General Information: Harvey Gap provides outstanding angling opportunities for a number of fish species including Yellow Perch, Black Crappie, Bluegill, Channel Catfish, Largemouth Bass, Tiger Muskie, Rainbow Trout, Northern Pike, and Smallmouth Bass.

Location: Harvey Gap State Park, approximately 5 miles north of Silt, Colorado.

Recreational Management: Colorado Parks and Wildlife.

Fishery Management: Combined warmwater and coldwater angling.

Purchase a Fishing License: [https://cpw.state.co.us/buyapply/Pages/Fishing.aspx](https://cpw.state.co.us/buyapply/Pages/Fishing.aspx)

### Amenity
- One paved boat ramp is located on the east side of the reservoir.
- Several restrooms are located in the three parking areas on the east side of the reservoir.
- The Park’s visitor center is located at nearby Rifle Gap Reservoir and has restrooms, gift shop, internet access and registration for boats, OHVs, and snowmobiles.

### General Regulations
- A valid Parks Pass is required for each vehicle and a valid individual pass is required for all walk-ins.
- No camping is permitted.
- Boating is closed seasonally from November 1 through March 31; motors restricted to 20 horsepower or less.

### Fishing Regulations
- Minimum size for Largemouth Bass is 15 inches long, bag and possession limit of 5 fish.
- Bag and possession limit for Channel Catfish is 2.
- Use of spearfishing, slingbows, archery, gigs for take of Northern Pike is prohibited.
- Unlimited bag and possession limit for Northern Pike, Smallmouth Bass, and Yellow Perch.
- Bag and possession limit for Tiger Muskie is 1, minimum size of 36 inches.
- Statewide regulations apply for all other species including a limit of 20 Black Crappie ([https://cpw.state.co.us/Documents/RulesRegs/Brochure/fishing.pdf](https://cpw.state.co.us/Documents/RulesRegs/Brochure/fishing.pdf)).

### Reservoir Operation Notes
- Reservoir levels fluctuate throughout the year in response to irrigation demand.
- Reservoir is operated by Silt Water Conservancy District.
- Fishery persisted despite a severe draw down of water level in the reservoir during much of 2017 for dam inspection.

### Fishery Management Notes
- Harvey Gap is a destination fishery and is very popular with both warmwater and trout anglers.
- Yellow Perch are most abundant fish captured during CPW’s fishery surveys.
- CPW is working to improve fishery through habitat improvements, fish stocking (hatchery and wild fish), and relocation of Yellow Perch to Rifle Gap.
- No fish are lethally removed during fishery surveys.
- Harvey Gap presents a unique opportunity to catch a diversity of fish species (and a chance at some very large fish!)
Figure 1. Map of Harvey Gap Reservoir showing locations of parking areas, restrooms, and boat ramp.
In addition to the annual stocking of a variety of warmwater species and Rainbow Trout, CPW has taken several steps to actively manage and improve the fishery at Harvey Gap Reservoir. In 2018, CPW partnered with local anglers and the Silt Water Conservancy District to install 25 artificial tree structures throughout the reservoir. The purpose of this project was to improve habitat in the reservoir and provide smaller-bodied fish species such as Black Crappie and Bluegill with cover from larger predatory species in the reservoir such as Largemouth Bass, Smallmouth Bass, Northern Pike, and Tiger Muskie. This project is expected to increase survival and growth potential of these smaller-bodied fish species. Angler reports indicate that fish in the reservoir have found these structures and that there is a high abundance of fish present in and near these clusters of artificial trees. CPW is exploring the potential for future habitat improvement projects which will further benefit the fishery.

Largemouth Bass are stocked annually from CPW’s hatchery system at an average size of approximately 1” to 3”. To further supplement the Largemouth Bass population following the drawdown of the lake in 2017, CPW partnered with local anglers and local landowners to move 756 Largemouth Bass (average length of 9.7”, lengths ranging from 2.2” to 23.3”) from private ponds in 2018 and 2019. These fish are expected to provide an immediate benefit to anglers as anglers have an opportunity to catch these larger fish. Furthermore, these Largemouth Bass are expected to provide a benefit to the Yellow Perch fishery by applying predation pressure on smaller size-classes which are currently overly abundant.

