

**FINAL**  
**O.S.P.E. LAND DRAINAGE COMMITTEE**  
**MINUTES OF MEETING**  
**Thursday, October 20th, 2016**  
**O.M.A.F.R.A. Building Conference Room**  
**1 Stone Road West, Guelph, Ontario**

**1.0 Attendance and Call to Order**

- 1.1 Members Present: Tony Peralta, Chairman; Gerard Rood, Secretary; Jeff Dickson, Vice Chair; John Kuntze; Michael Gerrits; Mark Hernandez
- 1.2 Liaison Members Present: Davin Heinbuck, Conservation Ontario (Ausable Bayfield Conservation Authority); Sid Vander Veen, O.M.A.F.R.A. (Ontario Ministry of Agriculture, Food and Rural Affairs); Art Groenveld, M.T.O. (Ministry of Transportation Ontario); Pat Shaver, Open Learning & Educational Support (University of Guelph)
- 1.3 Absent Members: Sharon Rew, M.N.R.F. (Ontario Ministry of Natural Resources & Forestry); Patrick Sackville, O.S.P.E. (Ontario Society of Professional Engineers); Tom Hoggarth, D.F.O. (Department of Fisheries and Oceans Canada); Richard Kavanagh, D.F.O. (Department of Fisheries and Oceans Canada)
- 1.4 Chairman Tony Peralta called the meeting to order at 9:07 a.m.

**2.0 Approval of Agenda**

- 2.1 The committee reviewed the agenda prepared by Tony Peralta. Motion by John Kuntze, seconded by Gerard Rood, that the agenda as prepared by the chairman be accepted. Carried.

**3.0 Minutes of Last Meeting**

- 3.1 Committee members pointed out some grammatical errors. Jeff Dickson moved to accept the corrected June 10th, 2016 L.D.C. meeting minutes as discussed and seconded by John Kuntze. Carried
- 3.2 Final documents are to be sent to Pat Shaver by Gerard Rood for posting to the L.D.C. web site. **Action by Gerard.**

**4.0 Business Arising From the Minutes**

- 4.1 Tony Peralta asked about old LDC records. Jeff stated that he has three boxes with him. John noted that he had found an archive box too. Jeff asked about scanning the documents. Tony said that he was okay to share the workload. Jeff thinks it's more efficient for one person to do

this. Sid asked if these were just minutes of the LDC meetings and Jeff responded yes. Sid commented that he has records back to 1990 and can arrange for scanning them. Tony asked that John, Sid and Jeff coordinate their efforts.

- 4.2 Jeff noted that he started consolidating materials back in 2007. John said he was okay doing these like we did the Conference proceedings. Sid commented that he has the proceedings on a thumb drive to give to Pat Shaver for posting to the website. John suggested that we need a repository for reference documents. Tony suggested that they be split up. John commented that he can arrange to scan his information. He thinks that the information that Jeff has will be more complete. Jeff agreed to start scanning his information. John said that he will try to fill any gaps in Jeff's records. Sid asked if Jeff could provide an index of his information. Jeff stated that he will have Jennifer of his office type up and distribute the list. Sid suggested that Jeff do from 1969 to 2000. Sid can do the balance if needed. **Action by Jeff, John and Sid.**
- 4.3 Tony noted that we still want to complete the research on old engineers. Gerard commented that he will follow up with Baird Architecture Engineering for the William Settrington information. **Action by Gerard.**
- 4.4 Tony observed that Davin was to check into Conservation Ontario status. Davin stated that he will report on this in his liaison Report.
- 4.5 John brought up the site examination, appellant statements, and revising the report as Tribunal questions. John stated that he revises his report to reflect Tribunal orders. He is not sure on handling of the cost.
- 4.6 Tony stated that he can contact O.S.P.E. Patrick Sackville for a report. He noted that the blogs seem to be well done.

## **5.0 Correspondence**

- 5.1 Tony discussed correspondence since the last meeting. He noted that Gerard mentioned the C.A.N.L.I.I. link. There was some discussion of postings to that website. Jeff suggested that we ask the Tribunal if they can provide written decisions to those who want them. Sid expects that the Tribunal will say that people are to get them for themselves. John noted that all decisions are posted on C.A.N.L.I.I. Tony suggested that we could ask at the Practitioners Meeting about getting hard copies. John commented that decisions are sorted by year and month on C.A.N.L.I.I.
- 5.2 Tony noted that Thomas Hogarth was to be here. Sid mentioned that he got an email this morning stating that Thomas had another meeting to go to.
- 5.3 Tony observed that soil health is becoming a key concern. Sid noted that he will touch on this in his liaison Report.
- 5.4 Tony advised that M.N.R.F. is taking action on invasive species.

5.5 According to Tony, Bill Mays of the D.S.A.O. says something is coming on phosphorus controls. Sid commented that there are five different postings on the E.B.R. website. He will report on those tonight.

**6.0 Liaison Report – O.S.P.E. – Patrick Sackville**

6.1 Tony Peralta will try to set up a Conference call later in the meeting with Patrick Sackville who is the new contact person. When Tony tried to contact Patrick Sackville at OSPE he had to leave a voicemail.

**7.0 Liaison Report – Ministry of Natural Resources and Forestry – Sharon Rew**

7.1 Tony advised that Sharon Rew is not coming.

**8.0 Liaison Report – Ministry of Transportation Ontario - Art Groenveld**

8.1 Art Groenveld discussed the Unified Ontario Flood Method study. This has now been implemented. It must be used on all highway crossing designs.

8.2 The M.T.O. IDF curve lookup tool version 2 is now on their website. Version 3 is about 95% complete. This should be up and running shortly. They now have U.S.A. and Manitoba sites for information close to the borders. The U.S.A. uses three parameter equations while Ontario uses a two parameter equation. The software can also be used to predict future flows for up to 75 years. They have observed a 13.2% increase over 100 years for runoff intensity.

8.3 The new climate change policy is to be implemented. The M.O.E.C.C. is working on it and will be implemented once they finalize it. We not only have to meet future performance but also address current requirements such as fish passage. Art noted that this just needs to be applied to M.T.O. designs. They are looking for consistency in crossing designs for M.T.O. and adjacent areas and the software may be used for all crossing designs.

8.4 Sid noted that if the M.T.O. has a higher standard for their crossings they can request same and pay for it. Conservation Authorities appear to be pushing for higher standards than agreed to in previous designs. There are two agencies issuing different standards and then O.M.A.F.R.A. is coming out with new guidelines. Art commented that “WC1” is their standard for crossing design. Their policy incorporates risk analysis and impacts to regulatory storms. They also account for fish, erosion, etcetera.

8.5 Art noted that they have highway drainage design standards on their website. Mike commented that he just prints out the books that he requires. John commented that all drainage manuals are accessible online now. Art commented that once you find the information you can set up a bookmark for future reference. Hany Farghali from M.T.O. will discuss this tomorrow.

8.6 M.T.O. is doing Design guidelines for trenchless technology work. They will likely issue something in December 2017 or January 2018 for the next batch of Design Guidelines. They have six or seven guides coming out near the end of this year. There will be different requirements for different procedures. Comments can be provided to M.T.O. for consideration. He expects that 18 to 20 methods will have guidelines prepared. They will provide guides for selecting allowable methods for each project. They are working with the Centre for Advanced Trenchless Technology (C. A. T. T.) at the University of Waterloo which has provided information for their use.

## **9.0 Liaison Report – Conservation Ontario - Davin Heinbuck**

9.1 Conservation Ontario has set up a Policies and Regulations Implementation Committee (P.R.I.C.). They are providing guidelines to conservation authorities for development of a guide for development of agricultural land. There have been many discussions. It parallels to the D.A.R.T. protocol. They are trying to build a model that will be a guide for many conservation authorities that don't often work with agricultural drainage. The draft has been approved and it is going to Conservation Ontario workshop shortly. Conservation Ontario Council has endorsed it. Guidelines will be distributed for use and will streamline reviews. The conservation authorities will develop their own guides locally.

9.2 Sid is worried about policies being developed without agricultural consultation. Davin commented that the C.A.'s should consult with engineers in their local area. John questioned if these were guidelines for a guide. If so, the consultation should be done before the guidelines are established. Davin commented that he is just getting involved with it now. Shoreline protection is a big concern for them. John commented that a road allowance has disappeared along Lake Erie and a new one is being created. Shoreline management is a big concern.

9.3 Davin recommended that engineers talk directly to C.A.'s rather than owner groups if there are any questions. Guides are to streamline the processes. They hope to combine approvals and tighten the timelines. Davin doesn't see an application under the Drainage Act since it is more geared to owners.

