

DRAFT ISSUES SUBMITTAL FORM

Date: 08/12/2020

<b>ISSUE:</b>	<b>Should Colorado Parks and Wildlife Regulation W-1, Article I, #104(F)(#1) be modified to better clarify the specific criteria (a. through e.) for establishing an emergency closure of fishing waters?</b>
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**DISCUSSION (FACTS AND FIGURES, EXPLANATION OF ISSUE):**

Colorado Parks and Wildlife Regulation W-1, Article I, #104(F)(#1) regarding the emergency closure of fishing waters was implemented to protect aquatic resources when environmental conditions are likely to result in the potential for severe fish mortality, or detrimental impacts to fishery resources. The current criteria were established in quick response to the extreme drought of 2002. In 2002, there was no authority for the Director of CPW (Director) to close fishing on waters, particularly streams, when and where conditions resulted in fish populations being under significant environmental stress. Per the existing regulation, fishing closures may be authorized by the Director when any one of the following specific criteria are met:

- a. Daily maximum water temperatures exceed 74 degrees Fahrenheit; or the daily average water temperature exceeds 72 degrees Fahrenheit;
- b. Measured stream flows are 25% or less of the historical average low flow for the time period in question;
- c. Fish condition is deteriorating such that fungus and other visible signs of deterioration may be present;
- d. Daily minimum dissolved oxygen levels are below five (5) parts per million (ppm);
- e. When a natural or man-caused environmental event such as a wildfire, mudslides, oil spills or other similar event has occurred, resulting in the need for recovery time or remedial action for a fish population

During the open water season of 2018, CPW staff implemented a myriad of fishing closures on a variety of water bodies across the state due to poor environmental conditions. These varied from mandatory emergency closures due to low flow conditions, to voluntary, full-time (24 hours) and part-time (peak fishing hours) closures because of elevated water temperatures. All closures were related to drought conditions, of which potential impacts could have been exacerbated by anglers in high-use waters.

Drought conditions, which are increasing in occurrence in Colorado and the West, can put any fishery at risk. Multiple physical, chemical, and biological factors are considered by CPW staff when using their best professional judgment to determine the need for closing a fishery to angling. For example, trout are tolerant of a wide range of water temperature fluctuations, even on a daily basis, but once temperatures begin to exceed 70-74 degrees Fahrenheit, stress and death become much more likely. Fish generally reduce or quit feeding when oxygen levels in the water drop to critical levels. Oxygen levels below 6 parts per million (ppm) are concerning for trout in these scenarios. Stream flows are the primary driver of many aquatic attributes and are considered in concert with temperature and oxygen information. Low flows are not uncommon, but when coupled with high temperatures and/or potentially low dissolved oxygen, low flows can result in an increased level of stress to fish.

All 2018 fishing closures were implemented following existing CPW procedures. During these processes, CPW staff identified several issues with the current criteria for establishing a fishing closure. Since 2002, additional research has been completed, leading to the refinement of state and national water quality standards, including those of the CO Department of Public Health and Environment (CDPHE) and US Environmental Protection Agency (EPA). As such, the current closure criteria "a." and "d." do not align with other presently established standards by CDPHE and EPA aimed at protecting aquatic life. Further, there are significant natural variations in thermal regimes and environmental conditions across systems

statewide. The current temperature thresholds are not protective of all systems, and temperature effects on aquatic life may be evident at levels outside of these thresholds. Thus, the proposed revisions to criteria “a.” and “d.” reflect existing CDPHE and EPA water quality standards, while simultaneously including broad, statewide applicability for all potential waters in which future closures may need to be imposed.

Additional concerns with ambiguity were identified by CPW staff. The current closure criterion “b.” was used by staff to justify closure requests for certain waters. In the process of calculating the “historical average low flow for the time period in question”, staff determined several flaws in this evaluation. For example, staff used different methods for calculating the relevant stream flow, with different results. Clarifying the appropriate time period was also challenging because the “time period in question” is not defined; is this referencing the current time period, or the next several months during which minimal flow is anticipated? The current 25% threshold of the flow-related criterion is also not protective enough across most systems statewide. Based on the professional judgment of aquatic biologists statewide, there was consensus for modifying this threshold from 25% to 50%. Proposed revisions to the current criterion “b.” provide simple clarification and broad applicability.

The proposed revision to current closure criterion “c.” is minor and is recommended to provide staff more flexibility by including “stress” when describing fish that may also be exhibiting additional signs of “deterioration” related to environmental conditions.

There are no proposed changes to the current closure criterion “e.”

The recommended revisions to the current fishing closure criteria are the culmination of a collaborative effort among the Aquatic Section, Water Section, and all four Regions. These modifications have been vetted internally through all relevant statewide CPW personnel, and thus are proposed by Aquatic Senior Staff under the preferred alternative described below. Adopting the proposed revisions will result in criteria:

- that are data driven and consistent with CDPHE and EPA current water quality standards and regulations, and
- that provide the public with uniform and coherent messaging
- with statewide applicability, ensuring statewide consistency and flexibility for implementation by staff

**STATE LAW REQUIRES CPW TO SOLICIT INPUT FROM STAKEHOLDERS THAT MAY BE AFFECTED POSITIVELY OR NEGATIVELY BY THE PROPOSED RULES. THE FOLLOWING STAKEHOLDERS HAVE BEEN ADVISED OF AND INVITED TO PROVIDE INPUT ON THE REGULATORY CHANGES PROPOSED IN THIS ISSUE PAPER:**

**\*IT IS ASSUMED THAT ALL NECESSARY INTERNAL PARTIES HAVE BEEN NOTIFIED\*.**

Restrictions on public gatherings remain in place, so CPW Aquatic Staff held four Zoom webinars virtually for anglers across the state beginning with the NW Region (June 10<sup>th</sup>) and continuing with the SW Region (June 15<sup>th</sup>), SE Region (June 25<sup>th</sup>), and NE Region (July 15<sup>th</sup>). Comments were requested on this proposed regulation change during these webinars. Additionally, CPW posted the link to these four Zoom webinars to CPW’s website and also to social media soliciting written comments. No comments were received.

Multiple contacts with media, anglers, Trout Unlimited, municipalities and others have inquired about CPW’s current regulation and associated criteria for establishing fishing closures, especially during the 2018 fishing season.

**ALTERNATIVES: (POSSIBLE OUTCOMES or POSSIBLE REGULATIONS):**

**1. \*Preferred Alternative\*:**

W-1, Article I, #104 F. Emergency Closure of Fishing Waters

The Director may authorize emergency closure of fishing waters in the state for a period of up to 9 months when it is determined that environmental conditions in these waters are such that fishing could result in unacceptable levels of fish mortality. Such closures **may** be enacted when any one of the following criteria are met:

- a. Daily maximum water temperatures exceeds ~~74~~ 71 degrees Fahrenheit; ~~or the daily average temperature exceeds 72 degrees Fahrenheit;~~
- b. Measured stream flows are 50% or less of the daily average flow; ~~25% or less of the historical average low flow for the time period in question;~~
- c. Fish condition is deteriorating such that fungus and other visible signs of deterioration and/or stress may be present;
- d. Daily minimum dissolved oxygen levels are below six (6) ~~five (5)~~ parts per million (ppm);
- e. When a natural or man-caused environmental event such as a wildfire, mudslides, oil spills or other similar event has occurred, resulting in the need for recovery time or remedial action for a fish population

When such determination has been made, public notice will be given, including posting at the site.

**2. No change:**

W-1, Article I, #104 F. Emergency Closure of Fishing Waters

The Director may authorize emergency closure of fishing waters in the state for a period of up to 9 months when it is determined that environmental conditions in these waters are such that fishing could result in unacceptable levels of fish mortality. Such closures may be enacted when any one of the following criteria are met:

- a. Daily maximum water temperatures exceed 74 degrees Fahrenheit or the daily average temperature exceeds 72 degrees Fahrenheit;
- b. Measured stream flows are 25% or less of the historical average low flow for the time period in question;
- c. Fish condition is deteriorating such that fungus and other visible signs of deterioration may be present;
- d. Daily minimum dissolved oxygen levels are below five (5) parts per million (ppm);
- e. When a natural or man-caused environmental event such as a wildfire, mudslides, oil spills or other similar event has occurred, resulting in the need for recovery time or remedial action for a fish population

When such determination has been made, public notice will be given, including posting at the site.

**Issue Raised by:**

**Aquatic Senior Staff**

**Author of the issue paper  
(if different than person raising the  
issue):**

**Bill Atkinson, Kendall Bakich, Kyle Battige, Dan Brauch,  
Carrie Tucker, and Lori Martin**

<b>CC:</b>	
<b>APPROVED FOR FURTHER CONSIDERATION BY:</b>	<b>Matt Nicholl</b>
<b>REQUIRES NEW SPACE IN THE BROCHURE?</b>	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
<b>ARE ADEQUATE STAFF AND FUNDING RESOURCES AVAILABLE TO IMPLEMENT?</b>	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
<b>REGION, BRANCH, OR SECTION LEADING IMPLEMENTATION</b>	<b>Aquatic Section</b>
<b>RECOMMENDED FOR CONSENT AGENDA?</b>	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO

**ISSUES SUBMITTAL FORM**

Date: August 12, 2020

<b>ISSUE:</b>	<b>Should CPW establish a limited harvest for mountain whitefish statewide?</b>
<b>DISCUSSION (FACTS AND FIGURES, EXPLANATION OF ISSUE):</b>	
<p>Mountain whitefish abundance has significantly declined across much of the species native range, or occupied habitat, in Rocky Mountain states. Dramatic declines have been reported in the upper Madison River and Mission Creek in Montana (Vincent 2009), and the Big Lost River in Idaho (Brinkman et al. 2013, Gamett et al. 2009), as well as the Yampa and Colorado river drainages in Colorado (unpublished data).</p> <p>In Colorado, mountain whitefish are native only to the Yampa and White river drainages, though this salmonid was translocated to the Cache la Poudre River drainage in 1956 and the Colorado River drainage in the 1940's. Currently, the distribution of Mountain whitefish on the Western Slope of Colorado includes the Yampa River drainage, White River drainage, and the Colorado River drainage (including the Eagle and Roaring Fork rivers). This species is one of two native sportfish in northwest Colorado, the other being Colorado River cutthroat trout. Unlimited statewide bag and possession limits are currently in place for mountain whitefish in all inhabited waters, except for the mainstem Yampa River and its tributaries from the headwaters to the confluence with Trout Creek. Here the daily bag limit includes four fish, while the possession limit is eight fish. Restrictive harvest in this drainage was implemented in 2009, and so far, seems to be an effective management tool in efforts to conserve this native species.</p> <p>Initially, CPW staff prepared two draft issue papers proposing to limit harvest of mountain whitefish within sections of the Colorado and Roaring Fork rivers, and several of their respective tributaries in addition to headwaters of the North and South Forks of the White River and a section of the White River. During CPW's internal Regulation Review process, leadership staff suggested these two draft issue papers be combined with a revised recommendation for mountain whitefish statewide bag and possession limits to simplify the proposed regulation changes for anglers and CPW staff. The information provided below includes excerpts from the two draft issue papers that focused on waters specifically within the NW Region, where mountain whitefish predominantly occur in Colorado. Mountain whitefish have also been documented within several waters of the South Platte drainage, including the Cache la Poudre River, in the NE Region.</p> <p>Population declines of mountain whitefish in the Colorado River watershed, and significantly so in the Roaring Fork River, have recently been documented and are described in the forthcoming monitoring summaries for the Colorado, Roaring Fork, and Eagle rivers. Additionally, anglers and fishing guides within the Roaring Fork and Colorado rivers have approached CPW with concerns regarding reduced abundance of mountain whitefish. Reasons for the decline may be linked to several factors, including those that are both anthropogenic and environmental. Historically, anglers would travel locally and across the state to harvest aggregating fall spawning mountain whitefish and fill their coolers. To address this unsporting behavior, CDOW/CPW implemented angling closures in the fall to protect mountain whitefish spawning efforts in and near important spawning tributaries along both rivers. Since these spawning closures were enacted, fishing pressure on both rivers has greatly increased, most notably in the last five years. In addition to these anthropogenic factors, seasonally stressful conditions associated with lower than optimal river flows, warmer water temperatures, and monsoonal rain events can occur naturally. Stress associated with both anthropogenic and environmental stochasticity often results in noticeable mortalities of mountain whitefish in both rivers.</p> <p><b>Colorado River Monitoring Summary (downstream to upstream)</b></p> <p><i>Monitoring below Glenwood Canyon (South Canyon, New Castle) - 2008, 2010, 2013, 2017, 2019</i></p> <p>CPW survey reaches at New Castle and South Canyon have such a low density of mountain whitefish present that an accurate abundance estimate for this species (# of fish/acre) cannot be reported for the</p>	

sampling dates included; instead, number of individual mountain whitefish captured during surveys is reported in Figure 1 below. Variability is evident for the presence of mountain whitefish encountered during surveys and shows a standard deviation of 68.2 (67% of the mean of 101.8) and 40.9 (84% of the mean of 48.8) at South Canyon and New Castle, respectively. Average fish size is notably different between the New Castle and South Canyon reaches, 8.8 and 11.7 inches respectively, indicating the dominance of juvenile mountain whitefish downstream and adults upstream. This is also characteristic of the monitoring reach upstream of Dotsero, which is similarly low gradient with warmer temperatures. Such conditions are beneficial for faster growth in juvenile salmonids and limiting to the presence of larger coldwater trout predators. In the bar graph below, the general trend is declining for the number of mountain whitefish encountered in both monitoring reaches. As well, annual observations of spawning runs at the Canyon, No Name, and Grizzly Creek tributaries have detected a decline in abundance of spawning mountain whitefish over the last 10 years from a level of high abundance (fish in the 100s) to very low abundance (only a few observed).

