

HARVEY'S LAKE.ORG

Pollution at the Lake



Ecoscience crew spreads copper sulfate in Harvey's Lake to kill algae that had poliferated because of pollution, July 1985. Photo courtesy of the Citizen's Voice. (Used by permission)

The Lake experienced a series of pollution issues in the twentieth century, particularly the algae blooms in the 1980s which closed the Lake to swimmers.

The Harvey's Lake Protective Association, formed in 1920, initiated the earliest Lake-wide pollution abatement program in 1935. The Association was effectively the Lake's police authority. Inspections found a number of public and private facilities emptying sewage directly into the Lake. The Association sought to pressure violators to take corrective action. In 1937 with the help of State legislation the Association had hoped to limit building homes over the Lake water and to ban inappropriate septic systems but given the future development at the Lake these efforts may have had little effect.

In early September 1941 a two-week voluntary ban on swimming at the Lake occurred after 10 year-old Jerome Callaghan of Swoyersville died from infantile paralysis after a cottage vacation at the Lake – although the Boat Club's speed boat races for Labor Day were held.

The Association renewed its concern about building homes over the Lake front in 1948 but recognized it needed new State legislation to enforce building restrictions – but again strengthened rules apparently did not materialize.

The issue of Lake pollution appeared to be neglected until the Summer of 1964 when sections of the Lake were declared by the State Health Department to be "heavily contaminated" and the Lake generally had light to

moderate contamination. The pollution was first discovered at the Girl Scout's Camp Wildwood. The beaches at Warden Place, Sandy Beach-Bottom and Sunset were especially bad – and Hanson's beach was temporarily closed until a State public bathing permit was obtained. There was sewage entering the Lake from a variety of sources and Lake swimming largely closed after mid-July for the season.

The 1964 pollution scare prompted County Commissioner James B. Post, the supervisors of Lake and Lehman Townships, and the Protective Association to finally begin discussion towards a sewer-treatment authority. In the meantime State officials were ordering many Lake home owners to cease discharge of sewage into the Lake.

By early 1965 the State reported the Lake safe for public use, but the Association was now pursuing its own studies and enlisting Congressman Daniel J. Flood's help for a more complete solution to Lake sewage issues. There was also the issue of substantial garbage left on the Lake by winter ice-fisherman.



Aquatic biologists test the lake water for pollution, summer 1981. Photo courtesy of the Citizen's Voice. (Used by permission)

For the balance of the 1960s the Lake waters were regularly tested – particularly at the beaches (Sandy Beach, Sandy Bottom, Camp Wildwood, Hanson's Park and the Boat Club). In May 1968 there was a false scare in a newspaper report regarding the Lake's condition – but there was also progress on a private study for a sewer system to serve the Lake by linking it to a proposed Dallas system. The Dallas Area Municipal Authority was created in 1970 to provide sewer services to Dallas Borough, Dallas Township and Kingston Township. In later years Lehman Township, Jackson Township and Harvey's Lake Borough would join DAMA.

For another decade pollution issues seemed abated, until August 4, 1981, when the Pennsylvania Department of Environmental Resources ordered the Lake's public swimming areas closed due to an "algae bloom" throughout the Lake. The formal name for the toxic algae was "anabaena algae." It was first identified in the Lake in early June but not confirmed for nearly two months. The Lake was immediately treated with copper sulfide to kill the bloom.

An algae bloom was not unusual in area lakes – and at Harvey's Lake short blooms in earlier years were experienced (In January 1895 a mysterious winter algae bloom destroyed the Lake's early ice-harvesting industry which relocated to Mountain Springs, near Rickett's Glen). Apparently, the 1981 long-term bloom and its toxicity was due to prolonged hot weather coupled with complex environmental factors including increased use of soil fertilizers - DER had found similar blooms in Lake Carey and Lake Wallenpaupack in 1979.

While no one seemed to have been seriously affected by the bloom DER warned against skin contact with the algae which could cause cramps, diarrhea, fever, nausea, headaches, muscle pains, weakness, sore throat and itchy eyes – but there was no impact on fish. Clearly the Lake season for its business people was a disaster – only to become as worse in 1985.

The Lake was tested for toxic algae in 1982-84 and in July 1983 some sections of the Lake did experience a short bloom – but recreational use was not impacted. Then in June 1985 abnormal algae levels were again found but did not abate. There apparently was a delay in treating the Lake with copper sulfate due to concerns

over the treatment's impact on the fish population. Then on July 2 after the bloom had exploded DER recommended another ban on swimming – destroying the July 4 holiday for local business. Copper sulfate treatment was applied – which kills most of the bloom within 48 hours. But any sulfate solution was known as a temporary fix – and in concentrated levels also toxic to fish. The long-term solution required more comprehensive study. There was a combination of excessive nutrients running into the Lake from land sources. These nutrients supported bloom while, at the same time, plankton which fed on algae were in decline in the Lake.

By mid July 1985 the algae bloom was declining and DER still advised that water-contact sports be avoided while the advisory was in effect - DER sampling teams encountered swimmers who ignored the ban. But the general effect on Lake business was still quite serious. The 1981 and 1985 algae blooms were a substantial factor in reduction or closure of public amenities at the Lake.

In early August 1987 there was another threat of an algae bloom but it was promptly treated – although a recommended 10 day ban on swimming at Sunset was in place. Cloudy water from the treatment deterred divers who rented scuba equipment from Tommy O'Brien's diving service at Sunset.



Some swimmers at Sandy Bottom Beach defied the DER ban on water sports in August 1981. Photo courtesy of the Citizens's Voice. (Used by Permission)

1987 was the last year an “algae scare” occurred, but pollution issues still arose. While the Lake's sewer system was generally in place by 1977, some homes as late as 1989 were still not connected, and in December 1989 some Lake wells were found contaminated with sewage.

Studies in 1993-94 found high levels of nutrients still entering the Lake for a variety of reasons and threatening new algae blooms. A large Alewife population, a non-native fish introduced years earlier, likely were responsible for devouring the Lake's zooplankton population which ordinarily would check algae growth.

In 1998 there was also concern over the Lake's duck population, especially at Sandy Beach-Bottom. They contributed to heightened fecal matter and the early August 1998 swim event of the Wilkes-Barre Triathlon at Sandy Bottom had to be cancelled.

With increased year-round residential growth at the Lake, renewed algae blooms were threatened by phosphorus pollutants from fertilizers and fowl wastes. Regulating forms of fertilizers and other tactics seek to control threats to the Lake. An Environmental Advisory Council is active. Wastewater overflows from the Lake's sewer system during storms was also an issue in 2003. There followed a housing construction moratorium in 2003-05. The Harvey's Lake General Authority and the Pennsylvania Department of Environmental Resources continue to monitor the Lake's health to insure that a new generation can enjoy the historic Lake.