9.4 Sid asked if there were any recommendations in the guidelines such as for culvert sizing. Davin noted that they are not that specific. Peter Jeffries has been included in many discussions. He wanted everyone to be aware that this is forthcoming. He is not sure if province wide distribution will take place or whether it will just be done by local C.A.'s.

9.5 Davin noted that the D.F.O. has provided more funding for C.A.'s to do more drain classifications. They are doing some 20 drains per year. They are trying to work with drainage superintendents when doing the classifications. He has observed that D.F.O. presence has increased in their area.

9.6 There was discussion about M.N.R.F. concerns with phosphorus impacts of concrete pieces or blocks in the water. Art commented that creosote timbers were also a concern. He challenged them for proof and the M.N.R.F. dropped the concern.

**10.0 Liaison Report – Fisheries and Oceans Canada – Richard Kavanagh**

10.1 Sid read out an email from Thomas Hoggarth that he was pulled off to another meeting today. The next guide completion is November and will go to D. A. W. G. They expect to conduct reviews across Ontario in January and February. Sid stated that he would forward the email to everyone. **Action by Sid.**

**11.0 Liaison Report – Ministry of Agriculture, Food & Rural Affairs - Sid Vander Veen**

11.1 Sid stated that he would send the information to Gerard that he would present. **Action by Sid.**

11.2 He went through the highlights of his report including a March 6-10 superintendents course right here in Guelph. April 5th and 6th there will be Leamington courses for clerks and for assessment of drainage.

11.3 He noted that A.D.I.P. is carrying over \$4.9 million to next year for grants. So far there is no extra money this year. They are trying to develop a strategy. D.S.A.O. plans to write a letter to the minister. To date they have \$9 million in expenses with only \$6.7 million budget. He noted that the politicians could cancel the grants like they did in 2004 and would have to handle the backlash. The Ministry also has to make some decisions. They may consider legislative changes.

11.4 There are E.B.R. postings regarding soil strategy. Statistics will be presented at tonight's Practitioners Meeting. The second posting is regarding strategy/policy for phosphorus reduction. The third posting deals with wetlands conservation strategy. The fourth posting is on the Conservation Authorities Act review that has been done. A plan has been developed and comments were due by September 9. The fifth posting relates to M.N.R.F. new legislation for invasive species. The Act comes into force November 2016. Phragmites will be a restricted species. There will be orders to remove plants along with equipment cleaning protocol.

**12.0 Office of Open Learning - University of Guelph - Pat Shaver**

12.1 Pat provided a copy of the letter from Hussein Abdullah, Director of the School of Engineering at Guelph. The letter acknowledged the recent gift of \$1000 which has been directed to the Professor Ross W. Irwin Memorial Scholarship.

12.2 Pat noted that lunch will be served at noon today. The course will start at 12:30 today. Supper has been set up at the Borealis Restaurant. The Practitioners Meeting is scheduled for the conference room at the Holiday Inn. This year there will be two screens and a podium between them. She noted that we should coach presenters to use the computer and mouse for a pointer. There will be two microphones in the audience. The Friday sessions are set up for 9 AM to 3:30 PM. These are outlined in her report that she provided.

- 12.3 Pat noted that there are about 300 contacts in the database for marketing purposes. There are limits on who she can email. The mail out for Thursday registration includes past registrations. Art suggested that we use a new registration system to ask if people want to be informed of training. Pat noted that they can implement that. People can also provide her with contacts. Art suggested a link on the website for people to register.
- 12.4 Pat advised that our website is A.A. compliant. We will have to meet A.A.A. by 2019 to 2020. There may be a requirement for more contrast on the website.
- 12.5 There is registration at the door for people who want to come to the conference.
- 12.6 Pat noted that you can use your own thumb drive or the submitted files for the presentations today.
- 12.7 Sid gave Pat the thumb drive with the conference proceedings to be posted to our website. Tony suggested that we also have a link to the C.A.N.L.I.I. website on our site. Pat commented that she can arrange for that. **Action by Pat**
- 12.8 Jeff suggested that October 27th be set for the next year's conference, since this is not a Halloween weekend. Pat advised that she will check with the Holiday Inn for bookings. **Action by Pat.**

### **13.0 D.A.R.T. (Drainage Act Regulations Team) Update - John Kuntze**

- 13.1 John advised that they have another meeting scheduled for October 28. Action will be depending on the Conservation Authority Act review. He noted that the M.N.R.F. representative who is co-chair is stepping down.
- 13.2 Davin noted that they are setting up a project advisory committee for the guidelines. There are O.F.A. and others on the committee. Some agricultural inputs have been received.

### **14.0 D.A.W.G. (Drain Action Working Group) Update – Mark Hernandez**

- 14.1 Mark reported that he had received a draft document from D.F.O. and circulated it. There is to be a roadshow early in the new year with reviews done by March. They don't want the D.A.W.G. committee to end but keep it open for dialogue.

### **15.0 D.S.A.O. Procurement Update – Jeff Dickson**

- 15.1 Jeff advised that there has been no action.

## 16.0 New Business

- 16.1 Tony noted that there will be voting at the Practitioners Meeting tonight. John and Jeff are up for election. Jeff noted that he is willing to stand for re-election. John is okay with stepping down. He suggested that he be nominated last if needed. Gerard commented that he is okay to continue as secretary until the end of his term.
- 16.2 Tony has questions for the Tribunal discussion at the Practitioners Meeting tonight. The questions suggested decisions appear to lack consistency. John commented that he has slides in his presentation this afternoon showing the Tribunal process. Tony observed that discussions with the Tribunal tonight cannot be about specific decisions.
- 16.3 Jeff recommended that we try scheduling the conference for the last week of October if it's not Halloween. The course could be scheduled for October 26th. The conference could be scheduled for October 27th next year. Tony commented that Pat has to confirm this with the hotel.
- 16.4 Tony advised that he will email the Land Drainage Committee the O.S.P.E. message. **Action by Tony.**

## 17.0 Next Meeting

- 17.1 The next meeting of the L.D.C. will be Tuesday, January 24th, 2017 at the Lamplighter Inn in London. It was discussed that we can meet for lunch at 12 noon and then hold our meeting afterwards.
- 17.2 The chairman of the Committee should book the meeting room for the Committee. **Action by Chair.**

## 18.0 Adjournment

- 18.1 The meeting was adjourned at approximately 11:45 a.m. Moved by Jeff Dickson and seconded by Gerard Rood. Carried

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Tony Peralta, Chairman

Gerard Rood, Secretary

# THE ONTARIO MINISTRY OF AGRICULTURE, FOOD & RURAL AFFAIRS

## Annual Report Presented at the **DRAINAGE PRACTITIONERS MEETING**

Sid Vander Veen, P. Eng., Drainage Coordinator & Alex Barrie, EIT., Project Engineer  
Environmental Management Branch, October 20, 2016

### ***KEY MINISTRY CONTACTS***

- The Honourable Jeff Leal is the Minister. He is from the Peterborough area.
- George McCaw continues as Director of Environmental Management Branch
- Len Senyshyn continues as Manager of the Approvals, Certification and Licensing Unit and is responsible for the Ministry's drainage programs.
- Your specific drainage contacts are:
  - Becky Curran provides administrative support for the drainage programs. She can be reached at 519-826-4049 or by email at [becky.curran@ontario](mailto:becky.curran@ontario).
  - Andy Kester is the Drainage Analyst/Inspector and is responsible for the review and processing of tile loans and of grants under the *Drainage Act*. He is also responsible for inspections and contractor training under the *Agricultural Tile Drainage Installation Act*. Andy can be reached 519-826-3551 or by email at [andy.kester@ontario.ca](mailto:andy.kester@ontario.ca)
  - Sid Vander Veen is the Drainage Coordinator and is responsible for policy, issues management, training for the *Drainage Act* and *Tile Drainage Act*. Sid can be reached by phone at 519-826-3552 or by email at [sid.vanderveen@ontario.ca](mailto:sid.vanderveen@ontario.ca)
- Jacqui Laporte and Peter Doris are Environmental Specialists who assist with drainage issues
- Tim Brook is the Water Management Engineer. He leads the contractor training and has also been heavily involved in the Drainage Engineers Guide.
- Rob Waters continues as Drainage Referee and Edward (Ted) Oldfield and Andrew Wright as Acting Drainage Referees. 2016 marks the 125<sup>th</sup> anniversary of the Drainage Referee position. Byron Moffat Britton was appointed as the first Drainage Referee in 1891.

