

St. Clair Region Conservation Authority 205 Mill Pond Crescent, Strathroy, ON,N7G 3P9 Ph: 519-245-3710 Fx: 519-245-3348

E-Mail: stclair@scrca.on.ca Website: www.scrca.on.ca

Comments and Responses on the Ontario Ministry of Agriculture, Food and Rural Affairs consultation on "<u>Drainage Act Discussion Paper</u>"

Posted by Ontario Ministry of Agriculture, Food and Rural Affairs to the Environmental Registry on January 17, 2020 ERO #019-1187

On January 17, 2020, the Ontario Ministry of Agriculture, Food and Rural Affairs posted the above noted document on the Environmental Registry for comment.

The following details the comments to be formally submitted by the St. Clair Region Conservation Authority in the response to the above noted posting.

The posting Proposal summary states;

"OMAFRA is proposing changes to the Drainage Act that would reduce burden, streamline approvals and address stakeholder concerns while maintaining environmental standards."

SCRCA staff understand that further opportunity for consultation on the more specific changes to the *Drainage Act* will take place. OMAFRA has committed to consulting further on more specific changes to be included in a regulatory proposal specific for minor drain improvements.

The following tables are titled by each of the proposal details and questions for consultation with our comments shown underneath to be considered for the amended legislation.

After the tables SCRCA staff wanted to take this opportunity to give context to the SCRCA's experience with the Drainage Act within its watershed, and outline in greater detail the opportunity that exists for further overarching improvements to the Drainage Act.

Proposed Changes:

1. Supporting technical protocols – Authority to adopt protocols (such as the Drainage Act and Conservation Authorities Act Protocol) by reference in regulation.

Comments

SCRCA is completely in favour of creating a collaborative streamlined approach that supports technical protocols to be adopted. Multi-agency protocols, standardizing approaches, similar to DART with associated timelines and the **improved information sharing** (on water management, fisheries data, endangered species, aquifer recharge, drought and flood risks, natural heritage features and other environmental considerations) would be beneficial for all involved. Coordinating approvals and establishing formal agreements (between CA's, MNRF, DFO, Municipalities) to ensure each agency is not reviewing proposals in isolation would improve efficiency, public protection and environmental concerns and reduce project review timelines.

Streamlining approvals should not come at the expense of an integrated watershed management approach. Ecosystem management is "the integration of scientific knowledge of ecological relationships within a complex sociopolitical and values framework toward the general goal of protecting native ecosystem integrity over the long term." The ecosystem approach emphasizes the linkages among the environment, society and economy. Economic measures, as well as maintaining ecological integrity and incorporating society values must be equally included in the decision-making process.

Pillars of watershed management include informed decision making, partnership participation, and ecosystem management.

Total management of watersheds is only largely successful with institutional coordination, and as a result of informed decision making and implementation.

Information (e.g., drain classification, wetland mapping, baseline flow and hydrological data) is one of the keys to streamlining approvals and should be collected and updated on a regular basis to allow decision makers to be informed as to the present conditions of the environment.

Regular updated information can also be used to monitor changes that are occurring at the landscape level. Monitoring can facilitate improved decision making or provide the basis for making necessary alterations of a policy. The SCRCA is not aware of studies that evaluate the implementation of mitigation measures within the Ontario drainage process.

An example of information gaps that if filled could streamline process is the present wetland inventory. MNRF and CAs have outlined that it is not a comprehensive list of all wetlands. Sections 4 and 78 provide an opportunity for referral agencies to comment on drainage projects, which may seriously impact the environment, but if there is not a comprehensive review of these critical landscape features, how are we to get an

understanding of the areas that require careful attention such as unmapped wetlands and recharge areas, any significant environmental areas not previously identified will not be afforded any protection.

Technical Protocols need to be carefully thought out, designed, implemented and monitored

A less costly, more efficient review process is the goal of everybody and adaptive approaches such as technical protocols are required in order to respond to these uncertain conditions. Consideration should also be given to achieve this goal by open up the Drainage Act to work in concert with today's problems and today's climate.

Timelines could be implemented to provide a much faster system with all checks and balances in place and an updated system requiring a baseline study of existing conditions paid for by the landowner or municipality requesting upgrades with aid as required from the province (OMAFRA, etc. as applicable).

SCRCA is optimistic that an opportunity for change exists to view the system holistically with balancing the needs of upstream landowners with the rights of Ontario residents that wish for a healthy system that protects drinking water, natural heritage, hazards such as drought, flooding, sediment and erosion control, Species at Risk and aquatic habitats among others. One must acknowledge that Municipal Drains vary from each other significantly as do the watersheds in Ontario and considerations on technical protocols or "minor improvements" should be carefully considered.