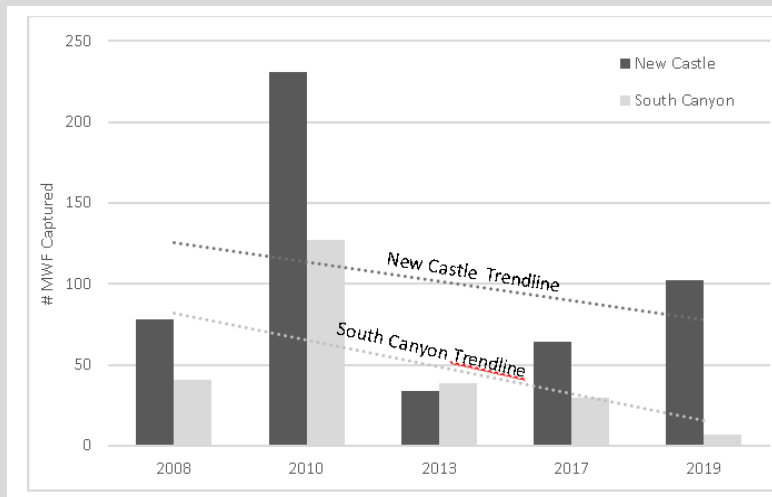


Figure 1. Number of mountain whitefish collected at two stations on the Colorado River sampled across various years from 2008 through 2019.

*Monitoring above Glenwood Canyon to Piney River (from downstream to upstream: Lyons Gulch, Catamount, State Bridge) - 2001, 2008-2019*

Historically, this upstream portion of the Colorado River was predicted to isolate from mountain whitefish as it was hoped that Shoshone Dam in Glenwood Canyon would prevent their invasion upstream when they were first introduced to the Roaring Fork River in the 1940s. However, mountain whitefish have been known to reside for decades in the Colorado River upstream of Glenwood Canyon due to upstream invasion or escapement from the upper Yampa River through transbasin diversions, or both. In recent surveys, we are able to estimate the abundance of the established mountain whitefish population in most years (Figure 2). Catamount and State Bridge populations are variable across survey events with recent suppression of mountain whitefish influencing the decline of the trend lines. The reduction of mountain whitefish at State Bridge coincides with the construction of a downstream access point that has led to increased river use in the reach. The river reach at Catamount has a relatively stable population of both mountain whitefish and trout; this could be related to lower river traffic due to a difficult rapid a few miles downstream that likely limits boaters based upon ability, especially with the loss of an unofficial boat take-out upstream of the rapid in 2016.

The notable increase of mountain whitefish at Lyons Gulch likely relates to the reduction of predators (brown trout) in a rain event that occurred in 2012 that virtually wiped out most fish species in the river. It is also notable that the average size of mountain whitefish in Lyons Gulch is significantly lower (7.4 inches) than Catamount and State Bridge (10.8 and 12.6 inches, respectively), indicating that the river in this low gradient reach may serve as a “nursery”. We hypothesize that once whitefish have grown

and start to mature they move upstream from the Lyons Gulch area to cooler reaches with higher quality food sources. River user surveys recently conducted by the Wild & Scenic Stakeholder Group (W&S SG) documented low harvest of all fish for anglers between State Bridge and Catamount, and overall increasing angling use from the proliferation of public access points from State Bridge to Dotsero.

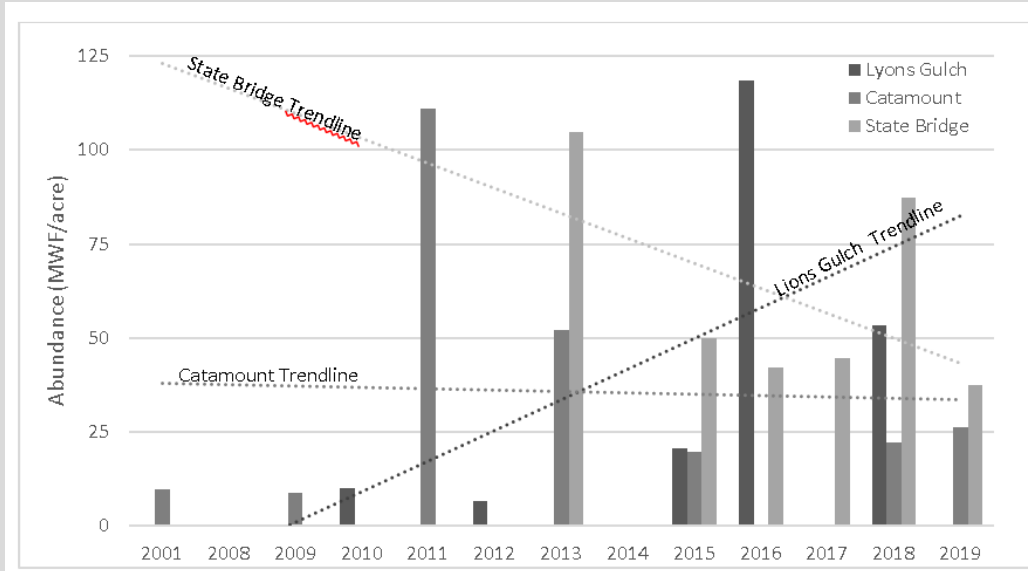


Figure 2. Estimated abundance of Mountain whitefish at three stations on the Colorado River sampled across various years from 2001 through 2019.

*Monitoring at Radium downstream of Gore Canyon -2010-2013, 2015, 2017, 2019*

The data below have a fairly tight standard deviation (SD = 46.7, or 19% of the mean of 245), and there is no identifiable trend in mountain whitefish abundance – thus, the population is considered stable (Figure 3). Recent user surveys by the W&S SG detected an extremely low harvest of any species of fish in this reach.

Year	# captured	Year	# captured
2010	307	2015	219
2011	162	2017	232
2012	273	2019	272
2013	248		

Figure 3. Number of mountain whitefish collected at the Radium station on the Colorado River across various years from 2010 through 2019.

*Monitoring upstream of Gore Canyon*

Mountain whitefish first appeared in the Colorado River upstream of Gore Canyon in 2013 and have been increasing their numbers since then. Because they are such a new arrival and not native to the area, this is considered an active invasion of mountain whitefish.

*Piney River Survey Summary (important spawning tributary to Colorado mainstem just upstream of State Bridge)*

The Piney River downstream of Gore Canyon is the uppermost spawning tributary for mountain whitefish that has a notable run in the fall. A single survey was conducted below a trail bridge crossing on public land that exists for approximately two miles upstream of the confluence with the Colorado River (Figure 4). Adult mountain whitefish collected after the fall spawn in the survey reach could either be resident to the Piney River or resident Colorado River fish.

Year	# Captures	Abundance (fish/acre)	Avg Length
2013	24	64.71	13.87

Figure 4. Mountain whitefish results from a single survey in 2013 on the Piney River.

### Roaring Fork River Monitoring Summary - 2009, 2010, 2013, 2015, 2019

In the data presented below, the evident decline in mountain whitefish is statistically significant based upon 95% confidence intervals (not shown) (Figure 5). Elevated water temperatures and less than optimal river flow as a result of drought conditions coupled with increased fishing pressure have likely influenced the mountain whitefish population in the Roaring Fork River downstream of the Frypan River to the confluence with the Colorado River. Angler reports and personal observations of mountain whitefish mortalities and handling stress (e.g., inability to swim away or stay upright when released) are not uncommon during heavy use periods in the late spring and summer, and are especially common in low water years during high use periods on the river. Fishing pressure in the Roaring Fork Valley has notably increased over the last 10 years, and even more so in the last 5 years. Though most anglers only incidentally catch mountain whitefish while actively targeting trout, angling stress is likely a contributing factor to the declining Mountain whitefish once abundant in the Roaring Fork River.

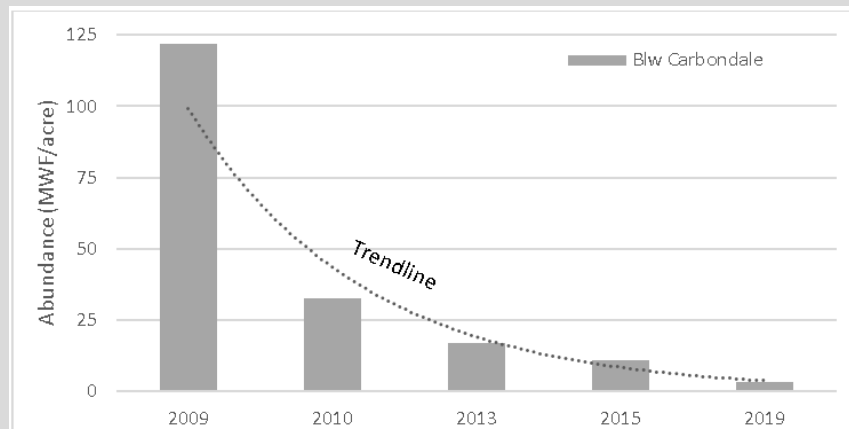


Figure 5. Estimated abundance of mountain whitefish at the Carbondale station on the Roaring Fork River across various years from 2009 through 2019.

### Eagle River Monitoring Summary - 2010, 2014, 2016

In the Eagle River, surveys do not detect a significant number of mountain whitefish nor are they frequently caught by anglers - however, their presence is documented in the river in multiple reaches from Gore Creek downstream to the Colorado River. With that said, most surveys have novel captures of mountain whitefish, but they are captured in some abundance at the survey station downstream of Gypsum. The density of fish is low enough that resulting abundance estimates are inappropriate in evaluating trends. Rather, the number of mountain whitefish captured is reported below (Figure 6). The number of fish collected has been variable and consists mostly of juveniles. It is likely that the Eagle River is used by mountain whitefish as a spawning tributary to the Colorado River, and the lower Eagle River is considered a mountain whitefish nursery area.



Year	# Captures	Avg Length
2010	11	6.62
2014	22	8.62
2016	6	9.21

Figure 6. Number of mountain whitefish collected at a station downstream of Gypsum on the Eagle River across various years from 2010 through 2016.

**White River Monitoring Summary**

Fortunately, the White River drainage appears to be the only mountain whitefish stronghold in the species native range. Adult mountain whitefish (greater than or equal to 6" in length) population estimates generated from annual fisheries sampling efforts at three standardized locations in the White River across the past 10+ years note that the White River population has been relatively robust, with thousands of fish per mile (Figures 7-9). Little mountain whitefish abundance information exists in the White River drainage prior to 2006, but a common anecdote from anglers who have spent decades in the area is that mountain whitefish are less abundant now than decades ago, suggesting that abundance could have been higher prior to CPW's sampling history.