Lastly, CPW partnered with local anglers to move 2,302 smaller Yellow Perch (average size of 5”) from Harvey Gap to Rifle Gap. The Yellow Perch fishery in Harvey Gap is currently dominated by these smaller size-classes. This is expected to improve the Yellow Perch fishery at Harvey Gap by reducing densities of these smaller Yellow Perch and increasing growth rates and average size. Furthermore, this project is expected to benefit the Rifle Gap fishery by increasing the abundance of Yellow Perch in the reservoir which benefits the Yellow Perch population and also provides additional forage for larger predators in the reservoir. Additional Yellow Perch relocation efforts are planned for 2020.
Historical Trends and Species-Specific Analysis

Trends in catch per unit effort (number of fish captured per hour of electrofishing, representative of abundance) and population size structure were evaluated based on historical fall fishery surveys. Additionally, historical Proportional Stock Density (PSD) was evaluated. PSD is a well-recognized metric used to evaluate size structure of warmwater fish populations by determining the proportion of fish in a sample that are at least a “quality” size or greater (defined as greater than 36% of world record length for that species, this is typically minimum size that provides recreational value) relative to the number of fish that are at least a “stock” size (defined as fish that are at least 20% of world record length for that species, this is typically the approximate length at maturity). The higher the PSD value, the higher the proportion of fish that are at least a quality length compared to fish that are stock length. Species-specific length cutoffs for stock and quality designations and ideal PSD ranges for a balanced population are shown in each PSD figure.

Yellow Perch

There is a clear inverse relationship between electrofishing catch rates and PSD values meaning that the higher the catch rate, the lower the proportion of fish that are a quality length (Figure 6). Yellow Perch PSD has been quite low since 2010 which has corresponded with increased catch rates. Yellow Perch are a very important component of the recreational fishery in Harvey Gap and are also an important forage fish for predatory fish. However, the high abundance of small Yellow Perch limits their growth potential (Figure 7). Steps being taken to reduce abundance and to increase PSD are the stocking of predatory fish such as Tiger Muskie and Largemouth Bass, and the relocation of thousands of Yellow Perch from Harvey Gap to Rifle Gap.

Largemouth Bass

Other than 2015, Largemouth Bass surveyed have mostly consisted of smaller individuals, resulting in low PSD values (no fish greater than or equal to least stock length were surveyed in 2012, 2014, or 2016) (Figure 8 and Figure 9). Anecdotal angling data and the data gathered in the Spring 2019 survey suggest that there is an increased abundance of Largemouth Bass which is likely at least partially due to the stocking of adult Largemouth Bass from private ponds in 2018 and 2019. Angling reports also show that high densities of Largemouth Bass can be found near the artificial habitat structures, including some fish over five pounds.

Black Crappie

Black Crappie PSD has been declining since the survey in 2012 and no quality length fish or larger were surveyed in 2015 while no Black Crappie greater than or equal to stock length were surveyed in 2016 (Figure 10 and Figure 11). Catch rates were also relatively low in 2015 and 2016. Anecdotal angling reports from the winter of 2018 and 2019 suggest that anglers are still catching some quality Black Crappie. It is expected that the habitat improvement project will increase survival and growth potential of Black Crappie which will be evaluated during the 2020 fall survey. Black Crappie stocking rates may be increased in the future if 2020 survey data show a continued low catch rate and/or PSD. It is likely that Black Crappie are under-represented in the surveys due to the methods used; fyke nets will likely be used during the 2020 survey to further evaluate the Black Crappie population.

Bluegill

Bluegill catch rates increased significantly between 2012 and 2016 (Figure 12). PSD has been variable historically and was quite low in the 2016 survey. Based on a low PSD and high catch rate, stocking rate of Bluegill may be decreased if these trends continue in the 2020 survey. Anecdotally, Bluegill (including some very large Bluegill) have been captured near the artificial habitat structures. It is likely that Bluegill are under-represented in the surveys due to the methods used; fyke nets will likely be used during the 2020 survey to further evaluate the Bluegill population.
Tiger Muskie
Following fairly regular stocking of Tiger Muskie in the 1990s, the stocking of Tiger Muskie resumed beginning in 2013 following a hiatus in stocking between 2001 and 2012. Tiger Muskie are a highly sought after sportfish that provide a trophy fishing opportunity. Anglers reported catching several large fish in 2019, including two fish that were approximately 25 pounds. Tiger Muskie are periodically captured during CPW’s fishery surveys at low densities, including a 34” fish in 2016 (Figure 14 and 15). The stocking rate of Tiger Muskie was increased in 2019 to provide increased fishing opportunities.

Northern Pike
In 2016, Northern Pike PSD and catch rates were both up from the previous surveys in 2014 and 2015 (Figures 16 and 17). Spring surveys conducted in 2019 continued to show a high abundance of Northern Pike, including several very large fish over 36 inches that were observed but not captured during the Yellow Perch electrofishing efforts conducted in April and May. Northern Pike cannot be stocked in Harvey Gap Reservoir and bag and possession are unlimited.

