

**FINAL**  
**O.S.P.E. LAND DRAINAGE COMMITTEE**  
**MINUTES OF MEETING**  
**Thursday October 17, 2013**  
**O.M.A.F. Building, 1 Stone Road West, Room 403**  
**Guelph, Ontario**

**1.0 Attendance and Call to Order**

- 1.1 Members Present: Bill Dietrich, Chairman; Gerard Rood, Secretary; Tim Oliver; Tom Pridham; John Kuntze; Tony Peralta
- 1.2 Liaison Members Present: Sid Vander Veen, O.M.A.F. (Ontario Ministry of Agriculture and Food); Tim Brook, O.M.A.F.; Davin Heinbuck, Conservation Authorities Ontario (Ausable Bayfield Conservation Authority); Art Groenveld, M.T.O. (Ministry of Transportation Ontario); Pat Shaver, Office of Open Learning, University of Guelph
- 1.3 Absent Members: Jeremy Downe, M.N.R. (Ministry of Natural Resources); Lee Weissling, O.S.P.E. (Ontario Society of Professional Engineers); Tom Hoggarth, D.F.O. (Department of Fisheries and Oceans Canada);
- 1.4 Chairman Bill Dietrich called the meeting to order at 9:00 a.m.
- 1.5 Sid Vander Veen introduced Tim Brook who is a water management engineer. Tim is taking over the role previously held by Jim Mislik. Tim is assisting with the review of the new Drainage Design and Construction Guidelines that are being prepared.

**2.0 Approval of Agenda**

- 2.1 Motion by Tom Pridham, seconded by John Kuntze, that the Agenda as prepared by the Chairman be accepted. Carried

**3.0 Minutes of Last Meeting**

- 3.1 Motion by Tony Peralta, seconded by Tim Oliver that the draft minutes of the June 14, 2013 Land Drainage Committee (L.D.C.) meeting be finalized. Carried.
- 3.2 Final documents are to be sent to Pat Shaver by Gerard Rood for posting to the L.D.C. web site.

**4.0 Business Arising From the Minutes**

- 4.1 John Kuntze advised that he had not yet responded to the Norfolk submission. The item is to be kept in the minutes for future follow up. **Action by L.D.C.**

- 4.2 Sid Vander Veen advised that the Norfolk submission dealt with pre 1975 crossings in fields and whether they are part of the drain. If it is not spelled out in the drainage report that they are to be maintained as part of the drain, the crossings are not eligible for grant when maintenance work is done. Culverts were done under a report but the older Drainage Acts required the report to state that they are part of the drain or they are considered private farm crossings. The matter is a legal issue. Sid noted that Norfolk also charges some road crossings to upstream lands.
- 4.3 John Kuntze will circulate his draft response on the Norfolk submission to the L.D.C. for comment before mailing the final response to Norfolk. **Action by John.**

## 5.0 Correspondence

- 5.1 Gerard Rood reviewed the correspondence that had been received since the last meeting. On June 16, 2013 John Kuntze emailed Rene Landry to advise the D.S.A.O. (Drainage Superintendents Association of Ontario) of the upcoming Drainage Engineers Conference and Drainage Engineers Course in October.
- 5.2 An email from Tim Oliver to Pat Shaver on June 17, 2013 confirmed that Tom Marentette would do a presentation on Section 77 of the Drainage Act. Tim advised that Tom was no longer available to present this afternoon and Sid said that he had prepared a presentation instead. He also stated that Pat Shaver was aware of the update.
- 5.3 On June 17, 2013 Pat Shaver sent out an email with the tentative list of speakers for the Conference and asked each Committee member to check with the proposed speakers and confirm their attendance.
- 5.4 On June 18, 2013 Art Groenveld emailed Pat Shaver to confirm that Kristine Clark would present on Emotional Intelligence.
- 5.5 Pat Shaver emailed members on September 5, 2013 seeking confirmation of speakers and requesting session description, bios and pictures and she provided info forms and waivers for use.
- 5.6 On September 18, 2013 Pat Shaver sent a follow up email on speaker confirmation.
- 5.7 Email correspondence on September 25, 2013 from Pat Shaver asked about O.S.P.E. having an exhibitor booth and Gerard Rood and Bill Dietrich replied that the usual fee should apply. Tom Pridham also responded on September 26, 2013 that he was in agreement.
- 5.8 Kay Palmer submitted a letter from Kenn Smart to the Committee on October 4, 2013 requesting that the Committee consider posting the new "Guide for Drainage Engineers" (formerly Design and Construction Guidelines) on the L.D.C. website once it was completed. Mr. Smart suggested that this could include different papers on drainage history and drainage law; proceedings from past Drainage Engineers Conferences; material from the Drainage Engineers Course; and all available Referee and Tribunal decisions. Gerard forwarded the correspondence to Bill Dietrich so that an item could be added to the next meeting agenda.

