



Staff Report PW2022-038

Title of Report: PW2022-038 Holstein Pond & Sluice Raceway Update
Department: Public Works
Branch: Transportation & Public Safety
Council Date: July 6, 2022

Recommendation:

Be it resolved that Council receive Staff Report PW2022-038 for information.

Background:

Staff received a call on the afternoon of Thursday June 9, 2022, regarding backyard flooding on the west side of Grey County Rd 109 and north of the bridge in Holstein. The staff site visit on Friday morning, observed the Holstein Pond sluice about 30 metres north of the dam that there was a small whirlpool at the inlet to the sluice, which we determined the cause was a breach of the sluice and raceway that runs through the feed mill and outlet into the culvert crossing Grey Rd 109.

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 blocking materials to channel the high flow waters into the area it flows to.

An attempt to block off the sluice was not effective as the area at the inlet of the sluice is full of rocks and timbers.

Saugeen Valley Conservation Authority (SVCA) was initially contacted informing of the situation. The Ministry of Northern Development, Mines, Natural Resources and Forestry (MNDMNR) 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).

On Tuesday June 14, 2022, a Remote Operation Vehicle (ROV) was deployed into the pond at the sluice intake area for underwater camera videoing, which revealed timbers, rock and debris in the intake area and force of the vortex, but no clear indication of the flow control structure and the 5-foot pipe for the intake were identified.

An R.J. Burnside Aquatic Specialist was onsite Friday June 17, 2022, to assess the fish & aquatic habitat with the pond levels down significantly and discussions with MNDMNR and DFO on the situation updated.

PWM Jim Ellis met with contractor from Weatherall Dock & Dredge on Saturday June 18th onsite for developing a plan to install sheet piling around the intake to dewater the area for inspection.

Staff met with BM Ross Engineers on June 21, 2022, who will take 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.

Staff Comments:

There are a few issues with the repair of the sluice flow control & intake structure. Currently the sluice 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.

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. This could be addressed with the permanent blocking and closure of this system

SVCA comments that a base flow from the raceway system should be maintained feeding the tributary.

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.

An option for retaining the sluice system for the low point of draining the pond to control levels if required for working on the main dam works by constructing intake flow control mechanism with redundancy control, reline pipe through rail trail, install piping on Water St ROW to outlet back into main river channel. This could clean up ownership and liability issues with Township control.

Staff are hearing 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.

Weatherall Dock and Dredge has mobilized to the site on Friday June 24th and will set up to install sheet piling to coffer dam off the sluice intake.

Once BM Ross can identify next steps, permits and approvals will be required from agencies for the direction of the outcome options.

Financial Implications:

The 2022 Budget did not anticipate expenditures due to the Holstein Pond sluice raceway.

The ASI Group invoice for the underwater ROV videoing was \$7,900.00 plus HST.

The crane and sheet piling costs are \$25,000.00 plus HST for mobilizing and demobilization and \$100,000.00 plus HST for the extra strength sheet piling of 60 linear feet of 25 x 33 feet lengths for the coffer dam installation and removal. The crane using a clam bucket with operator and labourer is on an hourly basis of \$300.00 plus HST per hour to move debris of timbers and rocks.

A more detailed summary of associated costs will be updated once options for repair and future works are identified.

To fund the emergency expenditures, staff are investigating eligibility criteria of the Ontario government Municipal Disaster Recovery Assistance program with the Minister of Municipal Affairs and Housing for a sudden, unexpected and extraordinary natural event. If no other source of funding is found, staff recommends that the costs be funded by the Tax Stabilization Reserve.

Communications & Community Action Plan Impact:**Goal 4 - Adequate and Efficient Public Facilities****Action 4:**

The residents and businesses of Southgate expect the Township to plan and adequately provide for public facilities for gatherings, recreation and doing business with the Township, while recognizing at the same time that facility needs can change with age and a changing population.

Goal 5 - Upgrading our "Hard Services"**Action 5:**

The residents and businesses of Southgate recognize our linear services - roads, bridges, water and sewer works, for example - to be a fundamental purpose of municipal government. This infrastructure needs to be serviceable and sustainable so that our businesses and communities can thrive and grow.

Concluding Comments:

Staff recommends that Council receive Staff Report PW2022-038 for information.

Respectfully Submitted,

Dept. Head: **Original Signed By**
Jim Ellis, Public Works Manager

Treasurer Approval: **Original Signed By**
William Gott, CPA, CA Treasurer

CAO Approval: **Original Signed By**
Dave Milliner, CAO

Attachments: None