Smallmouth Bass
Catch rates of Smallmouth Bass have been increasing since 2012 while PSD has been declining since 2014 (Figures 18 and 19). Only one Smallmouth Bass was captured during the spring 2019 survey which is likely a result of survey timing and water temperatures. Smallmouth Bass cannot be stocked in Harvey Gap Reservoir and bag and possession are unlimited.

Spring 2019 Survey Notes and Future Management Recommendations

Spring 2019 Survey
The purpose of the spring fishery survey in 2019 was to monitor the Harvey Gap Reservoir fishery following the significant drawdown of the reservoir in 2017. Furthermore, an additional goal of this survey was to move as many Yellow Perch as possible from Harvey Gap Reservoir to nearby Rifle Gap Reservoir. Based on the 2019 surveys combined with conversations with anglers, all species that were present in the reservoir prior to the drawdown were still present following the drawdown. Although no Tiger Muskie were captured during the 2019 survey, anglers reported catching these fish in 2018 and 2019, including two large fish that weighed approximately 25 pounds.

The most numerous species captured during the Spring 2019 survey was Yellow Perch (76.3% of the fish caught), followed by Rainbow Trout (14%), Northern Pike (4.5%), Bluegill (2.8%), Largemouth Bass (2.0%), Black Crappie (0.3%), and Smallmouth Bass (0.3%) (Figure 20). The average length of Yellow Perch surveyed in 2019 was 5”. Although highly variable, the average relative weight of Yellow Perch was 100 which means they have an above average body condition (an average body condition is 93) (Figure 21). The average relative weight of Largemouth Bass surveyed was 110 while the average relative weight of Northern Pike was 98. This above average body condition observed in predatory Largemouth Bass and Northern Pike is likely due to an abundance of Yellow Perch in the reservoir which serve as forage fish for these predators. Northern Pike also showed increasing relative weight in longer fish which is likely a result of these larger fish reaching a size in which they can eat stocked rainbow trout.
The 2019 survey was conducted in the spring which did not allow for comparison to historical surveys which were conducted in the fall. The survey was conducted on April 29 when the water temperature was 52 degrees so it is likely that many of the species were under-represented because they had not yet moved into shallower water where they were susceptible to electrofishing. A fall fishery survey is planned for 2020 to evaluate the fishery in regards to how body condition, catch rates, and population size structures compares to historical surveys. Furthermore, spring electrofishing efforts are planned for 2020 to continue to move Yellow Perch from Harvey Gap to Rifle Gap. Future standardized surveys will allow us to continue to evaluate the fishery’s response to the habitat improvement project, the Yellow Perch relocation project, and the effects of stocking adult Largemouth Bass from nearby private waters.

**Future Management**

CPW will continue to monitor the Harvey Gap Reservoir fishery through standardized surveys in the fall using a combination of boat electrofishing, gill netting, and potentially fyke nets. Although there are no immediate plans for regulation changes, public meeting planned for 2020 will allow anglers to discuss any concerns regarding current regulations or management of the fishery with CPW staff. CPW will continue to move Yellow Perch from Harvey Gap to Rifle Gap and will continue to monitor the effects of this project on both waters through regular standardized sampling. CPW continues to look for opportunities to work with private landowners to move warmwater fish from private waters into Harvey Gap, especially Largemouth Bass and/or Black Crappie. Stocking of Bluegill, Black Crappie, Rainbow Trout, Channel Catfish, Largemouth Bass, and Tiger Muskie from CPW’s hatchery system will continue. Stocking rates will be adjusted, as needed, based on data that is gathered during fishery surveys.
**Harvey Gap Reservoir**  
**Historical Fishery Survey Information (Yellow Perch)**

**Figure 6.** Catch rate per hour (primary y axis, blue data) and Proportional Stock Density (secondary y axis, red data) of Yellow Perch captured during fall electrofishing surveys on Harvey Gap Reservoir. Proportional Stock Density represents the proportion of Yellow Perch at least “stock” length (5.1 inches) that are also at least a “quality” length (7.9 inches). Ideal PSD values for a balanced Yellow Perch population range from 30 to 60.

**Figure 7.** Size structure of the Yellow Perch population in Harvey Gap Reservoir during fishery surveys conducted by Colorado Parks and Wildlife between 2006 and 2016. Survey methods included electrofishing and/or gill netting. Note that the 2019 survey was excluded because it was conducted in the spring.
Figure 8. Catch rate per hour (primary y axis, blue data) and Proportional Stock Density (secondary y axis, red data) of Largemouth Bass captured during fall electrofishing surveys on Harvey Gap Reservoir. Proportional Stock Density represents the proportion of Largemouth Bass at least “stock” length (7.9 inches) that are also at least a “quality” length (11.8 inches). Ideal PSD values for a balanced Largemouth Bass population range from 40 to 70.