5.9 On October 9, 2013 Pat Shaver sent an email to Bill Dietrich and Gerard Rood requesting that an agenda item be added to the next meeting to discuss updating the L.D.C. website in accordance with A.O.D.A. (Accessibility for Ontarians with Disabilities Act). This legislation requires that all websites are accessible to “A” standard by January 2014. She suggested that creation of a new web site would ensure proper accessibility and indicated a budget cost of approximately \$1,500.00 plus some of her time to set this up, transfer files and include some graphic design.

## **6.0 Liaison Report – O.S.P.E.**

6.1 Bill Dietrich provided copies of correspondence from Kristian Kennedy of O.S.P.E. Their Board of Directors has approved “affiliated organization” status to the Committee.

6.2 O.S.P.E. will make its Professional Development communication services available to the L.D.C. so that it can promote its annual conference and related professional and technical courses and seminars throughout the year.

6.3 O.S.P.E. requested that they be informed in advance of any communications with government that bears the O.S.P.E. name. Tim Oliver indicated that this requirement would likely apply to any communication that goes out under Committee letterhead.

6.4 The affiliate status does not provide access to financial support of any kind. Bill advised that O.S.P.E. would be an exhibitor at the Conference tomorrow.

6.5 Some of the history of the affiliation was discussed. Sid Vander Veen noted that the 1975 report by the Select Committee on Drainage established a requirement for P.E.O. (Professional Engineers Ontario) to provide training. This responsibility was passed from P.E.O. to O.S.P.E. when it was created. Tim Oliver noted that there had been some terms of reference established and John Kuntze recalled that the Committee had passed some standing orders. John will research his files and email Gerard Rood with copies of the terms of reference for inclusion in the binder of meeting minutes for future reference. If necessary, Jeff Dickson or Ray Dobbin may be contacted for further information. **Action by John.**

## **7.0 Liaison Report – Ministry of Natural Resources - Jeremy Downe**

7.1 Bill Dietrich advised the L.D.C. that no report was provided by M.N.R.

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

8.1 Art reported that their study of gravity pipe was completed. Black H.D.P.E. and blue and green P.V.C. are now rated for a 75 year life expectancy. M.T.O. used studies from Texas in their review.

- 8.2 There are new products coming into use. The first is polypropylene pipe that goes to 1500mm diameter in dual and triple wall. The pipe stiffness is between flexible H.D.P.E. and the stiffer P.V.C. pipe. There has been extensive use in Europe and the U.S.A. has started using it.
- 8.3 The second product is aluminized alloy pipe that comprises a mixture base and not just a coating. The product is a structural plate and more light weight than traditional steel pipe.
- 8.4 The third product is structural plate in a polymer coated product. There is good bonding and a service life is to be established based on a review of over 275 documents. The material has been presented to the O.P.S. committee. The polymer is a coating applied to the steel on both sides of the coil through a spray application. The product will have a 75 year service life rating. Culverts could be constructed with the lower plates comprising polymer coated material and the upper portion being just galvanized steel. This product is different from Trench-coat that scratches easily. Repair processes for Trench-coat are looking good.
- 8.5 Another product coming into use is H.D.P.E. to ASTM 714 know as Snap-Tite. The pipe joints lock together and the material is good as a pipe liner. There is no road closure required and the installation normally requires 1 day to insert the pipe, 1 day to construct bulkheads and 1 day to grout the voids. Elliptical shapes are available and the pipe is smooth wall so that smaller sizes can be used. A height of fill table has to be provided by the supplier and the product will then be approved for use.

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

- 9.1 Davin provided handouts on a current project for which A.B.C.A. (Ausable Bayfield Conservation Authority) is the lead known as “Rural Stormwater Management Model”. They are acting as the lead organization on behalf of a group called Healthy Lake Huron. Information is available at [www.ruralstormwater.com](http://www.ruralstormwater.com).
- 9.2 They are working on a model based on the PCSWMM software to analyze small rural watersheds. The work includes some B.M.P.’s and looks at water quantity and quality. The study is expected to be released in 2014. Those interested may contact Alec Scott at A.B.C.A. A municipal drain can be considered a micro scale watershed. The model looks at nutrients and sediment. High flow events are targeted and variable source areas considered. The idea is to establish the effectiveness of various mitigation measures.
- 9.3 Sid Vander Veen asked how the tool would be used for drains. Davin explained that the intent is to use the tool for evaluating impacts. Features can be added to the model and analyzed for their results on both quantity and quality. Davin noted that the product is still under development. Sid suggested that this might be a good topic for the 2014 Conference and Davin replied that it should be ready by then.
- 9.4 The study also includes monitoring and builds on work done as part of the Watershed Based Best Management Practices Evaluation project which Gabrielle Ferguson of OMAF was involved in. The Van Beets Drain in the Municipality of Central Huron is being monitored and incorporated into the model. The project is geared to the rural landscape. Computational Hydraulics group that developed PCSWMM software are also a partner.

