

WHITE LAKE MANAGEMENT PLAN

Requires two elements:

“Management of the lake in terms of implementing changes in use or altering activities that take place on and around the lake”

“Setting up long-term monitoring activities to deal with the issues surrounding water quality, lake levels, and other identified issues that can be measured over time”

FROM 2022 LUMBER RIVER COUNCIL OF GOVERNMENTS REPORT TO THE TOWN OF WHITE LAKE

CONCERNS ABOUT WHITE LAKE HAVE A LONG HISTORY

“Oft-repeated fears of falling water levels”

“Numbers of boats and kinds of boats
damage the lake”

“Two things above all others were obvious at
the Wednesday night session...
there is concern about the lake...
and there will be disagreements about how to
best eliminate these concerns”

The Fayetteville Observer, February 12, 1981

Grim White Lake Picture Is Painted

By TIM PITTMAN

ELIZABETHTOWN — More than 150 White Lake property owners and residents painted a grim picture Wednesday for state water officials of choking pollution and dwindling water levels at Bladen County's 1,000-acre resort lake.

For nearly three hours Wednesday residents took the podium in the Bladen County Courthouse to tell of pockets of pollution creating a foul odor and killing fish along what were once white, sandy beaches.

Oft-repeated fears of falling water levels at the lake were voiced anew Wednesday, but state water officials told the crowd that this winter — the driest cold weather season in North Carolina since 1963 — has probably caused the low water level.

A group of six state officials from the state's Water Resources Division and the N.C. Wildlife Resources Commission came to White Lake

early Wednesday for a tour of potential drainage spots around the lake.

About 75 property owners toured the lake with the state officials in a 25-car caravan that crisscrossed White Lake to examine culverts and other questionable drainage locations.

“Our conclusion, based on what we know now,” said Carl Bailey, a state hydrologist, “is that there is no evidence of lake water moving out of culverts and drains around the lake.”

Bailey said the lake level, which now is one foot below the monthly average for February, has fallen because of high evaporation rates during the summer and the lack of rainfall during the winter.

The lake's fabled springs — the source of clear water that gave the lake its name — are apparently providing less of the lake's water than they have in the past, Bailey said.

Reports from state officials, however, indicate (See GRIM PICTURE, Page 2A)



STATE HYDROLOGIST CARL BAILEY ADDRESSES CROWD AT WEDNESDAY NIGHT MEETING IN THE BLADEN COUNTY COURTHOUSE.

White Lake Concerns Expressed

(Continued From Page One)

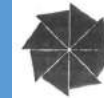
that the pollution has always been visible in various areas at the lake.

Not only were numbers of boats, but also kinds of boats, argued about during the three-hour meeting. Some, led by Lumberton resident and White Lake property owner John Sharpe III, believe the high-powered inboards do more damage to the lake than the lower horse power outboards. Others disagreed with what Sharpe admitted was merely a theory. Inboards do no more damage than outboards, they contended.

The end result of the meeting was that the state officials promised to “digest” all the materials they had been presented, and attempt to make recommendations to proper agencies regarding not only lake water levels, but boating numbers and kinds, and water quality.

Two things above all others were obvious at the Wednesday night session: there is concern for the body of water known as White Lake, and there will be disagreements about how to best eliminate those concerns.

1982 REPORT ON CONCERNS ABOUT WHITE LAKE



North Carolina Department of Natural
Resources & Community Development

James B. Hunt, Jr., Governor

Joseph W. Grimsley, Secretary

OFFICE OF
WATER RESOURCES

John N. Morris, Director

Telephone 919 733-4064

March 29, 1982

Dear Citizens Concerned About White Lake:

In the fall of 1980, users of White Lake became concerned about declining water levels at the lake. A number of citizens contacted our Department and requested an investigation of the cause of this condition.

The Office of Water Resources made a number of field visits to White Lake to gather information on factors that could affect the level of the lake. A public meeting was held in Elizabethtown on February 11, 1981, to report on the results of this investigation. At that time, representatives of the Division of Parks and Recreation, the Division of Environmental Management, and the Wildlife Resources Commission also presented information to the public concerning conditions at White Lake.