### ***REPORT ON 2016 COURSES:***

In the winter and spring of 2016, the following courses were held:

<b>COURSE NAME</b>	<b>LOCATION</b>	<b>2016 DATES</b>	<b>ATTENDANCE</b>
Primary Drainage Course	Marden	Jan. 11 - 15	28
Advanced Drainage Course	Marden	Feb. 1 – 11	23
Drainage Superintendents Course	Guelph	Feb. 29 – Mar. 4	34
Rural Municipal Drainage Course	Renfrew	March 23	22
Calculating Drainage Assessments	Renfrew	March 24	17
Rural Municipal Drainage Course	London	April 6	54
Calculating Drainage Assessments	London	April 7	36
Rural Municipal Drainage Course	Niagara	April 13	13
Calculating Drainage Assessments	Niagara	April 14	6
Rural Municipal Drainage Course	Sudbury	April 20	8
Calculating Drainage Assessments	Sudbury	April 21	6



Participants at the Drainage Superintendents Course were:

- Municipal Staff: 17 Lower Tier and 2 Upper Tier
- 9 Engineering Firms, 4 non associated participants and 2 other (CA and DFO)

Total participation at the Rural Municipal Drainage Courses was 97 and at the Calculating Drainage Assessment Courses: 65

### ***2017 DRAINAGE COURSE SCHEDULE:***

The following courses are scheduled:

<b>COURSE NAME</b>	<b>LOCATION</b>	<b>2017 DATES</b>
Primary Drainage Course	Marden	January 16 - 20
Advanced Drainage Course	Marden	February 6 - 16
Ag. Erosion Control Structures	Marden	February 27 – March 3
Drainage Superintendents Course	Guelph	March 6 - 10
Rural Municipal Drainage Course	Brockville	March 22
Calculating Drainage Assessments	Brockville	March 23
Rural Municipal Drainage Course	London	March 29
Calculating Drainage Assessments	London	March 30
Rural Municipal Drainage Course	Leamington	April 5
Calculating Drainage Assessments	Leamington	April 6
Rural Municipal Drainage Course	New Liskeard	April 12
Calculating Drainage Assessments	New Liskeard	April 13

### ***AGRICULTURAL DRAINAGE INFRASTRUCTURE PROGRAM (ADIP)***

#### ***Grant Payments:***

- We had a significant backlog of older construction/improvement grant applications; most of the backlog has been paid. There are a few outstanding grant applications.
- Grant applications for the 2015/16 fiscal year:
  - Maintenance: All paid. These are the grant applications submitted in March/April 2015 for work performed in 2014.
  - Superintendent: Approximately 90% paid – these are the grant applications submitted in January 2016 for the costs incurred in 2015.
  - Construction: We received 162 grant applications totaling \$5.37 million. Of these, 13 projects (\$0.5 million) were processed. The remainder have not been processed because of insufficient budget. They have been carried over to the current fiscal year.
- Grant applications for the 2016/17 fiscal year:
  - Maintenance: Not paid – these are the grant applications submitted in March/April 2016 for work performed in 2015. These will be processed in the next few months.
  - Superintendent: Not yet submitted. These are the grant applications that will be submitted in January 2017 for the costs incurred in 2016.
  - Construction: As of October 17/16, we received 63 construction/improvement grant applications representing \$1.81 million in grant demand. None have been processed.

### ***Program Management:***

- When the ADIP program was introduced in 2005, the budget was set at \$6.0 million
- About 2 years later, it was increased to \$7.0 million, with 1/3 of the additional million being reserved for OMAFRA drainage related expenses (e.g. computer systems)
- That left us with an effective budget of \$6.67 million.
- For the past 5 years, demand has exceeded the budget.
- Until last year, the added demand was paid through excess funds within the Ministry
- For 2015/16, there were no additional funds; resulted in a carryover of \$4.9 million
- For 2016/17, it is unlikely that there will be any additional funds available
- We are developing a strategy to manage grant demand.

### ***DRAINAGE ENGINEERS GUIDE***

- Purpose is to update the guide from a technical and legal perspective, but to also provide guidance to new engineers on practicing under the Drainage Act
- The primary author was Kenn Smart of K. Smart Associates Ltd.
- The OMAFRA team is Arlene Robertson, Tim Brook, Jacqui Empson Laporte and myself.
- The first draft of the new Guide is complete.
- Thank you to all of you who responded with photographs
- Guide is to be divided into 3 parts:
  - Meeting the Requirements of the Drainage Act
  - Technical Information for the Design of Drains
  - Regulatory Agencies and Approval requirements

### ***Project Status:***

- The document will be released for peer review in the next couple of weeks.
- After receiving comments and updating the document, the guide will be released for broader consultation.
- Working towards a release date of summer 2017.

### ***NORTHERN ONTARIO HERITAGE FUND CORPORATION (NOHFC)***

On August 12<sup>th</sup>, Premier Kathleen Wynne announced that Ontario is providing \$3.7 million through the Northern Ontario Heritage Fund to help increase farm production in Northeastern Ontario. This includes helping 76 farmers bring new farmland into production through land clearing or improving land with the installation of tile drainage systems.

NOHFC funds 50% of land clearing and/or tile drainage contractor costs to a maximum of \$500 per acre and 100 per cent of the project administration fees (maximum of 10%)

### ***DRAINAGE ACT and Section 28 REGULATIONS TEAM (DART)***

- Last October, DART met in Peterborough where DART members provided their views on the review of the Conservation Authorities Act and the Wetlands Policy.
- In 2016, we've had 4 short teleconference meetings, one in-person meeting at the OFA office in Guelph. In July, the DART participated in a consultation session on the Conservation Authorities "Conserving Our Future: Proposed Priorities for Renewal".
- On Friday, October 28, we are meeting at the Maitland Valley Conservation Authority office and will be touring the Garvey Glen Drain and the Scott Drain.
- Further progress is dependent on the outcome of the Conservation Authorities Act review

### **FISHERIES ACT – DRAINS ACTION WORKING GROUP (DAWG):**

- DAWG had 3 meetings in 2016; these meetings are chaired by Tom Hoggarth from DFO and also involve Richard Kavanagh, Jenn Thomas and Lisa Wren
- We will be hearing about the new drain maintenance guide at the Drainage Engineers Conf.
- Overall, things appear to be running relatively smoothly, but I occasionally hear some concerns about drain classification changes.

### **FRANCHISE AGREEMENTS**

There was a recent court decision concerning a charge levied to Union Gas (UG) under Section 26 of the Drainage Act. UG had a franchise agreement with the municipality that allowed the municipality to request the relocation of a gas line, but that would require them to pay 35% of the cost of the relocation. UG would pay the remaining 65% of the cost.

A landowner requested improvements to a drain and in his report, the engineer indicated that a bore was required under the UG pipeline. UG accepted that the work was required but argued that the municipality should pay 35% of the cost which was \$26,808.39. The municipality disagreed and the issue was brought to the Superior Court of Justice.

UG argued that the gas pipeline relocation falls outside the definition of “drainage works” and is therefore not caught by S.26 of the Drainage Act. The judge quoted the following from another court decision:

*“Today there is only one principle or approach, namely, the words of an Act are to be read in their entire context and on their grammatical and ordinary sense harmoniously with the scheme of the Act, the object of the Act and the intention of Parliament.”*

The judge then summarized by stating “In other words, courts should not look at the phrases in isolation, but rather in a broader context in an effort to advance the goals of the legislation and the intent of the drafters.”

The judge disagreed with UG’s position, finding that S.26 applies to any works of a public utility that increases the cost of the drainage works. Costs were awarded.

Please note that it appears that this decision is being appealed to Divisional Court.

### **POSTINGS ON THE ENVIRONMENTAL REGISTRY (EBR)**

<b>ACTIVE EBR POSTINGS:</b>					
<b>TITLE</b>	<b>Lead Ministry</b>	<b>What is It?</b>	<b>EBR Registry No.</b>	<b>Date Posted</b>	<b>Comments Due By</b>
Discussion Document for Developing an Agricultural Soil Health and Conservation Strategy for Ontario	OMAFRA	Policy Proposal	012-8468	August 29/16	November 27/16
Reducing Phosphorus to Minimize Algal Blooms in Lake Erie	MOECC	Policy Proposal	012-8760	October 6/16	November 20/16
A Wetland Conservation Strategy for Ontario 2016-2030	MNRF	Policy Proposal	012-7675	August 8/16	November 16/16

### 1) Developing an Agricultural Soil Health and Conservation Strategy for Ontario

OMAFRA is developing an Agricultural Soil Health and Conservation Strategy. The purpose of the EBR posting is to solicit input towards the development of an Agricultural Soil Health and Conservation Strategy, to seek feedback on the government's proposed framework (draft vision, long-term goals and objectives) for developing the strategy and to identify opportunities and challenges to achieving the objectives in the proposed framework.

