NEVADA DEPARTMENT OF WILDLIFE
STATEWIDE FISHERIES MANAGEMENT

FEDERAL AID JOB PROGRESS REPORTS
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COMINS LAKE
Eastern Region

NEVADA DEPARTMENT OF WILDLIFE, FISHERIES DIVISION
ANNUAL JOB PROGRESS REPORT

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NEVADA DEPARTMENT OF WILDLIFE, FISHERIES DIVISION
ANNUAL PROGRESS REPORT

State: *Nevada*
Project Title: *Statewide Fisheries Program*
Job Title: *Comins Lake*
Period Covered: *January 1, 2017 through December 31, 2017*

SUMMARY

The fall electroshocking survey revealed good numbers of trout and largemouth bass. Fin clipped rainbow trout growth rates were 0.47 inches per month. Findings from the survey shows that trout are increasing in size nicely and largemouth bass are establishing a decent population. An additional 114 largemouth bass were augmented to the established population at Comins Lake in July 2017.

BACKGROUND

Angler reports of northern pike inhabiting Comins Lake were initially made to Department personnel in the fall of 1999. Their presence in the reservoir was confirmed the following year. From 1999 through the end of 2002, anglers at the reservoir caught 17 northern pike. Annual monitoring surveys to determine the extent of the population failed to contact any pike until the fall of 2002, when 12 were collected in an electroshocking survey. Since then, survey activities have confirmed that northern pike had successfully spawned in the reservoir every year since 2001. Moreover, heavy predation upon largemouth bass and stocked trout was documented. Efforts to prevent a reproducing northern pike population failed, but that same population effectively decimated the reservoir's trout and largemouth bass fisheries. In response, a decision was made in the spring of 2007 to cease all trout stocking until northern pike could be eliminated.

Largemouth bass were reintroduced in Comins Lake in the spring of 2002. A total of 446 largemouth bass were transplanted from the Kirch Wildlife Management Area in an effort to establish a self-propagating population and create a multi-tiered fishery for anglers.

In 2006, all fish species inhabiting Comins Lake were found to have elevated levels of mercury. Because both northern pike and largemouth bass were found to contain levels of mercury greater than one part per million, a health advisory was subsequently enacted advising against the consumption of these species. Since this discovery was made, the Department of Wildlife has been working in cooperation with the Nevada Division of Environmental Protection, the Environmental Protection Agency, and their associated contractors in an effort to discern the source of mercury in the reservoir to formulate possible remediation strategies. A comprehensive study of mercury and its interactions within the Comins Lake system was completed in 2009 and 2010. Results from this study will dictate mercury remediation efforts at the reservoir.

Electroshocking surveys were conducted until 2014 where there were only five northern pike contacted, all of which escaped capture because of poor shocking conditions (high conductivity and thick aquatic vegetation). In August of 2015, NDOW personnel conducted a two-day chemical treatment, utilizing CFT Legumine® (formulation 5% liquid rotenone). The treatment was deemed a success following posttreatment surveys that suggested no fish species were present in the lake. Fish were not stocked into Comins Lake for the remainder of 2015.

During April of 2016, Comins Lake was stocked for the first time since 2007 with 5,537 Eagle Lake Strain rainbow trout that were excess broodstock averaging between 12.0 inches and 15.5 inches. Another 17,225 rainbow trout averaging about 9.4 inches were also stocked throughout the year. Of these, 6,640 Tahoe Strain rainbow trout were marked with adipose fin clips to monitor growth. Finally, in July of 2016, 440 brown trout were stocked into Comins Lake. Those trout were salvaged from Snake Creek (South Snake Range, White Pine County) prior to the chemical treatment that took place there in August (due to time constraints, length measurements were not taken on brown trout).

