



TOWN OF MINTO

DATE: December 13, 2017

REPORT TO: Mayor and Council

FROM: Mike McIsaac, Roads & Drainage Foreman; Bill White
C.A.O. Clerk

SUBJECT: Municipal Drain Update

STRATEGIC PLAN:

9.7 Promote environmentally friendly development through subdivision and site plan control such as naturalized stormwater management, low maintenance landscaping using native species, and energy and water preservation techniques that enhance design and improve the cosmetics of the community.

10.0 Support programs that maintain Minto's strong agricultural identity, enhance agricultural work, and protect and restore the natural environment given Minto's location in the heartland of Ontario surrounded by farmland and acknowledging that farming and a healthy natural environment are inextricably linked,

BACKGROUND:

A report was considered by Council on August 1, 2017 updating the status of Municipal Drains currently under section 4 or 78 of the Drainage Act. The report also looked at the need for floodplain mapping for the entire Maitland River Watershed. This would allow rural flood retention options to be identified that might help reduce flooding in Harriston. For example perhaps a municipal drain could be re-designed or a road or bridge structure altered to store water upstream of Harriston, or allow more water volume down street of Harriston and reducing backup. The following resolution was passed:

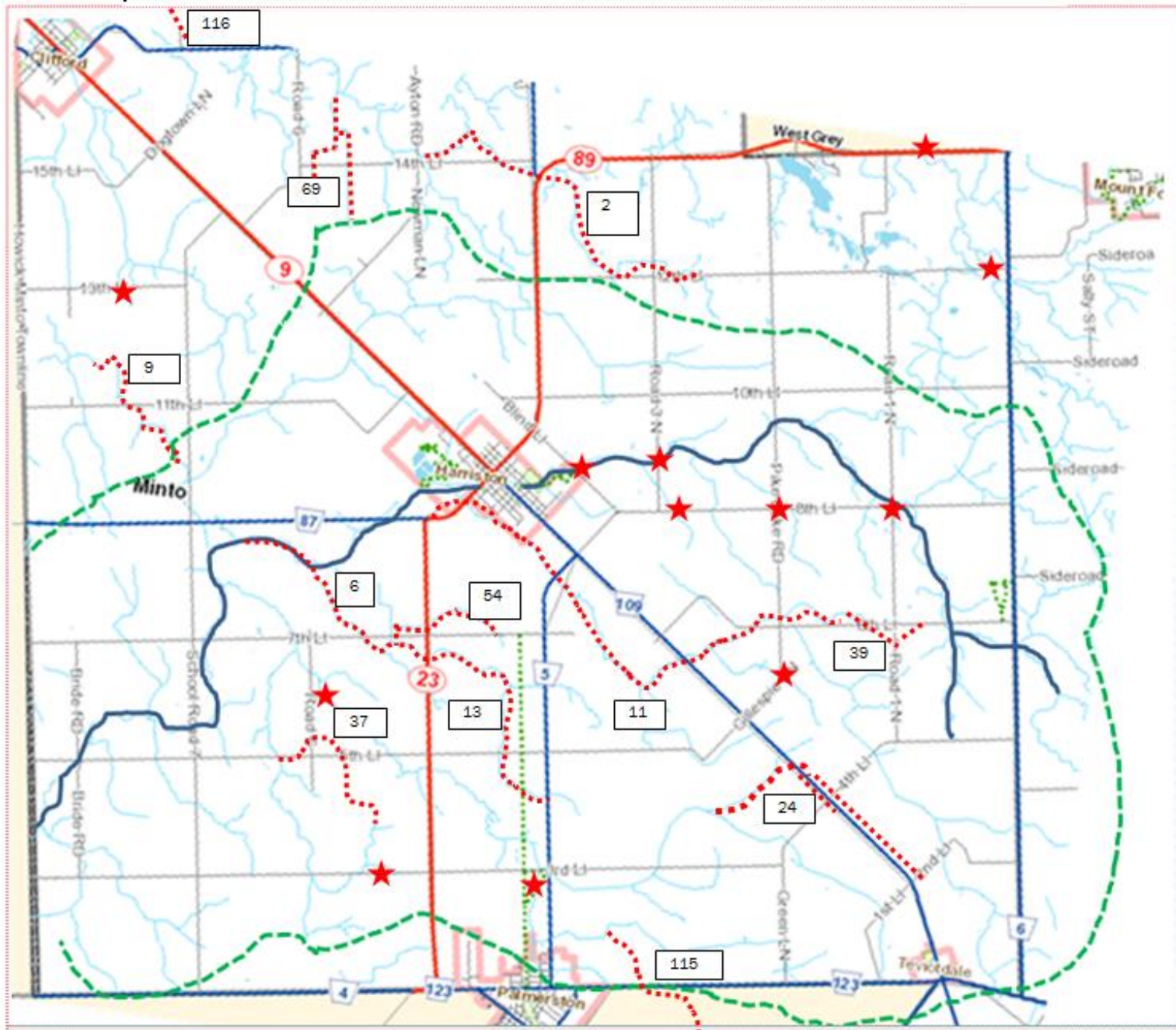
MOTION: COW 2017-202

THAT Council receives the Road and Drainage Foreman and C.A.O. Clerk's July 26, 2017 report Municipal Drain Update; Watershed Master Plan and approves an application to the Province for Flood Mapping with lidar scanning, Mitigation Planning analysis within the North Maitland River Watershed under the National Disaster Mitigation Program subject to Council receiving a terms of reference and approximate costing for the Master Plan before submission.

The Town's application for flood mapping was submitted and has passed through the Provincial level approval to the Federal Government. There are positive signs the application will be approved but that is not confirmed. The 2018 draft operating budget includes funding for this initiative.

The main purpose of this report is to provide Council with the status of the municipal drains report on at Council August 1, and to provide updates as to additional drains now before the municipality. Greg Nancekivell from Dietrich Engineering will be present to provide further explanation as some of the engineering reports are still pending.

The map below shows the location of the municipal drains discussed August 1. Council will



note there are several new drains that are also being considered in the explanation below.

COMMENTS:

Council is aware the Drainage Act is one of the oldest laws in Ontario. Municipal Drains are not owned by the Town, but are owned by landowners' subject to a drain assessment which