After the public meeting, the Office of Water Resources has continued to monitor lake levels and groundwater levels at White Lake. The attached report summarizes our findings. We have concluded that the low water levels in 1980 and 1981 were the result of natural variations in rainfall and evaporation rates. North Carolina suffered a severe drought that affected many regions of the State during this period. Lake levels can be expected to return to normal when rainfall gets back in the normal range. We investigated a number of culverts, ditches and drains which local residents felt might be related to the lowered lake level. Based on a careful study of the lake level in relation to groundwater levels surrounding the lake, we do not believe that any of these features have caused any significant lowering of the lake level.

Participants at the public meeting in Elizabethtown were concerned about other problems in addition to the low lake level. Some individuals described a problem with sediment and debris suspended in the water and collected along the shoreline, creating serious problems for swimmers and other recreational users. Many participants in the public meeting believe that the unusually low water level in the lake contributed to this problem by causing boat propellers to be closer to the bottom of the lake and therefore, to stir up more organic matter from the bottom. We believe that this is a plausible explanation. In a shallow lake like White Lake, a difference of one or two feet in water levels can have a substantial effect.

Low water levels in 1980 and 1981 were the result of a statewide drought

“The representative of the Wildlife Resources Commission explained that local governments have the authority to request changes in boating regulations when needed. These requests should be addressed to the WRC which has the authority to consider them and take appropriate action”

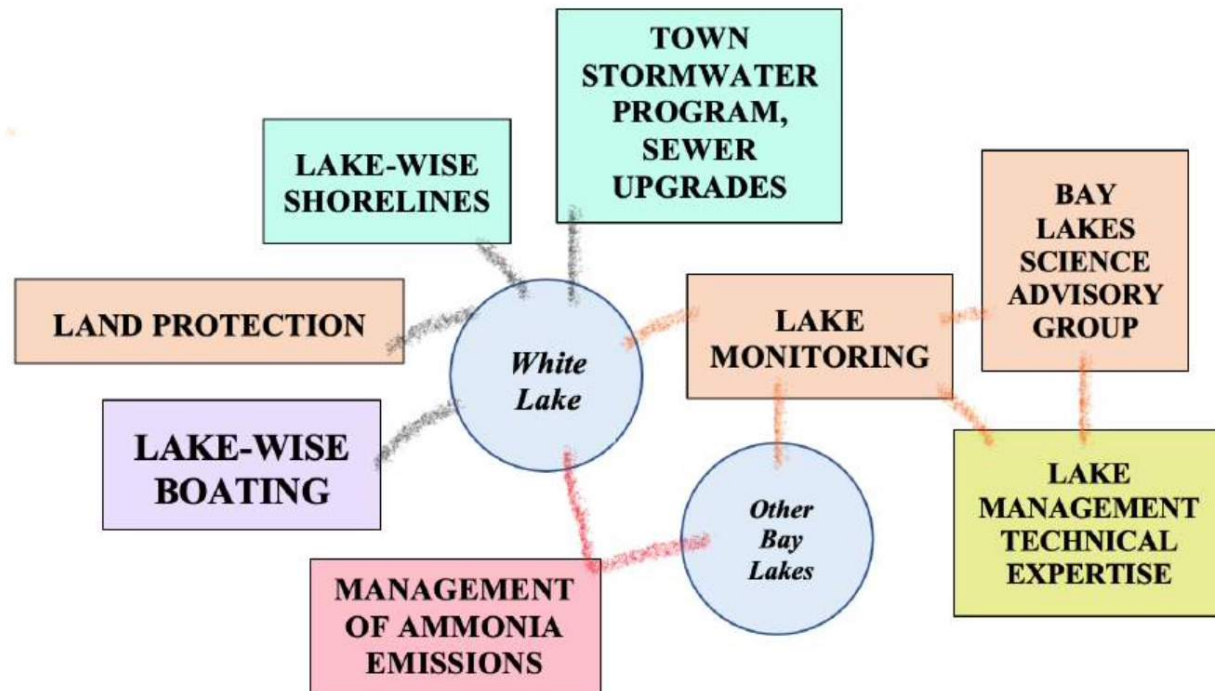
WHITE LAKE IS IMPACTED BY:

RECREATIONAL BOATING ACTIVITY THAT IS NOT SUITED TO A SMALL, VERY SHALLOW LAKE

LAKESHORE ALTERATIONS AND DENSE DEVELOPMENT, WITH NO SAFEGUARDS FOR THE LAKE

INCREASING AMOUNTS OF NITROGEN ENTERING THE LAKE VIA RAINFALL (AGRICULTURAL SOURCES)

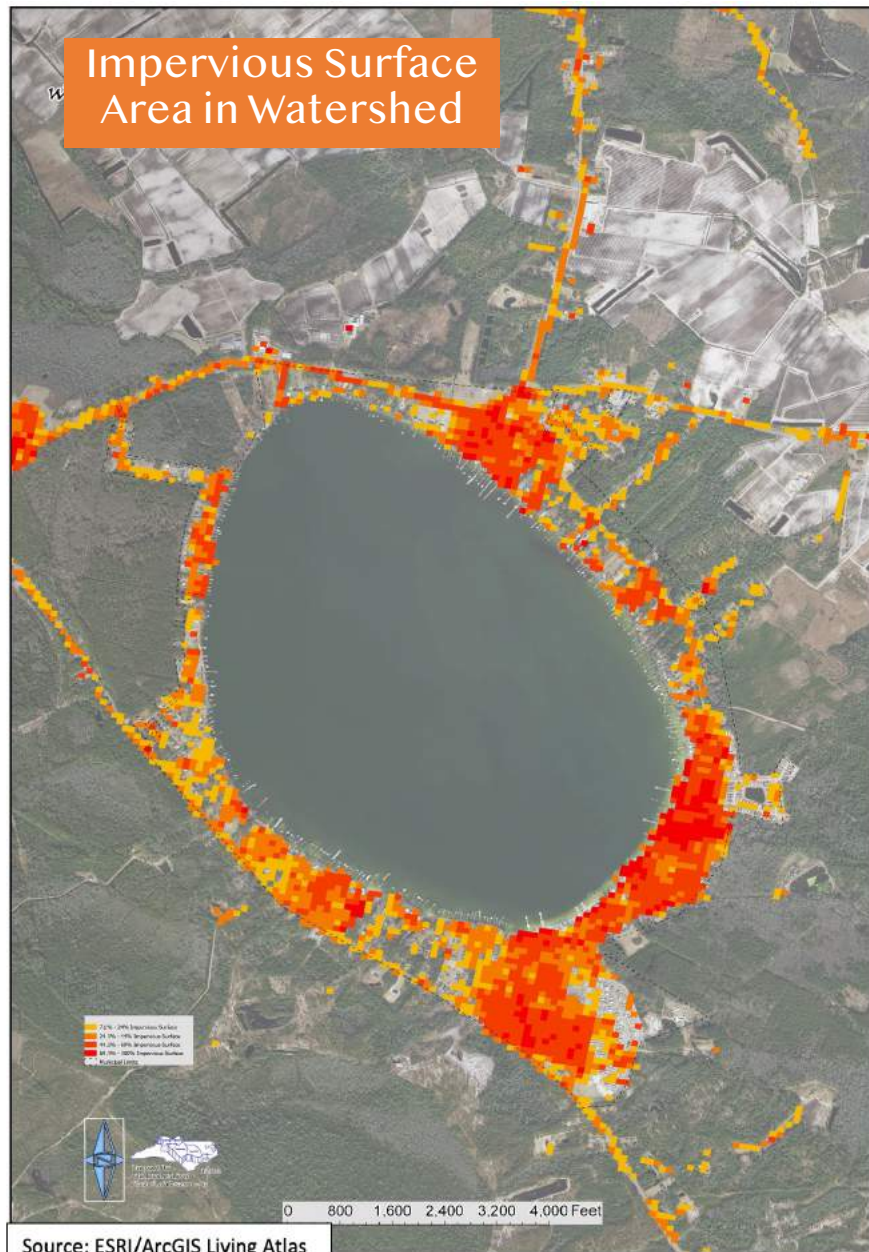
WHITE LAKE MONITORING AND MANAGEMENT FRAMEWORK



TOWN:
Land uses/development patterns can either protect or degrade lake water quality

Large amounts of impervious surface create stormwater runoff which is directed to the lake

Leaking sewer lines can collect and divert groundwater away from the lake



Dense Development =
More runoff, less infiltration to
replenish groundwater



Location of
pipes and
ditches

HISTORICAL CONCERNS ABOUT LEAKING SEWER LINES

Poor seals around clay pipes

Flow to wastewater plant high when water table is high

Phase 2 Wastewater Project should reduce groundwater inflow

Sewer Lines Draw Off Water

By HELEN SHARPE
A News Analyst

At White Lake the sewer system carries thousands of gallons of ground water each day to the treatment site and then to nearby Coby Creek.

