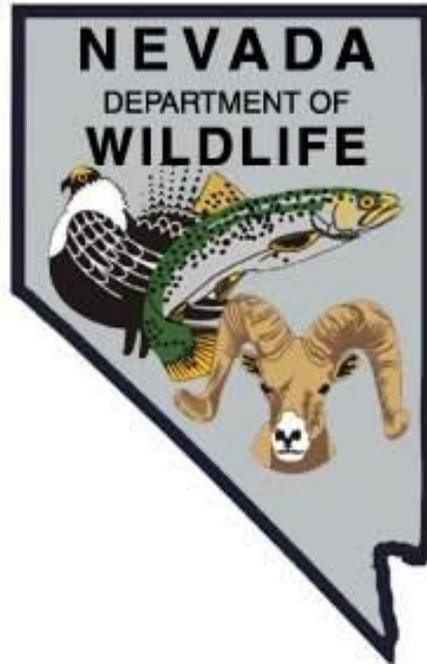


NEVADA DEPARTMENT OF WILDLIFE
STATEWIDE SPORT FISHERIES MANAGEMENT



FEDERAL AID JOB PROGRESS REPORT

F-20-50
2014

Urban Sport Fisheries
SOUTHERN REGION



**NEVADA DEPARTMENT OF WILDLIFE, FISHERIES DIVISION
ANNUAL PROGRESS REPORT**

Table of Contents

<u>Contents</u>	<u>Page</u>
SUMMARY	1
BACKGROUND	1
OBJECTIVES AND APPROACHES.....	3
PROCEDURES	3
FINDINGS	5
MANAGEMENT REVIEW	9
RECOMMENDATIONS	9
REFERENCES.....	9

**NEVADA DEPARTMENT OF WILDLIFE, FISHERIES DIVISION
ANNUAL PROGRESS REPORT**

List of Tables

<u>Number</u>	<u>Title</u>	<u>Page</u>
1	Location, number, and pounds of rainbow trout stocked into urban ponds in southern Nevada, 2014.....	4
2	Location, number, and pounds of channel catfish stocked into urban ponds in southern Nevada, 2014.	5
3	Species, total length, and weight data from Sunset Park Pond gill-net survey, August 5, 2014.	8

List of Figures

<u>Number</u>	<u>Title</u>	<u>Page</u>
1	Expanded anglers from the 10% angler questionnaire data for urban ponds in southern Nevada, 1985-2013.....	6
2	Expanded angler days from the 10% angler questionnaire data for urban ponds in southern Nevada, 1985-2013.....	6
3	Expanded fish/day data from the 10% angler questionnaire data for urban ponds in southern Nevada, 1985-2013.....	7

NEVADA DEPARTMENT OF WILDLIFE, FISHERIES DIVISION ANNUAL PROGRESS REPORT

State: Nevada
Project Title: Statewide Fisheries Program
Job Title: Southern Region Urban Sport Fisheries Management
Period Covered: January 1, 2014 through December 31, 2014

SUMMARY

The urban fishing ponds in the Southern Region support put-and-take fisheries of rainbow trout *Oncorhynchus mykiss* and channel catfish *Ictalurus punctatus*. Additionally, some ponds support populations of largemouth bass *Micropterus salmoides* and various sunfish *Lepomis* spp. Current regulations allow anglers to harvest three fish of any species. In 2014, 93,234 rainbow trout were stocked in the urban ponds. These fish averaged 9.6 inches ([in], 244 millimeters [mm]) total length (TL), and 2.7 fish per pound (f/lb). In the warm water season, 9,231 channel catfish were stocked in the urban ponds, averaging 0.6 f/lb and 17.6 in (447 mm) TL.