- 9.5 Sid asked if there had been any peer review and how one would know that it works and will be useful. There has been no peer review to date, although it is a component of the project. Any suggestions on ways to complete a peer review are welcome. He suggested that interested people could sign up for a newsletter that is available to get updates (<http://eepurl.com/ALRLD>). There is no connection to the updated Design Guidelines so far. Gerard Rood suggested that the model might help with cost-benefit analysis.
- 9.6 It was discussed that agricultural practices have changed dramatically over the last 20 years. Large farms are now the norm. Fence lines have been removed and there is little or no upstream control of flows. The future challenge could be retaining water upstream. This may involve the use of grass waterways and site specific analysis. Soils types can affect selection of mitigation measures and the model allows this input. It was noted that model calibration is important.
- 9.7 Davin advised that D.F.O. and the C.A.'s have formed a steering committee to update agreements. At this time the old H.A.D.D. procedures are being followed until new agreements come out that are expected by the end of the year. He is not sure of the impacts on drains. Certain drain types may not require special measures. It is expected that there will be clearer direction for handling drain questions. The process is to be streamlined. A lot has been learned in the past few years and more resiliency is evident; however, some cases could be complex.
- 9.8 D.A.R.T. (Drainage Act and Regulations Team) has to look at future procedures for Section 4 and Section 78 reports under the Drainage Act. Tim Oliver noted that the Letter of Advice from the C.A. is sometimes coming after the report has been issued. Sid Vander Veen advised that there had been a conference call with M.N.R. and D.F.O. regarding the "Notification of Maintenance Form" established by D.A.R.T. They are looking for changes to make it more efficient for them. Things may become more streamlined as a result. Class A, B or C drains may only go the C.A.'s for clearance in the future.
- 9.9 There are concerns about the flood impacts, erosion and effect on flood lines. They are looking more at hydraulics with fisheries concerns still included.

#### **10.0 Liaison Report – Fisheries and Oceans Canada - Thomas Hoggarth**

- 10.1 Bill Dietrich advised the L.D.C. that no report was provided by D.F.O.

#### **11.0 Liaison Report – Ministry of Agriculture and Food - Sid Vander Veen**

- 11.1 Sid stated that A.D.I.P. (Agricultural Drainage Infrastructure Program) and grant reviews were behind but they will push through for the end of the year. There has been a lot of grant demand. The queue line had not been used too much in the recent past. This year the applications are exceeding the budget so they are doing queue notification letters. Applicants are being advised that grant may be paid later if funding is not available now. There are some projects that they can't guarantee funding to due to the budget limits. Sid noted that if a

Municipality has not submitted a queue notification, their grant application goes to the bottom of the list. There are some options for the Municipality to consider depending on the queue response. He noted that all costs are going up due to bigger projects and higher superintending costs.

- 11.2 Tim Brook provided information on the Farm Nuisance Act. He said that this includes Municipal by-law nuisances. There is a “Normal Farm Practices Board” that hears appeals. They have jurisdiction over by-laws pursuant to the Drainage Act. He observed that there have been some interesting projects. One such project is the Deer Lake project that involves a unique use of the Drainage Act. Work involves a beaver dam that is also subject to the Lakes and Rivers Improvement Act. He noted that the Drainage Act is subject to other laws including those related to wetlands. This may result in more Section 40 reports under the Drainage Act where the engineer reports that the work cannot proceed under the Act.
- 11.3 Sid Vander Veen reminded everyone about the email sent out regarding the updated O.M.A.F. website. There is a link for Farm Property Tax Class information. There is a lot of high resolution photography available. He advised that the Municipal drainage layer is good in some areas and poor in other areas.
- 11.4 All of the Drainage Act forms are updated and on-line. Both regulated forms and non regulated forms are available. There is a whole section on forms under the Municipal link. The forms are stored on the Central Forms Repository. Because there are province wide updates to the web sites the page will change by next year.
- 11.5 The Drainage Act requires that the on-site meeting notice be in the form prescribed by the regulations. It is also very important to use the petition form and the by-law form. It is recommended that all Municipalities use these forms. If the signatures are not on the prescribed petition form, you don’t have a petition. The petition form should only be used for a Section 4 petition pursuant to the Drainage Act. If an owner is simply requesting work to an existing drain, there is an unregulated “Notice for Work” form that can be used.
- 11.6 Tony Peralta mentioned the 30 day notice of project required to the Conservation Authorities. He has noted that this is not always followed and many Drainage Superintendents are not aware of this requirement. Tim Oliver mentioned the recent Tribunal decision on Pike Creek Drain in Lakeshore as an example. Sid Vander Veen noted that the Tribunal followed Section 51 of the Act in the past, but recent focus has been more on Sections 48 and 54.
- 11.7 Sid provided a complete copy of his report attached to these minutes.