Although mountain whitefish abundance is still relatively high in the White River, this species is sensitive to environmental stressors and less thermally tolerant than rainbow trout or brown trout (Brinkman et al. 2013). Increased angling pressure, elevated summer water temperatures, entrainment of fish through irrigation diversions, and habitat modifications related to the recent annual algae blooms within the White River are known impacts that could reduce mountain whitefish reproduction and recruitment success. These potential impacts to the mountain whitefish population may be avoided, minimized, or mitigated for, while others are beyond CPW's control.

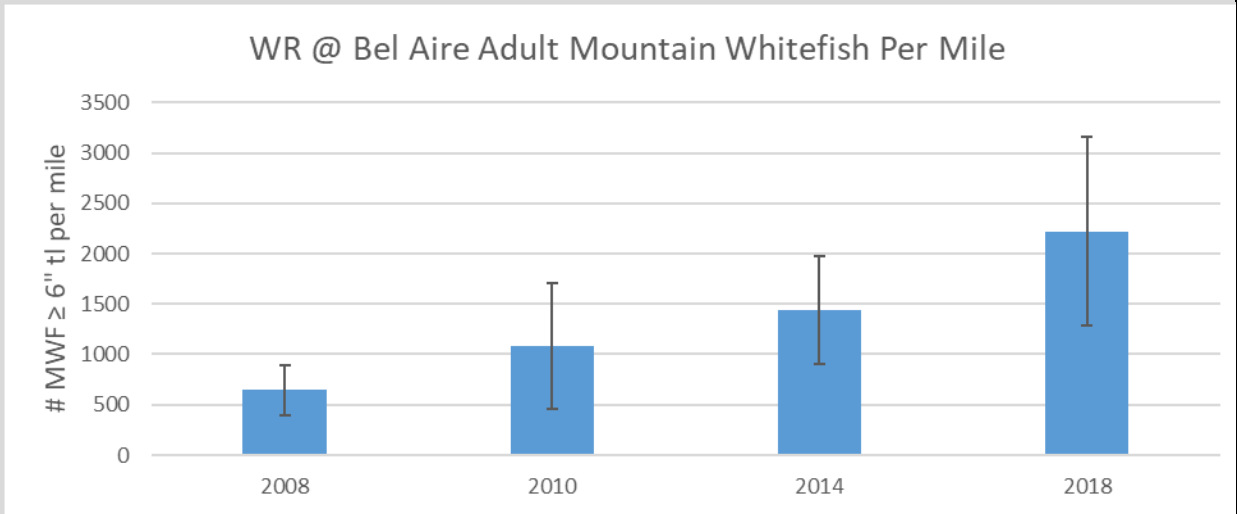


Figure 7. Adult mountain whitefish (≥6" in total length) population estimates per mile with 95% confidence intervals from 2008 to 2018 within Bel Aire SWA, the upstream most sampling station.

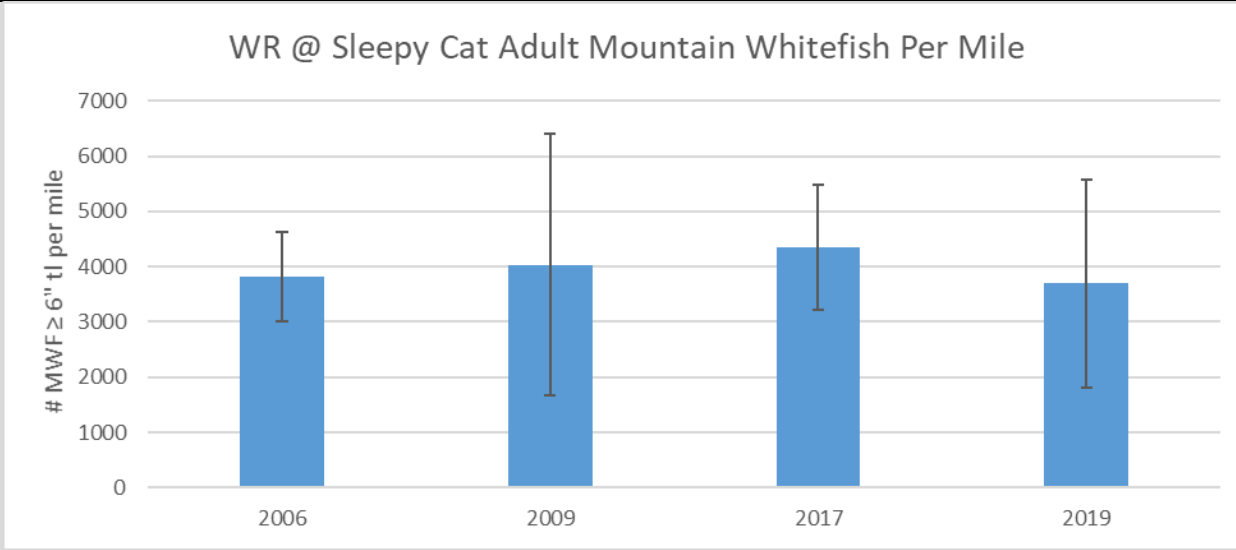


Figure 8. Adult mountain whitefish ( $\geq 6''$  in total length) population estimates per mile with 95% confidence intervals from 2006 to 2019 at the Sleepy Cat public fishing lease.

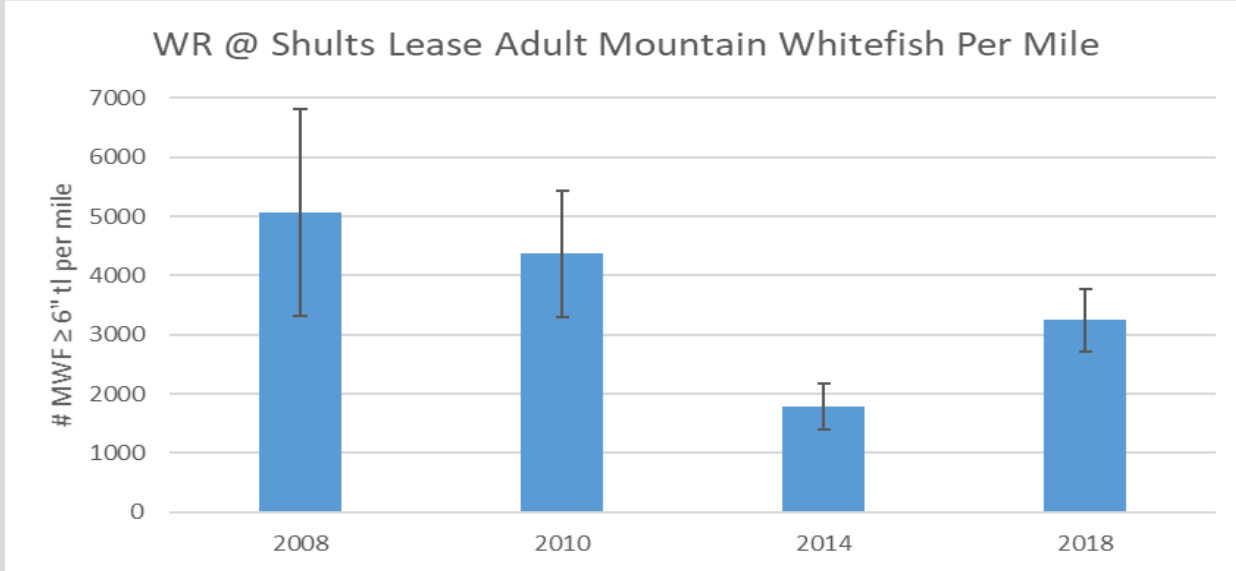


Figure 9. Adult mountain whitefish ( $\geq 6''$  in total length) population estimates per mile with 95% confidence intervals from 2006 to 2018 at the Shults public fishing lease, the downstream most sampling station.

Of the anthropogenic and environmental factors that affect mountain whitefish, CPW has the authority to regulate fishing pressure and angler harvest. CPW is currently evaluating fishing pressure in the Colorado and Roaring Fork drainages. While doing so may benefit mountain whitefish and other species, there currently is no scientific evidence to suggest that regulating fishing pressure alone will benefit mountain whitefish. CPW is also in the beginning stages of planning a largescale study which will allow managers to better understand mountain whitefish life history on the Western Slope of Colorado. This study will likely require at least three years of data collection and analysis before any management actions can take place.

In order to proactively manage mountain whitefish populations, one step CPW can initiate to control undesired effects is to limit harvest of this unique sportfish. Implementing restrictive daily bag and possession limits will still allow angler harvest, but will also improve fishery management and conservation of a recreationally important native fish within western Colorado. CPW will continue investigating possible explanations for the species decline, while hopeful that restrictive harvest will be an effective management tool in the interim.

Mountain whitefish populations provide a unique and diverse angling opportunity sought after by anglers. Allowing unlimited harvest amidst population declines, however, implies that CPW as a managing agency is not concerned with conservation of a native sportfish. Based on the information presented above, instituting restricted harvest is warranted not only for the mountain whitefish populations declining within sections of the Colorado and Roaring Fork rivers, but also for the more abundant population of the White River, all of which continue to be impacted by multiple stressors. This action will assist in increasing the persistence of the mountain whitefish in these popular angling reaches, as well as convey the importance of this unique sportfish to these angling communities so that current and future generations of anglers can enjoy.

CPW's aim is to continue allowing some harvest of these mountain whitefish populations and to continue monitoring these populations over time. We suggest that these restrictive harvest regulations be implemented not only in NW Colorado, but also within the NE Region where mountain whitefish provide an additional sportfish benefit to anglers.

The statewide trout limits of four fish per bag and eight fish in possession are familiar examples of limited harvests that allow for the conservation of fish while still offering angling opportunity. The upper Yampa River Mountain whitefish harvest regulation aligns with the statewide trout harvest limits and also provides an appropriate model for consideration that is protective of the mainstem river fishery as well as the tributaries important for their reproduction. Implementing restrictive harvest regulations for mountain whitefish that are consistent with other northwest Colorado waters and statewide trout limits eases the burden on anglers to decipher and remember already complex fishing regulations. This being said, more restrictive harvest regulations may need to be implemented following those suggested here, particularly for the Roaring Fork River, should even more decline of this mountain whitefish population be observed post-regulation change, and such regulations be adopted. Applying a restrictive harvest for mountain whitefish statewide will aid in ensuring the long-term sustainability of this unique sportfish for our angling public.

#### **References**

Brinkman, S.F., H. J. Crockett, and K.B. Rogers 2013. Upper thermal tolerance of Mountain whitefish eggs and fry. Transactions of the American Fisheries Society, 142:3, 824-831

Gamett, B. L., D. Garren, and J. Fredericks. 2009. The status of Mountain whitefish in the Big Lost River basin, Idaho (2002–2005). Idaho Department of Fish and Game, Boise.

Vincent, E. R. 2009. Whitefish population declines in Montana. Page 9 in Whirling Disease Initiative, editor. Proceedings of the 2009 whirling disease and aquatic invasive species symposium. Trout Unlimited, Arlington, Virginia.

**STATE LAW REQUIRES CPW TO SOLICIT INPUT FROM STAKEHOLDERS THAT MAY BE AFFECTED POSITIVELY OR NEGATIVELY BY THE PROPOSED RULES. THE FOLLOWING STAKEHOLDERS HAVE BEEN ADVISED OF AND INVITED TO PROVIDE INPUT ON THE REGULATORY CHANGES PROPOSED IN THIS ISSUE PAPER:**

**\*IT IS ASSUMED THAT ALL NECESSARY INTERNAL PARTIES HAVE BEEN NOTIFIED\*.**

Public input has been obtained by individual contact with anglers, fishing guides, and landowners/ranchers, as well as during past public presentations of fisheries information. We have

also solicited input from local angling organizations and watershed advocacy groups. All of the contacts have been supportive of the reduced harvest.

Restrictions on public gatherings remain in place, so CPW Aquatic Staff held a Zoom webinar virtually for anglers on June 10<sup>th</sup> during which comments were requested on this proposed regulation change. Additionally, CPW posted the link to the Zoom webinar to CPW's website and also to social media soliciting written comments. No comments were received.

