

STATE OF MICHIGAN



NATURAL RESOURCES COMMISSION

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KERRY KAMMER
O. STEWART MYERS
DAVID D. OLSON
RAYMOND POUPORE

JAMES J. BLANCHARD, Governor

DEPARTMENT OF NATURAL RESOURCES

DAVID F. HALES, Director

Region II Headquarters
P. O. Box 128
Roscommon, Michigan 48653

November 5, 1990

Mr. David Burge, President
American Educational Music Publication, Inc.
Music Resource Building
1106 East Burlington
Fairfield, Iowa 51556

Dear Mr. Burge: *David*

Please find attached the Department of Natural Resources' (DNR's) analysis of Stoneport Quarry and its potential impact on area lake levels.

As you can see, we do not believe there is a connection between the quarry operations and the lake levels and; thus, the DNR does not believe further investigation is warranted and does not intend to pursue this issue further. Should any new information arise which would lead us to believe there may be a connection, we would reconsider our position.

Should you have any questions regarding the specifics of the analysis, direct them to Mr. Tyrone Black at our Mio District Office, 517-826-3211. In addition, we would be happy to attend a township meeting to explain the analysis. Should you wish to discuss our decision, please contact Mr. Tom Segall at 517-334-6923.

Sincerely,

Donald L. Inman
Donald L. Inman
Assistant Deputy Director

517-275-5151

DLI:fy

cc: Ms. Bette Tadjewski, Presque Isle Township Treasurer
Mr. William D. Lewis, President, Grand Lake Association
~~Mr. [REDACTED]~~ Presque Isle Corporation
Mr. Jack D. Bails, Deputy Director DNR
Mr. Thomas Segall, DNR
Mr. Richard Sikkenga, DNR
Mr. Tyrone Black, DNR
Mr. Brad Wilkins, DNR
Mr. Dave Hamilton, DNR

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DEPARTMENT OF NATURAL RESOURCES

STEVENS T. MASON BUILDING
P.O. BOX 30028
LANSING, MI 48909

DAVID F. HALES, Director

October 30, 1990

Ms. Bette Tadajewski
Presque Isle Township Treasurer
11675 Parallel
Alpena, Michigan 49707

Dear Ms. Tadajewski:

Director Hales has asked me to respond to your letter of October 10, 1990, in which you request the Department of Natural Resources to conduct a hydrogeological survey of Presque Isle Township vicinity. As I understand it, you (as well as others) believe that the dewatering efforts of Presque Isle Corporation are causing surrounding lake levels to lower.

Geologically, the Presque Isle area is part of an area known as "karst", a limestone region with many sinkholes, caverns, and underground streams caused by percolating ground waters dissolving the limestone through hundreds of thousands of years. The Geological Survey Division did a study of the Lake Esau problem in conjunction with the Land and Water Management Division in 1980-82. Tyrone Black, Senior Geologist, Mio District, (an expert in Michigan karst) has reviewed the 1982 findings and our existing data.

The quarrying operations should have no measurable effect on the level of Grand Lake. Grand Lake is fed by a significant watershed; its level is maintained through the use of a dam. There is no evidence of a karst or other drainage connection.

There has been no observable karst connection between the Presque Isle Corporation quarry at Stoneport and Lake Esau, Lotus Lake, or Grand Lake. Also, there has been no evidence discovered of any hydraulically active karst in the same area. If there were a karst connection then water would be lost to Lake Huron through the deep karst system, or it would be obvious if it were lost to the quarry through a shallow karst conduit.

The Grand Lake-Lotus Lake-Lake Esau area is underlain by the Rockport Quarry Limestone and Bell Shale formations. The only known evidence of karst in these formations is located in quarries. This evidence is in the presence of plugged collapse sinks--they are not active. The nearest sign of hydraulically active karst is in the Lower Genshaw Formation. It has a shallow karst system west of Lake Augusta and is penetrated by a deep karst system at the Devils Lake (Narrows) and, possibly, the Long Lake Area.

Ms. Bette Tadajewski
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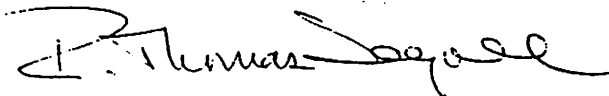
Lotus Lake occupies a small and restricted drainage basin of approximately one square mile. It rests in a low area of sand and gravel on clay and bedrock. Therefore, this is either a perched lake, if there is no gravel or sand hydraulic connection to Grand Lake, or it is a water-table lake, if it is connected. If it is a separate system then it should be very susceptible to any changes in its small system, especially precipitation and evaporation. There is a possibility that a buried channel in the bedrock exists between the Lotus Lake and quarry watersheds. This is the only likely way that the quarry could have an effect on the level of Lotus Lake. A "pass-on" effect to Grand Lake would not be significantly measurable.

At Lake Esau, an "above equilibrium" level is being maintained by the pumping into the system of water from the quarry. The lake is "perched" on a clay layer. It may penetrate this clay layer in the deeper, north portion of the lake. If water is being lost through such a hole, then precipitation would be needed in the watershed to balance the system to a specific lake level equilibrium.

The Department of Natural Resources does not have plans to conduct further investigations in the Presque Isle Region. A hydrogeological survey, study, and report would take several years and be very expensive and we do not expect any appropriations from the Legislature for such a study through fiscal year 1991-92.

I thank you for providing us with your thoughts and concerns with this issue. If you need further information or have additional questions, please feel free to contact Mr. Tyrone (Ty) Black directly at Mio, 517-826-3211.

Sincerely,



R. Thomas Segall
State Geologist
and Chief
Geological Survey Division
517-334-6923

cc: Mr. Jack D. Bails, Deputy Director, Resource Management, DNR
Mr. John MacGregor, Deputy Director, Region II, DNR
Mr. Floyd Layton, DNR
Mr. Harold Fitch, DNR
Mr. Tyrone Black, DNR