

# Lakes

## Current Plan

The Coon Creek watershed contains twelve lakes. Half of those lakes (6) are man-made and while originally constructed for a source of barrow material have become a central aesthetic feature in a subdivision and in most cases also used for boating and fishing. Cenaiko Lake is stocked with trout.

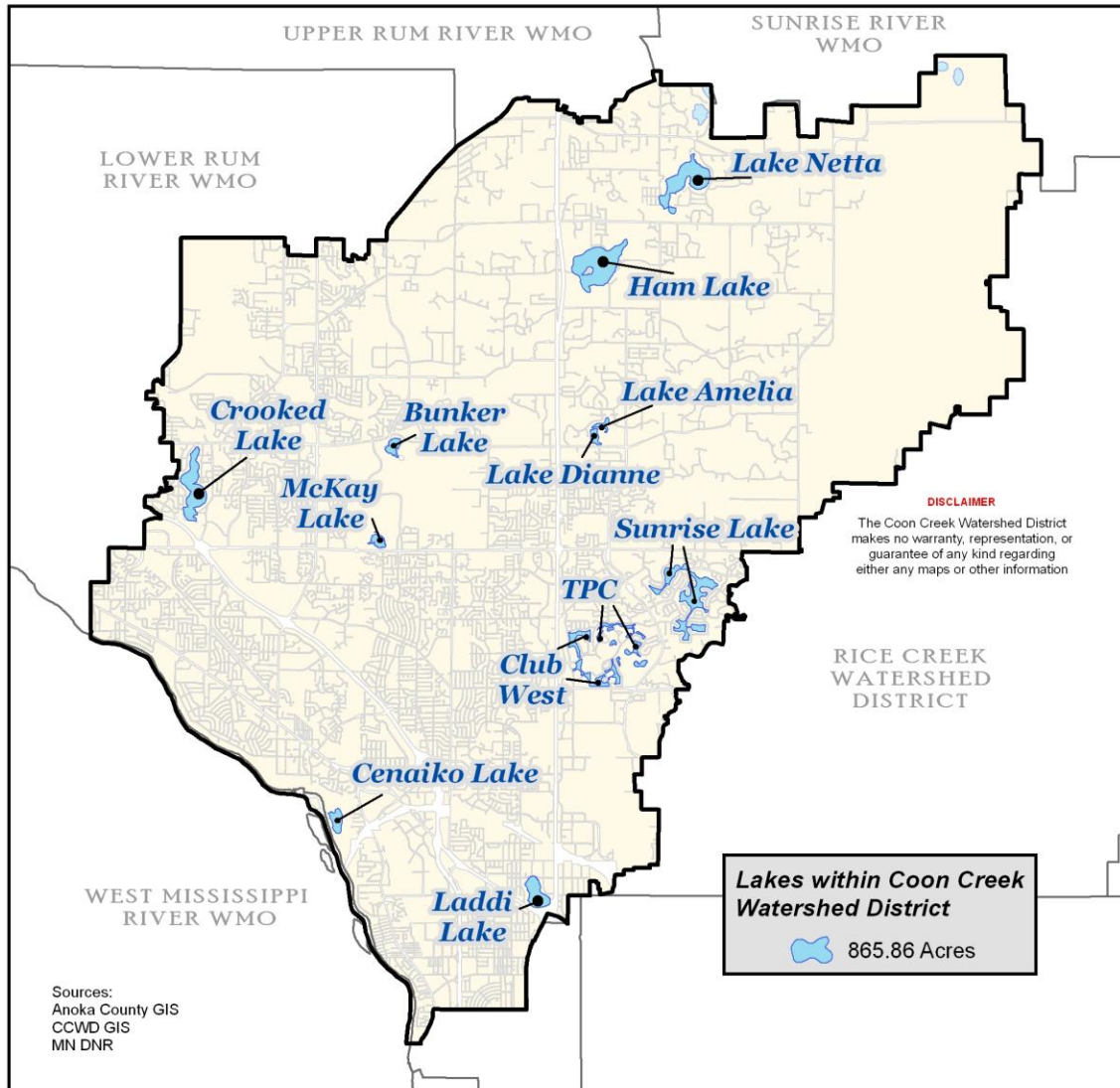
Three of the lakes (Bunker, Laddi, McKay) are type 5 wetlands with maximum depths of 4 to 6 feet

Two lakes (Crooked Lake and Ham Lake) support fisheries and Crooked experiences a variety of recreational boating.