A total of 13 days of contact creel surveys were carried, with one to four ponds visited on each survey day. Surveys were conducted monthly, except for January and October. A total of 453 anglers were contacted, reporting 470 fish caught that included 272 rainbow trout, 92 channel catfish, 13 largemouth bass, 11 bluegill *L. macrochirus*, and 82 common carp *Cyprinus carpio*. Overall, catch rates were 0.78 fish per hour (f/hr) and 1.34 fish per angler (f/angler). Because of the small amount of effort put toward the creel survey, creel data may not fully reflect the amount of angler use and harvest occurring at these ponds.

In August, Sunset Park Pond was surveyed for the presence of invasive silver carp *Hypophthalmichthys molitrix* and bighead carp *H. nobilis*, and none were found. Mostly largemouth bass and young-of-the-year (YOY) common carp were caught.

BACKGROUND

There are seven urban fishing ponds found mostly in Las Vegas or other towns in the Southern Region. They include Sunset Park Pond, Boulder City Fishing Pond, Lorenzi Park Pond, Tule Pond (Floyd Lamb Park), the Mesquite Urban Pond (Hafen Pond), Cold Creek Pond, and the Beatty Pond. These are quick access ponds that are a popular alternative to water bodies that involved long travel times. Ponds are managed mainly as put-and-take fisheries with stocked rainbow trout during the coldwater season and channel catfish during the warmwater season. Some ponds have naturally propagating populations of largemouth bass and sunfish.

Sunset Park Pond

Sunset Park Pond is approximately 14 acres and located in the southeastern Las Vegas Valley. It is managed by Clark County Parks and Recreation Department. This pond has a maximum depth of 10 to 12 feet (ft). Rainbow trout and channel catfish are stocked seasonally. Other resident fish include redear sunfish *L. microlophus*, bluegill, black crappie *Pomoxis nigromaculatus*, common carp, and largemouth bass. While not stocked by NDOW, these fish are able to reproduce in the pond because of adequate habitat.

Boulder City Park Pond

Boulder City Park Pond is approximately three acres with a maximum depth of 15 ft. It is located at the Veterans Memorial Park in Boulder City and is operated by the city. It is stocked seasonally with rainbow trout and channel catfish, and bluegill are occasionally stocked as well.

Lorenzi Park Pond

Lorenzi Park Pond is a small pond of approximately three acres in size. It is located in northwest Las Vegas and is operated by the City of Las Vegas. This pond has a maximum depth of 10 ft. Rainbow trout and channel catfish are stocked seasonally. Largemouth bass and other panfish species are known to inhabit the pond, but are not stocked by NDOW.

Tule Pond (Floyd Lamb Park)

Tule Pond is a spring-fed pond located in Floyd Lamb Park in the northwest part of Las Vegas. This pond is approximately five acres with a maximum depth of 15 ft. The pond is maintained by the City of Las Vegas. Rainbow trout and channel catfish are stocked seasonally and it supports other species including largemouth bass, crappie, bluegill, green sunfish *L. cyanellus*, and redear sunfish.

Mesquite Urban Pond

Mesquite Urban Pond is one of the smallest of the Southern Region at approximately two acres. This pond is located in the town of Mesquite at Hafen Lane Park. It is stocked seasonally with rainbow trout in the coldwater season and channel catfish in the warmwater season.

Cold Creek Pond

Near Indian Springs, Cold Creek Pond is a small spring-fed pond north of Mount Charleston in Clark County. The pond is less than two acres and has a maximum depth of 8 ft. It is stocked with rainbow trout in the winter.

Beatty Pond

Beatty Pond is located in the town of Beatty in Nye County. It is located at Highway 95 and Vanderbilt Road, and used to be a gravel pit operated by the Nye County Road Department. The pond is spring fed from a shallow well with cattails along its edges. It is stocked with rainbow trout during the winter and is managed as a coldwater put-and-take fishery. This pond may also have resident bass and catfish from previous stockings sometime after its construction in 1977.

OBJECTIVES and APPROACHES

Objective: To administer an urban fisheries program, which assesses fisheries resources or potentially new fisheries resources, identifies and addresses habitat management needs, manages fish stocking to meet fishery objectives, provides information to anglers, and maintains contact with managing entities of individual fishing waters.

