



## Ministry of Natural Resources & Forestry

Minister: Parliamentary Assistant Ric Bresee  
Date: Monday August 15, 2022 @ 11:20 am  
Location: Nova Scotia – Westin Ottawa Hotel  
11 Colonel By Drive, Ottawa, ON

### Delegation Brief:

#### Issue:

1. Holstein Dam Sluice Failure and the concerns related to public safety, fish habitat and environmental concerns

#### Background:

##### *History*

The Holstein dam and mill pond were constructed when the Grand Trunk Georgian Bay and Lake Erie Railway Company in 1881 when the railroad came through the community and the mill was built 1876.

In 1929 the Holstein Dam wash out and was reconstructed at that time. (see attached pictures on pages 33 from Holstein History book)

In 1944 they rebuilt the railroad bridge over the dam. (see attached pictures on pages 52 & 53 from Holstein History book)

Further repairs were made to the dam structure in 1981, prior to the last train going through Holstein in 1982. (see attached pictures on pages 52 from Holstein History book)

#### ***Community Benefits of the Holstein Dam & Pond:***

1. Recognized throughout the community and Grey County tourism as a waterfall feature destination. For many visitors to the area, a place to stop or enjoy a picnic lunch, local community events and canoeing or kayaking.
2. Fire flow reservoir supply for the Holstein community has benefit for home owners and their insurance coverage.
3. Recreational fishing and MNDMNR fish stocking of trout annually in the pond.

#### ***Problem & Initial Mitigation***

On the afternoon of Thursday June 9, 2022, the Township of Southgate received calls regarding backyard flooding on the west side of Grey County Rd 109 and north of the bridge in Holstein. Township staff visited the site on Friday morning, to observe the Holstein Pond sluice that is located about 30 metres north of the dam, that there was a whirlpool at the inlet to the sluice. We determined the cause was a breach of the sluice and the local mill raceway that runs through the feed mill had excessive flows which outlets into the culvert crossing Grey Rd 109. Water was also



observed surfacing in the feed mill's gravel driveway and storage building floor because the ground water pressure from water flow discharge from the sluice.

Township staff installed a large diesel pump to help by-pass water flow from the sluice stream to the dam stream, to alleviate the backyard flooding and erected some flood mitigation materials to attempt to channel the high waters flow away from backyards without much impact.

Attempts made to block off the sluice entrance at the Mill Pond were not effective as the area at the inlet of the sluice was full of rocks and timbers. The sluice flow control & intake structure that presently feeds water piped down through the Holstein Mill and outlet to the tributary course connecting back into the Beatty Saugeen River system. A minimal flow has historically run through the mill raceway system prior the structure's failure. The mill has not used this waterpower source for decades and there is no easements or ownership of the piping system that have potential liability concerns of the system failure and impacts of private property issues.

### ***Communications with Agencies***

Saugeen Valley Conservation Authority (SVCA) was the first agency contacted to be informed of the situation and to seek some advice and guidance. The Ministry of Northern Development, Mines, Natural Resources and Forestry (MNDMNRF) was called on Friday afternoon regarding the issues. Other agencies that were contacted were the Ministry of Environment, Conservation and Parks (MECP), the Grey – Bruce Health Unit (GBHU), and Department of Fisheries and Oceans (DFO).

### ***Investigation***

On Tuesday June 14, 2022, the Township of Southgate contracted a company with a Remote Operation Vehicle (ROV) which was deployed into the pond at the sluice intake area for underwater camera videoing. This revealed timbers, rock and debris in the intake area had significant intake force of the vortex, but no clear indication of the type of flow control structure and estimated the intake was about a 5-foot wide pipe.

We hired a consultant R.J. Burnside as an Aquatic Specialist that was onsite Friday June 17, 2022, to assess the fish & aquatic habitat because the pond is stocked annually by MNRF and with the pond levels down significantly. The Township also had discussions with MNDMNRF and DFO to provide an update on the situation.

Southgate staff met with the contractor from Weatherall Dock & Dredge on Saturday June 18<sup>th</sup>, 2022 onsite for developing a plan to install sheet piling around the intake to dewater the area for inspection.

