

**BURLEY DRAIN E 2024**  
**Municipality of North Middlesex**



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## **BURLEY DRAIN E 2024**

### **Municipality of North Middlesex**

To the Mayor and Council of  
The Municipality of North Middlesex

Mayor and Council:

We are pleased to present our report on the reconstruction of parts of the Burley Municipal Drain serving parts of Lots 25 to 29, Concession 5 WCR, and parts of Lots 9 and 10, Concession 28 and Ausable Concession (geographic McGillivray) in the Municipality of North Middlesex.

#### **AUTHORIZATION**

This report was prepared pursuant to Section 4 and 78 of the Drainage Act. Instructions were received from your Municipality with respect to a motion of Council. The work was initiated by a petition signed by the owners whose lands contain over 60 percent of the area requiring drainage.

#### **DRAINAGE AREA**

The total watershed area contains approximately 175.6 hectares. The area requiring drainage is described as parts of Lots 9 and 10, Ausable Concession and parts of Lot 9, Concession 28.

#### **HISTORY**

The Burley Drain was last reconstructed pursuant to a report submitted by M. P. DeVos, P. Eng. dated May 11, 2018. Drains A, B, E, F, and G were cleaned out and brushed at that time.

Also, maintenance schedules were prepared for Drain C, Drain H and Drain G – closed portion.

The upper open portion of Drain E in Lot 10, Concession 28 was abandoned from municipal status under the Municipality of North Middlesex By-Law #36 of 2022 as per Section 84 of the Drainage Act.

#### **EXISTING DRAINAGE CONDITIONS**

At a site meeting held with respect to the project and through later discussions the owners reported the following:

- that the affected watershed area in Lots 9 and 10, Concession 28 was privately tiled north directly into the Ptsebe and Ausable Rivers Drain
- that the private tiling from Lots 9 to 12, Ausable Concession is directly connected into the Ptsebe and Ausable Rivers Drain via a pump and no longer outlets into Drain E



## EXISTING DRAINAGE CONDITIONS (cont'd)

- that the affected owners redirected the portion of Drain E located on the road allowance between Concession 28 and Ausable Concession northerly to the Ptsebe and Ausable Rivers Drain with the construction of a 900mm pipe culvert through the existing dike
- that the portion of the Drain upstream of the above mentioned new culvert be investigated along with Branch F to ensure an adequate depth is provided for upstream private tiles

A field investigation and survey were completed. Upon reviewing our findings we note the following:

- that the existing pipe conducting drainage from Drain E across the road allowance into Drain A has been removed
- that it was requested that the new pipe be incorporated as part of Drain E for future maintenance purposes and that the portion of Drain E from the old Drain A junction to the new culvert be abandoned
- that we conducted a survey of Drain E upstream of the new culvert location and Drain F and found that the ditch has accumulated sediment in it and the Municipality then cleaned out this portion of the ditch as maintenance

Preliminary design, cost estimates, and assessments were prepared and an informal public meeting was held to review the findings and preliminary proposals. Further input and requests were provided by the affected owners at that time.

## DESIGN CRITERIA AND CONSIDERATIONS

The proposed design and report have been generally completed using the "GUIDE FOR ENGINEERS WORKING UNDER THE DRAINAGE ACT IN ONTARIO" OMAFRA Publication 852.

## RECOMMENDATIONS

We are therefore recommending the following:

- that the new 900mm pipe culvert under the dike on Concession 28, Ausable Concession road allowance be incorporated as part of Drain E for future maintenance purposes
- that the existing Drain F be added to Drain E for future maintenance purposes
- that the portion of Drain E from the new culvert to the former Drain A junction be officially abandoned from municipal status pursuant to Section 19 of the Drainage Act
- that the portions of the Burley Drain watershed area that now drains into Drain E and directly into the Ptsebe and Ausable Rivers Drain be removed from the remainder of the Burley Drain watershed area under the Drainage Act Section 65(4) Subsequent Disconnection from Drainage Works
- that a profile be provided for future maintenance of the upper portion of the Branch E and former Branch F



## ENVIRONMENTAL CONSIDERATIONS AND MITIGATION MEASURES

Based on the information available, there are no significant wetlands, sensitive areas, or endangered species along the route of the drains. A temporary flow check of silt fencing is to be installed in the ditch downstream of the tile outlet for the duration of the construction.

## SCHEDULES

Two schedules are attached hereto and form part of this report, being Schedule 'A' - Cost Estimate and Schedule 'B' - Assessment for Construction.

Schedule 'A' - Cost Estimate. This schedule provides for a detailed cost estimate of the proposed work which is in the amount of \$37,900.00. This estimate includes engineering and administrative costs associated with this project.

Schedule 'B' - Assessment for Construction. This schedule outlines the distribution of the total estimated cost of construction over the roads and lands which are involved.

Drawing No. 1, Job No. 221192 and specifications form part of this report. They show and describe in detail the location and extent of the work to be done and the lands which are affected.

## ALLOWANCES

**EXISTING DRAIN:** Section 31 of the Drainage Act provides for compensation to landowners for existing private work that is incorporated through this report as part of the drainage works.

## ASSESSMENT DEFINITIONS

In accordance with the Drainage Act, lands that make use of a drainage works are liable for assessment for part of the cost of constructing and maintaining the system. These assessments are known as benefit, outlet liability and special benefit as set out under Sections 22 and 23 of the Act.