Healthy soil is fundamental to the success of Ontario's agricultural sector and to a healthy environment. Maintaining and enhancing the health of our agricultural soil will help:

- Maintain and enhance the productive capacity of Ontario's farmland;
- Contribute to the economic growth of the agri-food sector and food security;
- Improve water quality and biodiversity; and
- Increase the sector's resilience through mitigating and adapting to climate change.

### 2) Reducing Phosphorus to Minimize Algal Blooms in Lake Erie

Canada and the U.S.A. adopted a 40% phosphorus load reduction target for Lake Erie's western and central basins. This target was adopted by Ontario by virtue of provisions within the Canada-Ontario Agreement on Great Lakes Water Quality and Ecosystem Health. Ontario's interim goal is a 20% reduction by 2020 and a 40% phosphorus load reduction by 2025 (from 2008 levels).

Ontario is seeking input to help guide the content of the draft Canada-Ontario Action Plan for Lake Erie as part of a two-stage engagement process – to obtain comments now on proposed high level actions, followed by further public engagement once a draft plan is developed. The proposed high level actions include:

- Reducing inputs from point sources such as sewage treatment facilities and greenhouse operations.
- Reducing inputs from non-point sources such as septic systems and hauled sewage.
- Improving wetland protection, wetland restoration/rehabilitation
- Agriculture:
  - Promote the application of nutrients at the right time to reduce phosphorus runoff during high risk periods; consider tighter restrictions on the application of nutrients during this period.
  - Support the industry-led 4Rs program (right time, rate, source and placement of nutrients)
  - Leverage funding for initiatives such as the Great Lakes Agricultural Stewardship Initiative that support nutrient management and soil health best practices.
  - Develop an Agricultural Soil Health and Conservation Strategy to support soil management practices that provide economic, environmental and social benefits.
  - Enhance and promote environmentally sustainable best practices to increase use of cover crops during the non-growing season to reduce soil loss and field runoff.
  - Develop a publicly available digital elevation model of the Lake Erie watershed (based on LiDAR technology) to assist with environmental stewardship planning.

### 3) A Wetland Conservation Strategy for Ontario 2016-2030

In 2014, the MNRF was given a mandate to work with other ministries, municipalities and partners to review Ontario's broad wetland conservation framework and identify opportunities to strengthen policies and stop the net loss of wetlands. To achieve this mandate, the MNRF is working to develop a wetland conservation strategy for Ontario that will identify a provincial vision, goals and outcomes for wetlands in Ontario and set out a series of actions that the

government will undertake over the next 15 years to improve wetland conservation and stop the net loss of wetlands.

As a first step in the process, MNRF released Wetland Conservation in Ontario: A Discussion Paper. The purpose of the paper was to provide some ideas and priorities for wetland conservation in Ontario and solicit feedback from a diverse array of stakeholders on the current framework and ideas for the future of wetland conservation in Ontario. Over 286 comments were submitted via the Environmental Registry, which provided thoughtful analysis and clear recommendations for the development of a wetland conservation strategy for Ontario.

Building on the input received, MNRF has developed a proposed Wetland Conservation Strategy for Ontario. The Strategy represents a 15-year blueprint to improve the conservation of wetlands across the province, providing a conceptual framework for conserving Ontario’s wetlands, as well as a list of actions the Ontario government will undertake to ensure progress. The key goals include advancing public awareness of Ontario’s wetlands, increasing knowledge, strengthening partnerships to maximize conservation efforts and to continue to improve and develop policy approaches as opportunities arise, including development of a wetland offsetting policy to prevent the net loss of wetlands and promote net gain and better support implementation and compliance.

<b>RECENTLY EXPIRED EBR POSTINGS</b>					
TITLE	Lead Ministry	What is It?	EBR Registry No.	Date Posted	Comments Due By
Conservation Authorities Act Review “Conserving Our Future: Proposed Priorities for Renewal”	MNRF	Policy Proposal	012-7583	May 12/16	September 9/16
Regulation of invasive species under the Ontario Invasive Species Act, 2015	MNRF	Regulation Proposal	012-8310	September 8/16	October 11/16

4) Conservation Authorities Act Review “Conserving Our Future: Proposed Priorities for Renewal”

The Conservation Authorities Act, administered by MNRF, enables two or more municipalities in a common watershed to establish a conservation authority in conjunction with the province. The purpose of a conservation authority is to deliver a local resource management program at the watershed scale for both provincial and municipal interests. Conservation authorities have played a significant role in Ontario’s natural resource management landscape for nearly 70 years.

In order to ensure that the Conservation Authorities Act is meeting the needs of Ontarians in a modern context, the MNRF is undertaking a review of the Conservation Authorities Act by seeking feedback from municipalities, Indigenous communities, conservation authorities, stakeholders and the public regarding roles, responsibilities, funding and governance of conservation authorities in resource management and environmental protection.

The five priorities areas for updating the Conservation Authorities Act include:

1. Stronger oversight and accountability in decision making;
2. Increased clarity & consistency in roles and responsibilities, processes and requirements;
3. Improved collaboration & engagement among parties involved in resource management;
4. Modern funding mechanisms to support conservation authority operations; and
5. Enhanced flexibility for the Province to update Conservation Authorities Act in the future.

#### 5) Regulation of invasive species under the Ontario Invasive Species Act, 2015

The Ontario Invasive Species Act, 2015 comes into force on November 3, 2016. The Act provides the power to make regulations prescribing invasive species and classifying them as either prohibited or restricted.

There are a number of prohibited species, but of interest to the drainage community is the proposal to list Phragmites, Dog Strangling Vine and Japanese Knotweed as restricted species. While Phragmites is a serious problem in some parts of Ontario, this regulation, if passed, may impose some conditions on working around these species.

Section 8 of the Ontario Invasive Species Act restricts a person from bringing a member of a restricted species into a provincial park or allow it to be deposited or released anywhere in Ontario.

### **40 YEARS AGO...**

Major amendments were made to the Drainage Act (1976) that began with the appointment of a Select Committee in 1972. This committee was chaired by Lorne Henderson, an MPP from Lambton County (Township of Enniskillen). The committee held a number of hearings across the province and also accepted a number of written submissions about drainage in Ontario. As a result, in June 1974, this Select Committee submitted a report to the Legislature recommending a number of changes to the Drainage Act. The following is a summary of some of the major changes that were made to the Drainage Act, resulting from this report:

- Determining the validity of the petition was assigned to the engineer
- Environmental appraisals and benefit cost statements.
- Preliminary reports.
- The authority to assess as a block
- Farm crossings now had to be made part of the drain.
- The establishment of the Drainage Tribunal (now the AFRAAT)
- The establishment of the position of drainage superintendent, with qualifications satisfactory to the Minister
- Grants for maintenance and repair of drains and for the municipal cost of employing a drainage superintendent. The provision of these grants was implemented in 1981.

The following section of this report provides recommendations regarding drainage engineers:

#### *(C) QUALIFICATIONS OF ENGINEERS AND LAND SURVEYORS*

*During its public hearings, the Committee became concerned about the performance of the duties imposed on individual engineers and Ontario land surveyors practising under the Act. Criticisms ranged from charges of incompetence to a lack of clarity and detail in report documents. Wide variations were found with respect to allowances under Section 8 and to assessment procedures. In some instances, the Committee was made aware of faulty design and received complaints concerning both underdesign and overdesign. The Committee feels that municipal councils appointing an engineer under The Drainage Act should have the assurance that the appointee is competent to carry out the assignment.*

*Informal discussions were held with representatives of the Association of Professional Engineers and the Association of Ontario Land Surveyors concerning a means of qualifying persons practicing in land drainage. The Committee also consulted the staff of the Ministry of Agriculture and Food, who are involved to a degree with all municipal drainage projects and accordingly with all drainage consultants. The information presented by the Ministry tended to confirm some of the criticisms received from the public.*

*As a result of considerable deliberation and debate, the Committee recommends the following:*

- 1. The Association of Professional Engineers and the Association of Ontario Land Surveyors, either individually or collectively, should initiate an effective means of determining those individuals or firms that are properly qualified to practise land drainage under this Act. This will not be an easy task since there are no formal university courses available in this field and competence in the past has been obtained only through what might be termed an apprenticeship system. However, the committee feels that this duty lies within the responsibility of the professional associations and recommends that they take the necessary steps to establish and define the qualifications of drainage engineers and land surveyors.*
- 2. The Committee considers this problem to be very important and feels some satisfactory solution must be found, particularly since provincial grants are involved and ample evidence exists that these monies have been used unwisely and improperly in some instances. The Committee therefore recommends that the Ministry of Agriculture and Food become the qualifying body if the professional associations involved do not develop a satisfactory system of designation that will protect all concerned.*

## **WHAT'S IN A NAME?**

Why do we give municipal drain names? The answer comes from Section 41 of the Drainage Act which requires the clerk to send out a copy of the engineer's report and a notice stating, among other things, "the name or other designation of the drainage works."