Staff met with consultant BM Ross Engineers on June 21, 2022, to discuss their firm taking the lead on the assessment of the sluice works infrastructure for the short-term emergency repair and the long-term solution for the mill raceway system.

Weatherall Dock and Dredge were mobilized to the site on Friday June 24<sup>th</sup> and setup to install sheet piling to create a coffer dam to isolate the sluice intake.



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***Solutions:***

1. Our initial plan to address the problem was to install permanent blocking and closure of this system. This would close the sluice & raceway completely. This would result in no control for the lowering of the level of the mill pond to work on the dam. This could also put additional hydraulic pressures on the dam structure itself and no water level control if dam failed. SVCA comments that a base flow from the raceway system should be maintained feeding the tributary.
2. The Township owns a closed Right of Way (ROW) historically known as Water Street that is on the west side on the rail trail running parallel from Petrie Street to the Beatty Saugeen River below the Holstein Dam. This is an option to retain the sluice as a bypass for the low point of draining the pond to control levels, if any work on the main dam is required by constructing intake flow control mechanism by relining the pipe through rail trail embankment, then to install piping onto the Water Street ROW, to outlet back into main Beatty Saugeen River channel. This would clean up liability issues with all the flow and the by-pass control being on municipal property.
3. Engineer design for flow control structure at sluice and reline pipe through the rail trail bed, reline piping through mill and raceway out letting across Grey County Road 109 into the watercourse, clean out of channel to where water meets the Beatty Saugeen River.
4. Decommission the entire dam structure. The Holstein flood plain could be impacted without having the pond for retention.
5. Do nothing, would have to purchase sheet piling from contractor, area would have to be secured prior to trial reopening, this would not be an option that the agencies would support as a solution.

BM Ross will identify next steps, apply for the necessary permits and approvals required from agencies for the direction of the outcome options. All these solutions would have to be approved by SVCA and MNDRF, with the necessary permits and studies required to support the actions.

***Other Options:***

Township staff have heard that a number of these dam structures in the province are being decommissioned as some agencies do not want to have responsibility, liability, or contribution of funding to rectify issues and preventative maintenance. The Holstein dam would not probably pass the new codes and regulations for dams.

***Liabilities:***

Current liabilities affect the Holstein Feed Mill with the current raceway system through the mill, leaking of water coming up and under through the new mill shed and driveway, and the above ground reservoir water storage in the feed mill building.



Impacts as seen to the property owners' backyards and septic beds from the high-water levels discharging from the mill raceway on the west side of Grey County Road 109.

Township staff have also had discussions with the Holstein Feed Mill owner and have advised them to seek legal counsel as well on the matter. The feed mill owner has commented that they have no potential use of the raceway and do not want to assume the liability implications with the infrastructure currently on their property.

***Agencies Involvement & Concerns:***

Saugeen Valley Conservation Authority (SVCA) has identified flood plain mapping with the Holstein Pond. Initially SVCA commented that a base flow from the mill raceway system should be maintained feeding the tributary on the west side of Grey Road 109.

The Ministry of Northern Development, Mines, Natural Resources and Forestry (MNDMNR) consider the sluice and raceway as part of the dam infrastructure and are in favour of decommissioning dams. Any proposed alterations and construction of dam infrastructure will require Lakes and Rivers Improvement Act (LRIA) work permit application and potential studies.

The Ministry of Environment, Conservation and Parks (MECP) commented initially that the Spills Action Centre (SAC) was notified with event number 1-1492YY and the Provincial Officer indicated this was not a natural watercourse.

Department of Fisheries and Oceans (DFO). Fish and aquatic habitat concerns will be commented on by DFO.

**Requests:**

- We need financial help to resolve this issue.
- The Township feels like we are the only entity that is going to bearing the costs of this failure. We could be looking at costs \$500,000 to \$2,000,000 to find a long-term solution.
- The Township of Southgate met with Ministry of Municipal Affairs and Housing (MMAH) exploring the Municipal Disaster Recovery Assistance (MDRA) program for a sudden, unexpected, and extraordinary natural event. Staff have confirmed that this event will not qualify for the MDRAP program.
- In the past MNR has been involved in the Holstein Pond and Dam as they undertook dredging work as reflected in the Egremont Council minutes from 1981. This was at the same time repairs to the dam were undertaken.

