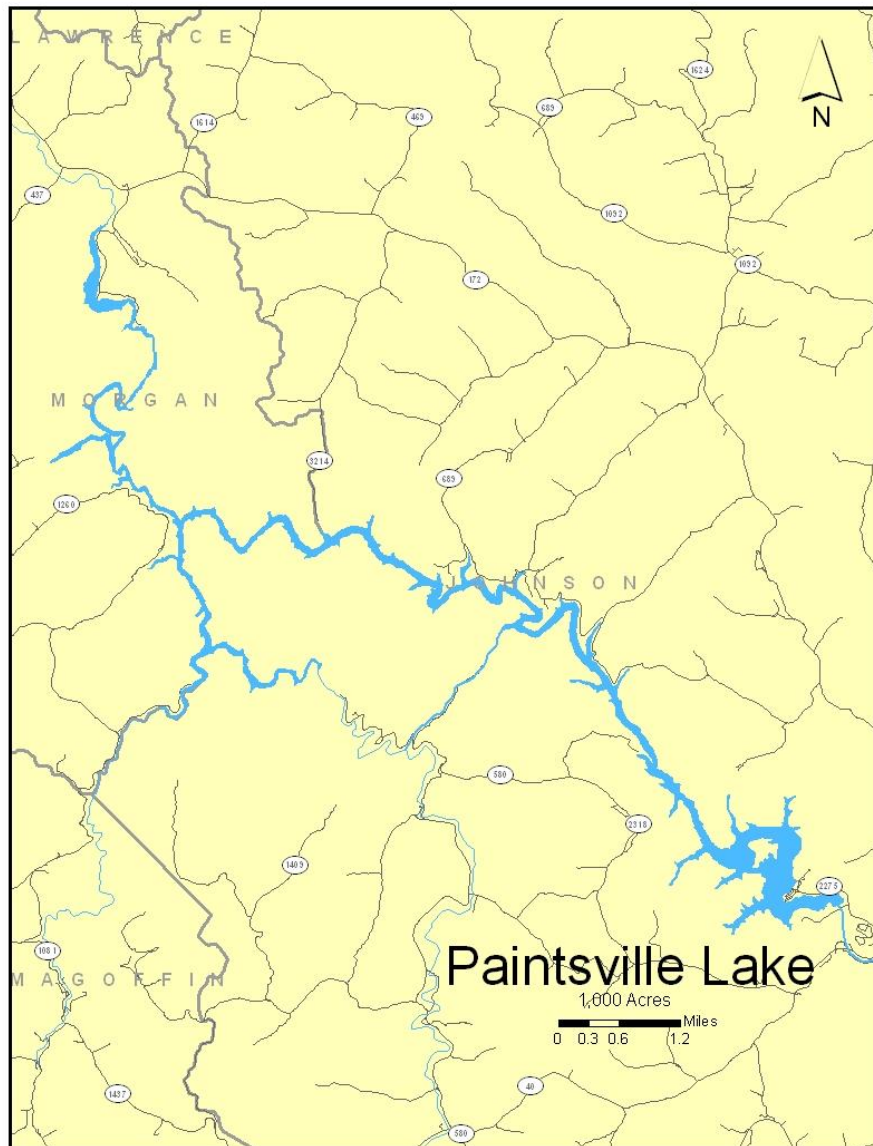


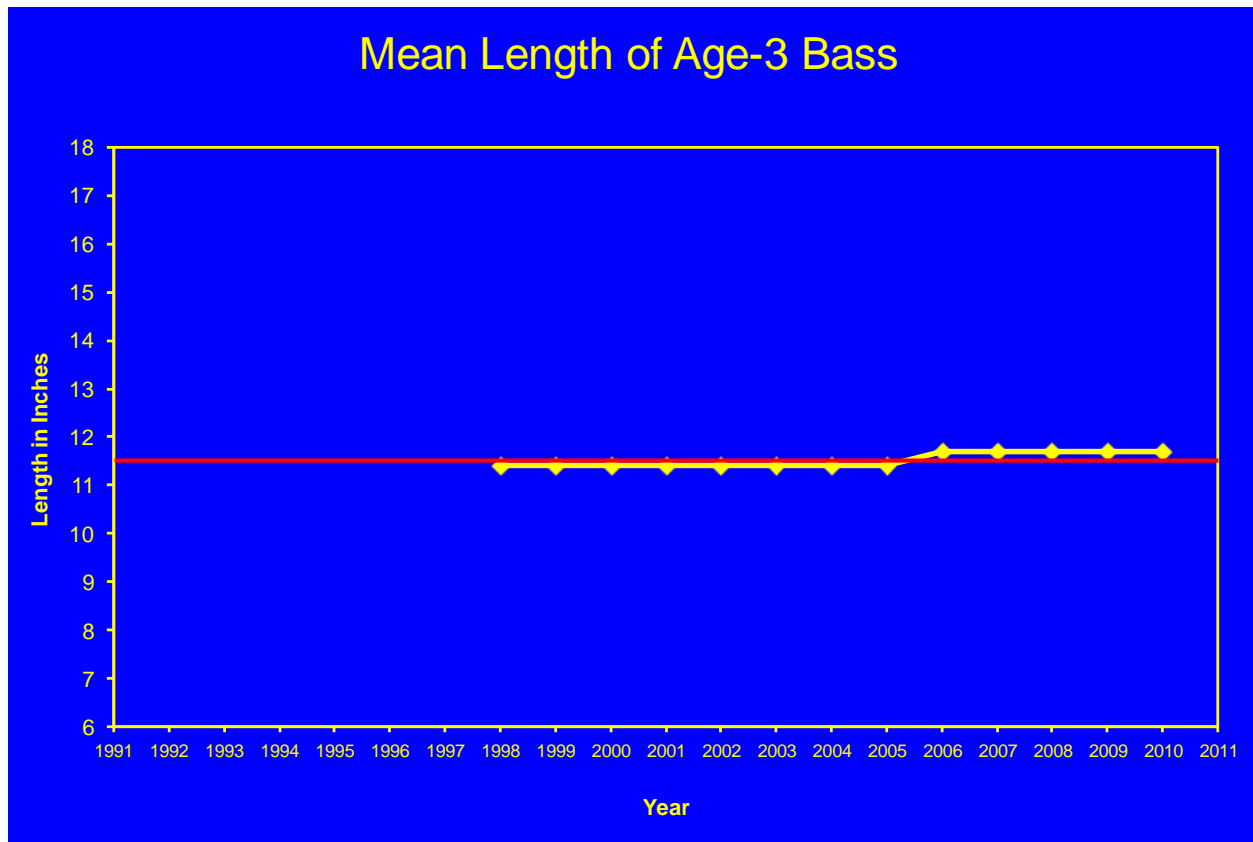
## Paintsville Lake Bass Assessment 2011

Paintsville Lake is a 1,150 acre multipurpose reservoir on Paint Creek in Johnson and Morgan Counties. In addition to largemouth bass, the lake offers good and improving opportunities for rainbow trout and walleye. Summer coldwater discharge was recently reduced so that the target discharge temperature was increased from 55°F to 68°F. This should help the trout and walleye in the lake. Increased size and numbers of walleye were observed in the spring of 2008 and 2010. Efforts are ongoing to increase the numbers of smallmouth bass in Paintsville Lake. The following graphs show trends and rankings for each of the five population parameters used in the largemouth bass assessment. Please see "Understanding The Largemouth Bass Assessment" article for an explanation of how the assessment works. *Please note that a 12.0-15.0 inch slot limit was placed on largemouth bass in 2002 to reduce competition, increase growth rates, and increase the number of bass in excess of 15.0 inches.*



