

## 2021 NE District Flood Control Reservoir Fish Sampling Summary

Nebraska Game and Parks Commission

Phil Chvala, Fisheries Biologist

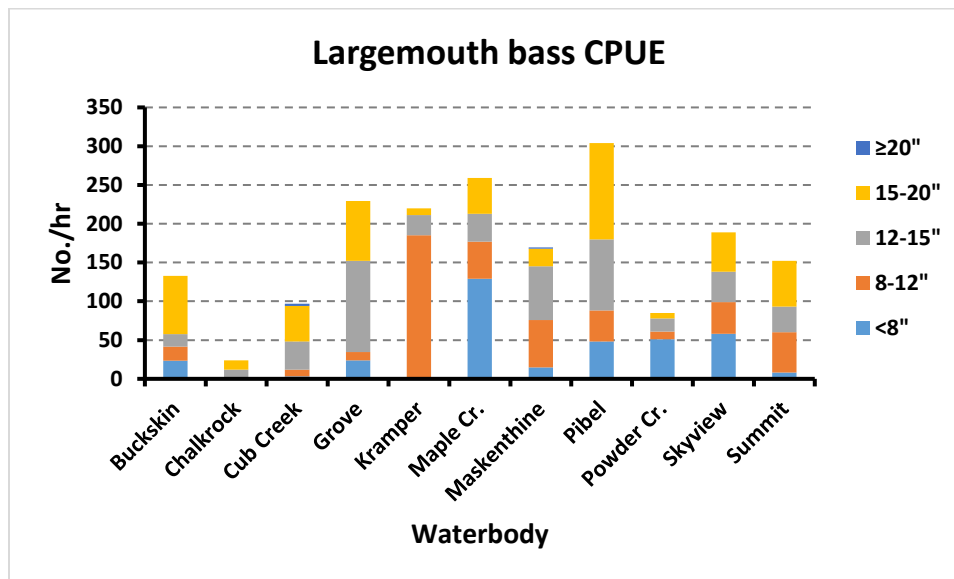
Jeff Schuckman, Northeast Region Fisheries Manager



Several flood control reservoirs dot the landscape of the Northeast District ranging in size from approximately 25 to 700 surface acres. Willow Creek Reservoir near Pierce is the largest of the flood control reservoirs in the Northeast District and management is geared toward a large reservoir fishery that includes walleye, wipers, and channel catfish. It also provides some good opportunities for crappie anglers. Willow Creek does experience substantial algae blooms which may be negatively influencing recruitment of some species. The primary species making up the fish communities in the remaining smaller reservoirs are largemouth bass, bluegill, black crappie, and channel catfish. Walleye are also found in some of these reservoirs but in relatively low numbers in most cases. Most of the flood control reservoirs receive annual stockings of channel catfish while about half are annually stocked with walleye. Species in these lakes other than the channel catfish and walleye typically maintain their populations through natural reproduction and recruitment.

### Largemouth Bass

Bass are collected by night-time electrofishing efforts conducted in the spring of the year. A catch rate of at least 150 bass per hour of electrofishing is desirable. This minimum catch rate not only equates to good catch rates for anglers seeking bass but can also limit panfish recruitment so that desirable growth rates and size structure on those panfish can be maintained.