OBJECTIVES and APPROACHES

Objective: General Sport Fisheries Management

Approaches:

- Visually monitor seasonal water level fluctuations during the course of other duties.
- Visually asses water quantity (lake level/outflow) and quality (clarity) for coordinating trout stocking.
- Conduct a general fisheries assessment through opportunistic angler contacts.
- Utilize boat electrofishing along four established transects in the fall to asses growth and abundance of trout.
- Reintroduce largemouth bass as they become available (approximately 2,000 will be stocked).
- Revise the Fisheries Management Prescription for Comins Lake.

PROCEDURES

The Eastern Region electroshocking barge was used to sample four established transects at Comins Lake on the night of October 12, 2017. With a new shocking unit, a Smith-Root VVP-15B, the booms were set forward as the anode and the hull of the boat was the cathode. Voltage was set at 600 (DC), with an output of 7-amps. Pulse frequency was set at 60 Hz, with a pulse width of 5-milliseconds. Both trout species captured were measured (total length) and only brown trout were weighed with a spring-type hand scale. All trout were returned to the lake once processed. In July 2017, an angler brought in a pike-like species to the Ely NDOW Field Office. Therefore, any pike-like fish captured during the survey was collected and kept as evidence for an ongoing

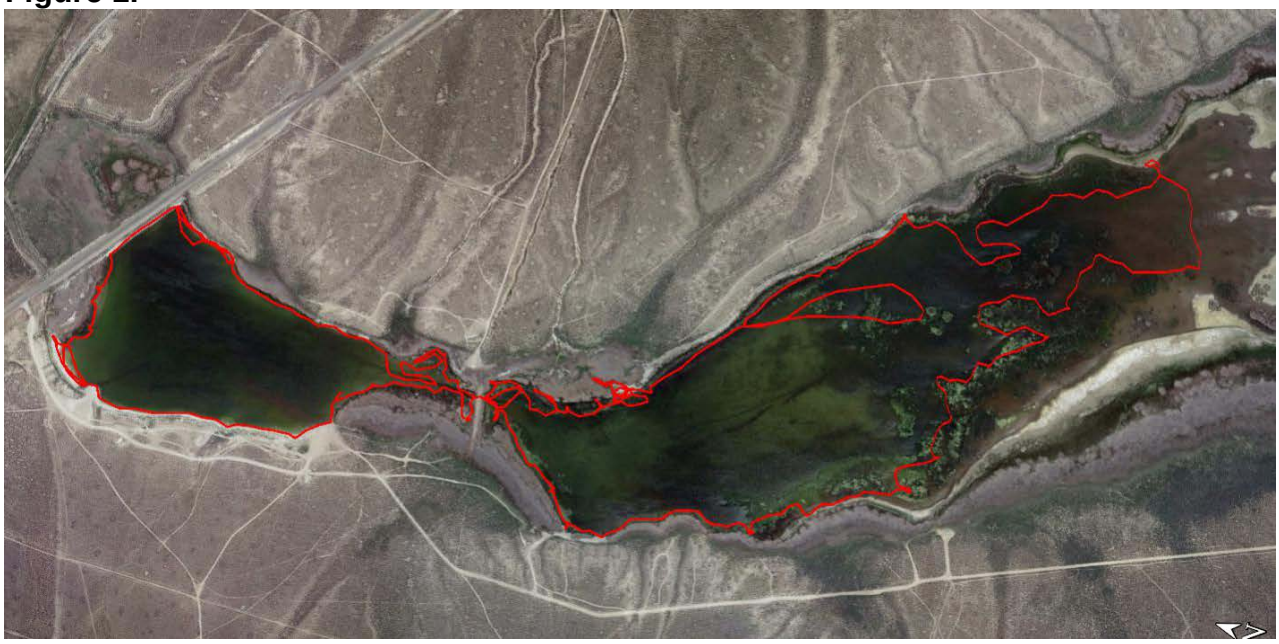
investigation into their illegal introduction. Creel data was collected from anglers during opportunistic contacts.