**12.0 D.A.W.G. (Drain Action Working Group) Update - Mike Devos**

- 12.1 No D.A.W.G. meetings have been held in over a year.

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

13.1 John advised the Committee that work is starting on the new drains protocol. There have been meetings but there is nothing new to report. It was discussed that the new D.A.R.T. forms should be used for all maintenance projects.

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

14.1 Pat advised that the Drainage Engineers Course was set up for the O.M.A.F. Conference room from noon to 5:30 p.m. Lunch will be set up for 11:30 a.m. and refreshment break at 2:45 p.m.

14.2 The Drainage Practitioners meeting is set for 7:30 this evening in the Wellington Room at the Holiday Inn.

14.3 The Drainage Conference tomorrow is in the Oakwood Ballroom at the Holiday Inn from 9:00 a.m. to 4:15 p.m. There will be a light breakfast, refreshment breaks and lunch provided.

14.4 As of this morning, Pat had registrations as follows:

- 1) Thursday course - 48
- 2) Friday conference - 98
- 3) Exhibitors - 8 exhibits plus 4 additional participants
- 4) Speakers - Thursday -12; Friday - 8

14.5 Registration breakdown is as follows:

1)	Engineer/Surveyor	19
2)	Municipal Gov't	20
3)	Prov/Fed Gov't	3
4)	Student	1
5)	Superintendent	2
6)	President	1
7)	Owner	1
8)	Business Rep	3
9)	Technologist	6
10)	Other	54

14.6 Pat advised that the exhibitors this year include: Atlantic Industries, Armtec, Canada Culvert, Carlson Software, Ontario Society of Professional Engineers, Sulzer Pumps, Terrafix Geosynthetics, and Underground Specialties.

14.7 Pat reviewed the marketing done for this year:

- 1) Conference email blasts were sent in August, September and October
- 2) For the Thursday course she emailed Sid Vander Veen's list of engineering businesses. Additional registrations not from Sid's list include City of Hamilton, County of Brant, Water's Edge Environmental Solutions Team Ltd., Grand River Conservation Authority, Southwest Engineering (Ontario), and Connestoga Rovers Association
- 3) The website was updated as speakers were confirmed and exhibitor logos were added to the web site

- 14.8 The 46th Drainage Engineers Conference in 2014 was discussed. The preferred dates were Thursday and Friday, October 23rd and 24th, 2014. Sid will book rooms for the Committee meeting and reserve a room for the Drainage Engineers Course right away. The room for the Course can be cancelled later if there is no course for next year. Pat will check with the Holiday Inn for the Thursday evening Practitioners meeting and the Friday Conference. **Action by Sid and Pat.**
- 14.9 Sid asked about providing Certificates to the people who attended all 3 training courses. It was noted that continuing education is important. The document would be a Certificate of Attendance. Pat will investigate options for this. **Action by Pat.**
- 14.10 The website update was discussed. In order to comply with the A.O.D.A, all websites must be accessible by January 1st, 2014. There are 117 “A” level errors and most appear to be in the website template. The L.D.C. website is quite old at 10 years and Pat is unable to make necessary changes to the site to meet the accessibility requirements. Pat suggests a new website such as the one from Wordpress. The website development and graphics design would cost approximately \$1,500.00. The website designer would move the information from the old website to the new one at a cost of approximately \$1,000.00. Graphics are estimated at approximately \$500.00. Pat noted that the Committee has a surplus from last year and can pay for this work that has to be done. John Kuntze made a resolution to authorize Pat Shaver to update the Committee website to A.O.D.A. requirements. Seconded by Tom Pridham. Carried. **Action by Pat.**
- 14.11 Sid Vander Veen brought up the request from K. Smart Associates to put documents for the updated Guide on the website. Pat said that she had been talking to Kay Palmer of K. Smart about this. She observed that adding 10 documents would not likely be a problem. Adding 100 documents or more could involve some cost. The Committee website documents are stored at the University of Guelph and there is no known limit for the storage at this time. The website looks to the University storage when a link is selected. She would need to know how to set this up. There are 10 years of Conference Agendas. She noted that Conference Proceedings may not be able to be posted due to copyright. Sid advised that some information is outdated as there are 40 years of records.
- 14.12 Pat stated that the website belongs to the L.D.C. and not the University. Course material and conference material can pose problems being posted due to the copyright. Even an O.M.A.F. presentation requires permission from O.M.A.F. before it can be posted. She suggested that just having text slides might work. All images require permission to be posted. Pat will include a button to link to the Guide information from K. Smart Associates, but they have to provide the information and copyright approvals. John Kuntze will advise Kenn Smart of the copyright problems and ask him to work with Pat Shaver on this. The L.D.C. supports Kenn on the project he is doing. **Action by John.**