Lake Netta, while more wetland than lake, has a long history of recreational use by the residents that live on the lake

Lake Name	Nature	Lake ID	Size (Ac)	Littoral Zone (%)	Max Depth (ft)	Water Clarity (ft)
Amelia	Man Made		10			
Bunker	Wetland	020090	70	100%	6	
Cenaiko	Man Made	020654	29	40%	36	5.4
Club West	Man Made	020764	37		26	3.5
Crooked	Shallow	020084	118	73%	26	8.5
Dianne	Man Made		14			
Ham	Shallow	020053	193	92%	22	6.8
Laddi	Wetland	020072	77	100%	4	3.9
McKay	Wetland	020083		100%	6	
Netta	Shallow	020052	168	80%	19	7.6
Sunrise	Man Made		134			
TPC	Man Made		34			

Map of Lakes within Coon Creek



The Current Plan reviews basic bathymetric data and water quality trends for both Crooked and Ham Lakes and cites a treatment history for Eurasian water milfoil on Crooked Lake.

**Crooked Lake Comprehensive Lake Management Plan March, 2009**

The purpose for the Plan is to provide a comprehensive “picture” of the lake based on scientific and historical information. The planning period is 2009 to 2013

The Plan addresses previous research and management actions, long-term goals, ways to achieve those goals, and ecological and economic consequences of those goals. To do this, the scope of the plan includes review and analysis of watershed hydrology, lake water quality, nutrient budgets, aquatic communities and ecology, and specific management and control of the invasive species: Eurasian water milfoil & curly leaf

pondweed.

Two primary goals of this Plan are:

1. Understanding the water quality condition of Crooked Lake
2. Developing strategies for the protection and enhancement of water quality

**Crooked Lake Issues** During development of the plan, the public identified 15 aspects of Crooked Lake they would like to see improved.

Of the 15 issues identified, only eleven were identified when the group was asked to identify three priorities. Of the eleven, three issues clearly stood out above the rest:

1. Eurasian Water Milfoil control/management
2. Water quality (including water clarity and non-point pollution)
3. Muck

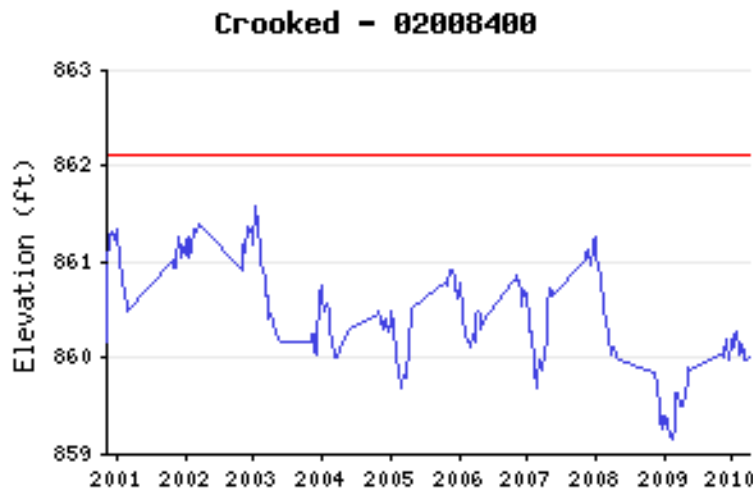
Trash and lake water levels were also identified.