We also plan to visit with the White River Community Association regarding these proposed regulation changes in relation to their annual Mountain whitefish tournament.

**ALTERNATIVES: (POSSIBLE OUTCOMES or POSSIBLE REGULATIONS):**

1. **\*Preferred Alternative\*:** The statewide bag limit for mountain whitefish is four fish. The statewide possession limit for mountain whitefish is eight fish.
2. Status quo: No change to unlimited harvest for mountain whitefish for both daily bag and possession limits.

<b>Issue Raised by:</b>	<b>NW Aquatics Team</b>
<b>Author of the issue paper (if different than person raising the issue):</b>	
<b>CC:</b>	<b>Area 6, Area 7, Area 8, Area 9, and Area 10 Staff; Aquatic Senior Staff; NW Region</b>
<b>APPROVED FOR FURTHER CONSIDERATION BY:</b>	
<b>REQUIRES NEW SPACE IN THE BROCHURE?</b>	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
<b>ARE ADEQUATE STAFF AND FUNDING RESOURCES AVAILABLE TO IMPLEMENT?</b>	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
<b>REGION, BRANCH, OR SECTION LEADING IMPLEMENTATION</b>	<b>Aquatic Section</b>
<b>RECOMMENDED FOR CONSENT AGENDA?</b>	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO

**ISSUES SUBMITTAL FORM**

Date: 08/12/2020

<b>ISSUE:</b>	<b>Should harvest of tiger trout be restricted at Meadow Creek Reservoir (Grand County)?</b>
<b>DISCUSSION (FACTS AND FIGURES, EXPLANATION OF ISSUE):</b>	
<p>CPW has stocked tiger trout (a sterile hybrid) on three occasions (2014, '16, and '18) to date in Meadow Creek Reservoir in Grand County in an effort to establish a predator that will thin the stunted brook trout population in the lake. Aquatics staff have closely monitored these batches of fish to determine the success of this approach. Few tiger trout have grown to 14", which is the approximate size at which we expect prey switching to occur. Only minimal predation of brook trout has been observed to date. Due to their aggressive nature, tiger trout have proven to be easy to catch in this lake, and we believe that production of larger, predatory fish may currently be limited by angler harvest. A conservative harvest regulation would allow tiger trout to grow to a predatory size in the lake as intended to help control the brook trout population. For more detailed information, see the Meadow Creek Reservoir Fishery Management Report. Local staff intend to provide significant signage and educational effort in conjunction with US Forest Service (USFS) staff.</p>	
<p><b>STATE LAW REQUIRES CPW TO SOLICIT INPUT FROM STAKEHOLDERS THAT MAY BE AFFECTED POSITIVELY OR NEGATIVELY BY THE PROPOSED RULES. THE FOLLOWING STAKEHOLDERS HAVE BEEN ADVISED OF AND INVITED TO PROVIDE INPUT ON THE REGULATORY CHANGES PROPOSED IN THIS ISSUE PAPER:</b></p> <p><b>*IT IS ASSUMED THAT ALL NECESSARY INTERNAL PARTIES HAVE BEEN NOTIFIED*.</b></p>	
<p>Restrictions on public gatherings remain in place, so CPW Aquatic Staff held a Zoom webinar virtually for anglers on June 10<sup>th</sup> during which comments were requested on this proposed regulation change. Additionally, CPW posted the link to the Zoom webinar to CPW's website and also to social media soliciting written comments. No comments were received.</p> <p>CPW Aquatics staff have been in communication with the Denver Water Board (owner/operator of the reservoir) and local USFS managers regarding the issue. Both entities are supportive of the proposed regulation change.</p>	
<b>ALTERNATIVES: (POSSIBLE OUTCOMES or POSSIBLE REGULATIONS):</b>	
<p>1. <b>*Preferred Alternative*:</b></p> <p>Chapter W-1, Article I, #108 (B):</p> <p>ADD Meadow Creek Reservoir – Grand County</p> <p>a. The bag and possession limit and minimum size for tiger trout is one fish greater than 18 inches in length. All tiger trout 18 inches in length or smaller must be returned to the water immediately upon catch.</p> <p>2. Status quo – no change to the statewide daily bag limit of four trout and eight trout possession limits</p>	
<b>Issue Raised by:</b>	<b>Jon Ewert, Area 9 Aquatic Biologist</b>
<b>Author of the issue paper (if different than person raising the issue):</b>	

<b>CC:</b>	<b>Area 9 Staff; Lori Martin, NW Senior Aquatic Biologist; Matt Nicholl, Aquatic Section Manager; NW Region</b>
<b>APPROVED FOR FURTHER CONSIDERATION BY:</b>	<b>Matt Nicholl</b>
<b>REQUIRES NEW SPACE IN THE BROCHURE?</b>	<input checked="" type="checkbox"/> <b>YES</b> <input type="checkbox"/> <b>NO</b>
<b>ARE ADEQUATE STAFF AND FUNDING RESOURCES AVAILABLE TO IMPLEMENT?</b>	<input checked="" type="checkbox"/> <b>YES</b> <input type="checkbox"/> <b>NO</b>
<b>REGION, BRANCH, OR SECTION LEADING IMPLEMENTATION</b>	<b>Aquatic Section, Area 9</b>
<b>RECOMMENDED FOR CONSENT AGENDA?</b>	<input type="checkbox"/> <b>YES</b> <input checked="" type="checkbox"/> <b>NO</b>

**ISSUES SUBMITTAL FORM**

Date: 08/12/2020

<b>ISSUE:</b>	<b>Should the bag and possession limit for trout at Meadow Creek Reservoir (Jackson County)?</b>
<b>DISCUSSION (FACTS AND FIGURES, EXPLANATION OF ISSUE):</b>	
<p>Meadow Creek Reservoir is located on the east side of Jackson County, on Johnny Moore Mountain State Trust Land. The reservoir is north of Highway 14 and approximately 8 miles west of the State Forest State Park Moose Visitor Center. Meadow Creek Reservoir is approximately 277 surface acres and primarily surrounded by private land owned by the Meadow Creek Reservoir Home Owners Association (HOA). However, the reservoir does have a small portion of public access, roughly seven percent of the shoreline, including the dam. The location of the lake makes it easily accessible to traveling anglers.</p> <p>Historically, the HOA members stocked the lake every other year with adult trout. However, in 2010 Colorado Parks and Wildlife (CPW) began stocking and managing the lake, due to public ability to fish the lake. Since, 2010 the lake has been stocked annually by CPW with sub-catchable (three to five inch) rainbow trout at a very low rate in comparison to other lakes within the county, primarily due to the desire to keep trout densities low in order to maintain a trophy fishery. Currently, there are no restrictive fishing regulations in place and statewide bag and possession limits apply. Anglers fishing on the private portion of the reservoir have a self-imposed restriction of fly and lure only and fish must be immediately returned to the water. Meadow Creek Reservoir currently has fishing activity throughout the year.</p> <p>In 2010, CPW sampled the lake and showed overall high numbers of suckers and low numbers of trout, but several trout in the twenty inch and over range were caught. In 2016, the lake was sampled again, sucker abundance remained high, but trout numbers had increased as a result of CPW stocking and the trophy component of the fishery was still present with large trout, greater than twenty inches being sampled. However, sampling results from 2019 showed high numbers of suckers, but the overall number of trout had decreased drastically and no trout over twenty inches were sampled, suggesting a loss or substantial decrease of the trophy component to the fishery.</p> <p>Multiple factors could be associated with the decline of the fishery from 2016 to 2019. The two factors causing the most concern are the high numbers of suckers present and angler impact through harvest. Suckers have been present in the lake for many years with no viable method for removing them from the system. Angler pressure has increased over the last decade and associated harvest increase has likely led to decreased overall trout abundance and trophy trout present in the reservoir.</p>	
<p><b>STATE LAW REQUIRES CPW TO SOLICIT INPUT FROM STAKEHOLDERS THAT MAY BE AFFECTED POSITIVELY OR NEGATIVELY BY THE PROPOSED RULES. THE FOLLOWING STAKEHOLDERS HAVE BEEN ADVISED OF AND INVITED TO PROVIDE INPUT ON THE REGULATORY CHANGES PROPOSED IN THIS ISSUE PAPER:</b></p>	
<p><b>*IT IS ASSUMED THAT ALL NECESSARY INTERNAL PARTIES HAVE BEEN NOTIFIED*.</b></p> <ul style="list-style-type: none"> <li>• Sportspeople.</li> <li>• Residents of Meadow Creek Home Owners Association.</li> <li>• Meadow Creek Reservoir residents.</li> <li>• Input was sought in meeting by Home Owners Association.</li> </ul>	
<b>ALTERNATIVES: (POSSIBLE OUTCOMES or POSSIBLE REGULATIONS):</b>	
<ol style="list-style-type: none"> <li>1. <b>*Preferred Alternative*:</b> Reduce current bag and possession limit of four (4) trout bag limit and eight (8) trout possession limit, to two (2) trout bag and two (2) trout possession limit.</li> <li>2. Reduce bag limit from four (4) trout to two (2) trout. Keep possession limit at eight (8) trout.</li> <li>3. Status quo.</li> </ol>	

<b>Issue Raised by:</b>		<b>Kyle Battige and DWM Zach Weaver</b>
<b>Author of the issue paper (if different than person raising the issue):</b>		
<b>CC:</b>		
<b>APPROVED FOR FURTHER CONSIDERATION BY:</b>		<b>Matt Nicholl</b>
<b>REQUIRES NEW SPACE IN THE BROCHURE?</b>		<input checked="" type="checkbox"/> <b>YES</b> <input type="checkbox"/> <b>NO</b>
<b>ARE ADEQUATE STAFF AND FUNDING RESOURCES AVAILABLE TO IMPLEMENT?</b>		<input checked="" type="checkbox"/> <b>YES</b> <input type="checkbox"/> <b>NO</b>
<b>REGION, BRANCH, OR SECTION LEADING IMPLEMENTATION</b>		<b>Aquatic Section, NW Region</b>
<b>RECOMMENDED FOR CONSENT AGENDA?</b>		<input type="checkbox"/> <b>YES</b> <input checked="" type="checkbox"/> <b>NO</b>



## ISSUES SUBMITTAL FORM

Date: 08/12/2020

<b>ISSUE:</b>	<b>Should the fishing closure dates on the Colorado River below Shadow Mountain Reservoir be changed?</b>
<b>DISCUSSION (FACTS AND FIGURES, EXPLANATION OF ISSUE):</b>	
<p>Regulation Chapter W-1, Article I, #108 (B) 87(a)(1), regarding the Colorado River below Shadow Mountain Dam currently reads:</p> <p>Fishing is prohibited from October 1 through December 31.</p> <p>The purpose of this regulation is to close the area to public fishing during Colorado Parks and Wildlife (CPW)'s annual kokanee salmon spawn collection operations. Given the current timing and scope of the spawn operation, this date range is excessively wide and no longer accurately reflects the period during which spawn collection occurs, and unnecessarily restricts public opportunity.</p>	
<b>STATE LAW REQUIRES CPW TO SOLICIT INPUT FROM STAKEHOLDERS THAT MAY BE AFFECTED POSITIVELY OR NEGATIVELY BY THE PROPOSED RULES. THE FOLLOWING STAKEHOLDERS HAVE BEEN ADVISED OF AND INVITED TO PROVIDE INPUT ON THE REGULATORY CHANGES PROPOSED IN THIS ISSUE PAPER:</b>	
<b>*IT IS ASSUMED THAT ALL NECESSARY INTERNAL PARTIES HAVE BEEN NOTIFIED*.</b>	
<p>Restrictions on public gatherings remain in place, so CPW Aquatic Staff held a Zoom webinar virtually for anglers on June 10<sup>th</sup> during which comments were requested on this proposed regulation change. Additionally, CPW posted the link to the Zoom webinar to CPW's website and also to social media soliciting written comments. No comments were received.</p> <p>CPW Aquatics staff have been in communication with local US Forest Service (USFS) managers and Northern Water Conservancy District regarding the issue. Both entities are supportive of the proposed regulation change.</p>	
<b>ALTERNATIVES: (POSSIBLE OUTCOMES or POSSIBLE REGULATIONS):</b>	
<p>1. <b>*Preferred Alternative*:</b></p> <p>Chapter W-1, Article I, #108 (B):</p> <p>87. Colorado River, (North Fork) including Shadow Mountain Spillway – Grand County</p> <p>a. From Shadow Mountain Dam spillway to Lake Granby, including Columbine Bay to the Twin Creek inlet:</p> <p style="padding-left: 40px;">1. Fishing is prohibited from October 4 15 through <del>December 31</del> November 30.</p> <p>2. Status quo – no change and fishing is prohibited from October 1 through December 31</p>	
<b>Issue Raised by:</b>	<b>Jon Ewert, Area 9 Aquatic Biologist</b>
<b>Author of the issue paper (if different than person raising the issue):</b>	
<b>CC:</b>	<b>Area 9 Staff; Lori Martin, NW Senior Aquatic Biologist; Matt Nicholl, Aquatic Section Manager; NW Region</b>
<b>APPROVED FOR FURTHER CONSIDERATION BY:</b>	<b>Matt Nicholl</b>
<b>REQUIRES NEW SPACE IN THE BROCHURE?</b>	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO

<b>ARE ADEQUATE STAFF AND FUNDING RESOURCES AVAILABLE TO IMPLEMENT?</b>	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
<b>REGION, BRANCH, OR SECTION LEADING IMPLEMENTATION</b>	<b>Aquatic Section, Area 9</b>
<b>RECOMMENDED FOR CONSENT AGENDA?</b>	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO

ISSUES SUBMITTAL FORM

Date:

08/12/2020

<b>ISSUE:</b>	<p><b>Should the Colorado Parks and Wildlife (CPW) implement a 10” minimum size limit for crappie and redear sunfish at Berthoud Reservoir (Larimer County)?</b></p> <p><b>Should CPW reduce the bag limits for crappie and redear sunfish at Berthoud Reservoir?</b></p> <p><b>Should CPW install special regulations to protect largemouth bass at Berthoud Reservoir?</b></p>
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**DISCUSSION (FACTS AND FIGURES, EXPLANATION OF ISSUE):**

Berthoud Reservoir (Figure 1), a 35-acre impoundment, was excavated and later filled in 2016. Water filling the reservoir originates from a diversion from the Colorado-Big Thompson project and includes screening to prevent rough fish (suckers, carp, shad) from entering the reservoir. The stocking of redear sunfish, black crappie, largemouth bass, and rainbow trout followed from 2017-2019, resulting in an exceptional fishery (Figure 2). Berthoud Reservoir is scheduled to open to public angling during the fall of 2020. A Fishing is Fun grant was awarded to this reservoir to install a fishing pier while the Town of Berthoud implemented substantial recreational improvements. This water will be open to shoreline fishing as well as angling from belly boats. The Town of Berthoud installed a boat ramp to facilitate angling via belly boats and easier fish stocking for CPW hatchery staff.

Crappie and redear sunfish typically reproduce at age 3 in northeast Colorado. At present, age 3 crappie and redear sunfish average 7.73 and 7.51 inches in Berthoud Reservoir, respectively (Figure 3). A portion of these fish populations spawned naturally during 2019 and some individuals will exceed 10 inches during the summer of 2020. Parks and Wildlife Officers have indicated that many anglers harvest crappie and panfish starting at 5 inches. To allow crappie and redear to naturally reproduce at least one season prior to being potentially harvested, CPW staff recommends installing a 10 inch minimum harvest restriction on both crappie and redear sunfish in Berthoud Reservoir. Supplemental stocking of crappie and redear sunfish may continue annually; however, natural reproduction is an exceptional management tool to continue to promote a positive angling experience.

Smaller reservoirs do not support vast populations of panfish. In particular, the potential harvest of both 20 crappie in addition to 20 redear sunfish (40 fish total) from Berthoud Reservoir per angler has the potential to severely limit long term angling success at this water. CPW staff recommend reducing the bag limit to 10 crappie and redear sunfish in aggregate.

To ensure growth rates of panfish remains optimal, predatory largemouth bass were stocked annually from 2017 to 2019 into Berthoud Reservoir. Stocking of this species may continue. Continued predation by this species will allow the 10-inch minimum harvest restriction for crappie and redear sunfish to function properly. Thus, in order to create a quality bass fishing experience and maximize bass predation on small crappie and redear sunfish, we recommend installing a catch and release regulation for largemouth and smallmouth bass.

Catchable rainbow trout will continue to be stocked seasonally into Berthoud Reservoir. We do not propose additional protection beyond the statewide general regulation. Trout stocked originally in 2017 at 10 inches have grown to 16 inches per the 2019 survey.

**STATE LAW REQUIRES CPW TO SOLICIT INPUT FROM STAKEHOLDERS THAT MAY BE AFFECTED POSITIVELY OR NEGATIVELY BY THE PROPOSED RULES. THE FOLLOWING STAKEHOLDERS HAVE BEEN ADVISED OF AND INVITED TO PROVIDE INPUT ON THE REGULATORY CHANGES PROPOSED IN THIS ISSUE PAPER:**

**\*IT IS ASSUMED THAT ALL NECESSARTY INTERNAL PARTIES HAVE BEEN NOTIFIED\*.**

Internal: Area 2 DWMs, Area 2 AWM, Aquatic Biologist.

External: Berthoud Town Staff. Conversations with the public regarding these proposed regulation changes are being planned the 2020 statewide regulation review process. We anticipate scheduling at least one virtual meeting in each Region of the State seeking comments on these proposed regulation changes.

<b>ALTERNATIVES: (POSSIBLE OUTCOMES or POSSIBLE REGULATIONS):</b>	
<b>1. *Preferred Alternative*:</b>  BERTHOUD RESERVOIR – LARIMER <ol style="list-style-type: none"> <li>1. All largemouth and smallmouth bass must be returned to the water immediately upon catch.</li> <li>2. The minimum size for crappie and redear sunfish is 10 inches long.</li> <li>3. Bag and possession limit for crappie and redear sunfish is 10, in aggregate.</li> </ol> 2. Status Quo-no change. Statewide general regulations.	
<b>Issue Raised by:</b>	<b>Benjamin Swigle (Area 2 Aquatic Biologist)</b> <b>Clayton Brossart (Area 2 DWM)</b> <b>Jason Duetsch (Area 2 AWM)</b>
<b>Author of the issue paper (if different than person raising the issue):</b>	
<b>CC:</b>	<b>Aquatic Section; Regions; Areas</b>
<b>APPROVED FOR FURTHER CONSIDERATION BY:</b>	<b>Matt Nicholl</b>
<b>REQUIRES NEW SPACE IN THE BROCHURE?</b>	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
<b>ARE ADEQUATE STAFF AND FUNDING RESOURCES AVAILABLE TO IMPLEMENT?</b>	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
<b>REGION, BRANCH, OR SECTION LEADING IMPLEMENTATION</b>	<b>Aquatic Section</b>
<b>RECOMMENDED FOR CONSENT AGENDA?</b>	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO

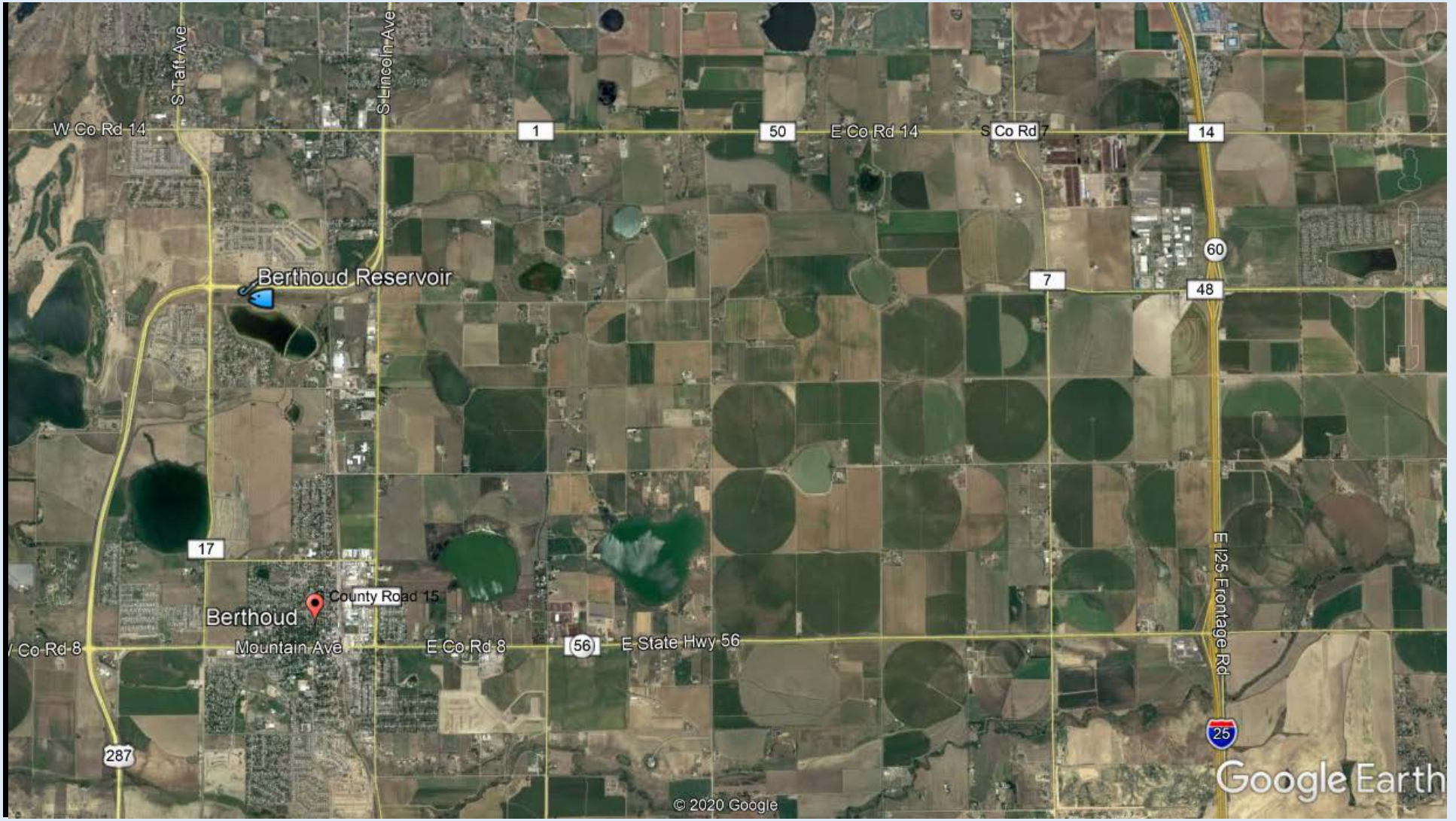


Figure 1. Berthoud Reservoir is located approximately 5 miles south of Loveland.



### Mean, Minimum and Maximum Length and Weight

Water 52439 Berthoud City Reservoir  
Station SP2397 Berthoud City Reservoir

Date 7/30/2019

Drainage South Platte River UtmX 492715 UtmY 4464612 Elevation 5114 ft  
Length Width Area  
Surveyors Swigle, Higgs, Flores, Sandersen, Dawson  
Gear Gill Nets (GN), Trap Nets (TN), Trot Lines (TL) Effort 197.50 Metric HOURS Protocol CPUE

SPECIES	Total Catch	Min cut inch	Max cut inch	Total Used	Length (inches)			Weight (lb)		
					Mean	Minimum	Maximum	Mean	Minimum	Maximum
BLACK CRAPPIE	72			72	6.92	3.94	8.35	0.13	0.02	0.47
BLUEGILL	1			1	7.56	7.56	7.56	0.42	0.42	0.42
LARGEMOUTH BASS	89			89	8.05	5.43	13.35	0.30	0.01	1.31
RAINBOW TROUT	7			7	15.43	15.08	16.06	1.25	1.13	1.35
REDEAR SUNFISH	207			207	7.05	4.80	8.35	0.09	0.02	0.50

**Notes:** Trot Lines used in an attempt to locate/document Blue Catfish stocked in 2017 and 2019. Trot line 1 (Dam #1), Trot line 2 (Dam #2), Trot line 3 (Mid lake), Trot line 4 (West End). Each trot line had 25 hooks of various sizes. Trot lines listed as E. Gillnets 1 and 2 combined. Trapnets 1 and 2 combined.