Approaches:

- Conduct a general fisheries assessment through direct angler contacts at least once monthly at all managed sites except Mesquite (Hafen Park), Cold Creek, and Beatty ponds.
- Conduct a general habitat assessment through visual observations of water quantity (lake level) and water quality (clarity).
- Evaluate annual stocking recommendations based on habitat conditions and angler use.
- Coordinate rainbow trout stocking at all sites during cool-weather months (November through March).
- Manage contracts for and coordinate stocking of purchased channel catfish at all sites during warm-weather months (April through October).
- Coordinate fishery management activities with the City of Las Vegas, City of Boulder City, City of Mesquite, and Clark County, as necessary to maintain/enhance the fishery and address observed site management needs.
- Identify and/or develop additional urban fishing waters in cooperation with local government entities as opportunities arise.

PROCEDURES

General Fisheries Assessment

Creel surveys were conducted at Sunset Park Pond, Lorenzi Pond, Tule Pond, and Boulder City Pond during February through December (except October), contacting 453 anglers. Broken down by site, Sunset Park Pond was surveyed on 12 occasions, Lorenzi on 9 occasions, Tule on 11 occasions, and Boulder City Pond on 8 occasions.

No creel survey was conducted at Mesquite Urban Pond, Cold Creek Pond, or Beatty Pond. Survey information collected included total catch, effort, and species caught.

General Habitat assessment

General habitat assessments were made through visual observations during creel survey and stocking days.

Rainbow Trout Stocking

Rainbow trout stocking was initiated on January 8 and continued through March 18, and resumed November 8 through December 29. Trout were stocked on a weekly or biweekly basis from January through March and three to four times monthly during November and December. A total of 93,234 rainbow trout (31,770 lbs) were stocked in urban ponds in 2014 (Table 1). Fish averaged 9.6 in (244 mm) TL and were 2.7 f/lb. Mason Valley Fish Hatchery and Spring Creek Rearing Station supplied these fish.

TABLE 1. Location, number, and pounds of rainbow trout stocked into urban ponds in southern Nevada, 2014.

Urban pond	Number of rainbow trout	Pounds
Boulder City Pond	20,468	6,770
Sunset Pond	24,132	7,916
Lorenzi Park Pond	13,498	4,660
Floyd Lamb (Tule) Pond	27,832	9,186
Mesquite (Hafen Lane) Pond	2,274	1,358
Cold Creek Pond	2,355	880
Beatty Pond	2,675	1,000
Total	93,234	31,770

Channel Catfish Stocking

Catfish were purchased through a contract with Mr. Fish located in Arkansas and stocking commenced on April 16 and ended September 25. Stocking occurred monthly, except for during July and October. Due to high mortality rates in July, both NDOW and the vendor agreed to postpone stocking and resume in August. The vendor met the contracted stocking amount by September, so no catfish were stocked in October. Exceptions to monthly stocking occurred at Mesquite Pond, which was stocked in April, May, and August, and Lorenzi Park Pond, stocked in April, May, June, and September. A total of 9,335 channel catfish (16,650 lbs) were stocked, averaging 0.51 f/lb and 17.7 in (450 mm) TL. Floyd Lamb Pond and Sunset Park Pond received the largest allotment of catfish at 3,835 and 3,013, respectively (Table 2). Boulder City Pond received 1,623 fish, Lorenzi Park Pond 661 fish, and Mesquite Pond 203 fish due to their smaller sizes and the low angling pressure exerted there.

TABLE 2. Location, number, and pounds of channel catfish stocked into urban ponds in southern Nevada, 2014.

Urban pond	Number of channel catfish	Pounds
Boulder City Pond	1,623	2,950
Sunset Pond	3,013	5,450
Lorenzi Park Pond	661	1,200
Floyd Lamb (Tule) Pond	3,835	6,750
Mesquite (Hafen Lane) Pond	203	300
Total	9,392	16,400

Development of Additional Urban Fisheries

No additional ponds were identified in 2014.