## 15.0 New Business

- 15.1 Bill Dietrich advised that the next Committee meeting would be in January at the L.I.C.O. /D.S.A.O. Conference in London. The meeting is usually held on Thursday afternoon but some changes are being proposed to the Conference including having the banquet on



Wednesday evening. It was established that the Committee would meet on Tuesday afternoon January 21st at 1 p.m. It was suggested that the members could meet for lunch in the hotel restaurant at noon and then proceed to the meeting. The Conference will be on Wednesday and Thursday January 22nd and 23rd, 2014 at the Lamplighter Inn on Wellington Road in London.

- 15.2 Davin Heinbuck noted that there was no peer review set up for the modeling project that he mentioned in his report earlier. He suggested that the group would be open to working with a consultant if they wanted to volunteer.
- 15.3 Bill noted that there will be an election at the Practitioners meeting tonight. John Kuntze and Tom Pridham have both served their 3 year term. The floor will be open to nominations and practitioners will be encouraged to participate. It has been suggested that Jeremy Taylor and Jeff Dickson may stand for election. John Kuntze advised that he would be willing to stay on for another 3 year term if nominated so that he can continue the liaison with the D.A.R.T. committee.
- 15.4 Bill advised the Committee that Jack Young of the O.M.A.F. Tribunal would be at the meeting tonight to provide a report and comments.

#### **16.0 Review of the “Design and Construction Guidelines”**

- 16.1 Work on the Guidelines is continuing with Kenn Smart and Kay Palmer to provide an update at the Practitioners meeting tonight.

#### **17.0 Next Meeting**

- 17.1 The next meeting of the L.D.C. will be 1:00 p.m. Tuesday January 21st, 2014 at the Best Western Lamplighter Inn on Wellington Road in London during the annual L.I.C.O./D.S.A.O. Conference. The Committee Chairman will send out an agenda prior to the meeting and confirm the room where the meeting will be held.

#### **18.0 Adjournment**

- 18.1 The meeting was adjourned at approximately 12:05 p.m. Moved by Tom Pridham and seconded by Tony Peralta. Carried

ATT.

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Bill Dietrich, Chairman

Gerard Rood, Secretary

**THE ONTARIO MINISTRY OF AGRICULTURE AND FOOD**  
Report Presented at the  
**DRAINAGE PRACTITIONERS MEETING**

Sid Vander Veen, P. Eng., Drainage Coordinator  
Environmental Management Branch, October 17, 2013

***KEY MINISTRY CONTACTS***

- The Ministry of Agriculture, Food and Rural Affairs was divided into the Ministry of Agriculture and Food and the Ministry of Rural Affairs
- In addition to being the Premier of Ontario, the Honourable Kathleen Wynne is also serving as Minister of Agriculture and Food
- The Honourable Jeff Leal is the Minister of Rural Affairs
- Jim Richardson remains 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 continue to be:
  - Valerie Anderson is responsible for data entry for the Tile Loan Program and the *Drainage Act* grants. She is also responsible for the processing of license renewals and for the management of our files and electronic information. Valerie can be reached by phone at 519-826-3324 or by email at [valerie.j.anderson@ontario.ca](mailto:valerie.j.anderson@ontario.ca)
  - 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 is an Environmental Specialist within our Branch of OMAFRA. She is assisting Brett Ruck with a Grass Pickerel study in Fort Erie.
- Rob Waters remains the Drainage Referee and Bill Turville is the Acting Drainage Referee.