Figure 2. Survey data summary for Berthoud Reservoir July, 2019.

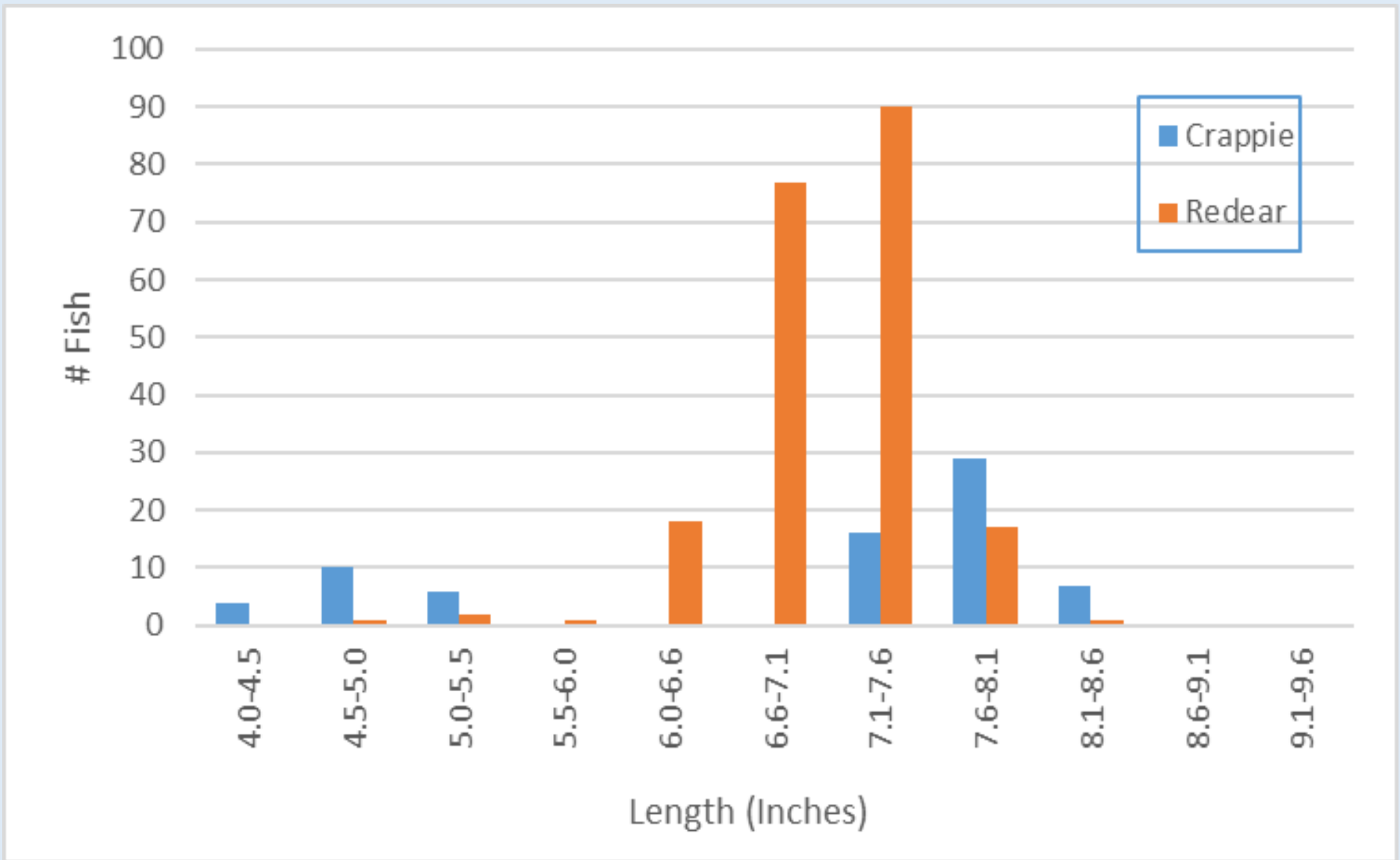


Figure 3. Length-frequency for crappie and redear sunfish (panfish) in Berthoud Reservoir, July 2019. Age-3 fish made up the majority of panfish sampled, by restricting harvest to a 10-inch minimum natural reproduction can occur at least 1 season prior to potential harvest.

**ISSUES SUBMITTAL FORM**

Date: 08/12/2020

<b>ISSUE:</b>	<b>Should Colorado Parks and Wildlife (CPW) implement a 10” minimum size limit for black and white crappie at Boedecker Reservoir (Larimer County)?</b>
<b>DISCUSSION (FACTS AND FIGURES, EXPLANATION OF ISSUE):</b>	
<p>Boedecker Reservoir (Figure 1) is a 375-acre impoundment that represents the focal point of this State Wildlife Area (SWA). Due to a relatively robust snow pack over the past decade and exceptional natural recruitment of crappie, angling success for this species has significantly improved (Figures 2 &amp; 3). To maintain the quality angling and bolster natural reproduction, we recommend installing a ten-inch minimum size limit for black and white crappie at Boedecker Reservoir SWA.</p> <p>Crappie typically reproduce at age 3 in northeast Colorado. At present, age-3 crappie average about 8 inches. To ensure crappie naturally reproduce at least one season prior to being potentially harvested the 10-inch minimum restriction is warranted. Natural reproduction by crappie in Boedecker has been extremely successful. For example, 71% of the crappie surveyed in 2019 were of the white variety despite the fact that CPW hatcheries only stock black crappie into Boedecker Reservoir.</p>	
<p><b>STATE LAW REQUIRES CPW TO SOLICIT INPUT FROM STAKEHOLDERS THAT MAY BE AFFECTED POSITIVELY OR NEGATIVELY BY THE PROPOSED RULES. THE FOLLOWING STAKEHOLDERS HAVE BEEN ADVISED OF AND INVITED TO PROVIDE INPUT ON THE REGULATORY CHANGES PROPOSED IN THIS ISSUE PAPER:</b></p> <p><b>*IT IS ASSUMED THAT ALL NECESSARY INTERNAL PARTIES HAVE BEEN NOTIFIED*.</b></p>	
<p>Internal: Area 2 DWMs, Area 2 AWM, Aquatic Biologist.</p> <p>External: Conversations with the public regarding these proposed regulation changes are being planned for during the 2020 statewide regulation review process. We anticipate scheduling at least one virtual meeting in each Region of the State seeking comments on these proposed regulation change.</p>	
<b>ALTERNATIVES: (POSSIBLE OUTCOMES or POSSIBLE REGULATIONS):</b>	
<p>1. <b>*Preferred Alternative*:</b></p> <p align="center">BOEDECKER RESERVOIR – LARIMER.</p> <p>1. The minimum size for crappie is 10 inches in length.</p> <p>2. Status Quo- statewide general regulations</p>	
<b>Issue Raised by:</b>	Benjamin Swigle (Area 2 Aquatic Biologist) Clayton Brossart (Area 2 DWM) Jason Duetsch (Area 2 AWM)
<b>Author of the issue paper (if different than person raising the issue):</b>	
<b>CC:</b>	Aquatic Section; Regions; Areas
<b>APPROVED FOR FURTHER CONSIDERATION BY:</b>	Matt Nicholl
<b>REQUIRES NEW SPACE IN THE BROCHURE?</b>	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
<b>ARE ADEQUATE STAFF AND FUNDING RESOURCES AVAILABLE TO IMPLEMENT?</b>	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
<b>REGION, BRANCH, OR SECTION LEADING IMPLEMENTATION</b>	Aquatic Section
<b>RECOMMENDED FOR CONSENT AGENDA?</b>	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO



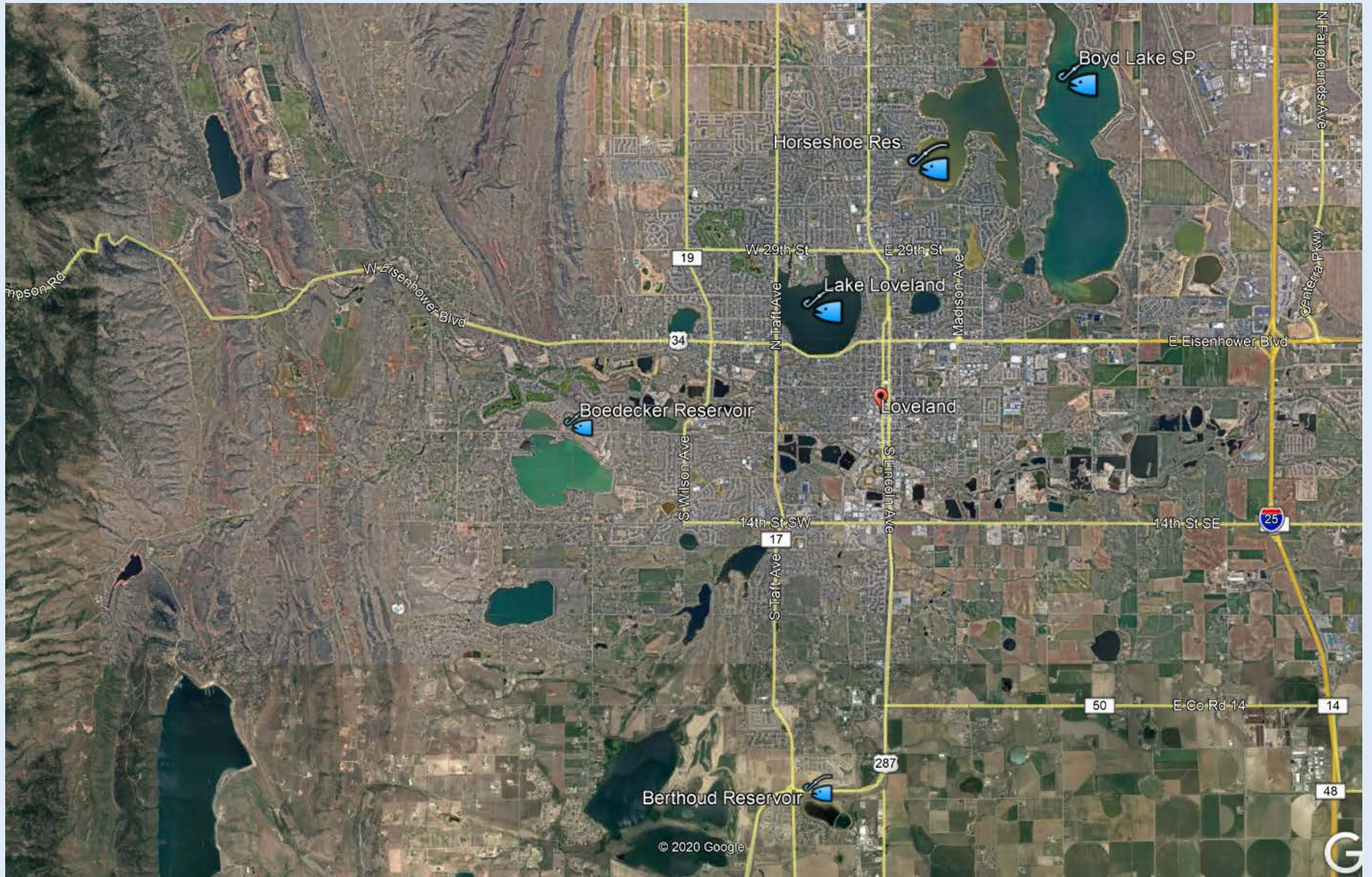


Figure 1. Boedecker Reservoir is located approximately 1 mile Southwest of Loveland.