### SECTION 22

**Benefit** as defined in the Drainage Act means the advantages to any lands, roads, buildings or other structures from the construction, improvement, repair, or maintenance of a drainage works such as will result in a higher market value or increased crop production or improved appearance or better control of surface water, or any other advantages relating to the betterment of lands, roads, buildings, or other structures.

**Special Benefit** is assessed to lands for which some additional work or feature has been included in the construction repair or improvement of a drainage works. The costs of such work are separated and assessed independently from the regular work.

### SECTION 23

**Outlet liability** is assessed to lands or roads that may make use of a drainage works as an outlet either directly or indirectly through the medium of any other drainage works or of a swale, ravine, creek, or watercourse.





## SCHEDULE 'A' - COST ESTIMATE

## BURLEY DRAIN E 2024

## Municipality of North Middlesex

We have made an estimate of the cost of the proposed work which is outlined in detail as follows:

**DRAIN "E"**Existing Drain Allowance under Section 31 of the Drainage Act

Construct the following pipe as new farm culvert

Sta. 0+853 to Sta. 0+890

Supply & delivery of 37 m - 900mm dia, dual wall HDPE pipe culvert

Installation of pipe including supply and installation of bedding and backfill \$ 11,550.00

including disposal of any unacceptable material \$ 5,550.00

Allowance Breakdown

060-135(H., E., G. & J. Dietrich) \$ 8,550.00

060-136(H., E., G. & J. Dietrich) \$ 8,550.00

**ADMINISTRATION**

Conservation Authority Review Fee \$ 650.00

Interest and Net Harmonized Sales Tax \$ 1,383.00

Survey, Plan and Final Report \$ 14,712.00

Expenses \$ 1,155.00

Supervision and Final Inspection \$ 2,900.00

**TOTAL ESTIMATED COST \$ 37,900.00**

## SCHEDULE 'B' - ASSESSMENT FOR CONSTRUCTION

## BURLEY DRAIN E 2024

## Municipality of North Middlesex

Job No. 218062

March 8, 2024

\* = Non-agricultural

CON.	LOT	HECTARES AFFECTED	ROLL No. (OWNER)	SPECIAL BENEFIT	BENEFIT	OUTLET	TOTAL
<b>DRAIN "E"</b>							
<i>Geographic McGillivray</i>							
5 WCR&28	Pt.25&10	23.2	060-042(Henry J. Peters Farms Ltd \$		\$ 100.00	\$ 526.00	\$ 626.00
* 5 WCR	Pt.W½25	1.01	060-042-02 (J. Zwinkels)			23.00	23.00
5 WCR&AS	26 &Spt.9	49.8	060-043(G. & S. Struyf)		690.00	1,192.00	1,882.00
5 WCR&AS	27&Pt.10	50.6	060-044(W. & M. Heaman)		260.00	1,907.00	2,167.00
5 WCR	28	24.3	060-044-01(M. & H. Jamieson)			1,058.00	1,058.00
5 WCR	29	14.8	060-045(E. Vanengelen)			322.00	322.00
28	Pt.9	4.0	060-123(H., E., G. & J. Dietrich)		120.00	19.00	139.00
28	Pt.N½10	4.9	060-128(H., E., G. & J. Dietrich)		90.00	47.00	137.00
AS	NPt.9		060-135(H., E., G. & J. Dietrich)	15,070.00	440.00		15,510.00
AS	NPt.10		060-136(H., E., G. & J. Dietrich)	15,070.00			15,070.00
TOTAL ASSESSMENT ON LANDS				\$ 30,140.00	\$ 1,700.00	\$ 5,094.00	\$ 36,934.00
Sideroad 25-26, 10, 9	3.0		Municipality of North Middlesex		\$ 900.00	\$ 66.00	\$ 966.00
TOTAL ASSESSMENT ON ROADS				\$	\$ 900.00	\$ 66.00	\$ 966.00
<b>TOTAL ASSESSMENT ON THE BURLEY DRAIN E 2024</b>							<b>\$ 37,900.00</b>

SCHEDULE OF NET ASSESSMENT

**BURLEY DRAIN E 2024**

**Municipality of North Middlesex**

Job No. 218062

March 8, 2024

\* = *Non-agricultural*

ROLL NUMBER (OWNER)	TOTAL GRANTABLE ASSESSMENT	GRANT	SECT. 31 CULVERT ALLOWANCE	APPROX. NET
060-042(Henry J. Peters Farms Ltd.)	\$ 626.00	\$ 209.00	\$	\$ 417.00
* 060-042-02 (J. Zwinkels)	23.00			23.00
060-043(G. & S. Struyf)	1,882.00	627.00		1,255.00
060-044(W. & M. Heaman)	2,167.00	722.00		1,445.00
060-044-01(M. & H. Jamieson)	1,058.00	353.00		705.00
060-045(E. Vanengelen)	322.00	107.00		215.00
060-123(H., E., G. & J. Dietrich)	139.00	46.00		93.00
060-128(H., E., G. & J. Dietrich)	137.00	46.00		91.00
060-135(H., E., G. & J. Dietrich)	15,510.00	5,170.00	8,550.00	1,790.00
060-136(H., E., G. & J. Dietrich)	15,070.00	5,023.00	8,550.00	1,497.00
Sideroad 25-26, 10, 9	\$ 966.00	\$	\$	\$ 966.00
	<b>\$ 37,900.00</b>	<b>\$ 12,303.00</b>	<b>\$ 17,100.00</b>	<b>\$ 8,497.00</b>