

PERFORMANCE REPORT

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FEDERAL AID PROJECT F-221-M-3

INLAND FISHERIES DIVISION MONITORING AND MANAGEMENT PROGRAM

2012 Fisheries Management Survey Report

**Averhoff Reservoir**

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## SURVEY AND MANAGEMENT SUMMARY

Fish Populations in Averhoff Reservoir were not surveyed during the study period (2009-2013) due to low water levels caused by drought. This report contains information about the reservoir and management recommendations.

- **Reservoir Description:** Averhoff Reservoir is a 173-acre narrow, riverine-type reservoir located on the Nueces River, near Crystal City, TX, in Zavala County. It was constructed by the Zavala-Dimmit Water Improvement District Number 1 in 1948 to provide water for agriculture, recreation, and flood control. Water level was extremely low throughout much of the study period preventing boat access.
  - **Management History:** Important sport fish included Largemouth Bass and Channel Catfish. Harvest of both species was managed according to standard state-wide regulations.
  - **Fish Community:** Fish communities were not surveyed due to extreme low water levels preventing boat access.
  - **Management Strategies:** Declassify Averhoff Reservoir as a general rotation reservoir because of its low fisheries potential. Conduct fish population sampling when reservoir conditions improve. All species should continue to be managed under current harvest regulations.

## INTRODUCTION

This document is a summary of fisheries data and information for Averhoff Reservoir, and contains recommendations to protect and improve the sport fishery. Fish community surveys were not conducted because of extreme low water levels.

### *Reservoir Description*

Averhoff is a narrow, riverine-type 173-acre reservoir located on the Nueces River, near Crystal City, in Zavala County, TX. It was constructed by the Zavala-Dimmit Water Improvement District Number 1 in 1948 to provide water for agriculture, recreation, and flood control. Water level is not recorded for this reservoir. Other descriptive characteristics for Averhoff Reservoir are in Table 1.

### *Angler Access*

Boat access is limited with only one public ramp present and there are no handicap-specific facilities. Shoreline-angling access is poor and limited to boat ramp area.

### *Management History*

**Previous management strategies and actions:** Management strategies and actions from the previous survey report (Dennis and Myers 2008) included:

1. Threadfin Shad absence.  
**Action:** Extreme low water levels prevented assessment of shad spp. populations via electrofishing.
2. Low angler utilization.  
**Action:** Four trailer counts were made from 3/13/2010 to 9/5/2012. A total of two trailers were counted which confirmed very low angler utilization.

**Harvest regulation history:** Harvest of sport fishes in Averhoff Reservoir has been managed according to standard state-wide harvest regulations (Table 2).

**Stocking history:** Palmetto Bass were stocked in the late 1970s and Florida Largemouth Bass (FLMB) in the mid 1990s. The detailed stocking history is in Table 3.

**Vegetation/habitat history:** No habitat or vegetation management activities have been conducted on this reservoir.

**Water transfer:** No interbasin transfers are known to exist.

## METHODS

Fish population (i.e. electrofishing and gill netting), structural habitat, and vegetation surveys were not conducted during the study period (2009-2013) because extreme low water levels prevented boat access.

Trailer counts (N = 4) were conducted from March 2010 to September 2012 to assess angler utilization.

Photos were taken from the boat ramp location to provide a visual record of the low water level and reservoir habitat in the vicinity of the boat ramp (Appendix A).

## Fisheries management plan for Averhoff Reservoir, Texas

Prepared – July 2013

**ISSUE 1:** Averhoff Reservoir has low fisheries potential because of its small size (173 acres), rural location (between Uvalde and Eagle Pass, TX), and periods of extreme low water level. Trailer counts conducted from 2010-2012 confirmed low angler utilization. General rotation reservoirs according to Inland Fisheries Division guidelines are described as >500 acres in size.

### MANAGEMENT STRATEGY

1. Declassify Averhoff Reservoir as a general rotation reservoir because of its low fisheries potential. This would permit additional allocation of fisheries monitoring and management efforts to highly utilized reservoirs in District 1D.

**ISSUE 2:** Many invasive species threaten aquatic habitats and organisms in Texas and can adversely affect the state ecologically, environmentally, and economically. For example, zebra mussels (*Dreissena polymorpha*) can multiply rapidly and attach themselves to any available hard structure, restricting water flow in pipes, fouling swimming beaches and plugging engine cooling systems. Giant salvinia (*Salvinia molesta*) and other invasive vegetation species can form dense mats, interfering with recreational activities like fishing, boating, skiing and swimming. The financial costs of controlling and/or eradicating these types of invasive species are significant. Additionally, the potential for invasive species to spread to other river drainages and reservoirs via watercraft and other means is a serious threat to all public waters of the state.

### MANAGEMENT STRATEGIES

1. Cooperate with the controlling authority to post appropriate signage at access points around the reservoir.
2. Contact and educate marina owners about invasive species, and provide them with posters, literature, etc... so that they can in turn educate their customers.
3. Educate the public about invasive species through the use of media and the internet.
4. Make a speaking point about invasive species when presenting to constituent and user groups.
5. Keep track of (i.e., map) existing and future inter-basin water transfers to facilitate potential invasive species responses.

## LITERATURE CITED

Dennis, J., and R. Myers 2008. Statewide freshwater fisheries monitoring and management program survey report for Averhoff Reservoir, 2004. Texas Parks and Wildlife Department, Federal Aid In Sport Fish Restoration, Grant F-30-R, Performance Report, Austin.

Table 1. Characteristics of Averhoff Reservoir, Texas.

Inland Fisheries water body code	0035
IF District	1D
Surface area	173 acres
Conservation pool elevation	595 feet above mean sea level
Shoreline length	32 miles
Controlling authority	Zavala-Dimmit Water Improvement District No. 1
Water uses	Irrigation and recreation
County	Zavala
Latitude	28.778870
Longitude	-99.828148
Nearest major metropolitan area and distance	Laredo – 100 miles San Antonio – 100 miles
Reservoir description	Main stream
River system	Nueces
Mean depth	24 feet
Maximum depth	28 feet
Shoreline development ratio	2.685
Watershed area	unknown
Secchi disc range	2-4 feet
Conductivity	530 $\mu$ mhos/cm
Constructed	1948
Boat access	fair–1 public ramp
Bank access	Poor and at boat ramp only
Handicap access	Inadequate-none

Table 2. Harvest regulations for Averhoff Reservoir.

Species	Bag Limit	Length Limit (inches)
Catfish: Channel and Blue, their hybrids and subspecies	25 (in any combination)	12" minimum
Catfish, Flathead	5	18" minimum
Bass, Largemouth and Guadalupe	5 (in any combination)	14" minimum (except no length limit for Guadalupe)
Crappie: White and Black Crappie, their hybrids and subspecies	25 (in any combination)	10" minimum

Table 3. Fingerling stocking history of Averhoff Reservoir, Texas.

Species	Year	Number
Palmetto Bass	1979	3,550
	1981	1,300
	1983	1,620
	Species total	6,470
Florida Largemouth Bass	1994	31,917
	1995	31,969
	1996	32,568
	Species total	96,454

**Appendix A**

Photos taken from the Averhoff Reservoir boat ramp in September 2012.





**End of concrete boat ramp was about five feet above the water surface.**

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