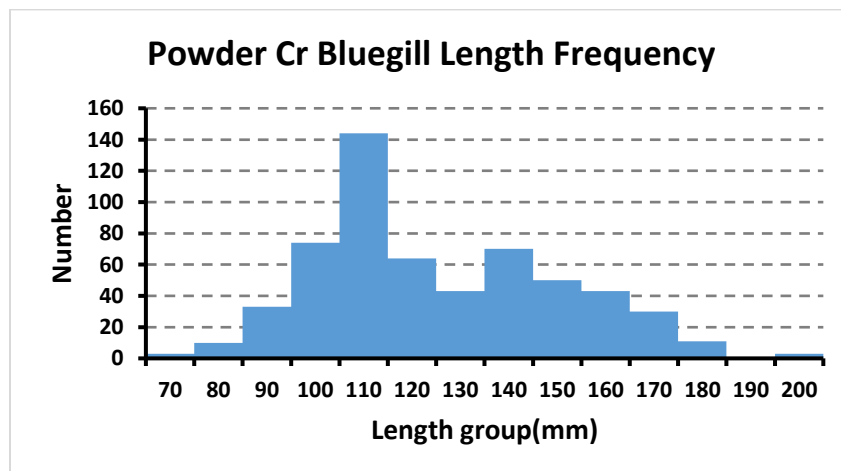
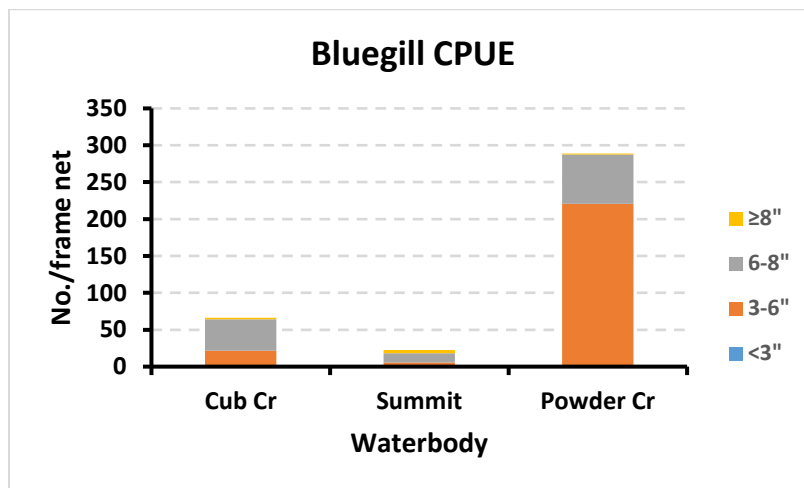


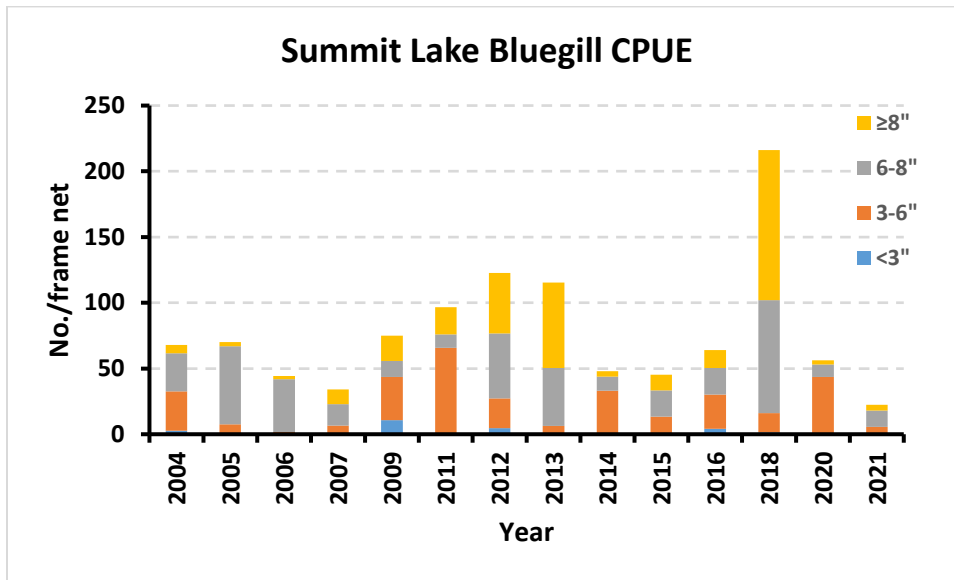
Due to other projects going on in the spring, no night-time electrofishing for Largemouth Bass occurred on flood control reservoirs in the Northeast district in 2021. The above graph represents the most recent sample from each of the flood control reservoirs in the district. Most of the bass fisheries are fairly consistent through the years but it has been a while since some have been sampled. Thus, some of these numbers may not accurately reflect the current status of the respective waterbody's population. Cub Creek was last sampled in 2013; Buckskin, Maskenthine, and Pibel in 2016; Chalkrock in 2018; Kramper in 2019; and Grove, Powder Creek, Skyview, and Summit in 2020. The bass populations in

Chalkrock and Powder Creek were certainly lower than desired and the size structure in Kramper was skewed toward smaller fish with the majority being less than 12 inches. At the remainder of the lakes, sampling indicated bass populations with moderate to high abundance and good size distribution, including good numbers of fish exceeding 15 inches.