is predetermined in each individual Drain Report. When maintenance or repairs are needed, the Drainage Act is designed to bring this forward in a fair way allowing input by owners who pay for the work. Agencies like the Conservation Authority and Department of Fisheries also have permit and approvals processes to be followed. The Town is required to follow procedures set in the Act, and to abide by the advice of its Engineer. The following summarizes the status of current active municipal drains in Minto:

- **Drain 11/Fischer Drain (Dredge Creek and Maitland River south of Harriston)** This project has previously been put on hold due to major improvements required at the bottom end (Maitland River) of Drain 11. The required improvements to the lower end of Drain 11 should be coordinated with the Harriston Flood Investigation project. Improvements to the river (Drain 11) “below” Harriston that are beyond the scope of normal drain maintenance could help move significant amounts of water out of Harriston sooner. However, this work cannot occur without a full understanding of the impact on downstream properties. These improvements to the “bottom end” of Drain 11 will help performance of the upper part of the drain.

Pending the results of the flood plain mapping staff suggests going ahead with the new branch of Drain 11 that will service Fischer, Tarr, Gray and MTO properties making them aware the new system will not function properly until the “bottom end is corrected”. The decision as whether the upper part of the system is improved first, before the “bottom end” should be left up to the property owners. If the landowners agree the branch would be tendered and constructed in 2017, leaving the “bottom end” on its own with a possibility of funding through National Disaster Mitigation funding or other sources.

- **Drain 24 (CR 109 2nd Line to 4th Line and beyond)** petition submitted March 2012, and last information meeting held June 10, 2014. Changes to the preliminary design were requested at this meeting and ongoing conversations with property owners have taken place. Edits to the design are underway and an information meeting will be needed this year to update landowners with costs and design.
- **Drain 69 (13th and 14th Concessions; from Ayton Road to Road 6 North)** The draft design was submitted for review on November 17, 2017 to the Department of Fisheries and Oceans Canada and to the Ministry of Natural Resources and Forestry on November 22, 2017. The draft report is complete – pending DFO and MNRF response.
- **Drain 39 (6th Line at Road 1N)** Onsite meeting was held on November 4, 2016 with impacted landowners. A survey of the drain was completed spring of 2017 and preliminary design is started. An information meeting will be held in early 2018.
- **Drain 116 (Part Lot 23, Concession 18)** Construction of the Drain was completed in the fall of 2017. After the final costs have been received, the engineer will complete a final

actual assessment schedule for the Town as well as a grant application to be signed by the treasurer and send it to OMAFRA.