Figure 9. Size structure of the Largemouth Bass population in Harvey Gap Reservoir during fishery surveys conducted by Colorado Parks and Wildlife between 2006 and 2016. Survey methods included electrofishing and/or gill netting. Note that the 2019 survey was excluded because it was conducted in the spring.
**Figure 10.** Catch rate per hour (primary y axis, blue data) and Proportional Stock Density (secondary y axis, red data) of Black Crappie captured during fall electrofishing surveys on Harvey Gap Reservoir. Proportional Stock Density represents the proportion of Black Crappie at least “stock” length (5.1 inches) that are also at least a “quality” length (7.9 inches). Ideal PSD values for a balanced Black Crappie population range from 30 to 60.

**Figure 11.** Size structure of the Black Crappie population in Harvey Gap Reservoir during fishery surveys conducted by Colorado Parks and Wildlife between 2006 and 2016. Survey methods included electrofishing and/or gill netting. Note that the 2019 survey was excluded because it was conducted in the spring.
Figure 12. Catch rate per hour (primary y axis, blue data) and Proportional Stock Density (secondary y axis, red data) of Bluegill captured during fall electrofishing surveys on Harvey Gap Reservoir. Proportional Stock Density represents the proportion of Bluegill at least “stock” length (3.1 inches) that are also at least a “quality” length (5.9 inches). Ideal PSD values for a balanced Bluegill population range from 20 to 60.

Figure 13. Size structure of the Bluegill population in Harvey Gap Reservoir during fishery surveys conducted by Colorado Parks and Wildlife between 2006 and 2016. Survey methods included electrofishing and/or gill netting. Note that the 2019 survey was excluded because it was conducted in the spring.
**Figure 14.** Catch rate per hour (primary y axis, blue data) and Proportional Stock Density (secondary y axis, red data) of Tiger Muskie captured during fall electrofishing surveys on Harvey Gap Reservoir. Proportional Stock Density represents the proportion of Tiger Muskie at least “stock” length (13.8 inches) that are also at least a “quality” length (23.2 inches).

**Figure 15.** Size structure of the Tiger Muskie population in Harvey Gap Reservoir during fishery surveys conducted by Colorado Parks and Wildlife between 2006 and 2016. Survey methods included electrofishing and/or gill netting. Note that the 2019 survey was excluded because it was conducted in the spring.
Figure 16. Catch rate per hour (primary y axis, blue data) and Proportional Stock Density (secondary y axis, red data) of Northern Pike captured during fall electrofishing surveys on Harvey Gap Reservoir. Proportional Stock Density represents the proportion of Northern Pike at least “stock” length (13.8 inches) that are also at least a “quality” length (20.9 inches). Ideal PSD values for a balanced Northern Pike population range from 30 to 60.

Figure 17. Size structure of the Northern Pike population in Harvey Gap Reservoir during fishery surveys conducted by Colorado Parks and Wildlife between 2006 and 2016. Survey methods included electrofishing and/or gill netting. Note that the 2019 survey was excluded because it was conducted in the spring.
**Figure 18.** Catch rate per hour (primary y axis, blue data) and Proportional Stock Density (secondary y axis, red data) of Smallmouth Bass captured during fall electrofishing surveys on Harvey Gap Reservoir. Proportional Stock Density represents the proportion of Smallmouth Bass at least “stock” length (7.1 inches) that are also at least a “quality” length (11.0 inches). Ideal PSD values for a balanced Smallmouth Bass population range from 40 to 70.

**Figure 19.** Size structure of the Smallmouth Bass population in Harvey Gap Reservoir during fishery surveys conducted by Colorado Parks and Wildlife between 2006 and 2016. Survey methods included electrofishing and/or gill netting. Note that the 2019 survey was excluded because it was conducted in the spring.
Harvey Gap Reservoir  
2019 Fishery Survey Information

Spring 2019 (n=358)

- Yellow Perch; 273; 76.3%
- Bluegill; 10; 2.8%
- Largemouth Bass; 7; 2.0%
- Northern Pike; 16; 4.5%
- Rainbow Trout; 50; 14.0%
- Smallmouth Bass; 1; 0.3%

**Figure 20.** Species composition of Harvey Gap Reservoir during electrofishing fishery survey conducted on 4/29/2019. Figure includes species, number of individuals by species, and percentage of overall number of fish sampled made up each species.

**Figure 21.** Relative weights of Yellow Perch, Black Crappie, Bluegill, Smallmouth Bass, Largemouth Bass, Northern Pike, and Rainbow Trout captured during electrofishing fishery survey on Harvey Gap Reservoir conducted on 4/29/2019. The relative weight of 93, which represents an average body condition, is shown by the dashed line. Fish which did not meet the species-specific minimum length requirement for relative weight analysis were excluded.