### Bluegill

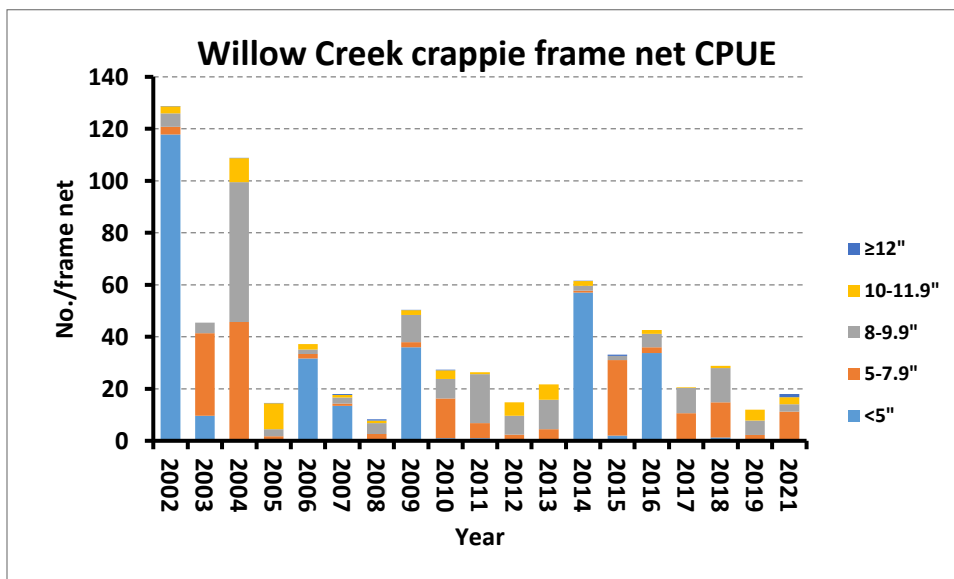
Bluegill are sampled with frame nets in the spring of the year, typically late-April thru mid-June. Three flood control reservoirs were sampled with frame nets in the spring of 2021. Powder Creek continued to disappoint, and its poor Bluegill population is likely a function of low bass density. Largemouth bass recruitment appeared to be improving in Powder Creek following the 2019 summer drawdown. This trend will hopefully continue and provide increased predation on those small Bluegill to decrease their numbers and improve growth rates. Sampling at Cub Creek Reservoir near Springview indicated a moderate density population with good size structure as approximately 26% of the Bluegill exceeded 7 inches. At Summit, numbers appeared to be down quite a bit. However, the catch was negatively influenced by abundant filamentous algae and to some degree curly-leaf pondweed, so the numbers likely don't represent the lake's bluegill population accurately. The population did exhibit decent size structure though, as 20% of the fish exceeded 8 inches. Considering other flood control reservoirs in the Northeast district, quality Bluegill fisheries can be found in Buckskin, Grove, Kramper, and Maple Creek.





