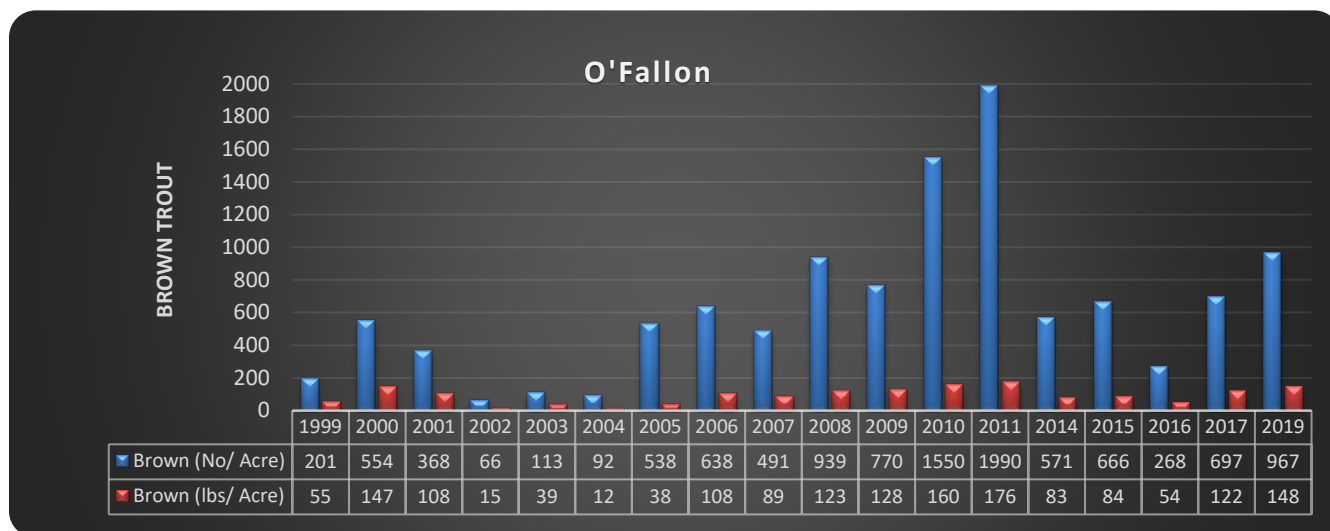


Figure 12 O'Fallon Trend

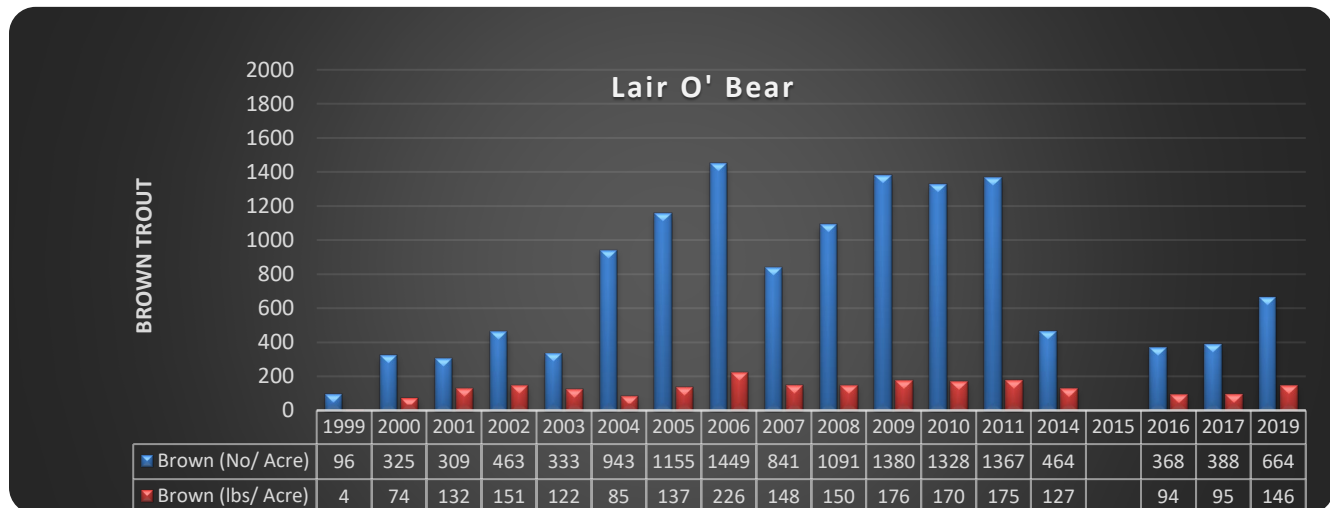
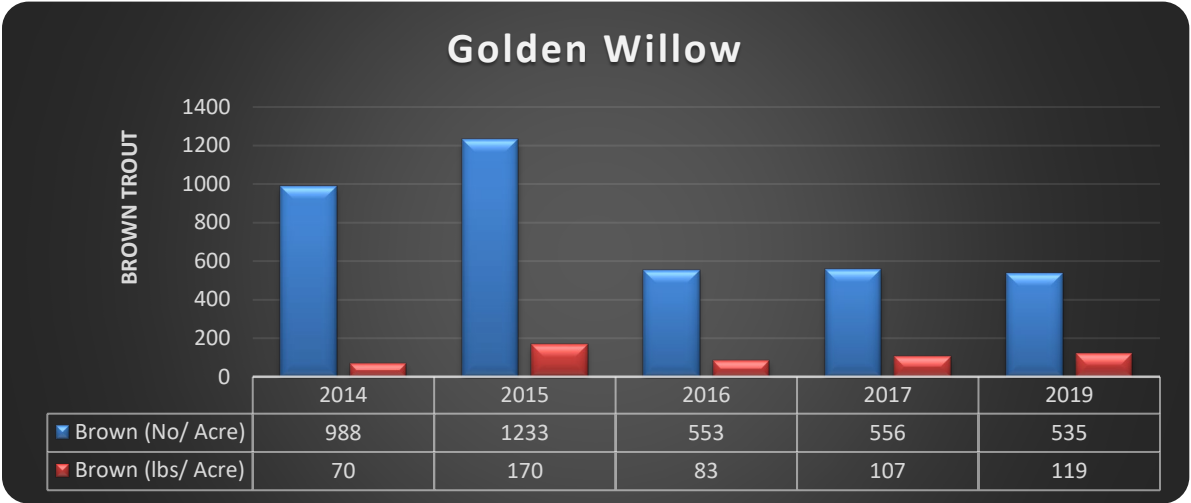


Figure 13 Lair O' Bear Trend



Figure 14 Morrison Trend



**Figure 15      Golden Willow**