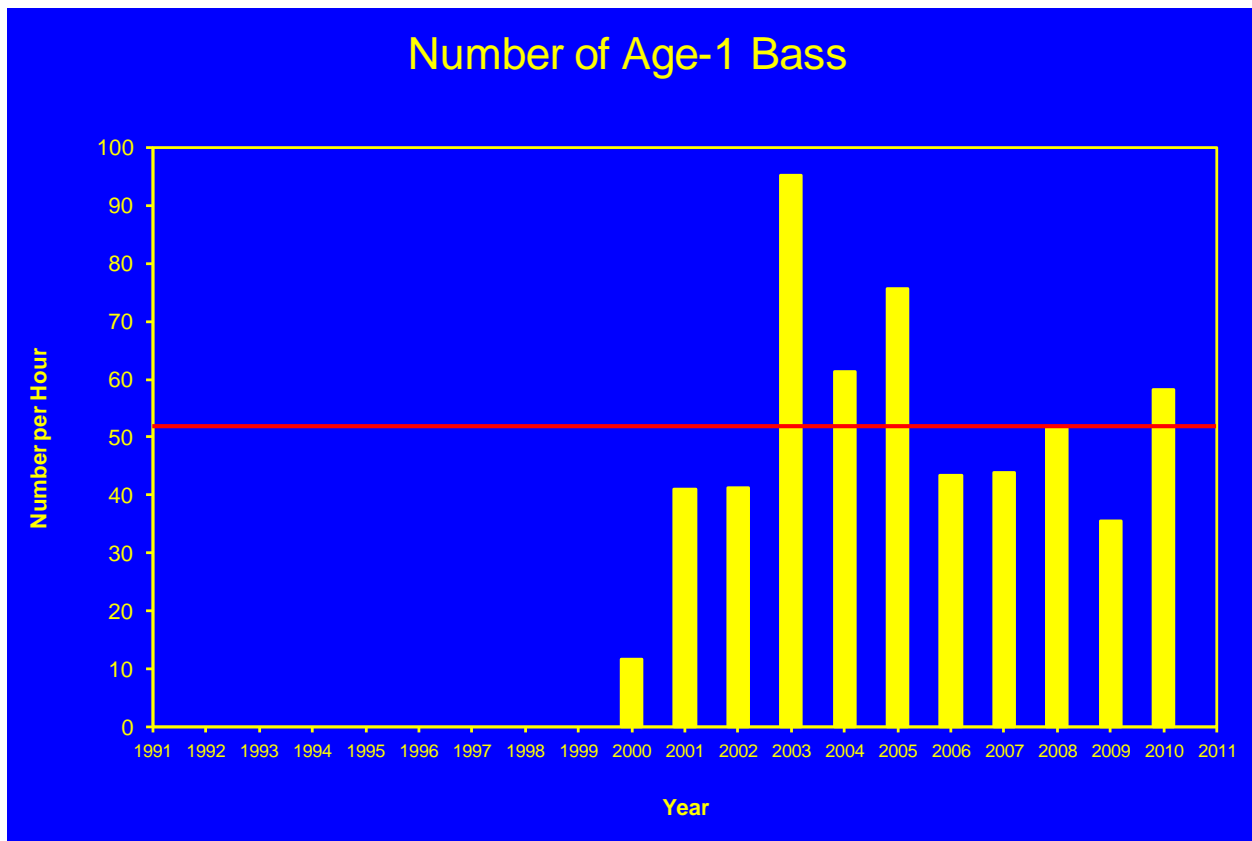
## Parameter 1 – Length at age-3 (growth rate)

At Paintsville Lake, the length of an age-3 largemouth bass has averaged 11.5 inches at the lake since 1998 (represented by the red line). When compared to other lakes of this size, this is considered to be fair growth for largemouth bass. Growth has been relatively stable with a slight increase in 2006 which was when the last assessment occurred. Growth rates are generally related to factors such as population density, food resources, and weather patterns. It is possible that the increased growth rate seen in 2006 is related to the slot limit established in 2002.