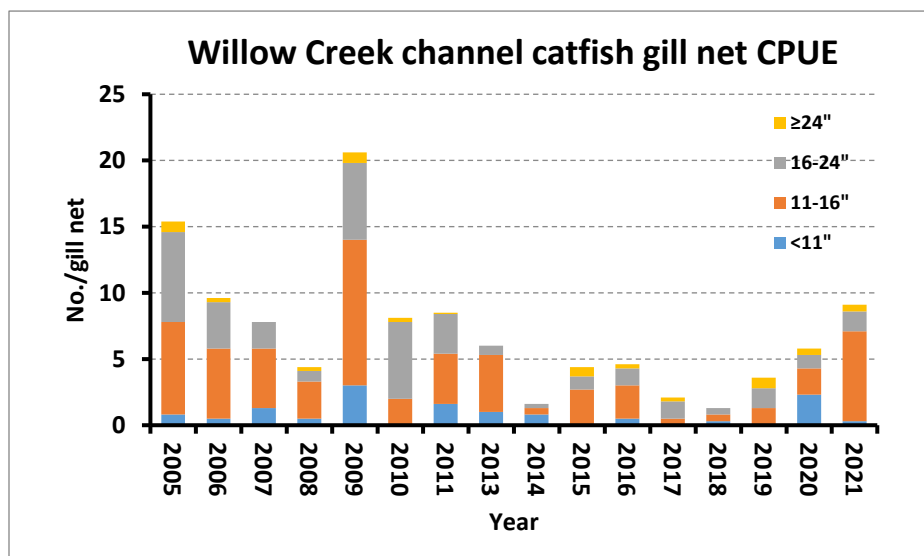
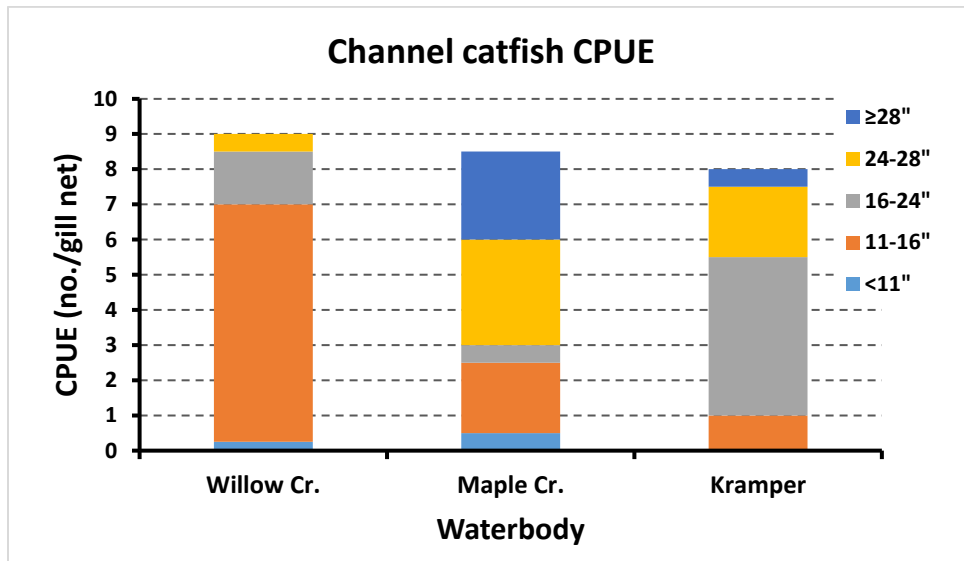
## Crappie

Timing is critical for collecting Crappie via frame nets in the spring depending largely on whether they are in shallow spawning when the sampling takes place. Crappie observations are recorded during the spring frame netting efforts but often are not reliable estimates of a lake's population. Cub Creek typically provides a good Crappie population, but none were captured during the lake survey there while a low number, including some up to 12 inches, were captured in Summit Lake in the spring frame net sample. In contrast to the smaller reservoirs, Willow Creek, the largest of the flood control reservoirs in the Northeast district, is sampled in the fall while other sampling is done on the lake. Historically, the reservoir has provided some outstanding Crappie fishing, both in numbers and size structure. Recent sampling, however, has indicated somewhat low numbers. In spite of those low numbers, anglers have been experiencing some good Crappie fishing days primarily in the spring but also into late fall over the last two years. Other flood control reservoirs in the district that have the potential to provide some good Crappie fishing opportunities include Buckskin, Maskenthine, Summit, Kramper, and Grove.