During a 32-day testing period in August and September of 1979 from 2 to 12 times the amount of sewage water was treated than actually was used by the homes and businesses served by the system.

On September 12 water use was 62,700 gallons with 73,400 gallons treated. On August 21, water use was 149,800 gallons, sewage treated was 327,500. On August 27, water use was 116,700 gallons, sewage treated was 430,400.

In September, though water use declined, heavier rainfall caused the groundwater table to rise, thus increasing water flow into the system.

The lower flow data of August could indicate that the open joints in the pipes were actually allowing the flows to exfiltrate, according to a study entitled "Section 201 Wastewater Facilities Plan" prepared by F. T. Green & Associates of Wilson.

The 201 plan provides information about the condition of the sewer system at White Lake and recommendations for rehabilitation of the system, as well as proposals for improvement and expansion to meet federal standards. Pollution of Coby Creek, and ultimately of the Cape Fear River into which it flows, endangers wildlife, the study says.

PIPE JOINTS EXPOSED
Rodney Marshburn, who was mayor at the time of the study, recalled the problems caused by high groundwater during the installation of the sewer lines about 20 years ago. He said the contractors' efforts to pump water out of the trenches met with little success. With water partially covering the pipe, the hot sealer used on the joints would reach the water and gel, leaving the bottom of the joints exposed.

Marshburn recalled that flows from the system were three to five inches before the services were

connected. With so much infiltration existing after the new installation, 30 years later a far more serious condition can be expected, the study suggests.

Phyllis McKelthan, who maintained the records on a daily basis during the 1977-79 study, noted that water usage during the winter drops off sharply, while the wastewater flow remains at high levels.

Bill Corbett, who died in August, was mayor during early efforts to obtain a sewer system. Later serving as a member of the town board, he reported that the pipes were not being correctly joined and recalled becoming angry to the point of resigning from the board.

In a conversation just weeks before his death, Corbett expressed concern that the sewer lines running from the White Lake Marina to Carolina Avenue has many poorly joined pipe lengths. He worried about the thousands of gallons of groundwater being lost through this line, and believed it affects White Lake water level.

Water from this line is electrically pumped to a line on higher ground near the highway, which transports the sewage water by means of gravity. Corbett was disturbed about the cost to the taxpayers of electricity used to pump the infiltrated groundwater.

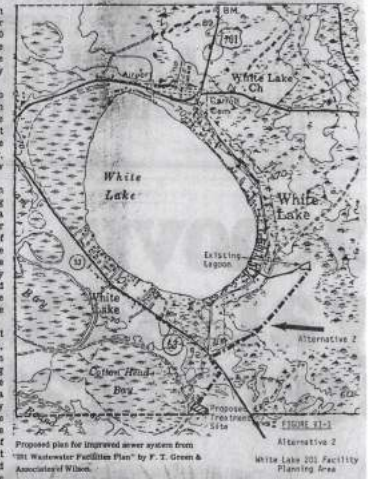
In addition to groundwater flow through the main sewer lines and groundwater infiltrate into manholes and sewer connections to homes and businesses. The 201 report states some of the manholes remain flooded at all times. For example, a manhole that should carry a flow of one to two inches will have flows up to five inches.

Testing of the sewer system still is in process. Rehabilitation, the end goal, should have considerable effect on conservation of groundwater.

However, since a high percent of the sewer mains are below the groundwater table, inflow of groundwater is expected to remain a problem, the study indicates.

The preliminary cost estimate of White Lake sewer rehabilitation is \$227,575. This is only part of the cost estimate for the wastewater facilities proposal now in the works. The sewer rehabilitation was scheduled to be completed in 1984, but the Reagan budget may cut or reduce expected federal funding.

In the meantime the wastewater system will continue to transport thousands of gallons daily out of the ground, the loss of which probably affects the lake. The relationship between the White Lake sewer system and the lake itself is just one example of man-made agencies affecting the health of the lake.