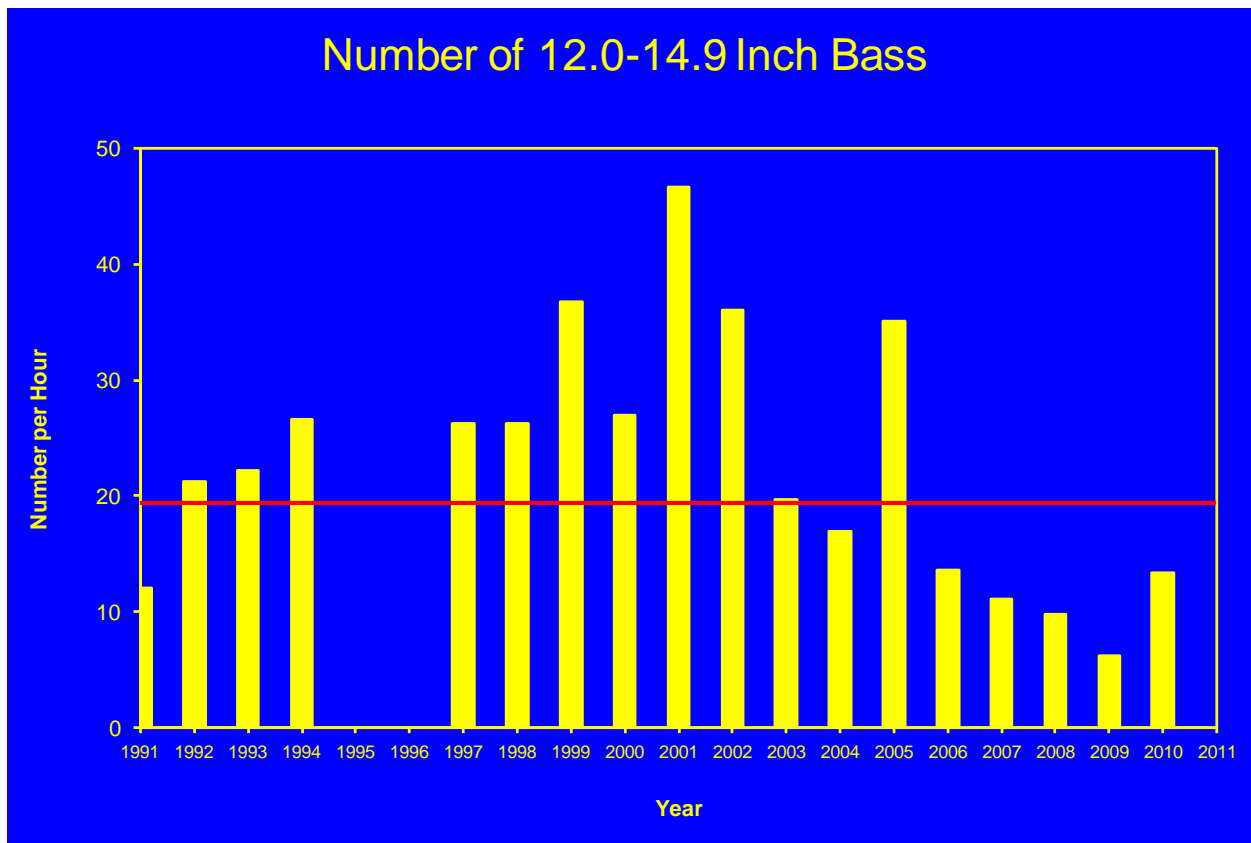
## Parameter 2 – Numbers of age-1 bass (how good the spawn was)

KDFWR looks at the electrofishing catch rates of age-1 largemouth bass to assess the success of the spawn which occurred in the prior year. This is an important parameter because the number of age-1 bass produced represents how good the fishing will be once these fish grow large enough for anglers to catch. At Paintsville Lake, age-1 largemouth bass catch rates have averaged 50.82 fish/hour of electrofishing (see red line). When compared to other lakes in this size range, this is considered to be an excellent age-1 catch rate. In 2010, the spring catch of age-1 largemouth bass (58.13 fish/hour) was above average, though the average catch rate of the last 5 years (46.55 fish/hour) is down. This decreased average would normally cause concern; however, the lake typically sees excessive largemouth bass production. A few poor years could improve growth and the overall size structure in years to come.