- **Drain 2 (Road 3 North, 12th Line to 12th Line, Ayton Road)** A survey of the drain was completed in the summer/fall of 2017 and a preliminary design is started. An information meeting will be held early in 2018.
- **Drains 37 (5th Line and Road 6) and 115 (CR 123 Concession 1 Lots 16, 17 & North Perth):** Both completed and files are now closed.
- **Drains 6, 13 and 54 (County Road 5 to School Road 7; 7th Line to County Road 87):** A public meeting was held summer 2017 after the decision was made to proceed with a Section 78 report rather than do works under the maintenance program. This will better address current issues and ensure a fair assessment of the costs for such works. It was stated at the meeting a field survey was needed in the fall once the leaves had come off the trees as there are sections that go through bush land. Despite waiting until the leaves had come off the trees, parts of drain 13 and 54 require brushing and clearing before they can be surveyed. This clearing will occur before the end of 2017. Drain 6 survey is complete.
- **Drain 9 (our reference number 1718):** Onsite meeting was held May 4, 2017 with landowners. A survey of the drain will be completed in the winter of 2017 or spring of 2018, pending clearing of parts of the bush along the drain. A preliminary design and information meeting will follow.
- **Drain 52/Shannon Drain:** Onsite meeting was held on November 13, 2015 with the affected landowners. A survey was completed in August 2016 after cleanout of the ditch in June 2016. A preliminary design is underway. An information meeting will be held in the early summer of 2018.
- **Drain 117/20:** Onsite meeting held May 19, 2017 with landowners. This project will include a new branch, a clean out of an existing drain, incorporation of a crossing, and multiple apportionments as a result of a developed subdivision in the upper part of the Drain 20 watershed. A survey of the proposed drain and the existing drain will be completed in the winter of 2017 or the spring of 2018, pending clearing of parts of the bush along the drain. A preliminary design and information meeting will follow.
- **Drain 23** -An onsite meeting was held on October 13, 2017 with the affected landowners. A survey was completed in November 2017. A preliminary design is underway. An information meeting will be held in the summer of 2018.

- **Drain 60** - An onsite meeting was held on October 13, 2017 with the affected landowners. A survey was completed in October 2017. A preliminary design is underway. An information meeting will be held in the summer of 2018.
- **Harriston Flooding Investigation** - Survey has been completed for approximately 15.5 km of the upper end of the watercourse, data from the 17 level loggers has been obtained that were installed in various locations of the watershed. A hydrologic model is in progress for this watershed using PCSWM (Personal Computer Storm Water Management).

The next step is to calibrate it to the storm event of June 23rd. A summary report is being prepared. A meeting with Dietrich Engineering, Minto Staff and Maitland River Conservation Authority is recommended in the New Year. This information will be presented to the public and would tie in with the flood plain mapping grant request through the National Disaster Mitigation Program.

FINANCIAL CONSIDERATIONS:

As was reported in budget the number of new drain applications is significant. The level of activity in this area is the highest in the last seven years as per service measures below:

Service Measures	2011	2012	2013	2014	2015	2016	2017
Tile repairs	10	6	4	7	9	9	11
Ditch repairs, clean out	7	5	2	1	3	4	9
New petitioned drains	3	4	2	2	3	2	7
Totals	23	15	8	10	13	15	27

Cost of drain repairs are determined in the assessment schedules identified by the Engineers Report and presented in the Schedule of Assessment.

RECOMMENDATION:

That Council receives the Road and Drainage Foreman and C.A.O. Clerk's December 13, 2017 report Municipal Drain Update as information.

Mike McIsaac Roads & Drainage Foreman

Bill White C.A.O. Clerk