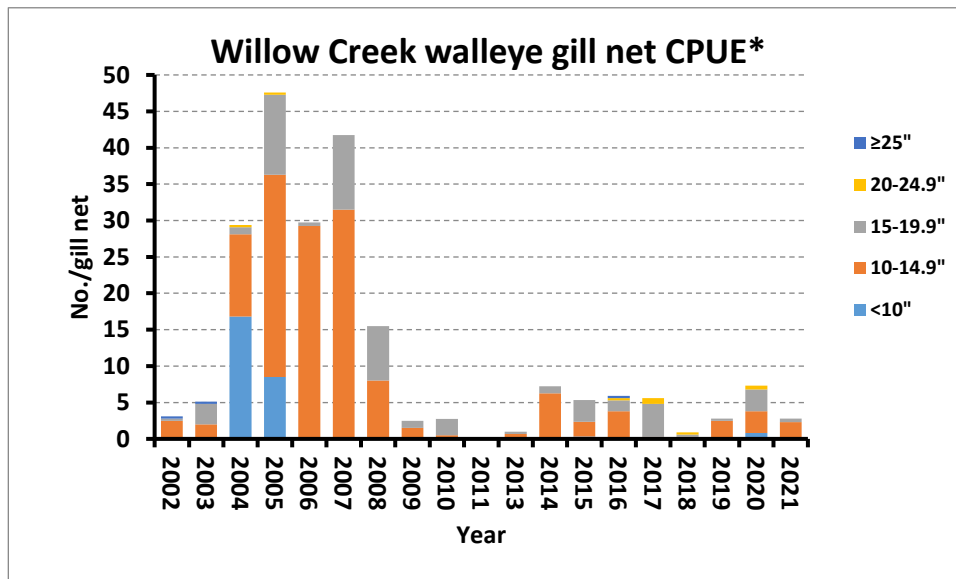
## Channel Catfish

Open water, offshore species like walleye, catfish, white bass, and wipers are sampled with gill nets set in the fall of the year. This sampling revealed very enticing populations of Channel Catfish in Maple Creek and Kramper. The populations in those two lakes held a fair number of fish over 24 inches, including a good proportion of fish over 28 inches and up to 10 pounds in Maple Creek. In addition, sampling indicated a continued trend of increasing numbers of Channel Catfish in Willow Creek Reservoir. The majority of the fish were less than 16 inches but as that cohort continues to grow, catfish angling at Willow Creek should improve noticeably over the next several years. Most of the flood control reservoirs in the Northeast district have good Channel Catfish populations, exhibiting moderate to high numbers and good size structure, and none of them should be overlooked by anglers seeking catfish.



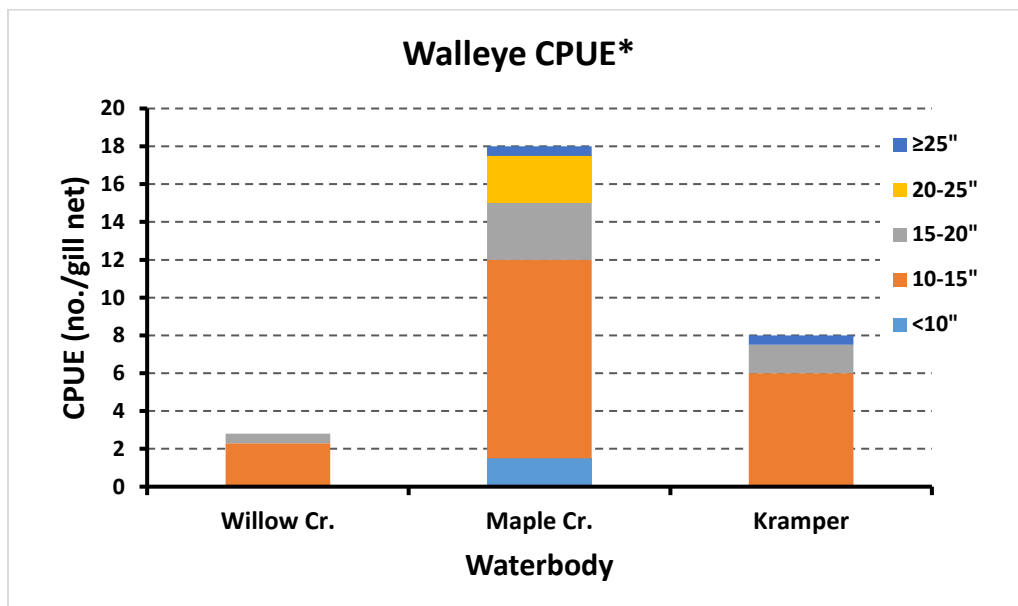
## Walleye

*Willow Creek*-Walleye stocking hasn't provided for a strong year class since 2008 in Willow Creek. Fry stocking proved very successful for a short time from 2004-2008 but has not provided appreciable recruitment since. Anglers still had decent success in the spring during 2020 and 2021. However, most of those fish were likely Saugeye. Annual fingerling Saugeye stocking was initiated in 2017 in Willow Creek to see if they would provide better recruitment than walleye. They tend to be a bit hardier and may handle the declining environmental conditions (poor water quality) better than Walleye. They have provided higher catch than Walleye over the last few years, even making up 100% of the "Walleye" sample in 2019 and 2021. However, gill net catch rates have remained relatively low. The 2020 "Walleye" catch rate did match 2014 as the highest observed catch since 2008 and did provide decent angling success for them in the spring of 2021. Most of the fish captured in the 2021 gill net survey were just under legal length but will likely exceed 15 inches in the spring of 2022 if they haven't already.



\*The Willow Creek data in this graph and the one below represent the combined catch rate of walleye and saugeye. In addition to the annual walleye stockings, saugeye have been stocked annually in Willow Creek for the past 5 years.