### Mean, Minimum and Maximum Length and Weight

Water **52489** Boedecker Reservoir  
 Station **SP3462** Boedecker Reservoir

Date **5/15/2019**

Drainage **South Platte River**

UtmX **487753**

UtmY **4471052**

Elevation **5065 ft**

Surveyors **Swigle, Sandersen**

Length

Width

Area

Gear **Trap Nets**

Effort **54.00**

Metric **HOUR**

Protocol **CPUE**

SPECIES	Total Catch	Min cut inch	Max cut inch	Total Used	Length (inches)			Weight (lb)		
					Mean	Minimum	Maximum	Mean	Minimum	Maximum
BLACK CRAPPIE	20			20	10.66	9.25	14.76	0.65	0.43	1.73
BLUEGILL	5			5	6.18	6.06	6.38	0.17	0.11	0.23
COMMON CARP	8			8	14.99	10.83	21.81	1.85	0.47	4.03
GIZZARD SHAD	34			34	12.74	11.26	13.54	0.38	0.19	0.87
SAUGEYE (WALLEYE X SAUGER HYBRID)	1			1	12.80	12.80	12.80	0.59	0.59	0.59
SPOTTAIL SHINER	1			1	3.70	3.70	3.70	0.03	0.03	0.03
WALLEYE	1			1	9.06	9.06	9.06	0.20	0.20	0.20
WHITE BASS	92			92	10.80	5.67	14.72	0.37	0.03	0.83
WHITE CRAPPIE	50			50	10.30	5.71	13.23	0.58	0.07	1.08
WHITE SUCKER	5			5	14.29	12.01	16.57	1.12	0.83	1.72

Figure 2. Survey data summary for Boedecker Reservoir May, 2019.

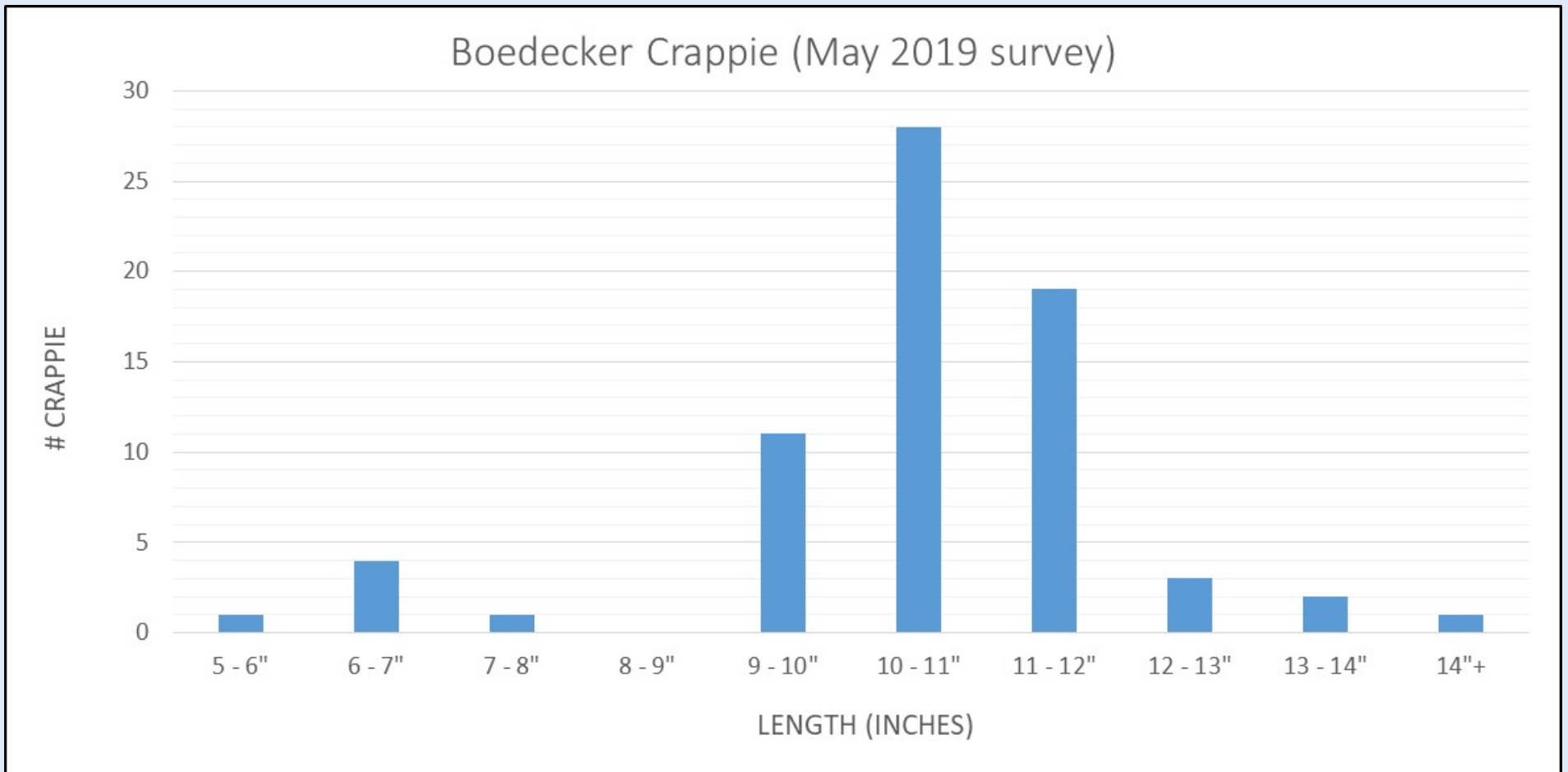


Figure 3. Length-frequency for crappie in Boedecker Reservoir, May 2019.

**ISSUES SUBMITTAL FORM**

Date: 08/12/2020

<b>ISSUE:</b>	<b>Should the tributary, East Fork Roaring Creek (Larimer County), be added to the current Roaring Creek artificial fly and lure, catch and release only regulation for cutthroat trout?</b>		
<b>DISCUSSION (FACTS AND FIGURES, EXPLANATION OF ISSUE):</b>			
<p>Roaring Creek maintains a naturally reproducing population of greenback cutthroat trout and is protected with an artificial fly and lure, catch and release only fishing regulation. Greenback cutthroat trout are protected under the Endangered Species Act as a federally threatened species. This federally threatened designation allows catch and release only fishing. East Fork Roaring Creek is a tributary to Roaring Creek, but is separated by several natural large waterfall barriers and is currently fishless upstream of those barriers. In order to protect an introduced population of greenback cutthroat trout in East Fork Roaring Creek, Colorado Parks and Wildlife (CPW) staff recommends changing the wording of the current Roaring Creek regulation to say, "Roaring Creek and tributaries" to clarify that East Fork Roaring Creek is included under this regulation.</p>			
<b>STATE LAW REQUIRES CPW TO SOLICIT INPUT FROM STAKEHOLDERS THAT MAY BE AFFECTED POSITIVELY OR NEGATIVELY BY THE PROPOSED RULES. THE FOLLOWING STAKEHOLDERS HAVE BEEN ADVISED OF AND INVITED TO PROVIDE INPUT ON THE REGULATORY CHANGES PROPOSED IN THIS ISSUE PAPER:</b>			
<b>*IT IS ASSUMED THAT ALL NECESSARY INTERNAL PARTIES HAVE BEEN NOTIFIED*.</b>			
<p>Internal: Area 4 DWM, Area 4 AWM, Aquatic Biologist.</p> <p>External: United States Forest Service. Conversations with the public regarding this proposed regulation change are being planned for during the 2020 statewide regulation review process. We anticipate scheduling at least one virtual meeting in each Region of the State seeking comments on this proposed regulation change.</p>			
<b>ALTERNATIVES: (POSSIBLE OUTCOMES or POSSIBLE REGULATIONS):</b>			
<p>1. <b>*Preferred Alternative*:</b>                  Roaring Creek and tributaries – Larimer County                  a. Fishing is by artificial flies and lures only.                  b. All cutthroat trout must be returned to the water immediately upon catch.</p>			
<b>Issue Raised by:</b>	<b>Kyle Battige, Shane Craig, and Ty Petersburg</b>		
<b>Author of the issue paper (if different than person raising the issue):</b>			
<b>CC:</b>			
<b>APPROVED FOR FURTHER CONSIDERATION BY:</b>	<b>Matt Nicholl</b>		
<b>REQUIRES NEW SPACE IN THE BROCHURE?</b>	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		
<b>ARE ADEQUATE STAFF AND FUNDING RESOURCES AVAILABLE TO IMPLEMENT?</b>	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		
<b>REGION, BRANCH, OR SECTION LEADING IMPLEMENTATION</b>	<b>Aquatic Section</b>		
<b>RECOMMENDED FOR CONSENT AGENDA?</b>	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		

**ISSUES SUBMITTAL FORM**

Date: 08/12/2020

<b>ISSUE:</b>	<b>Should Colorado Parks and Wildlife (CPW) eliminate the special regulation for largemouth and smallmouth bass at Lagerman Reservoir in Boulder County?</b>
<b>DISCUSSION (FACTS AND FIGURES, EXPLANATION OF ISSUE):</b>	
Lagerman Reservoir is located southwest of Longmont (Figure 1). It is a 115-acre water storage reservoir, which provides limited sport fishing opportunities. In particular, Lagerman Reservoir does not support quality production and growth for largemouth and smallmouth bass (Figure 2). Furthermore, these species are not stocked into this water. Given the poor performance of largemouth and smallmouth bass in Lagerman Reservoir, CPW staff recommends that the special regulation be removed at Lagerman Reservoir.	
<b>STATE LAW REQUIRES CPW TO SOLICIT INPUT FROM STAKEHOLDERS THAT MAY BE AFFECTED POSITIVELY OR NEGATIVELY BY THE PROPOSED RULES. THE FOLLOWING STAKEHOLDERS HAVE BEEN ADVISED OF AND INVITED TO PROVIDE INPUT ON THE REGULATORY CHANGES PROPOSED IN THIS ISSUE PAPER:</b>	
<b>*IT IS ASSUMED THAT ALL NECESSARY INTERNAL PARTIES HAVE BEEN NOTIFIED*.</b>	
Internal: Area 2 DWMs, Area 2 AWM, Aquatic Biologist	
External: Boulder County Parks and Open Space staff. Conversations with the public regarding this proposed regulation change are being planned for during the 2020 statewide regulation review process. We anticipate scheduling at least one virtual meeting in each Region of the State seeking comments on this proposed regulation change.	
<b>ALTERNATIVES: (POSSIBLE OUTCOMES or POSSIBLE REGULATIONS):</b>	
1. <b>*Preferred Alternative*:</b>	
217. Lagerman Reservoir – Boulder County	
Remove existing special regulation, statewide general fishing regulations apply.	
2. Status Quo – no change	
217. Lagerman Reservoir – Boulder County	
1. The minimum size for largemouth and smallmouth bass is 15 inches in length.	
<b>Issue Raised by:</b>	<b>Benjamin Swigle (Area 2 Aquatic Biologist) Joe Padilla (Area 2 DWM) Jason Duetsch (Area 2 AWM)</b>
<b>Author of the issue paper (if different than person raising the issue):</b>	
<b>CC:</b>	<b>Aquatic Section, NE Region</b>
<b>APPROVED FOR FURTHER CONSIDERATION BY:</b>	<b>Matt Nicholl</b>
<b>REQUIRES NEW SPACE IN THE BROCHURE?</b>	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
<b>ARE ADEQUATE STAFF AND FUNDING RESOURCES AVAILABLE TO IMPLEMENT?</b>	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
<b>REGION, BRANCH, OR SECTION LEADING IMPLEMENTATION</b>	<b>Aquatic Section</b>
<b>RECOMMENDED FOR CONSENT AGENDA?</b>	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO

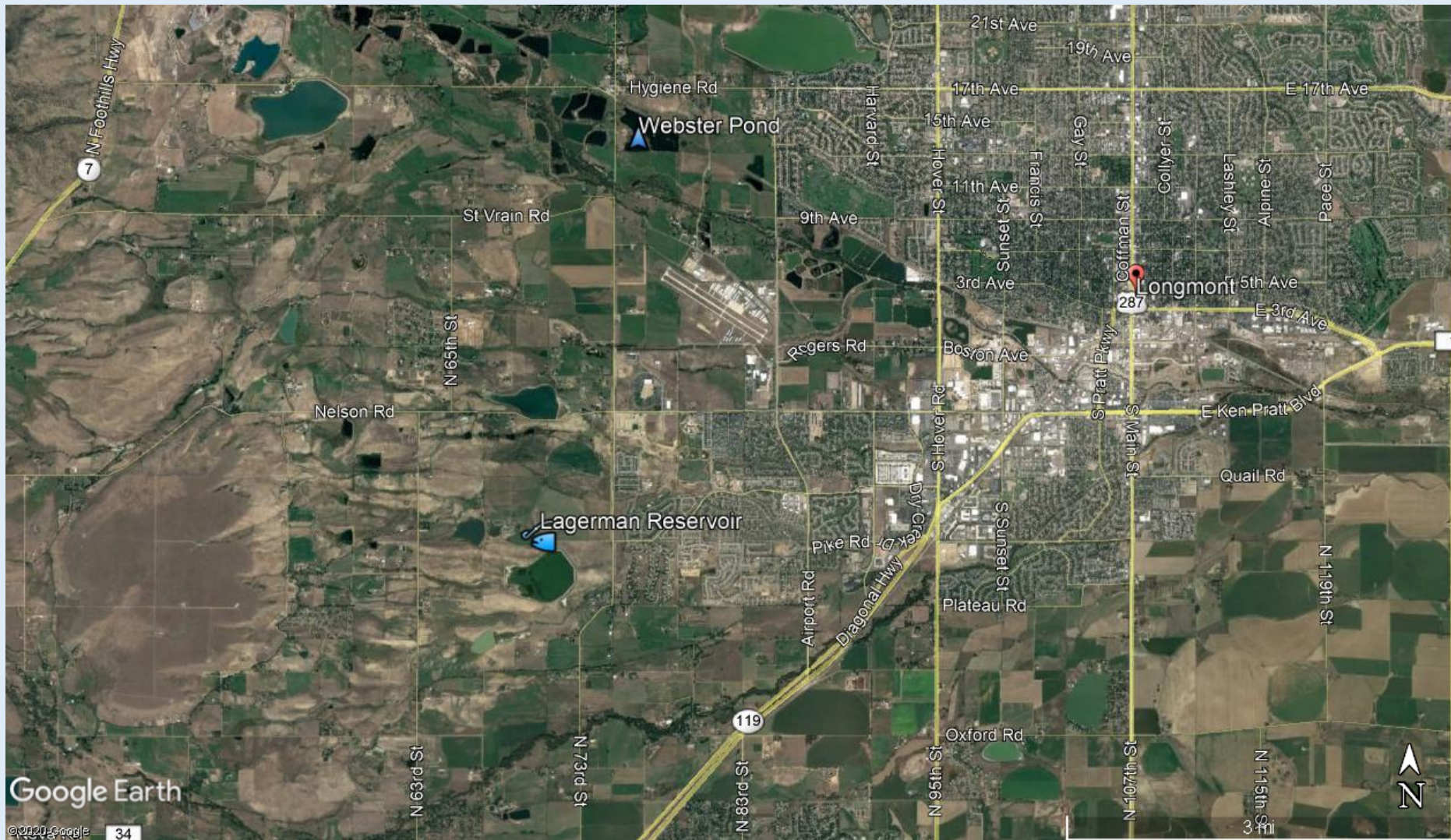


Figure 1. Lagerman Reservoir, Boulder County.



### Mean, Minimum and Maximum Length and Weight

Water 61248 Lagerman Reservoir  
 Station SP2135 Lagerman Reservoir

Date 6/29/2017

Drainage South Platte River

UtmX 484013  
 Length

UtmY 4442528  
 Width

Elevation 5087 ft  
 Area

Surveyors Wooding, Adam

Gear 3 WWGN

Effort 54.00

Metric HOURS

Protocol CPUE

SPECIES	Total Catch	Min cut inch	Max cut inch	Total Used	Mean	Length (inches)		Mean	Weight (lb)	
						Minimum	Maximum		Minimum	Maximum
BLUEGILL	1			1	4.37	4.37	4.37	0.08	0.08	0.08
CHANNEL CATFISH	35			35	11.39	9.53	16.65	0.41	0.21	1.27
COMMON CARP	12			12	12.80	11.10	17.72	0.86	0.62	1.82
GIZZARD SHAD	44			44	13.46	11.26	14.61	0.83	0.37	1.11
SAUGEYE (WALLEYE X SAUGER HYBRID)	3			3	11.10	10.24	12.36	0.37	0.32	0.47
PALMETTO BASS (WIPER)	34			34	7.77	6.06	15.12	0.25	0.04	1.34

Notes:

Figure 2. Recent survey results from Lagerman Reservoir. No largemouth or smallmouth were sampled.

**ISSUES SUBMITTAL FORM**

Date: 08/12/2020

<b>ISSUE:</b>	<b>Should Colorado Parks and Wildlife (CPW) prohibit angling at Webster Pond in Boulder County (Pella Crossing Recreational Area)?</b>		
<b>DISCUSSION (FACTS AND FIGURES, EXPLANATION OF ISSUE):</b>			
<p>Prior to the September 2013 flood, Webster Pond (Figure 1) provided angling for bass and sunfish. Flooding resulted in substantial sediment deposition in the pond, while a breach in the pond's shoreline lowered the historic water level by approximately 10 feet. As a result, species management changed from warm water sportfish to native minnow species. The pond will be reclaimed during 2020 and restocked with the state endangered northern redbelly dace. To protect this pond as a native species refugia, CPW staff recommend prohibiting angling in Webster Pond.</p>			
<p><b>STATE LAW REQUIRES CPW TO SOLICIT INPUT FROM STAKEHOLDERS THAT MAY BE AFFECTED POSITIVELY OR NEGATIVELY BY THE PROPOSED RULES. THE FOLLOWING STAKEHOLDERS HAVE BEEN ADVISED OF AND INVITED TO PROVIDE INPUT ON THE REGULATORY CHANGES PROPOSED IN THIS ISSUE PAPER:</b></p> <p><b>*IT IS ASSUMED THAT ALL NECESSARY INTERNAL PARTIES HAVE BEEN NOTIFIED*.</b></p>			
<p>Internal: Area 2 DWMs, Area 2 AWM, Aquatic Biologist</p> <p>External: Boulder County Open Space staff. Conversations with the public regarding this proposed regulation change are being planned for during the 2020 statewide regulation review process. We anticipate scheduling at least one virtual meeting in each Region of the State seeking comments on this proposed regulation change.</p>			
<b>ALTERNATIVES: (POSSIBLE OUTCOMES or POSSIBLE REGULATIONS):</b>			
<p>1. <b>*Preferred Alternative*:</b>                  291. PELLA CROSSING RECREATION AREA PONDS (ALL PONDS) — BOULDER</p> <ul style="list-style-type: none"> <li>a. Fishing is by artificial flies and lures only. Scented flies or scented lures may be used on this water if they are 1.5 inches or longer.</li> <li>b. All largemouth and smallmouth bass must be returned to the water immediately upon catch.</li> <li>c. Fishing prohibited in Webster Pond.</li> </ul> <p>2. Status Quo - no change                  291. PELLA CROSSING RECREATION AREA PONDS (ALL PONDS) — BOULDER</p> <ul style="list-style-type: none"> <li>a. Fishing is by artificial flies and lures only. Scented flies or scented lures may be used on this water if they are 1.5 inches or longer.</li> <li>b. All largemouth and smallmouth bass must be returned to the water immediately upon catch.</li> </ul>			
<b>Issue Raised by:</b>	Benjamin Swigle (Area 2 Aquatic Biologist) Joe Padilla (Area 2 DWM) Jason Duetsch (Area 2 AWM)		
<b>Author of the issue paper (if different than person raising the issue):</b>			
<b>CC:</b>	Aquatic Section; Regions; Areas		
<b>APPROVED FOR FURTHER CONSIDERATION BY:</b>	Matt Nicholl		
<b>REQUIRES NEW SPACE IN THE BROCHURE?</b>	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		
<b>ARE ADEQUATE STAFF AND FUNDING RESOURCES AVAILABLE TO IMPLEMENT?</b>	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		
<b>REGION, BRANCH, OR SECTION LEADING IMPLEMENTATION</b>	Aquatic Section		
<b>RECOMMENDED FOR CONSENT AGENDA?</b>	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		



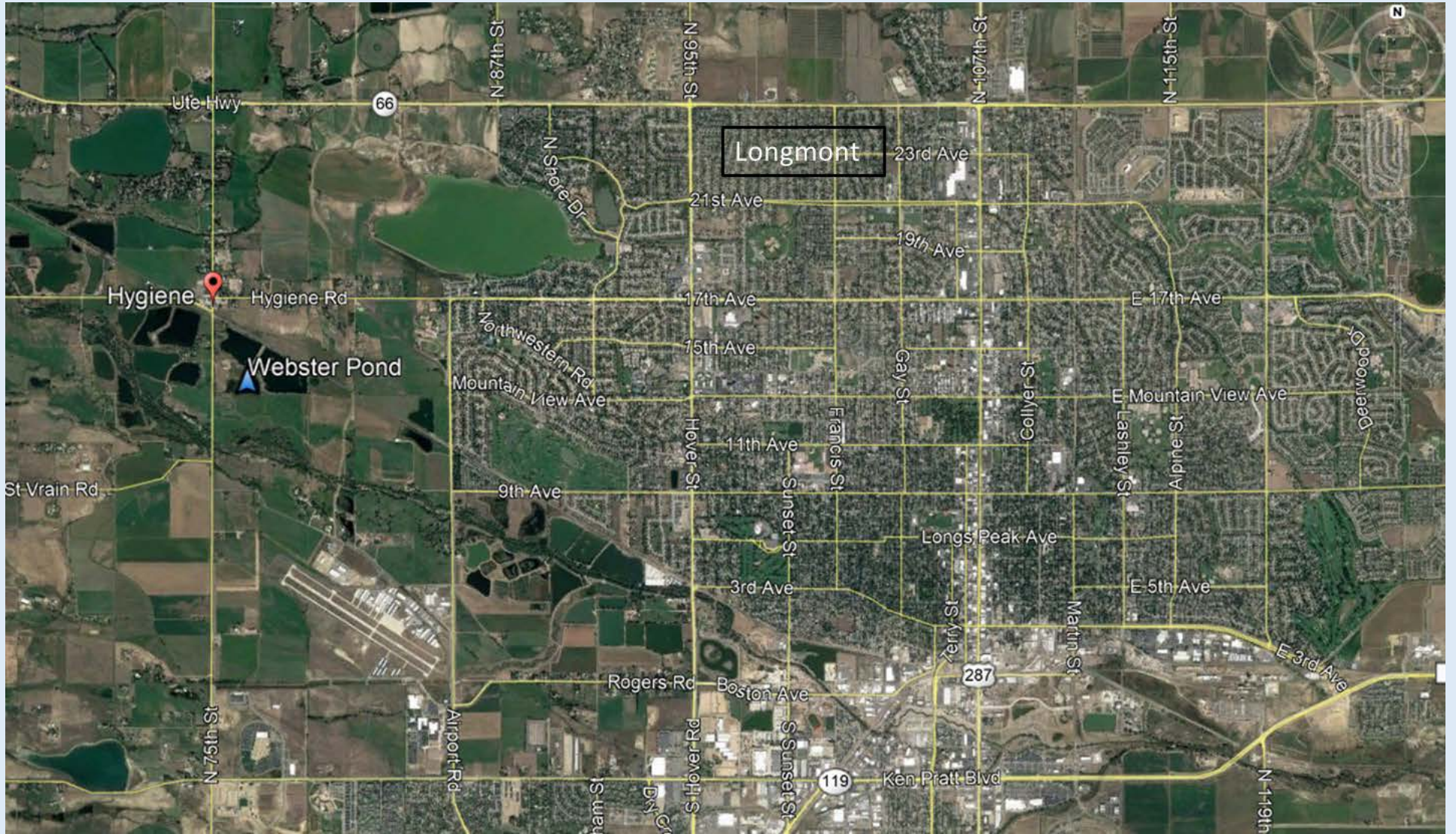


Figure 1. Webster Pond west of Longmont.