Based on this, for 150+ years, engineers and municipalities have been giving drainage works constructed under the Drainage Act some name, followed by "Municipal Drain". Why?

- Are you required to use the term "Municipal Drain"? NO
- Do you even need to use the term "Drain"? NO
- Does the use of the term "Municipal Drain" make it easier to get approvals? NO
- Is it any less a Drainage Act "drainage works" if it is called something else? NO.

In my opinion, for many people, the term "drain" or "municipal drain" has a negative image. This may result in more public resistance to the project and greater difficulty in obtain approvals. When performing work on larger systems under the Drainage Act, here are some suggested alternatives:

- The ABC Creek Watercourse Management Project
- The ABC Ditch Rehabilitation Project
- The ABC Stream Restoration Project

Emphasizing the environmental benefits of a project in its title does not diminish your core work in resolving drainage issues.

Table 1: Construction/Improvement Project Types

<b>TABLE 1</b>	<b>CONSTRUCTION/IMPROVEMENT PROJECT TYPES FISCAL YEAR 2015/16</b>				
<b>PROJECT TYPE</b>	<b># OF PROJECTS</b>	<b>TOTAL COST</b>	<b>GRANT AMOUNT</b>	<b>STATISTICAL NOTES</b>	<b>DESCRIPTION OF PROJECT TYPE</b>
Regular	155	23,047,336	4,655,013	Number of projects, total costs and grant amounts are all included in statistics	Project application was received and grant paid in 2015/16
Interim	1	746,828	302,254	Number of projects, total costs and grant amounts are all included in statistics	Interim application received and paid in 2015/16; final grant application is expected in a future year.
Final	2	313,661	82,650	Total costs and grant amounts included in statistics; number of projects are not.	Interim application received and paid earlier; final grant application was received and paid in 2015/16.
Adjustments	0	0	0	Total costs and grant amounts included in statistics; number of projects are not.	Completed projects (grants paid) but an adjustment of costs was required.
<b>TOTAL</b>	<b>156</b>	<b>24,107,825</b>	<b>5,039,917</b>		
Preliminary	0	0	0	Not included in statistical information.	Grant application for preliminary report costs, after project terminated.

*Note: A "project" is deemed to be an activity under a single engineer's report. This can be a single culvert installation or a project with a main drain and several branches.*



Table 2 Municipal Drain Statistics - Provincial Averages 2006/07 to 2015/16:

<b>TABLE 2</b>		<b>MUNICIPAL DRAIN ENGINEERING STATISTICS IN ONTARIO PROVINCIAL AVERAGES FROM 2006/07 TO 2015/16</b>			
YEAR	TOTAL COST (\$)	ENGINEERING COSTS (\$)	% ENGINEERING	NO. OF ENGINEERS	TOT. GRANT PAID (\$)
2006/07	11,639,346	2,942,772	25.3	27	2,642,924
2007/08	12,142,307	3,046,381	25.1	23	2,399,909
2008/09	10,853,223	2,747,529	25.3	23	2,191,583
2009/10	14,767,599	3,563,517	24.1	27	2,953,528
2010/11	11,989,799	2,894,855	24.1	20	2,383,193
2011/12	19,837,820	4,536,820	22.9	26	2,809,306
2012/13	18,492,806	4,432,881	24.0	26	2,700,402
2013/14	18,731,409	4,648,494	24.8	26	3,287,519
2014/15	21,114,878	4,786,490	22.7	22	3,688,534
2015/16	24,107,825	5,690,698	23.6	29	5,039,917

Table 3: General Municipal Drain Statistics in Ontario from 2006/07 to 2015/16

<b>TABLE 3</b>		<b>GENERAL MUNICIPAL DRAIN STATISTICS IN ONTARIO FROM 2006/07 TO 2015/16</b>			
YEAR	TOTAL NO. OF DRAINS	TOTAL DRAIN COST (\$ million)	AVG. DRAIN COST (\$)	TRIBUNAL HEARINGS	% OF HEARINGS
2006/07	170	11.6	68,467	16	9.4
2007/08	154	12.1	78,846	17	11.0
2008/09	142	10.9	76,431	4	2.8
2009/10	160	14.8	92,298	6	3.8
2010/11	149	12.0	80,468	16	10.7
2011/12	133	19.8	149,156	7	5.3
2012/13	158	18.5	117,043	14	8.9
2013/14	157	18.7	119,308	11	7.0
2014/15	134	21.1	157,574	12	9.0
2015/16	156	24.1	154,537	28	17.9

Table 4: Technical Municipal Drain Statistics in Ontario 2006/07 to 2015/16

<b>TABLE 4</b>		<b>TECHNICAL MUNICIPAL DRAIN STATISTICS IN ONTARIO FROM 2006/07 TO 2015/16</b>					
YEAR	SERVICED HA	OPEN M	CLOSED M	OPEN %	CLOSED %	TOTAL COST (\$)	UNIT COST \$/HA
2006/07	65,422	111,177	78,276	58.7	41.3	11,639,346	178
2007/08	50,686	128,740	90,623	58.7	41.3	12,142,307	240
2008/09	44,104	132,819	55,243	70.6	29.4	10,853,223	246
2009/10	38,659	104,680	83,527	55.6	44.4	14,767,599	382
2010/11 <sup>1</sup>	34,532	81,909	63,846	56.2	43.8	11,989,799	347
2011/12 <sup>1</sup>	35,276	113,720	70,540	61.7	38.3	19,837,820	562
2012/13 <sup>1</sup>	27,666	80,345	82,590	49.3	50.7	18,492,806	668
2013/14 <sup>1</sup>	26,057	66,988	88,633	43.0	57.0	18,731,409	718
2014/15 <sup>1</sup>	42,025	90,609	79,974	53.1	46.9	21,114,878	502
2015/16 <sup>1</sup>	30,753	101,946	113,727	47.3	52.7	24,107,825	784

Notes: 1. Holland Marsh Dyke and Canal Reconstruction project has been excluded from the statistics.

Table 5: Range of Municipal Drain Costs in Ontario

<b>TABLE 5</b>		<b>RANGE OF MUNICIPAL DRAIN COSTS IN ONTARIO FROM 2006/07 TO 2015/16</b>						
YEAR	TOTAL NO. DRAINS	NO. OF DRAINS IN THE COST RANGE OF: (Note: Percentage Engineering for Cost Range shown in brackets)						HIGHEST SINGLE COST (\$)
		< \$5,000	\$5,000 - < \$50,000	\$50,000- < \$75,000	\$75,000 - < \$100,000	\$100,000- < \$200,000	> \$200,000	
2006/07	172	4 (31.1%)	102 (26.3%)	17 (25.7%)	14 (26.6%)	22 (26.0%)	11 (23.7%)	817,351
2007/08	152	0	93 (31.2%)	21 (27.2%)	6 (25.1%)	20 (23.4%)	14 (22.6%)	825,740
2008/09	142	3 (46.2%)	75 (28.0%)	21 (27.3%)	15 (28.4%)	18 (23.7%)	10 (24.8%)	791,420
2009/10	160	2 (28.3%)	76 (28.7%)	20 (24.0%)	16 (24.2%)	29 (22.0%)	17 (24.4%)	1,031,235
2010/11 <sup>1</sup>	149	2 (99.5%)	83 (32.8%)	20 (25.4%)	16 (23.2%)	13 (23.4%)	15 (21.2%)	668,526
2011/12 <sup>1</sup>	133	1 (58.6%)	48 (33.1%)	16 (23.2%)	11 (23.8%)	31 (27.0%)	26 (20.5%)	1,543,425
2012/13 <sup>1</sup>	158	1 (97.9%)	60 (31.2%)	27 (28.6%)	20 (25.5%)	33 (24.8%)	17 (21.2%)	2,466,972
<b>Updated Cost Ranges</b>		< \$25,000	\$25,000 - < \$50,000	\$50,000 - < \$100,000	\$100,000 - < \$200,000	\$200,000 - < \$400,000	> \$400,000	
2013/14 <sup>1</sup>	157	23 (36.8%)	34 (33.3%)	43 (27.8%)	35 (27.5%)	18 (23.4%)	4 (19.2%)	674,512
2014/15 <sup>1</sup>	134	12 (32.1%)	29 (33.4%)	38 (24.4%)	29 (23.1%)	18 (22.7%)	8 (20.3%)	2,160,372
2015/16 <sup>1</sup>	156	16 (34.4%)	25 (35.1%)	41 (26.1%)	36 (23.2%)	24 (22.2%)	14 (22.3%)	858,602

Notes: 1. Holland Marsh Dyke and Canal Reconstruction project has been excluded from the statistics.

