

**Kosciusko Leadership Academy
Project Paper
April, 1990**

*No
Records*

**"Public Sewage Disposal,
Lake Tippecanoe"
by:**

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and
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Tippecanoe Lake, located in the Northern part of Kosciusko County, has long been a major playground for both residents and visitors to the County. Over the years, as most lakes do, it has attracted more and more people as permanent residents until today, as seen in Attachment Number 1, there are over 1,000 homes within several hundred yards of the shoreline. Each small square on this map is a home as listed on the County Surveyor's Map.

Like every other lake, as the population around it grows, the water quality deteriorates due to a number of factors such as agricultural chemical runoff, petroleum products from boat motors, and poor septic systems of the homes close to the lake. This paper deals with the last of these problems.

Attachment Number 2 outlines on a topographical map that 284 houses have been constructed between the natural lake level of 836 feet elevation and the ten year flood level plane of 840 feet elevation. Many of these houses have septic systems that are under water at least part of every year, and none of these have adequate drainage for their leach beds at that time of the year, if ever.

Attachment Number 3 indicates the results of a water quality survey done in June of last year (after the spring flood waters had gone back to normal level). As you can see, the high E. Coli test shows that where the homes are located close to the 840 feet elevation mark, there is a problem with the water quality. Also included with this paper are reports on nitrates, phosphates, and

ammonia contact at the same sites on the lake. These tests show that the overall water quality is still in the "good" range. The County Board of Health attributes this to the fact that there is an enormous volume of water in the lake. Tippecanoe Lake is the deepest lake in Indiana at 140 feet compared to the amount of shoreline and population density.

With these facts as background to show the need for a central waste disposal system for the lake area, the balance of this paper will deal with the mechanics of setting up an Indiana State Sanitation District for the Tippecanoe Lake Area. The final set of attachments are copies of the 1988 Edition of Indiana Code, and the 1989 Supplement Edition of Indiana Code.

Tippecanoe Lake, in itself, belongs to no municipality; therefore, the right or obligation to construct and operate a Public Sanitation System is not automatically granted by law. There are a number of ways to obtain this right, but two seem the most feasible.

The obvious way would be to petition the Circuit Court to grant a Conservancy District. This system is complicated and can be very time consuming. It is no guarantee that a Conservancy District will be granted as the law also protects the rights of parties who may not want the Conservancy District. All interested persons have a right to be heard at hearings. This, in itself, is costly and time consuming. More importantly, the Court has the final decision and may choose to dismiss the petition if the Court believes the Public Health may not be served.

A second way would be to utilize the procedure that the property owners in and around certain areas of Lake Wawasee did; that is, to establish a Sanitation District through the State Congress. This is also complicated and Public Hearings must also be held. The backing of the Property Owners Association is a must under both systems of entry. The reason to follow in Lake Wawasee's footsteps on establishing a Sanitation District is that it probably is faster in the long run and not as costly. The procedures should be much faster now as a precedent has been set.

The Governing Body of the newly established Sanitation District would be under the rules outlined in the original enactment. This Governing Body and how the members are selected could/would vary depending on how best the Property Owners want to

be served. They could be elected, appointed, or both.

The estimates on building a sewage treatment plant were difficult to obtain without an engineering study. Based on information on costs from other municipalities and districts, the estimated cost for the Tippecanoe Lake area is somewhere between ten and twelve million dollars.

Funding is obtained in three ways. Number one is by the issuance of Revenue Bonds; number two is by a capitalization fee of affected property owners; and, number three is by a grant or loan from the Federal Government or its agencies. Once established and in operation, revenue from fees are used to redeem bonds and maintain the Sewage Treatment Operation.

SUMMARY

The intent of this paper is to set the stage and demonstrate a desire to protect the environment. Lake Tippecanoe is not presently polluted, nor does the use of lake Tippecanoe present an immediate danger to anyone. However, as cottages are converted from summer only to annual use, along with new home construction, more pressure is put on the lake to help clean septic systems. The lot size around Tippecanoe Lake is relatively small and does not allow property owners sufficient area to put in an adequate septic system. There are many homes that cannot use their toilets during periods of high water and cannot use a clothes washer at all.

Constant observation around the lake shows many septic systems being replaced or repaired each year by property owners. The problems with these replacement costs are that they are temporary and costly. A good septic system, provided there is ample room, will cost upwards to \$4,000.

The property owners of Lake Tippecanoe must accept the fact that no pollution from septic systems should be allowed into the lake and that property owners ought to have adequate sewage systems that provide for the disposal of sewage at all times. The only solution to both problems is a public sanitation system.