Gill and Trammel Netting

The gill/trammel net survey was carried out on August 5, 2014 at Sunset Pond. Gill nets were set according to NDOW’s Sport Fish Sampling Guidelines for Lakes, Ponds, and Reservoirs for gillnetting warmwater species. Nets used by the NDOW were multifilament experimental gill nets, 150 ft (46 m) in length, with five 30 ft (nine meters) panels typically ranging in mesh size from 0.75 in to 3 in (1.9 to 7.6 cm). Trammel nets had 1.5 in (3.8 cm) mesh, a length of 300 ft (91.4 m) and height of five feet (1.5 m). Nets were set overnight and fish were identified to species, weighed, measured, and released back to the pond.

FINDINGS

A total of 13 days of contact creel surveys were carried out among the urban ponds, contacting 453 anglers who reported 470 fish caught. Species caught included 272 (57.9%) rainbow trout, 92 (19.6) channel catfish, 13 (2.8%) largemouth bass, 11 (2.3%) bluegill, and 82 (17.4%). Because of the limited number of creel survey days, angler use and success may be higher than that observed.

In addition to monthly surveys, the Mail-in Angler Questionnaire survey was used to assess angler use and success. Each year, the previous year’s angler questionnaire data becomes available, so the current angler questionnaire data is from 2013. Sunset Park and Floyd Lamb ponds received the highest number of anglers (Figure 1) and angler use followed by the Boulder City Pond (Figure 2). However, all ponds, except Lorenzi Park Pond, had declines in number of anglers, angler use, and catch rate (fish/day). Lorenzi Park was remodeled in 2013, which could have sparked greater interest to fish there (Figure 1 and 2) and showing an improved catch rate (Figure 3). The low catch rates estimated from the Mail-in Angler Questionnaire Survey support the low catch rates observed in the angler contact surveys in 2013.