FINDINGS

Fall Electroshocking Survey

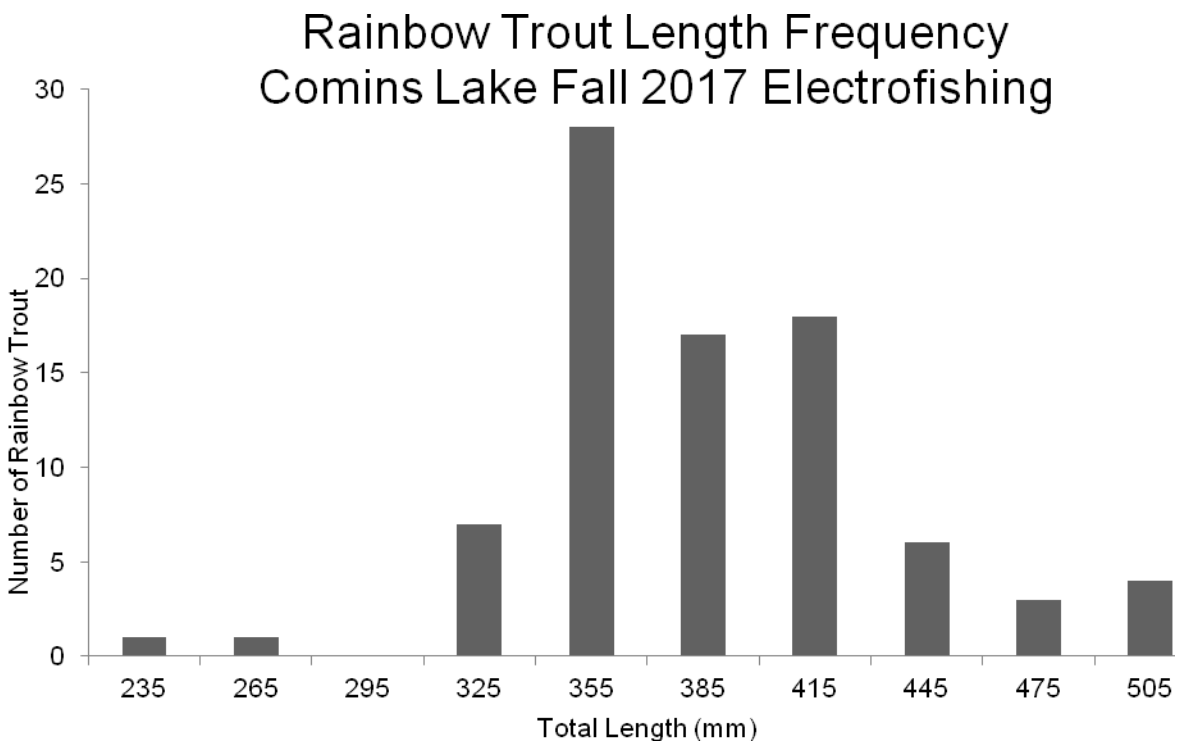
Shocking activities began at 1820 hours and concluded at 2224 hours. In that time, there was 4,953 shocking seconds, averaging 1,238.25 shocking seconds per transect. Water temperature was 46ºF and air temperature was 25ºF. Survey activities commenced at the boat launch, moved to the west side of "the narrows," and continued down the west shoreline of the south lake. The boat then ferried towards the Argus Mill Site where the boat turned north and followed the shoreline into the north lake. The survey ended up moving back into the northern portion of the lake along the eastern shoreline and the head of the dam. Electroshocking continued in a counterclockwise fashion around the north lake and concluded back at the boat launch (Figure 1).

Figure 1.



A total of 331 fish were captured during survey activities and consisted of 230 rainbow trout, 5 brown trout, and 96 largemouth bass. Rainbow trout made up 69.5% of the catch, brown trout comprised 1.5% of the catch, and largemouth bass comprised the remaining 29%. A subsample of 86 rainbow trout revealed an average length of 14.7 inches (374 mm), with a range from 9.1 inches (232 mm) to 19.9 inches (506 mm). Since Comins Lake is a newly restored fishery, it is easier to tease out the number of age classes present in the length frequency analysis (Figure 2). Although there looks to be more, there are three age classes present in the reservoir. Trout stocked in spring and fall 2016 and spring 2017 were all present in the reservoir at the time of sampling. Age class breaks are 265 mm, 385 mm, and 505 mm for Comins Lake.