INDIANA STATE BOARD OF HEALTH
Environmental Laboratory Division
1330 West Michigan Street
P. O. Box 1984
Indianapolis, Indiana

Chemical Examination of Water
May 31, 1989
Lake Tippecanoe
A Summary

<u>LOCATION</u>	<u>Phosphates</u> <u>PO 4 *</u>	<u>Nitrite</u> <u>N *</u>	<u>Ammonia</u> <u>N *</u>
Between-The-Lakes Ditch	<0.09	<0.1	0.1
Country Club Ditch	0.18	1.0	<0.1
Ditch East of C. Club	0.37	0.9	<0.1
Middle of Lake	<0.09	0.8	<0.1
Oswego Inlet from Tippe	<0.09	0.6	<0.1
Middle Of Lake James	<0.09	0.8	<0.1
Grassy Creek	<0.09	0.4	<0.1
675 E. & Bridge	0.21	0.5	<0.1
Oswego Outlet	<0.09	0.6	<0.1

* Parts per mg/L

INDIANA STATE BOARD OF HEALTH
Water & Sewage Laboratory Division
Indianapolis, IN

Bacteriological Examination
of Lake Tippecanoe
May 31, 1989

LOCATION *****	*E. Coli *****
875 E. and Bridge	40
Mouth of Sho-Sho-Nee	100
Between-The-Lakes Ditch	530
Du-Cu-Nee	10
Mouth of Wildwood Isle	40
Ditch at Black's Landing	20
Ditch at Paton's	30
Ditch at Country Club	73
Old Mill Place Point	10
Center of Oswego	20
Patona Bay	10
Oswego Outlet	0
Oswego Inlet	0
Not marked	20
East of Country Club Ditch	10
Center of Lake	10
Middle of East Basin	0