## Trends in Lakes

**Creation of Man-Made Lakes** Since 2000, two man-made lakes have been constructed within the watershed bringing the total to five. The shorelines of TPC, Club West and Sunrise all are fully or substantially developed.

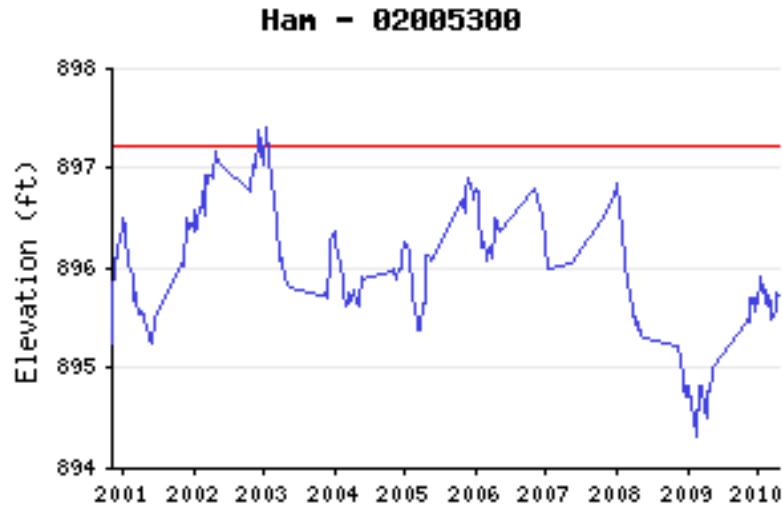
Lake Name	Year Const	Size (Ac)
Dianne	1992	
Amelia	1998	
TPC	1999	
Club West	2000	27.87
Sunrise	2005	

**Lake Levels** Lake levels have decreased significantly over the past 10 years.



[http://webapps5.dnr.state.mn.us/cgi-bin/lk\\_hydrograph.pl?years=10&width=600&height=400&d=02008400&name=Crooked](http://webapps5.dnr.state.mn.us/cgi-bin/lk_hydrograph.pl?years=10&width=600&height=400&d=02008400&name=Crooked)

<http://webapps5.dnr.state.mn.us/cgi->



[bin/lk\\_hydrograph.pl?years=10&width=600&height=400&id=02005300&name=Ham](bin/lk_hydrograph.pl?years=10&width=600&height=400&id=02005300&name=Ham)

**Lake Water Quality 2009**

Lake Name	Total Phosphrus	Cl-a	Clarity	Overall Condition	TSI
Crooked	C	A	B	B	51
Ham	A	A	B	A	47
Netta	C	A	B	B	51

**Invasive Species**

Lake Name	Eurasian Water Milfoil	Curly Leaf Pondweed
Cenaiko	?	
Crooked	1990	2005
Ham		Yes (<2005)

**Implications of Changes in Lakes**

**Loss of Lake Acreage**

The continued decline in water levels appears to reinforce that groundwater tables are dropping. In turn as lake levels decrease the surface area and depth decreases. In the worst case scenario a lake could follow the course of Bunker Lake and eventually devolve from the type 5 to type 2/3 wetland

**Decrease in Navigation & Recreational Use**

As lake levels drop, navigation and recreational use, including fishing become difficult to impossible to pursue on the body of water.

**Impairment of**

As Lakes decrease in depth, fish populations can become more concentrated and the

**Fishery** animals incur more stress. While fishing may improve over the short term, the potential for winter kill and disease increase significantly.

**Spread of Invasive Species** As boat traffic and recreational use of all lakes increases, the spread of Eurasian Water Milfoil and Zebra mussels has become a common concern throughout the District.

## **Management Needs**

**Comprehensive Lake Management Plans** Each of the 12 lakes within the watershed is different in relation to landscape position, water source, surrounding land use, recreational use and water quality challenges. Lake Management Plans need to be developed for each lake based on their risk of loss of hydrology. That prioritization would appear to be as follows