Evaluations of cumulative impacts should be conducted at the watershed level rather than on site-specific review of impacts. This would allow government agencies to identify and designate aquatic sites as suitable or unsuitable for filling or draining, without waiting for specific requests to be submitted. Permit-by-permit review process is not the optimal process to holistically review a watershed and ensure that adequate consideration for cumulative impacts are addressed. The results could lead to the ongoing deterioration of wetlands and watercourses.

Cost savings could be achieved from more involvement upfront with review agencies so decision makers such as the Municipal Councillors have Conservation Authority, etc. requirements, know what is required for approval and what studies should be undertaken for all petition drains and most improvements so decisions could be made immediately based on up to date information. It should be outlined what studies are required with regard to increased flow up or downstream, SAR etc. This would require a preliminary step of providing the preliminary plan to the CA for comment first with some mandatory information provided upfront.

Some instances may require computer modeling for flooding downstream and backwater analysis during different events. Risk to life and/or property can then be assessed based on site specific conditions (including land uses, natural features, etc.) upstream and downstream.

SCRCA Experience with DART Protocol

When developing future protocols there should be consideration from the lessons learned from DART implementation over the last few years. The SCRCA experience is that there is opportunity for improvement on the education and information sharing for environmental BMP's and with the monitoring and compliance side. Improvements could lead to increased efficiencies for CA's with permitting, enforcement and conflict resolution.

Further items to consider in development of protocols;

- Enhance/Promote Environmental Infrastructure Technologies
 - SCRCA's experience is that through DART natural buffers have not been enhanced or even maintained at times, especially in areas where streams have already been enclosed or relocated along property lines and roads, or both banks are maintained clean with access from both sides.
 - Consideration to adding a 15 m. to 30 m. buffer or other environmental infrastructure technologies would have great benefit and reduce the approval timelines.
- Expanded Guidance Documents/Information/Education to ensure understanding of protocol requirements and BMPs by contractors and that everyone is interpreting standards the same.
- Improvement on the education and information sharing for environmental BMP's and with the monitoring and compliance side.
 - DART Protocol can be used as template for further protocols, but consideration should be given to improving the monitoring and compliance component, to increase efficiencies (and reduce or cover costs) for CA's with permitting, enforcement and conflict resolution.
 - Expanding the process to include on-site review when necessary to follow up to ensure the BMPs are in place, and which agency can ensure they are in place.
 - Federal and Provincial agencies are sometimes unable to do the follow up and local agencies such as CAs may have difficulties with permissions to accessing the sites.

Proposed Changes:

2. Streamlining Approvals – Creating a new process for minor improvements (e.g. creating or widening a crossing, relocating a drain on an individual property or addition of a feature with environmental benefits (for instance, buffers or water retention areas)

Comments

As outlined above, Streamlining approvals should not come at the expense of an integrated watershed management approach.

Careful consideration for the definition of minor improvements would need to be taken into consideration (considering water management, fisheries data, endangered species, aquifer recharge, drought and flood risks, natural heritage features and other environmental considerations). One must acknowledge that Municipal Drains vary from each other significantly as do the watersheds in Ontario and broad strokes on "minor improvements" cannot be made.

Individual alterations may be perceived as minor, but when looked at collectively they can result in a significant impairment, for example of wetland or watercourse function. Therefore, applications should be evaluated on the basis that they are part of a larger interrelated system (could include wetland complex, or with the parts of the watercourse system already degraded with upstream enclosures).

In order to streamline approvals for minor improvements, the process and review could focus on upfront information. Initial onsite meetings are beneficial, but more important for streamlining approvals could be providing upfront preliminary design and location information.

Municipalities have varying forms with differing notifications in this regard. Collaboration and information sharing could be utilized to improve and streamline this process. Ensuring that notifications of drain works are accompanied with a location and type of works, along with information provided by the requesting petitioner or information on the reason for improvement should be included so desired changes (ex. Enclosures or new crossings required) or problems requiring solutions such as tiles under water are known.

Municipal Councillor's would then be made aware of the specifics of planned works with the intention of approval or what would be required for such approval from all agencies already received. In that way, no fees are spent without knowing if approvals are forthcoming and or what would be required from each agency for such approvals. As discussed above, cost savings could be achieved from more involvement upfront.

The specific examples provided for minor improvements in the drainage paper are commented on further in Question for Consultation 2 below.

Proposed Changes:

3. Simplifying Administrative Processes – Accounting for changes to drain design during construction

Comments

One of the concerns raised in the discussion paper is the unforeseen site conditions in the field after the report is complete. Most CA's would not likely have a problem with improved administrative processes to the Drainage Act to account for changes to drain design during construction to ensure future works are not delayed or tied to the original report approved by by-law. Generally, a quick call will result in written permission with little or no delay.

Once a report has been given a Permit, a call could be made to a CA and any unforeseen changes could easily be provided for under DART ensuring the landowners are fairly assessed and works are only done in conjunction with the report, or CA approved.

Everyone is up for simplifying administrative processes but if unapproved or unmonitored changes to drain design are allowed during construction, there is not much benefit to review and provide advice if changes can be made without review later on. The Drainage Act can be updated to allow for these changes with the appropriate amended permissions.