* - Parts Per 100 ml

SOURCES OF INFORMATION

Indiana State Board of Health

Kosciusko County Board of Health

Kosciusko County Area Plan Commission

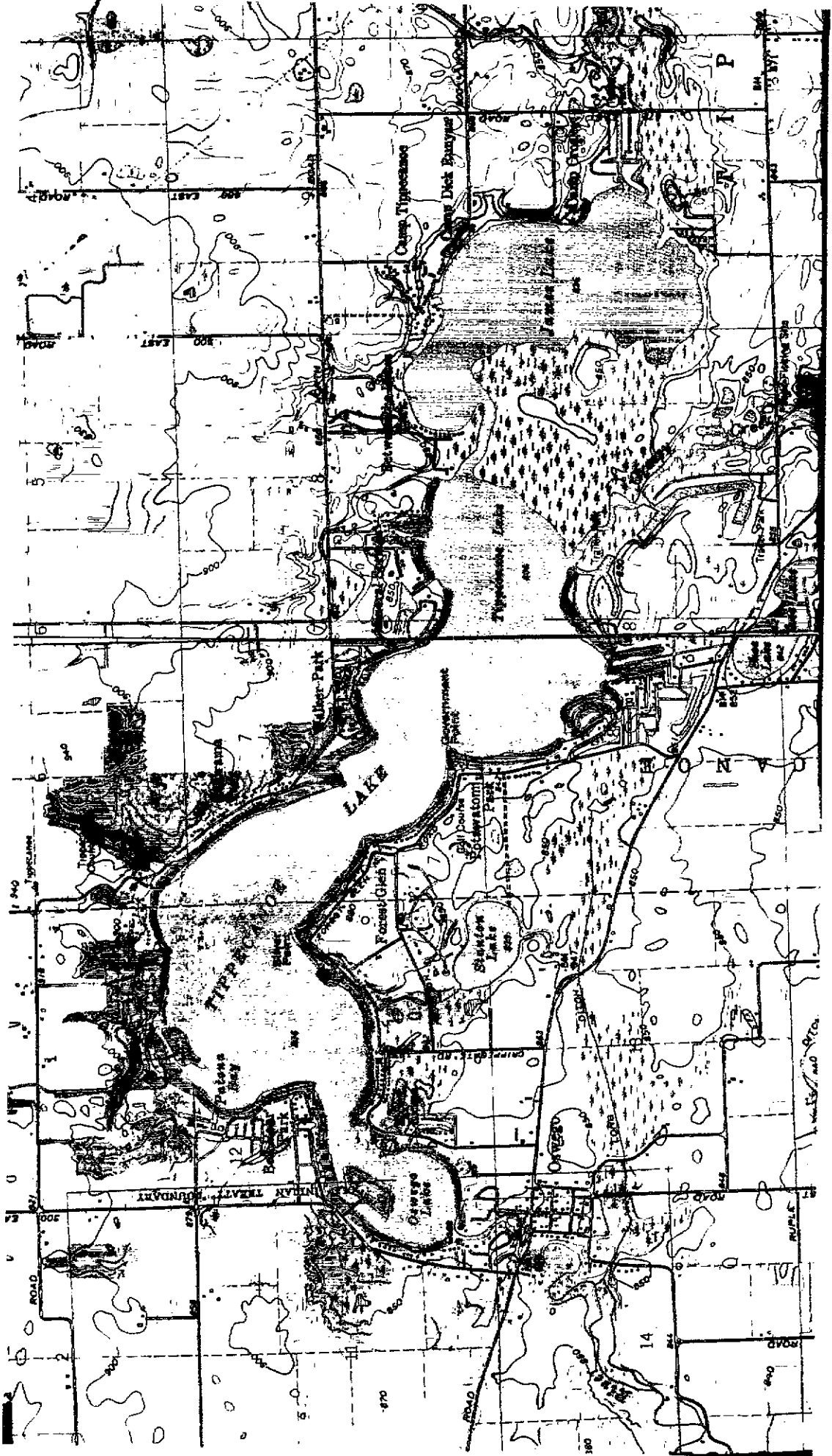
Warsaw Sanitation Department

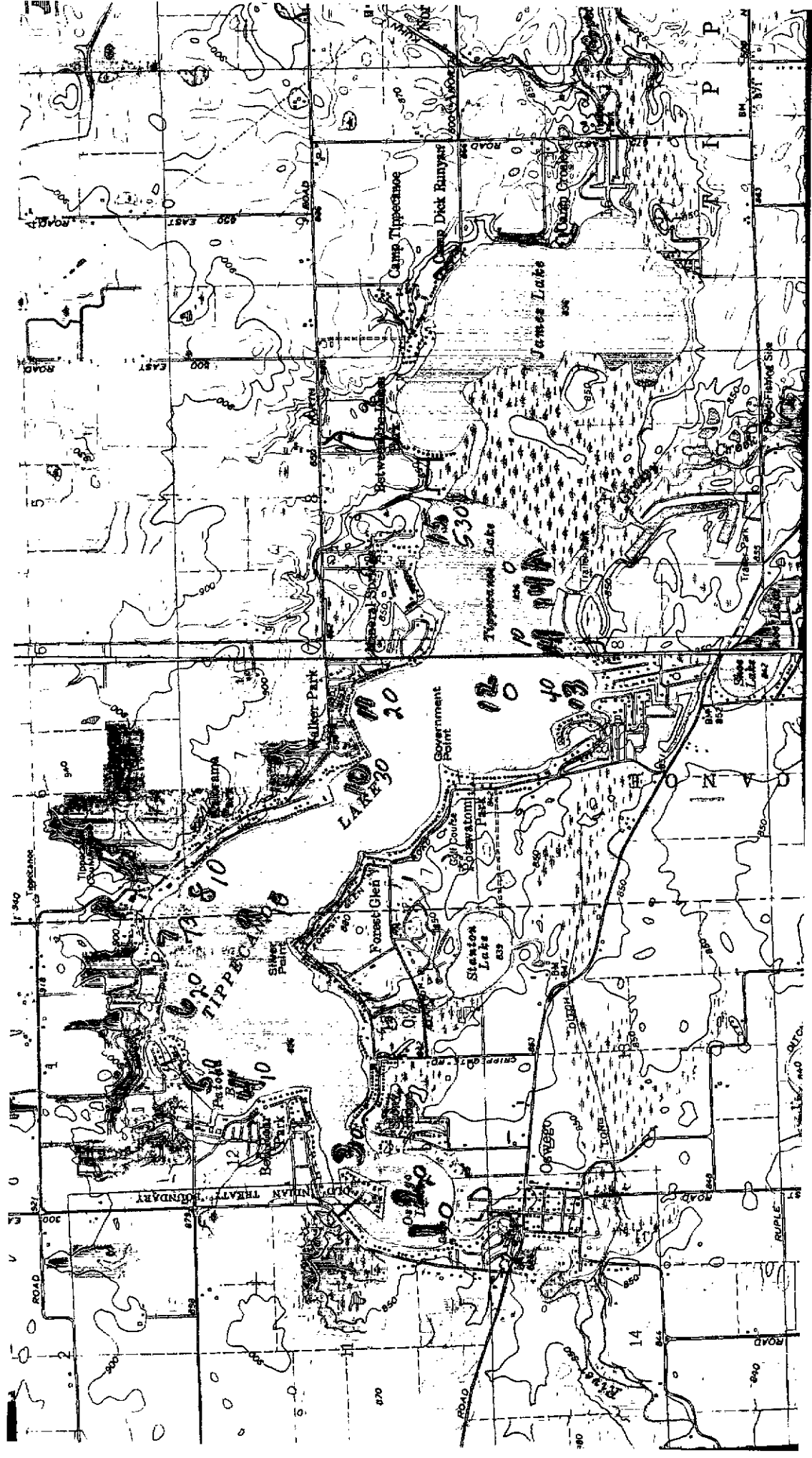
Indiana State Codes

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