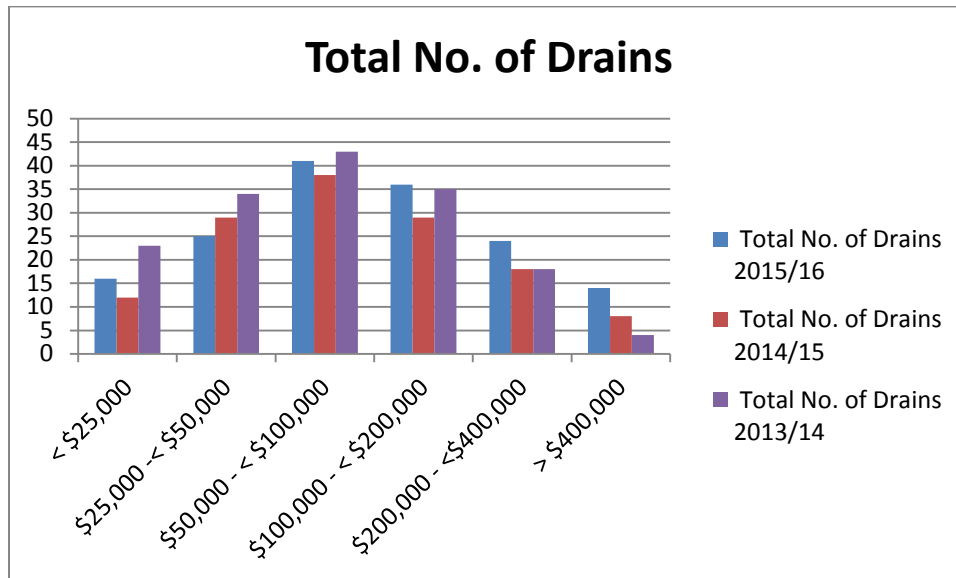


Figure 1: Distribution of the number of drainage projects for each cost range

Figure 1 shows the data from Table 5 in a graphical form. Generally project numbers were increased from the previous year with more projects in the ranges over \$50,000.

The information in Figure 2 is the engineering cost and the grant amount for all projects in 2015/16 versus the total cost of that project. In this plot it can be seen that in general the grant amount closely follows the engineering cost associated with each project but this would be merely a coincidence. Figure 3 shows the variation in the percentage engineering as it relates to project cost. The information in Table 5 shows the percentage of engineering for each cost range but does not totally capture the variation in percentage engineering for the lower value projects. As a minimum the engineering cost will be at no lower than 10% and for the lower value projects could be the majority of the project cost.