***STATE OF THE INDUSTRY***

- Crop prices remain relatively attractive; land prices continue to increase;
- As a result, tile drainage is actively being undertaken by cash croppers;
- In 2012, 182 million feet of tile was installed for agricultural purposes in Ontario; this is the highest amount since the survey of tile sales began in 1976.
- The tile drainage activity and high crop prices are also increasing municipal drain activity:
  - There has been over a 40% increase in drain maintenance activity in 2012
  - There is an increase in work under a new engineer's report
  - Slightly over half the length of municipal drain installed was pipe in 2012 which reflects the desire to maximize land use.

### ***DRAINAGE INVESTMENT GROUP (DIG)***

- Not for Profit organization that has the general mandate of greening the business of drainage
- Objective of the organization is:
  - To engage environmental components of municipal drain projects by securing funding that promote better water management, improve water quality and provide for habitat.
  - To host a collection of scientific research on environmental-drainage research
  - To create a team of individuals dedicated to environmental rehabilitation and enhancement of municipal drains across Ontario
  - To develop education and outreach programs
- Expect DIG to be an emerging resource for the drainage community.

### ***DESIGN AND CONSTRUCTION GUIDELINES***

- Project initiated in 2012 to completely rewrite the Design and Construction Guidelines
- 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
- Kenn Smart has been hired to undertake the project
- Guide will be divided into 3 parts:
  - Meeting the Requirements of the Drainage Act
  - Technical Information for the Design of Drains
  - Regulatory Agencies and Approval requirements
- We are aiming for the end of March 2014 for the completion of a first draft.

### ***FORMS***

- After 3 years, our project to update the Drainage and Tile Drainage Act forms and post them on-line is finally complete
- Easiest link to the forms is through the drainage website: [www.ontario.ca/drainage](http://www.ontario.ca/drainage)
- Regulated forms are specified in the regulations under the Drainage Act and must be used. These include:
  - The petition forms (landowner, road & director)
  - The by-law forms
  - The notice of the on-site meeting.
- All other Drainage Act forms are non-regulated and it is not mandatory to use them.
- All the Tile Drainage Act forms are regulated and must be used.

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

- No activity in this working group in the past year
- Significant changes coming to the Fisheries Act
- Because of the Fisheries Act changes, resurgence in DAWG activity is expected in 2014

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

- “Drainage Act and Conservation Authorities Act Protocol – Protocol for Municipalities and Conservation Authorities in Drain Maintenance and Repair Activities” was released late 2012
- Training sessions held in Manotick (Jan. 17), Florence (Jan. 14) and Guelph (Jan. 30)
- Ongoing implementation issues; also intend to perform a review of protocol.
- Continuing to work on developing an understanding on the application of the Conservation Authorities Act and regulations to activities under the Drainage Act.

## **REPORT ON 2013 COURSES:**

In the winter and spring of 2013, the following courses were held:

<b>COURSE NAME</b>	<b>LOCATION</b>	<b>2013 DATES</b>	<b>ATTENDANCE</b>
Primary Drainage Course	Marden	Jan. 14-18	21
Primary Drainage Course	Marden	Jan. 28 – Feb. 1	23
Advanced Drainage Course	Marden	Feb. 4 – 14	30
Drainage Superintendents Course	Guelph	March 4 – 8	30
Rural Municipal Drainage Course	Walkerton	March 26	18
Calculating Drainage Assessments	Walkerton	March 27	11
Rural Municipal Drainage Course	London	April 23	39
Calculating Drainage Assessments	London	April 24	37
Rural Municipal Drainage Course	New Liskeard	April 30	19
Calculating Drainage Assessments	New Liskeard	May 1	12

## **PLANNING FOR 2014 COURSES:**

The following courses are scheduled or are being planned:

<b>COURSE NAME</b>	<b>LOCATION</b>	<b>2014 DATES</b>	<b>Registration</b>
* Primary Drainage Course	Marden	Jan. 13 – 17	All registrations administered by Ridgetown College
* Advanced Drainage Course	Marden	Feb. 3 – 13	
* Ag. Erosion Control Structures	Marden	Feb. 24 – 28	
Rural Municipal Drainage Course	Guelph	February 11	
Calculating Drainage Assessments	Guelph	February 12	
<b>Drainage Superintendents Course</b>	<b>Guelph</b>	<b>March 3 – 7</b>	
Rural Municipal Drainage Course	London	March 19	
Calculating Drainage Assessments	London	March 20	
Rural Municipal Drainage Course	Brockville	March 26	
Calculating Drainage Assessments	Brockville	March 27	

\* Online registration available: [www.ridgetownc.uoguelph.ca/bdt/bdt\\_training\\_index.cfm](http://www.ridgetownc.uoguelph.ca/bdt/bdt_training_index.cfm)

## **WEBSITE:**

- Improvements have been made to the website; now functions much like Google mapping
- Farm Property Class Tax Rate information will be coming very soon.
- Accurate municipal drain information is still dependent on the submission of detailed information from municipalities.