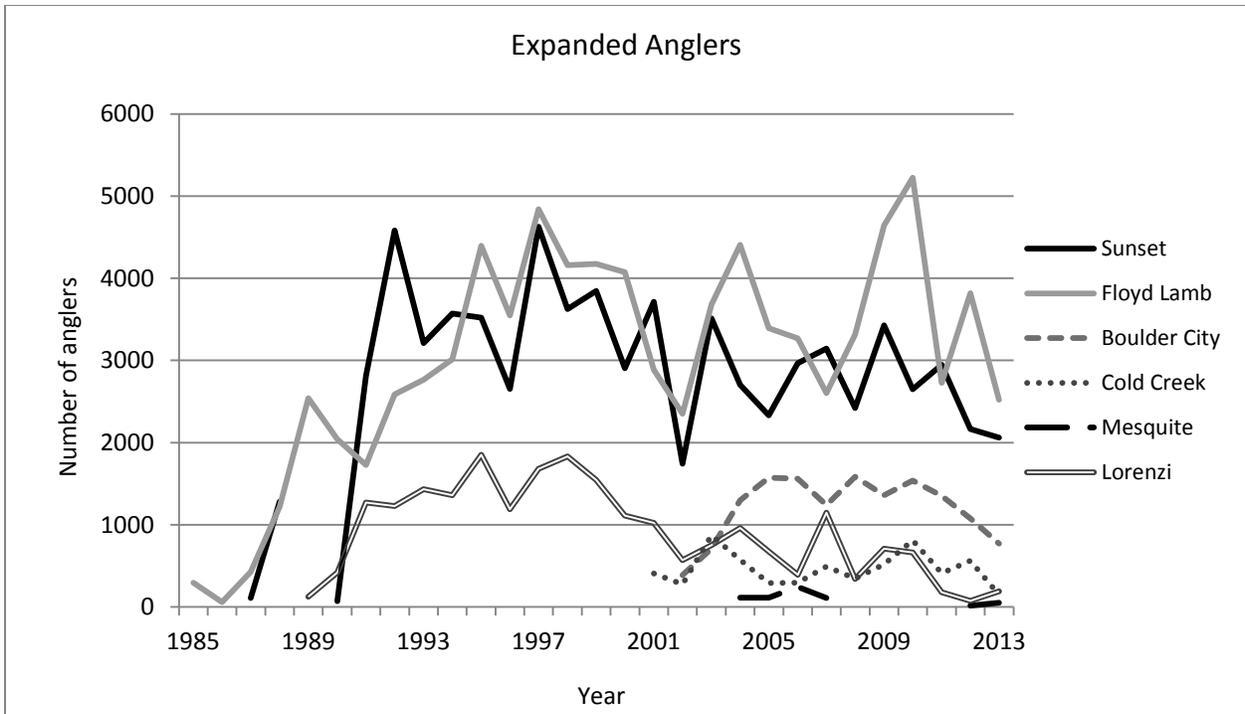


FIGURE 1. Expanded anglers from the 10% angler questionnaire data for urban ponds in southern Nevada, 1985-2013.

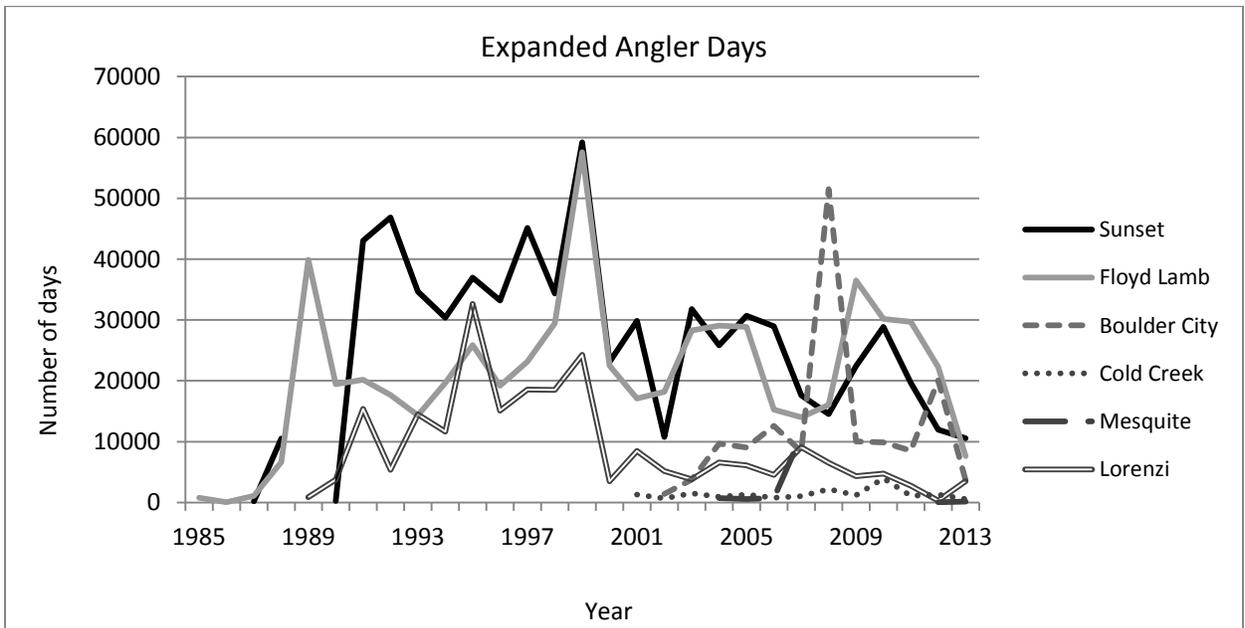


FIGURE 2. Expanded angler days from the 10% angler questionnaire data for urban ponds in southern Nevada, 1985-2013.