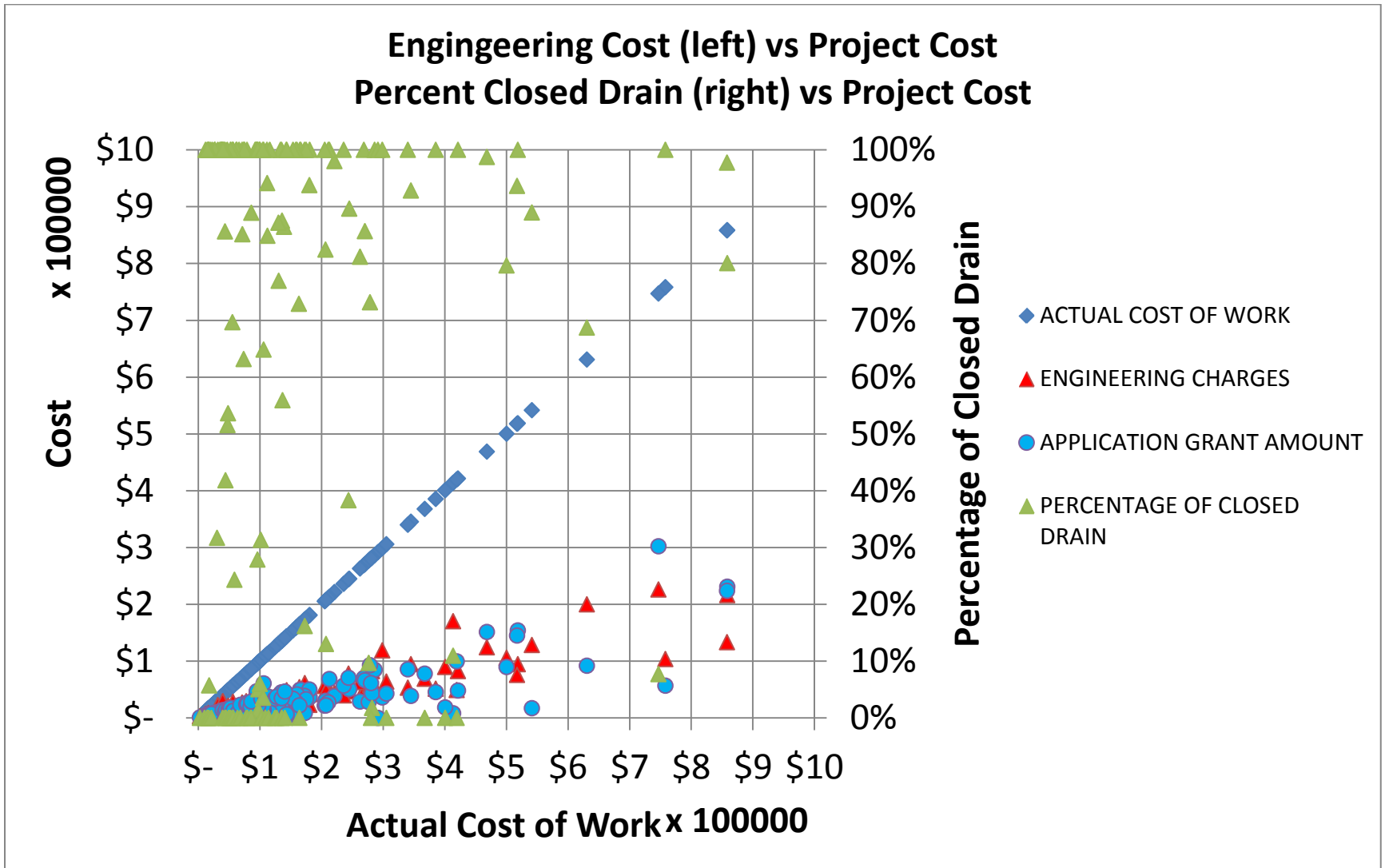


Figure 2: Plot of the Engineering Cost and Grant Amount vs. Project Cost

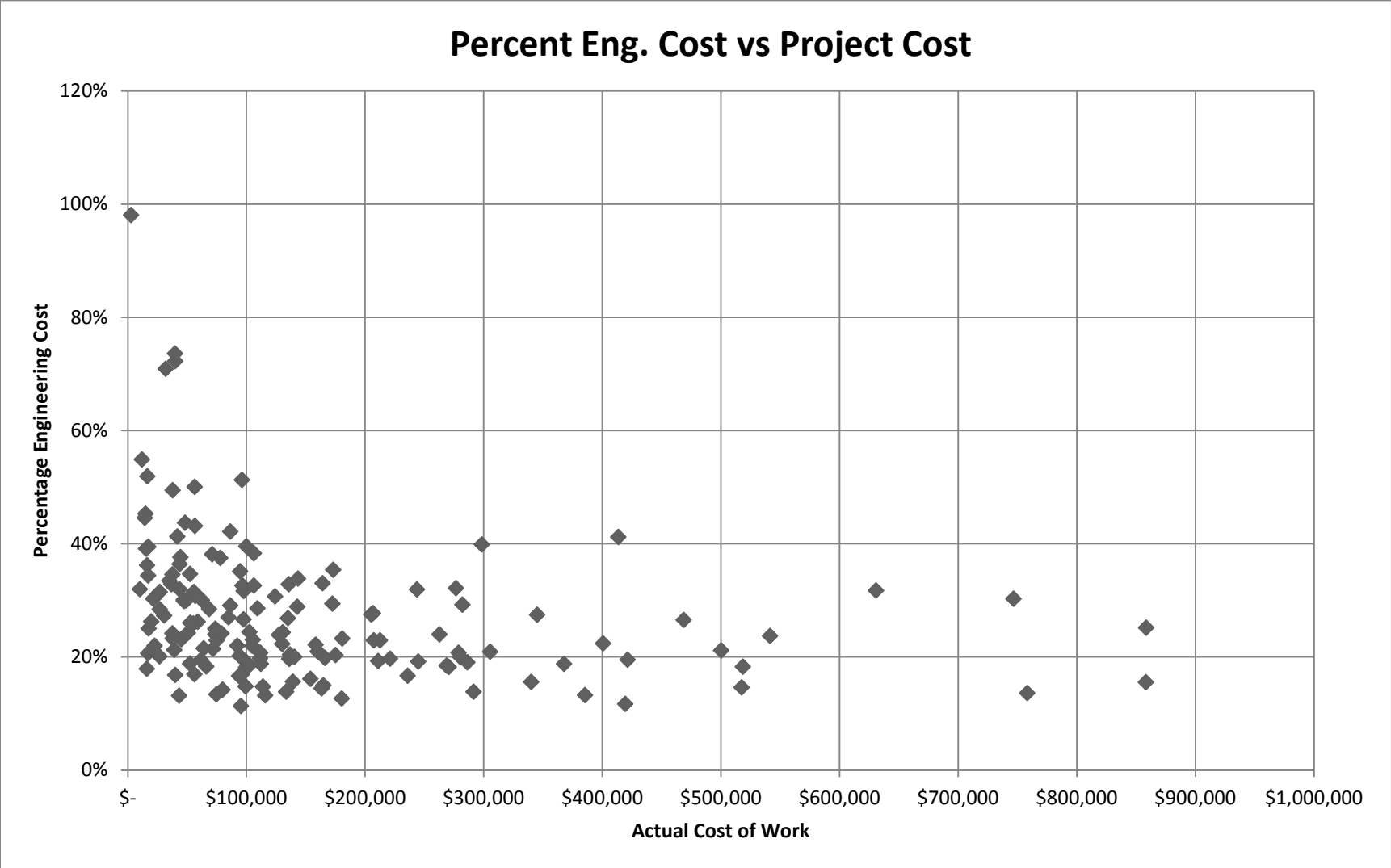


Figure 3: Plot of Percentage Engineering vs Project Cost

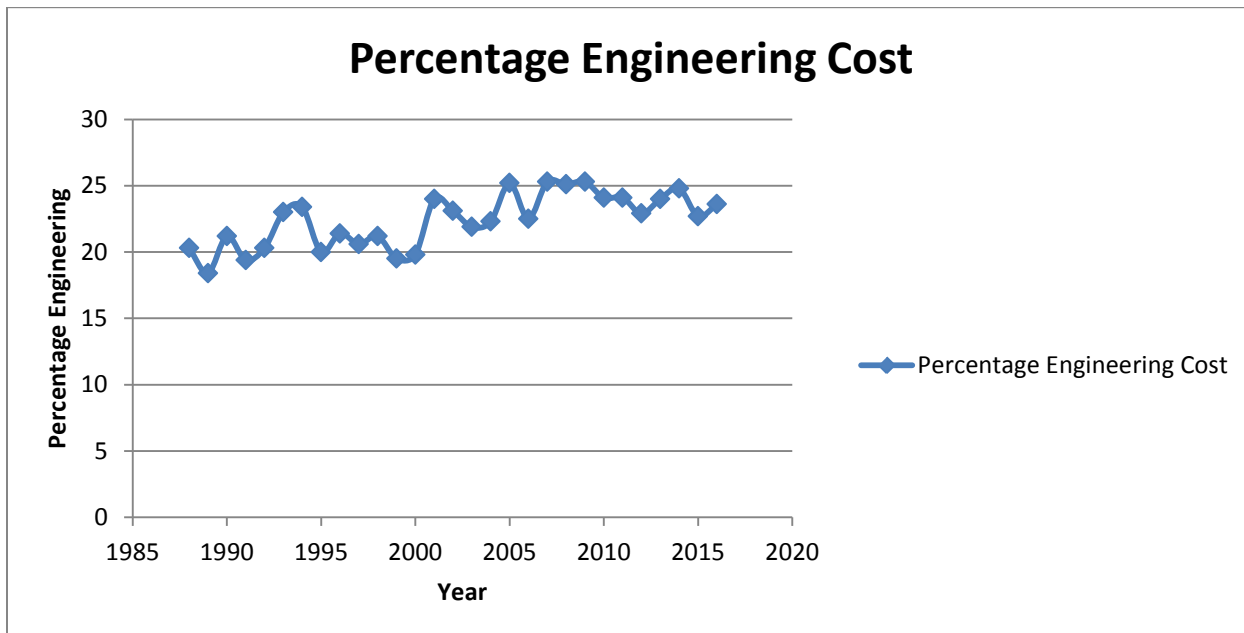


Figure 4: Overall Percentage for Engineering from 1987/88 to 2015/16

Figure 4 shows the overall percentage of engineering cost since 1987/88 there is only a slight increase in this percentage but has largely stayed consistent. The percentage of engineering has stayed consistent even as average project cost has increased. Figure 5 shows the increase in the average project cost from 1987/88 to 2015/16. The plot is compared to an adjusted projection of the 1987/88 cost using the Consumer Price Index. The cost of a fixed basket of goods and services purchased by consumers is evaluated over time. Although this may not be the most appropriate index to use when comparing drainage infrastructure projects, without a proper breakdown of the project cost (allowances, bridges/culverts, construction costs) it is difficult to determine an appropriate index to reflect the increase in project cost over time. The index does however give a baseline for the increase in value due to inflation and is the minimum increase we would expect to see. The values for CPI used for this data is the value reported in April at the end of the fiscal year i.e. 1987/88 uses the April 1988 value of CPI.

Similar plots were created for the average maintenance project cost Figure 6 and the total Superintendent cost Figure 7. The data for the Superintendent cost only reaches back to 1991/92 and therefore the CPI adjustment is based on the 1991/92 value.