*Other Flood Control Reservoirs*-The Walleye populations in Kramper and Maple Creek appeared much more promising. Sampling indicated good numbers in both reservoirs with keeper-size fish making up 25% of the Walleye in Kramper and 33% in Maple Creek. Also, 13-14-inch Walleye exhibited good numbers in both waterbodies which will provide additional opportunity for harvestable-size fish in the near future. Maple Creek and Kramper are two of the four lakes in the district that are currently receiving advanced fingerling (8-inch) Walleye stockings. The other two are Skyview and Summit lakes. Skyview Lake, where they have proven to be very successful, has received these advanced Walleye annually since 2015 while 2021 marked the second year of such stockings in the other 3 lakes. Stocking of these advanced-size fish was also conducted at Buckskin Hills and Powder Creek but results there indicated that they did not perform any better than standard fingerling stockings. Advanced stockings and appropriate assessment will continue at the four lakes currently receiving them. Although not sampled in the last few years, Maskenthine Lake near Stanton has provided good walleye catch rates during previous surveys and should not be overlooked.



## Invasive Species



Yellow bass have become relatively common at Summit Lake. Like their cousin the white perch, they have the potential to overpopulate and develop abundant, slow-growing populations that can hinder other species in a waterbody. They did not arrive at Summit on their own. Summit Lake has provided an **absolutely great** fishery for bass, bluegill, crappie, and



catfish for years and it would be a tragedy to see it ruined and require a total fishery renovation due to someone moving fish around. Fish species that were not stocked by NGPC have also been observed in Maple Creek Reservoir and Skyview Lake, among others, in recent years. **“It is unlawful to release into public waters of the state any fish that did not originate from that body of water, including the dumping of bait buckets.”** Additionally, sport fish regulations state **“It shall be unlawful to transport or possess live white perch, black carp, silver carp, bighead carp, grass carp, and yellow bass away from the water body from which they were captured.”** Please call your local conservation officer (phone numbers are listed in all of our regulation guides) or the Wildlife Crimestoppers Hotline (1-800-742-7627) if you observe this or any kind of game violation.

Many of the Northeast District Lakes contain dense beds of aquatic vegetation on a seasonal basis. Curly-leaf pondweed is found in this area and is classified as an Aquatic Invasive Species. Those lakes that develop especially dense stands of curly-leaf include Pibel, Grove, Summit, Buckskin, Powder Creek, and Maskenthine. Another invasive aquatic plant, **Brittle Naiad**, was found in 2021 at Kramper Lake near Hubbard. Anglers are asked to be very diligent in ensuring all aquatic vegetation is removed from boats and trailers prior to leaving Kramper Lake. Chemical treatment of Brittle Naiad is planned for 2022. **Anglers are reminded of the Clean, Drain, Dry regulations that require any boat that has been on a waterbody to drain all water from all compartments, equipment, or containers before leaving the launch area and to remove all aquatic vegetation from the boat and trailer before leaving the launch area.** These regulations are meant to control and/or limit the spread of aquatic invasive species such as zebra mussels, Eurasian watermilfoil, and curly-leaf pondweed, to name a few. **Nonresident boaters are reminded of the Invasive Species sticker requirement.** The sticker provides funding for dealing with invasive species that are already present in addition to education and prevention activities that are meant to limit their spread. Nonresident boaters must have a current sticker affixed to their watercraft before launching in any Nebraska water. Resident boaters automatically contribute to this fund through a surcharge on their boat registration. Thus, as long as their registration is up-to-date, residents are in compliance and won't have a physical sticker attached to their watercraft. Additional information about aquatic invasive species and preventing their distribution can be found in the 2022 Nebraska Fishing Guide and at the University of Nebraska Invasive Species website: <http://www.neinvasives.com>. More information for Northeast District lakes such as location, boat ramps, species present, special regulations, etc. can also be found in the Nebraska Fishing Guide.

For more information on fishing rules and regulations visit the Nebraska Game and Parks website at [www.OutdoorNebraska.org](http://www.OutdoorNebraska.org)

For more information on the fisheries and/or fishing opportunities in the Northeast District contact:

Jeff Schuckman, Northeast Region Manager, Norfolk Office Ph: 402-370-3374, email: [jeff.schuckman@nebraska.gov](mailto:jeff.schuckman@nebraska.gov)

Phil Chvala, Fisheries Biologist, Norfolk Office, Ph: 402-370-3374, email: [phil.chvala@nebraska.gov](mailto:phil.chvala@nebraska.gov)