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

- No significant changes were made to the ADIP program in 2012/13

### ***DRAINAGE PROJECTS OF NOTE***

#### ***Van Beets Drain***

- Project involves the inclusion of several berms and inlets to capture water from the surrounding properties
- Engineer continued the drain downstream to reach a sufficient outlet.
- Downstream owner opposes the extension of the drain through his property
- Appealed to the Agriculture, Food and Rural Affairs Appeal Tribunal
- Has also appealed to the Normal Farm Practices Protection Board – this is a first and the outcome may have an impact on future use of the Drainage Act.

#### ***Innisfil Creek Drain- Town of Innisfil***

- Project initiated through a landowner application to the Referee; Referee ordered the municipality to proceed with a Section 78 report for the improvement of the drain
- Strong landowner opposition to the project
- Project now estimated to cost \$6.7 million.

#### ***Deer Lake/Rosine Spillway – Municipality of West Nipissing***

- Most cottage owners on Deer Lake petitioned for a drain/control structure at the outlet.
- Dam structures require approval under the Lakes and Rivers Improvement Act (LRIA)
- MNR only gives LRIA approval when support of all riparian owners is received.
- All cottage owners did not support the control structure and therefore the project could not proceed.
- The engineer wrote a Section 40 report indicating that the project could not be constructed and assessed 1/3 of the cost to the Ministry of Natural Resources (MNR)
- MNR is appealing the Section 40 report to the Tribunal.

### ***DRAINAGE STATISTICS***

Various drainage statistics are provided on the following pages. The following are some key observations:

- There were 25 more projects completed in 2012/13 than in 2011/12 (133), but the overall cost was down \$1.35 million from last year. This means that the average project cost decreased from \$149,000 to \$117,000.
- Average engineering costs in 2011/12 was 24.0% which is in line with the past decade.
- The average engineering cost distributed based on size of project is typical for the past decade, with the exception of the \$5,000 - \$50,000 range; this appears to be higher.
- The length of pipe municipal drain slightly exceeded the length of channel municipal drain. This is the only time in the past decade that this occurred.
- The number of engineers who wrote at least one report remained at 26.
- The number and total value of drain maintenance work increased significantly. The number of projects went from 1580 to 2303 and the value went from \$7.46 million to \$11.9 million.

TABLE 1	CONSTRUCTION/IMPROVEMENT PROJECT TYPES FISCAL YEAR 2012/13				
	PROJECT TYPE	# OF PROJECTS	TOTAL COST	GRANT AMOUNT	STATISTICAL NOTES
Regular	157	\$18,042,569	\$2,695,485	Number of projects, total costs and grant amounts are all included in statistics	Project application was received and grant paid in 2012/13
Interim	1	\$450,237	\$4,917	Number of projects, total costs and grant amounts are all included in statistics	Interim application received and paid in 2012/13; final grant application is expected in a future year.
Final	0	0	0	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 2012/13.
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>158</b>	<b>\$18,492,806</b>	<b>\$2,700,402</b>		
Preliminary	1	\$31,445	\$10,482	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.*

<b>TABLE 2</b>		<b>MUNICIPAL DRAIN ENGINEERING STATISTICS IN ONTARIO PROVINCIAL AVERAGES FROM 2003/04 TO 2012/13</b>			
YEAR	TOTAL COST (\$)	ENGINEERING COSTS (\$)	% ENGINEERING	NO. OF ENGINEERS	TOT. GRANT PAID (\$)
2003/04	17,971,739	4,004,908	22.3	35	4,976,978 <sup>a</sup>
2004/05	15,024,225 <sup>b</sup>	3,781,584 <sup>b</sup>	25.2	31	4,108,762 <sup>b</sup>
2005/06	16,755,182	3,766,685	22.5	30	4,566,457
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

<sup>a</sup> Total includes a carryover amount from 2002/03 of \$884,587.94

<sup>b</sup> Includes \$350,036 grants received in 2004 after deadline; doesn't include 12 termination grants totaling \$226,260