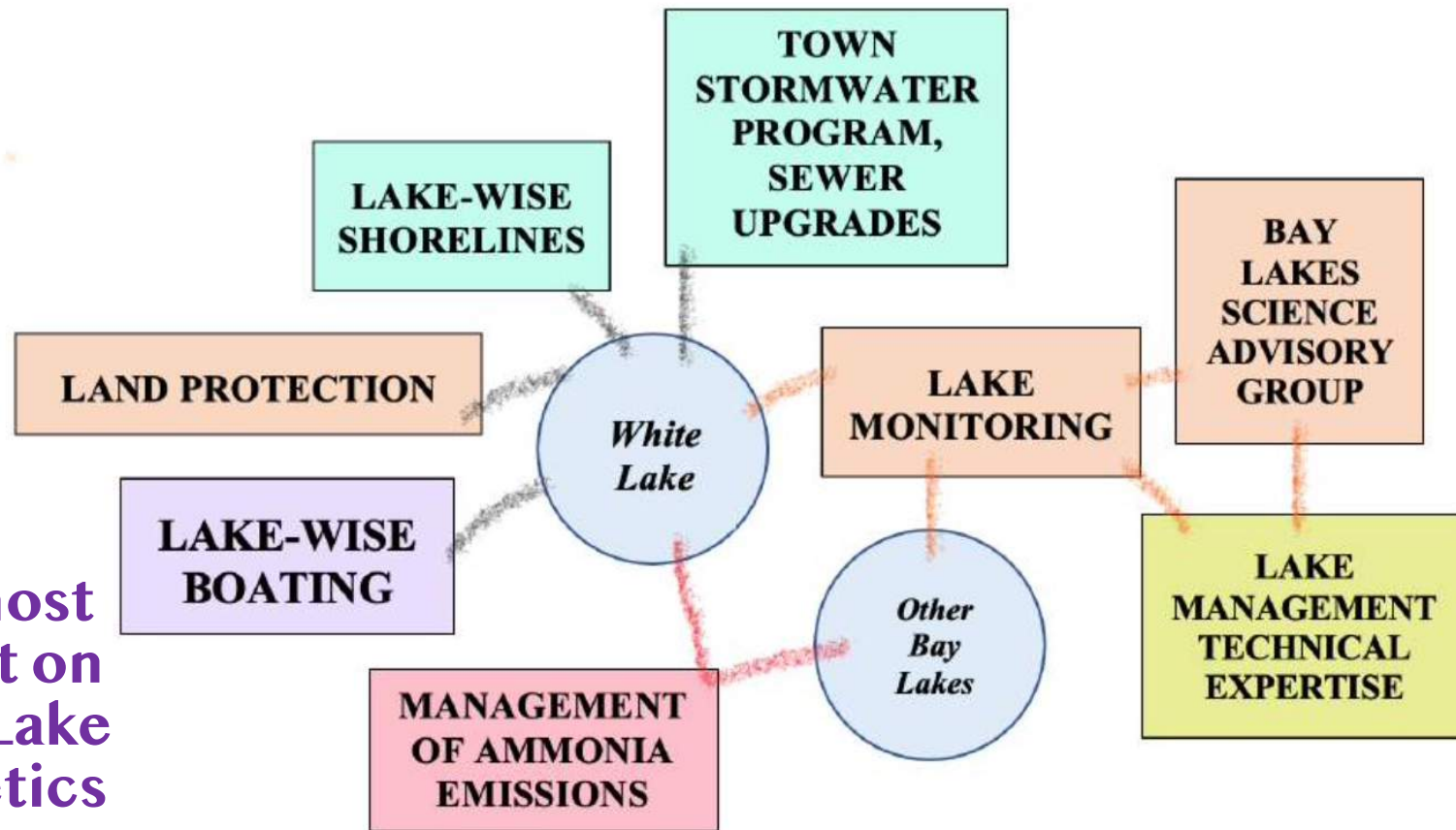


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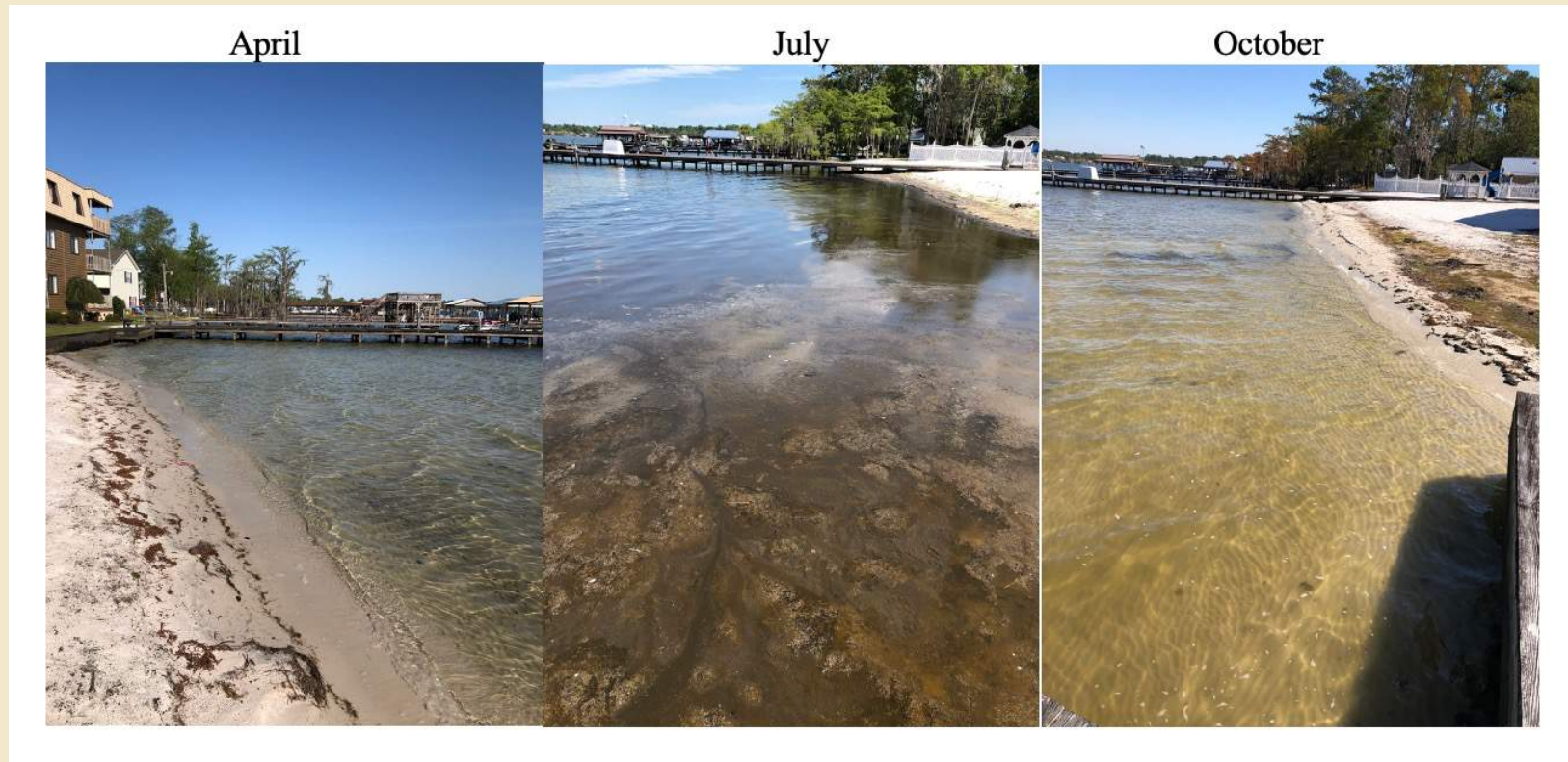
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Bladen Journal
Oct. 29, 1981

The most impact on White Lake aesthetics



LAKE-WISE BOATING DOES NOT STIR UP LAKE BOTTOM



CLEAR CONDITIONS IN SPRING AND FALL OF 2022;
SUMMER CONDITIONS POOR

WHITE LAKE MANAGEMENT PLAN

“Management of the lake in terms of implementing changes in use or altering activities that take place on and around the lake”

**WHAT IS GOING TO BE DIFFERENT THIS TIME,
SO THAT NEEDED CHANGES ARE
IMPLEMENTED?**

1982 vs. 2022