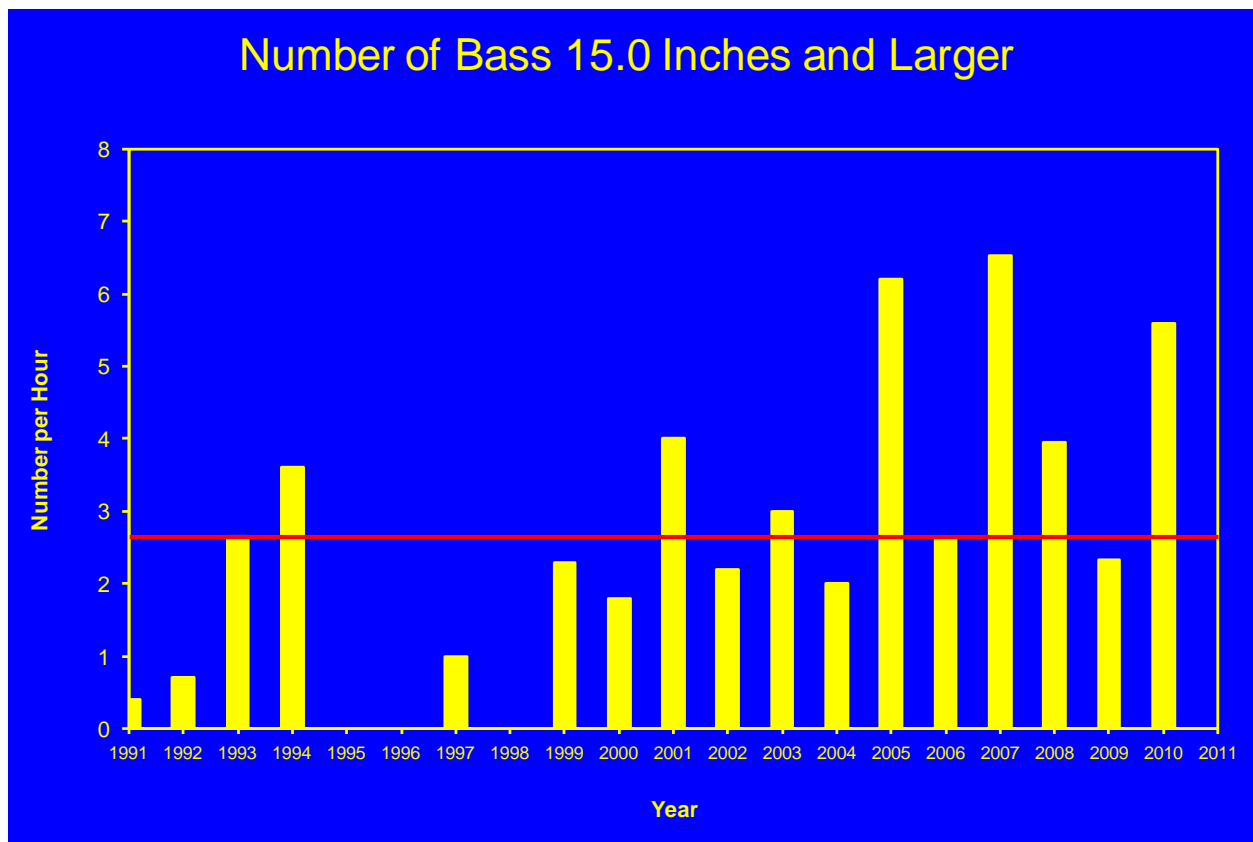
### Parameter 3 – Numbers of 12.0-14.9 inch bass

The electrofishing catch of 12.0-14.9 inch largemouth bass averaged 22.54 fish/hour from 1988 - 2005, which gives Paintsville Lake a fair rating when compared to other lakes its size. Beginning in 2006, the catch rate for this size range of bass fell drastically to a low of 6.20 fish/hour in 2009. The 2009 catch rate may be artificially low as sampling was cut short due to generator problems that year, leaving a smaller than normal sample size. None-the-less, from 2006 to 2010 the catch rate for 12.0-14.9 inch fish averaged 10.82 fish per hour and only increased to 11.97 fish per hour if 2009 was excluded from the average. Both of these averages are considered “poor” catch rates.