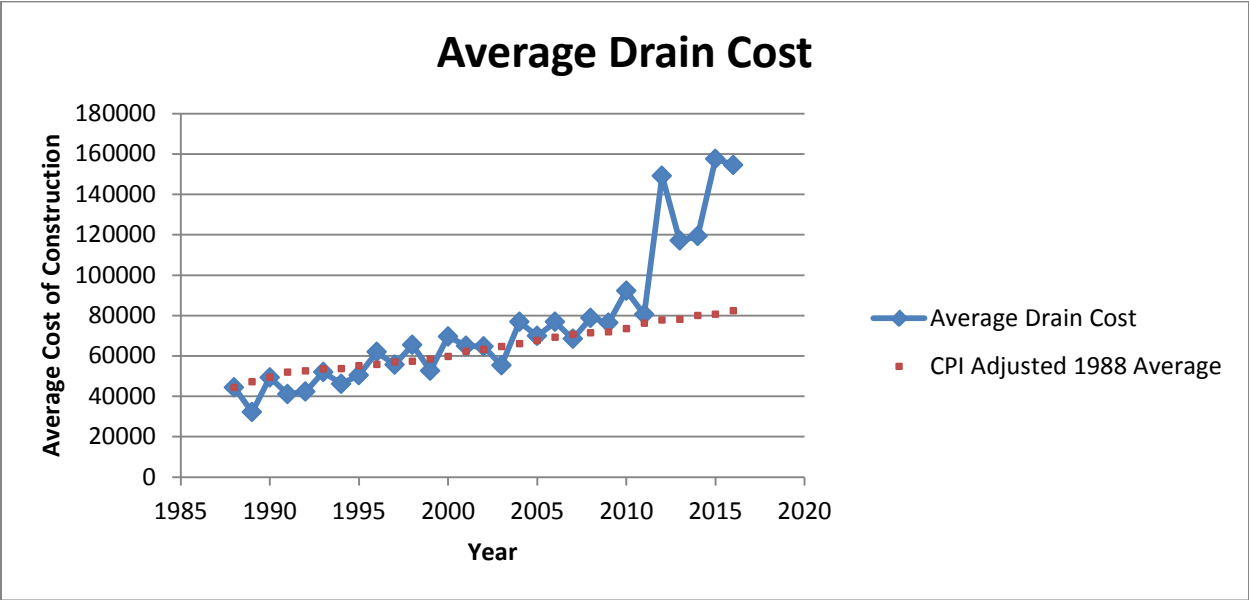


Figure 5: Average Drain Cost since 1987/88

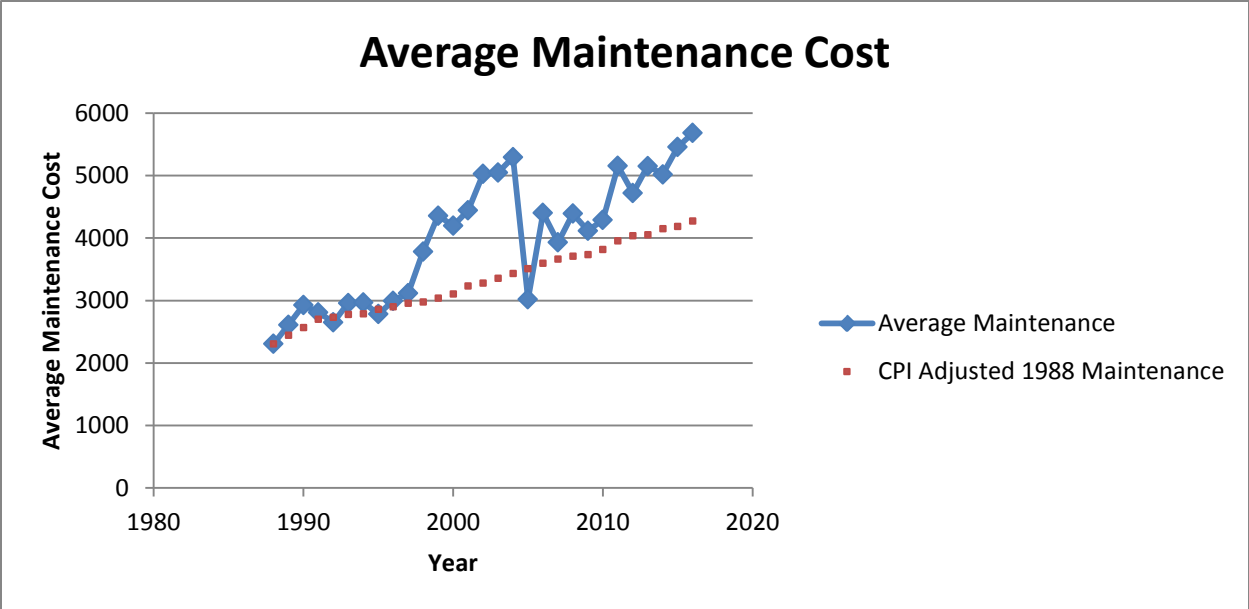


Figure 6: Average Maintenance Cost 1987/88 to 2014/15



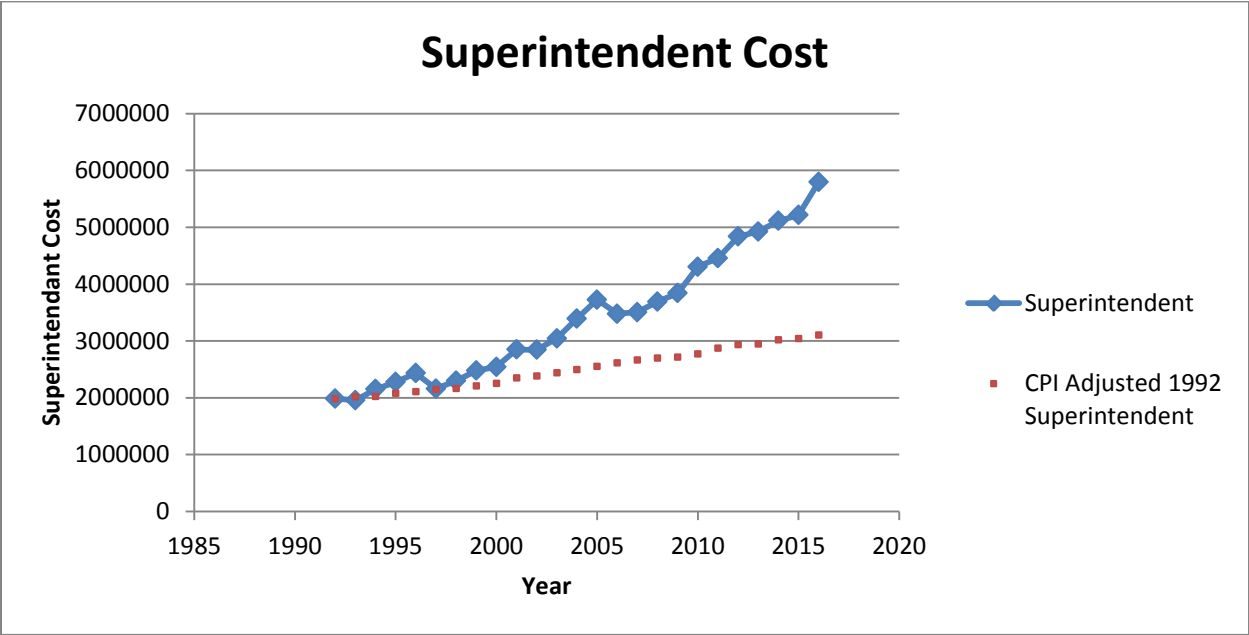


Figure 7: Superintendent Cost from 1991/92 to 2014/15

Table 6: Maintenance Statistics in Ontario from 2006/07 to 2015/16

<b>TABLE 6</b>		<b>MUNICIPAL DRAIN MAINTENANCE STATISTICS IN ONTARIO FROM 2006/07 TO 2015/16</b>	
<b>YEAR</b>	<b>NO. OF PROJECTS</b>	<b>TOTAL COST</b>	<b>AVERAGE COST</b>
2006/07	1397	\$5,489,548	\$3,930
2007/08	1602	\$7,033,738	\$4,391
2008/09	1668	\$6,867,771	\$4,117
2009/10	2034	\$8,725,247	\$4,290
2010/11	1704	\$8,784,649	\$5,155
2011/12	1580	\$7,455,566	\$4,719
2012/13	2303	\$11,866,946	\$5,153
2013/14	2290	\$11,494,684	\$5,020
2014/15	2369	\$12,927,171	\$5,457
2015/16	2361	\$13,413,773	\$5,681

Table 7: Ontario Drain Maintenance and Superintendent Activity

<b>TABLE 7</b>	<b>ONTARIO DRAIN MAINTENANCE &amp; SUPERINTENDENT ACTIVITY</b>		
		<b>2013/14</b>	<b>2014/15</b>
Total Drain Maintenance Expenditures	\$11,494,684	\$12,927,171	\$13,413,773
Drain Maintenance Grant Paid	\$2,943,133	\$3,334,252	\$3,553,417
Drainage Superintendent Cost	\$5,114,558	\$5,213,651	\$5,795,287
Superintendent Grant Paid	\$2,502,626	\$2,611,360	\$2,769,778
Municipalities Claiming Grant	150	150	153
Number of Maintenance Projects	2,290	2,369	\$2,361
Average # of Projects per Municipality	15.3	15.8	15.4
Average Cost of Projects	\$5,020	\$5,457	\$5,681
Average Total Cost per Municipality	\$110,728	\$120,939	\$125,549
Average – Maintenance/Superintendent	2.25	2.48	2.32
Average % - Superintendent/Total Cost	30.8%	28.7%	30.2%

# Open Learning Report to the LDC

Presented by Pat Shaver, Open Learning and Educational Support,

University of Guelph

Thursday, October 20, 2016

## 1. Thursday, October 20, 2016

- “The Other Reports Under the Drainage Act”, Noon to 4:30 pm, OMAFRA Conference Room
- Dinner Reservations at Borealis, 5:15 to 7:00 pm, Reservation “Drainage Conference”
- Drainage Practitioners Meeting, 7:00 pm, Holiday Inn Ballroom. The laptop and projector are available for your use. Drinks can be ordered at the bar.

## 1. Friday, October 21, 2016

- 48<sup>th</sup> Drainage Engineers Conference, 9:00 am to 3:30 pm, Holiday Inn Oakwood Ballroom
- Two screens and one podium. Two audience mics (Can committee members sit near and assist with the audience mics.)

## 2. Registrations (as of Oct 20, 2016)

- Thursday Course – 39
- Friday Conference – 103
  - Exhibitors – 9 exhibits plus 8 additional representatives
  - Speakers – 9
- Registration break-down:
  - For 2017, which titles/designations would you like identified as attending the conference e.g., Engineer, Engineer in Training, Drainage Analyst/Referee, Drainage Superintendent, Project Manager/coordinator, Student, Public Works, Design, Surveyor, not indicated
  - Four Students – Universities of Guelph, McMaster and Waterloo

## 3. Ross Irwin Scholarship and Budget

- \$1000 awarded annually to a student with high academic achievement and extra-curricular activities in water drainage
- 2015 Drainage Engineers Donation - Letter attached.
- Albert ZiHao Jiang is the first recipient. Albert is very excited and has prepared a 5-minute presentation.

## 4. Exhibitors

- a. New this year, exhibitors will give a maximum 5-minute presentation on their products and services.
- b. Nine exhibitors
  - Armtec
  - Canada Culvert

- Devron
- International Erosion Control Systems
- Maccaferri Canada
- Nilex Inc.
- Sokkia (new)
- Storm Trap (new)
- Terrafix Geosynthetics

**5. Marketing**

- Course eblasts were sent to the Engineer's list until September 28. After September 28, sent to the Conference list – additional 8 registrations.
- Event notices were sent to the universities of Guelph, McMaster, Waterloo and Western
- Website – Meets AODA Level AA compliant.