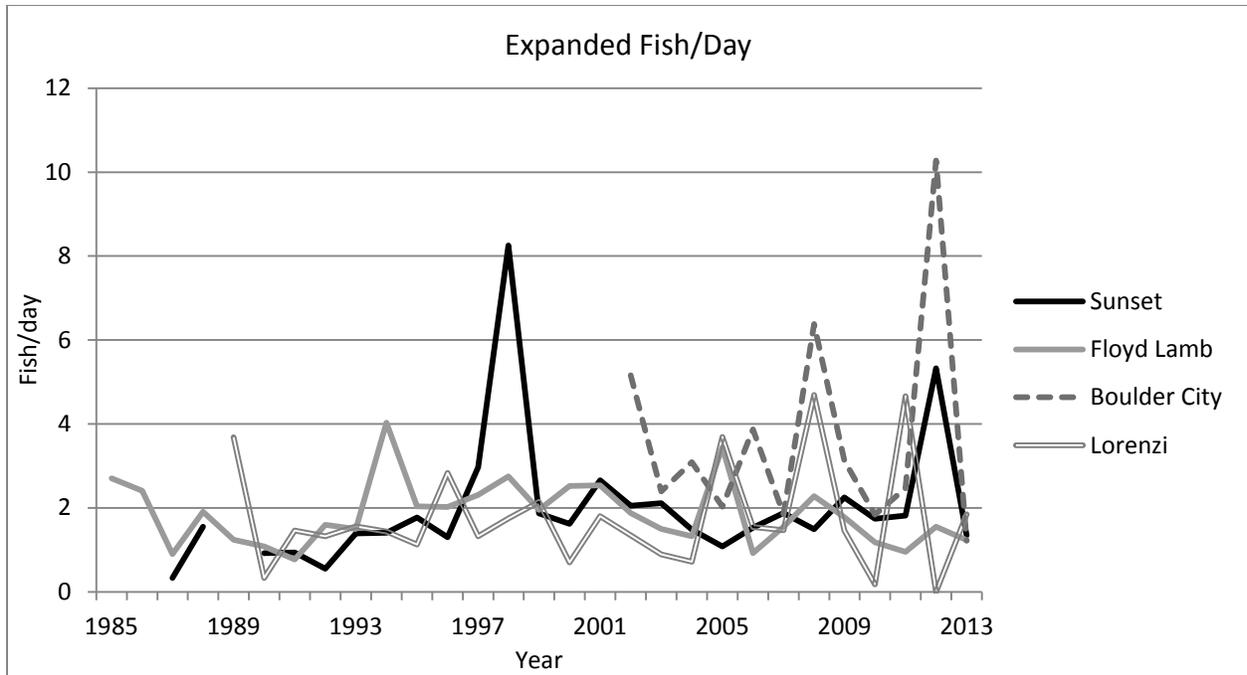


FIGURE 3. Expanded fish/day data from the 10% angler questionnaire data for urban ponds in southern Nevada, 1985-2013.

Sunset Park Pond

From the 12 creel survey visits, 149 anglers were interviewed. A total of 108 rainbow trout, 24 channel catfish, 1 largemouth bass, and 78 carp were caught. Anglers reported 308.5 hrs of fishing effort with a catch rate of 0.68 f/hr and 1.42 f/angler. This includes the carp captured. There was a major common carp spawn with thousands of YOY in the shallows around the perimeter of the pond. Carp were captured incidentally and not what anglers targeted. There were lots of complaints the small carp (approximately 5 in [132 mm]) were taking their bait, but children having fun catching them (Anna Kopp, NDOW, pers. comm.) Catch rates calculated without carp came to 0.43 f/hr and 0.89 f/angler. These rates are higher than the 2013 rates of 0.30 f/hr and 0.5 f/angler.

In addition to angler contact surveys, Sunset Park Pond was surveyed for the presence of silver and bighead carp after reports of an invasive carp being caught. On August 5, 2014, nine gill nets and two trammel nets were set around the pond and pulled the next morning. No silver or bighead carp were caught in this sampling effort. Survey results found a large number of largemouth bass (47% of the catch) and YOY common carp (36%) (Table 3). A small number of channel catfish and adult common carp were also captured, and a plecostomus *Hypostomus plecostomus*, an aquarium species of armored catfish, were caught.