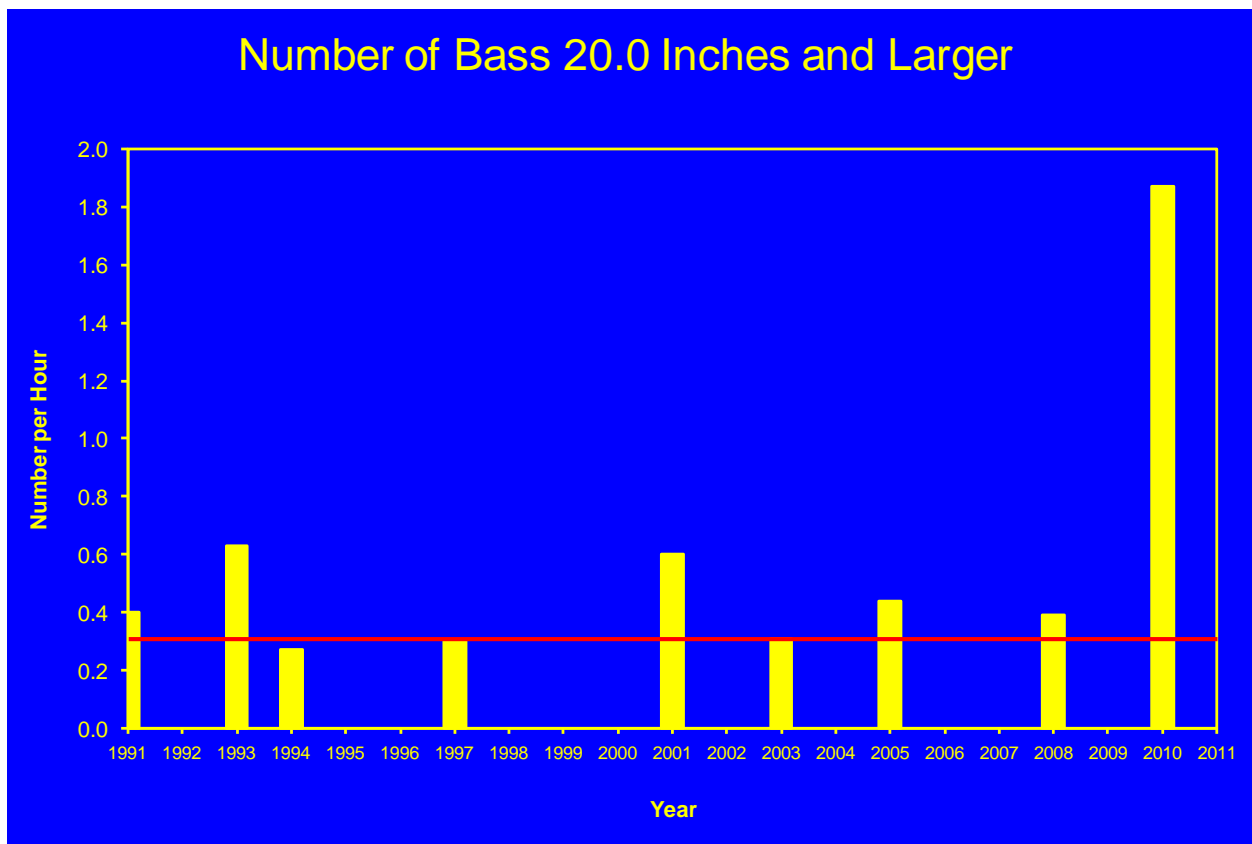
## Parameter 4 – Numbers of 15.0 inch and larger bass

The catch rate of 15.0 inch and larger largemouth bass at Paintsville Lake has averaged 2.58 fish/hour of electrofishing. Compared to other lakes, this is a poor catch rate for this size group. Since the slot limit was imposed in 2002, the number of available largemouth bass 15.0 inches or larger has slowly increased averaging 4.54 fish/hour from 2005 – 2010 with a rating of fair. In 2010, biologists observed the third highest catch rate of largemouth bass  $\geq 15.0$  inches (5.60 fish/hour). There are more quality largemouth bass available at Paintsville Lake than in most years, but much potential for improvement remains as numbers are still below average for lakes of this size.



## Parameter 5 – Numbers of 20.0-inch and larger bass

The electrofishing catch of 20.0 inch and larger largemouth bass has averaged 0.25 fish per hour for Paintsville Lake since 1988. This catch rate gives the lake a poor rating when compared to other lakes in its size range. In 2010, biologists observed the highest catch rate in over 20 years for fish larger than 20.0 inches in Paintsville Lake at 1.87 fish per hour. This catch rate is considered “good” when compared to other lakes in its size range. This parameter should be read with caution, however, because the difference of one fish either way can make the difference between a good and fair score. Although Paintsville Lake is not currently known as a quality largemouth bass lake, a few trophy fish are available to anglers.



## Overall – Total Assessment Score (All five parameters added together)

Overall, the largemouth bass fishery at Paintsville Lake has averaged a fair rating (10.09) over the past 11 years. The largemouth bass population at this lake has been very inconsistent. In 2000, the largemouth population rated poor, but by 2001 the score had improved to good only to drop to fair in each of the next three years. In 2005, the score had rebounded to 14 for a “good” score. This was the best largemouth bass assessment ever recorded for Paintsville Lake; however, the next year resulted in one of the lowest assessment values for the lake. Modest improvement over the past few years has resulted in a score of 13, or “good,” in 2010. Again, the “poor” assessment score of 7 in 2009 is misleading due to a poor sample that year due to equipment failure. The Lake seems to be stuck in a pattern of improved quality followed by a return to a status of “fair” or “poor”. Hopefully, the gradual increasing trend from 2006 to 2010 will continue.