***Conservation Authorities Concerns:***

- Conservation Authorities when funded by tax dollars from Municipalities should be more supportive and act in consultative role.
- Be part of finding the best possible solution for the people, rather than acting like an approval agency.



The Mill Dam and Railroad Bridge, early 1900's.  
(Photo courtesy Harry Mather)



On top of the Grant Trunk Railroad bridge at the mill dam,  
early 1900's.  
(Photo courtesy Harry Mather)



Rebuilding the rail bridge.  
Little girl is Desdemona McGuire, 1944.  
(Photo courtesy Lloyd Seaman.)



Repairing the Holstein dam, 1981.

more of the shipments which had been moved for so many years by rail. In 1957, the Holstein station saw the end of the daily mixed train, which originated in Palmerston. The station itself had closed its doors in 1956.

In 1982 the last trains rolled through Holstein and in 1983 permission was granted to abandon the line from White's Junction, at mileage 0.0 to Durham, 25.7 miles north. Soon after, the rails were lifted and the abandoned right-of-way slowly disappeared into the weeds.

Brebner Handle Manufacturers whose buildings were flooded causing heavy damage to machinery. Cut timber in the yard was also swept down the river, some being carried as far as the highway. Nelson McGuire's chopping mill was temporarily put out of business as saw logs were forced through the door of the basement. The streets were badly damaged, cement sidewalks torn up and great holes washed out. The blacksmith shop, near the bridge, owned by E. Thorne and the village fire hall were in ruins. Many private bridges were swept away and other damage done by the rise of the river at the south end of the village.

On April 11, the C.N.R. had a staff of men repairing the track where the dam gave way, while unloading timbers to repair the dam. Mr. Wellington Freeland of Palmerston had his right leg broken when some timbers fell on him. Dr. McLellan was called and took him to Durham Hospital. Passengers had to be transferred from the station to Tyndall's crossing.

On April 18, the village was starting to look like itself again. The trains started going over the bridge Thursday night.

## 1938 Drowning

William Switzer, 5, son of Ethel and Jack Switzer, born in Holstein in 1936, drowned in February, 1941 in the Holstein mill race. They shut off the water run and Bev Gibson, who worked at the mill, went down the water run and found the boy.

## 1938 Gibson Hotel Fire

On March 31, 1938, shortly before 2 a.m., fire broke out in Gibson's Hotel at Holstein. It had made such headway that by the time Mount Forest and Durham



The Holstein Dam wash-out, 1929. Note the rail track suspended in mid air.  
(Photo courtesy Lloyd Seaman)



Rebuilding the railroad bridge over the dam, 1944.

(Photo courtesy Lloyd Seaman.)

## SEVENTY YEARS OF TELEPHONE

Following is a list of those who were employed in the telephone office at Holstein since the first switchboard was installed in 1897 until dial service came into effect on January 15, 1967 at 2:00 a.m.

Mr. W.T. Petrie

Mr. George Freeman

Alvin Durant

Mrs. Dan Coleridge

Laura Gillies

Louise Ramage (Mrs. Darroch) of Harriston

Edith Dingwall (Mrs. G. Burrows) chief operator

Nettie Hamilton (Mrs. Forbes) Mount Forest

Dean Thorne (Mrs. R. Haas) of Sarnia

Emma Aitken (Mrs. Frank Eccles)

Vera Allan (Mrs. J. Gibson) of Port Elgin

Elsie Andrews (Mrs. S. Drumm) of Weston

Marjorie McCall (Mrs. Dukes) Toronto

Aura McGuire (Mrs. C. Hargraves) Toronto

Lyla Smith (Mrs. L. McIntosh) Mount Forest

Ada Morrison (Mrs. Pettit) of Brantford

Olive McGuire (Mrs. M. Greenwood)

Jean McGuire (Mrs. L. Moore) Palmerston

Earlma Reid (Mrs. G. Glennister) Don Mills

Shirley Long (Mrs. R. Love)

Audrey Eakett (Mrs. Colvin Geddes) Elora

Flora Green (Mrs. Earl McArthur) Brampton



Last train out of Holstein, 1982.

(Photo courtesy Eleanor Walks.)