TABLE 3. Species, total length, and weight data from Sunset Park Pond gill-net survey, August 5, 2014.

Species	Number	% of catch	Total length (in)		Average weight lb
			Average	Range	
Largemouth bass	36	47	8.7	4.5-13.1	0.4
Channel catfish	7	9	18	9.8-24.2	2.5
Common carp, YOY	28	36	5.2	4.5-7.4	0.1
Common carp, adult	5	7	21.8	19.2-26.7	5.0
<i>H. plecostomus</i>	1	1	13.3	N/A	0.8
Total	77				

Lorenzi Pond

Lorenzi Pond was surveyed on nine visits. A total of 72 anglers were contacted and reported catching 91 fish. Fishing effort was 126.5 angler hours and fish captured included 72 rainbow trout, 16 channel catfish, 1 largemouth bass, and 2 carp for a catch rate of 0.72 f/hr and 1.26 f/angler. These rates were improved over last year's catch rates of 0.05 f/hr and 0.09 f/angler.

Tule Pond (Floyd Lamb Park)

Eleven contact creel surveys were conducted at Tule Pond (Floyd Lamb Park). A total of 188 anglers were contacted, having fished 386.5 hr, with a catch rate of 0.35 f/hr and 0.71 f/angler. These anglers caught 67 rainbow trout, 43 channel catfish, 11 bluegill, 11 largemouth bass, and 2 carp. Catch rates improved from the 0.27 f/hr and 0.33 f/angler observed last year.

Boulder City Pond

Seven visits were made to the Boulder City Pond to conduct creel surveys. Surveys contacted 44 anglers with 66 fishing hours. Anglers reported catching 25 rainbow trout and 9 channel catfish. Catch rates were 0.5 f/hr and 0.8 f/angler. The one catch rates was similar to last year's 0.47 f/hr, though fish caught per angler was almost twice as high as the 0.48 f/angler observed in 2013.

Mesquite Urban Pond (Hafen Pond)

No creel surveys were conducted at the Mesquite Urban Pond.

Cold Creek Pond

No creel surveys were conducted at the Cold Creek Pond.

Beatty Urban Pond

No creel surveys were conducted at the Beatty Pond.

MANAGEMENT REVIEW

The objectives of administering an urban fisheries program were met and approaches completed. Creel surveys found angler catch rates were much improved over that observed last year, though sampling effort was minimal and may not fully reflect actual catch rates. These catch rates fall within the department's Urban Fisheries Management Concept (NDOW) standards. Further, it appears the stocking rates for 2014 were adequate for the amount of angler use and success at the ponds.

RECOMMENDATIONS

Continue with the following approaches:

- Conduct a general fisheries assessment through direct angler contacts at least monthly at all managed sites except Mesquite (Hafen Park), Cold Creek, and Beatty ponds.
- Conduct a general habitat assessment through visual observations of water quantity (lake level) and water quality (clarity).
- Evaluate annual stocking recommendations based on habitat conditions and angler use.
- Manage contracts for and coordinate stocking of purchased channel catfish at all sites during warm-weather months (April through October).
- Identify and /or develop additional urban fishing waters in cooperation with local government entities as opportunities arise

REFERENCES

Kopp, A. Nevada Department of Wildlife, Fisheries Division, Southern Region, Wildlife Area Technician II, personal communication, March 4, 2015.

NDOW [Nevada Department of Wildlife]. Program and procedure: Fishery management concepts, 7 pp.

Prepared by: Debora Y. Herndon
Biologist, Southern Region

Date: March 5, 2015

References

Kopp, A. Nevada Department of Wildlife, Fisheries Division, Region 3, Wildlife Area Technician II, personal communication, March 4, 2015.

NDOW [Nevada Department of Wildlife]. Program and procedure: Fishery management concepts, 7 pp.