<b>TABLE 3</b>		<b>GENERAL MUNICIPAL DRAIN STATISTICS IN ONTARIO FROM 2003/04 TO 2012/13</b>			
YEAR	TOTAL NO. OF DRAINS	TOTAL DRAIN COST (\$ million)	AVG. DRAIN COST (\$)	TRIBUNAL HEARINGS	% OF HEARINGS
2003/04	228	18.0	76,802	17	7.5
2004/05	215	15.0	69,880	13	6.0
2005/06	218	16.8	76,859	10	4.6
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	14 (4)	9.4
2011/12	133	19.8	149,156		
2012/13	158	18.5	117,043		

**TABLE 4**

<b>TECHNICAL MUNICIPAL DRAIN STATISTICS IN ONTARIO</b>							
<b>FROM 2003/04 TO 2012/13</b>							
<b>YEAR</b>	<b>SERVICED HA</b>	<b>OPEN M</b>	<b>CLOSED M</b>	<b>OPEN %</b>	<b>CLOSED %</b>	<b>TOTAL COST (\$)</b>	<b>UNIT COST \$/HA</b>
2003/04	61,475	218,346	109,945	66.5	33.5	17,971,739	292.3
2004/05	64,961	260,752	109,120	70.5	29.5	15,024,225	234.8
2005/06	52,140	206,105	78,728	72.4	27.6	16,755,182	321.4
2006/07	65,422	111,177	78,276	58.7	41.3	11,639,346	177.9
2007/08	50,686	128,740	90,623	58.7	41.3	12,142,307	239.6
2008/09	44,104	132,819	55,243	70.6	29.4	10,853,223	246.1
2009/10	38,659	104,680	83,527	55.6	44.4	14,767,599	382.0
2010/11 <sup>1</sup>	34,532	81,909	63,846	56.2	43.8	11,989,799	347.2
2011/12	35,276	113,720	70,540	61.7	38.3	19,837,820	562.4
2012/13	27,666	80,345	82,590	49.3	50.7	18,492,806	668.4

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



## TABLE 5

<b>RANGE OF MUNICIPAL DRAIN COSTS IN ONTARIO FROM 2003/04 TO 2012/13</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	
2003/04	228	<sup>2</sup> 5 (55.7%)	132 (26.7%)	29 (23.8%)	21 (24.2%)	28 (20.4%)	13 (20.5%)	2,279,593
2004/05	227	4 (67.6%)	115 (32.7%)	46 (26.6%)	20 (24.5%)	30 (23.3%)	12 (23.2%)	520,888
2005/06	218	4 (25.9%)	123 (28.7%)	29 (23.9%)	17 (25.9%)	32 (22.4%)	13 (21.3%)	877,000
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>3</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>3</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	158	1 (97.9%)	60 (31.2%)	27 (28.6%)	20 (25.5%)	33 (24.8%)	17 (21.2%)	2,466,972

Notes: 1. Interim Payment

2. Two projects were predominantly engineering, incorporating existing work constructed with volunteer contributions

3. Holland Marsh Dyke and Canal Reconstruction project has been excluded from the statistics.

**TABLE 6**

<b>MUNICIPAL DRAIN MAINTENANCE STATISTICS IN ONTARIO FROM 2003/04 TO 2012/13</b>		
<b>YEAR</b>	<b>NO. OF PROJECTS</b>	<b>TOTAL COST (\$)</b>
2003/04	1517	8,029,105
2004/05	1728	5,216,251
2005/06	1356	5,969,743
2006/07	1397	5,489,548
2007/08	1602	7,033,738
2008/09	1668	6,867,771
2009/10	2034	8,725,247
2010/11	1704	8,784,649
2011/12	1580	7,455,566
2012/13	2303	11,866,946

**TABLE 7**

<b>ONTARIO DRAIN MAINTENANCE &amp; SUPERINTENDENT ACTIVITY</b>	<b>2010/11</b>	<b>2011/12</b>	<b>2012/13</b>
Total Drain Maintenance Expenditures	\$8,784,649	\$7,455,566	\$11,866,946
Drain Maintenance Grant Paid	\$2,291,462	\$1,881,451	\$3,007,797
Drainage Superintendent Cost	\$4,456,993	\$4,836,857	\$4,923,974
Superintendent Grant Paid	\$2,200,814	\$2,343,857	\$2,401,366
Municipalities Claiming Grant	145	147	148
Number of Maintenance Projects	1704	1580	2303
Average # of Projects per Municipality	11.8	10.7	15.6
Average Cost of Projects	\$5,155	\$4,719	\$5,153
Average Total Cost per Municipality	\$91,322	\$83,622	\$113,452
Average – Maintenance/Superintendent	1.97	1.54	2.41
Average % - Superintendent/Total Cost	33.7%	39.3%	29.3%