Figure 2.



Of the 86 rainbow trout that were measured, 43 were found to have adipose fin clips. Those trout averaged 14.7 inches (361 mm) and ranged from 11.9 inches (302 mm) to 16.1 inches (410 mm). At the time of stocking (October 10, 2016), these rainbow trout averaged 9.1 inches (231 mm). The growth for these trout was 5.6 inches (142 mm) for the year or 0.47 (11.9 mm) inches per month.

The 2017 fall electroshocking survey resulted in the catch of five brown trout that averaged 16.3 inches (413 mm) and had a range of 14.3 inches (362 mm) to 17.9 inches (456 mm). Capturing five brown trout was a welcomed result of the survey as only 440 brown trout were stocked into Comins Lake in 2016. The brown trout that were moved into Comins Lake in 2016 were between 8.0 inches and 12.0 inches. This, in addition to the capture of the adipose fin clipped rainbow trout, shows the productivity of the Comins Lake fishery.

There were 96 largemouth bass captured during the survey. A subsample of 24 largemouth bass averaged 7.1 inches (180 mm) and ranged from 5.9 inches (150 mm) to 9.1 inches (230 mm). Some of these largemouth bass are undoubtedly progeny of the adults that spawned in May and June of 2016, while others are from the July 2017 augmentation. A total of 114 largemouth bass averaging 7.3 inches (184 mm) were stocked into Comins Lake in July 2017. Although no young-of-year (YOY) were caught, there were numerous YOY observed throughout the lake.

In conclusion, there is the making of an excellent fishery at Comins Lake. If growth rates of trout continue showing a similar trend, within three years of being stocked a trout will be over 20 inches in length and provide anglers with trophy

opportunities. Carryover of trout and largemouth bass is evident among the several age classes represented in the sampled fish. A strong age class of largemouth bass is growing and will become spawners, laying the ground floor for what could be a stellar largemouth bass fishery. Growth of rainbow trout and the single brown trout were difficult to determine because there was such a size variation from different allotments that were stocked.

Largemouth Bass Augmentation

A total of 114 largemouth bass were stocked into Comins Lake in July 2017 that came from Echo Valley Reservoir. The largemouth bass averaged 7.4 inches (187 mm) and ranged from 5.1 inches (132 mm) to 10.0 inches (255 mm). These largemouth bass will increase the base population in Comins Lake and contribute to a spawning population in the next two years.

Creel Survey Data

From April through October 2017, the survey revealed 136 angler days at Comins Lake during 22 days of creel. Anglers caught 521 fish, averaging 3.8 fish per angler. The catch rate was 1.36 fish per hour and a harvest rate of 0.18 fish per hour. These low catch and harvest rates are directly related to the rebuilding of the fishery at Comins Lake and the limited number of fish that had been put into the lake. Although anecdotal, personnel conducting surveys noted high angler satisfaction when talking to anglers. Additionally, due to other work responsibilities, there were many more anglers observed while driving by Comins Lake than were contacted through the creel survey.

MANAGEMENT REVIEW

All but one objective was completed in 2016, that objective was the revision of the Fisheries Management Prescription (FMP) for Comins Lake. The FMP is still in draft phase and is currently being worked on. In addition, largemouth bass were reintroduced to Comins Lake, but the limiting factor of this objective was the number of largemouth bass available. Personnel were not able acquire 2,000 largemouth bass, however, there was a small population established.

RECOMMENDATIONS

- That the public awareness campaign continues in an effort to inform the public of future management plans for the reservoirs.
- Update the Fisheries Management Prescription for Comins Lake.
- Continue to monitor water quality at Comins Lake.
- Continue fall electroshocking surveys.

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