Drainage Act Discussion Paper – Questions for Consultation

Question:

1. Beyond the DART Protocol, what additional protocols could be established to help streamline approvals?

Comments

Protocols for environmental study/appraisal and a mechanism for requesting agency to recover associated costs defined in legislation. Despite the formation of conservation authorities in 1946 and the provision for these agencies and/or the Ontario Ministry of Natural Resources (OMNR) to request environmental studies in 1975 significant problems remain. For instance, the process for conducting environmental assessments for the purpose of drainage is not clearly defined. Institutional arrangements must be adjusted to better address the potential environmental damage caused by drainage, and that the assessments should allow for the evaluation of cumulative impacts.

Development of this protocol should include a supporting review/assessment of the range of environmental impacts associated with drainage projects.

"In terms of the length of time, the referral process appeared to be efficient. The perception that drainage construction is delayed by the referral process is not supported by the data obtained from the application files." (Walters, Daniel F. 1999)

Question:

2. What projects should be included in the definition of minor improvements? What else would you like a minor process to achieve?

Comments

Consideration for an efficient streamlined process to ensure agency review for all new field tile adjacent to environmental features and CA regulated areas that have not been previously crop production land (such as pasture land) especially in areas adjacent to wetland, riparian zones or low lying wet areas. They could be included in the definition of minor improvements allowing a simplified procedure for drainage contractors to deal directly with the CA.

Restoring wetlands or environmental benefits that landowners want should be provided a grant, that way farmers can be compensated for keeping beneficial wetland instead of looking for grants to drain land that may have been wetland at one time and will always be marginal farmland in wet years.

All minor improvements can be done and are already included in DART protocol but efficiencies could be gained from Section 4 and 78 process changes. Once there is an Engineered Drainage report required, the only thing that would drastically speed up approval times would be more information sharing upfront and having timelines and steps outlined for review in principle prior to solutions being addressed in a report. Multiple solutions or options could be addressed prior to the design stage.

Options for the approval of costs for the Drainage Superintendent by the Municipality to consult with a drainage engineer or undertake a survey to determine the appropriateness of solutions should be afforded.

Upgrading to larger culverts and crossings may easily be included, but cumulative or new total enclosure length, amount of crossings per parcel and other options such as low flow crossings should be considered.

Realignment of a drain can be moving of a tile header or the relocation of the path of a brook with different substrate, riparian zones and habitat. Most open drain relocations would not be considered a minor improvement by the CA. It would be a recommendation that studies would be undertaken beforehand to determine existing species and hydrological conditions at a minimum.

The example of a water retention area could be part of a riffle pool feature or could be an online pond that would hold increase water temperature and wouldn't be appropriate.

The example of the addition of a buffer or other environmental benefits or green infrastructure technologies would likely be welcome additions and could easily be provided with upfront permission prior to the report being prepared and if standardized wording could be in place then could easily be included. These are not works that are likely to be holding up current projects however.

Improved communication, transparency and understanding between the review agencies and drainage community with upfront plans and reasons for request put forward prior to the completion of a report could streamline the process.

Communication with review agencies can give them insight and understanding into the reason certain proposed drainage alternatives are being included in the discussion (i.e. Why is this improvement requested? Is the improvement to gain fall for lands not previously farmed? Etc.). Support can then be given in considering this question to the councilors responsible for decision-making. This question and communication can then ensure that the hiring of an engineer is not complete without an understanding of what

the goal is for drainage or comments from any Authority with regards to impacts included for discussion.

Question:

3. Do you have any specific concerns with any of the items discussed in the paper?

Comments

The examples of the items discussed in the paper are not necessarily examples of minor works.

Attempts to include environmental considerations into the drainage decision making process have repeatedly undergone resistance from authorities directly involved in structuring the Drainage Act. The discussion paper does not acknowledge:

- Agricultural land drainage contributes to wetland losses. Unaltered wetlands
 provide many other functions such as flood protection, erosion control, wildlife
 habitat, water quality improvement and the maintenance of ground water levels.
 Unfortunately, agricultural land drainage is directly linked to the alteration of
 wetland functions and values, and permanent loss of wetland sites.
- "Wetland management and agricultural drainage illustrate the conflict between economic development and natural values." (Walters, Daniel F. 1999)
- Despite attempts to incorporate environmental considerations into the drainage process, they continue to be inadequate.

Question:

4. Do you have any additional suggestions to reduce burden or contribute to additional opportunities for your business?

Comments

Institutional change is required to strengthen the authority of government agencies in evaluating drain work. Private property rights and economic interests are given more weight in the decision-making process than the public interest of integrated watershed management. The provisions that attempt to alter a group's behavior come from legislation other than the Drainage Act, such as the Conservation Authority Act, the Endangered Species Act, or Fisheries Act.

Additional opportunities:

- Consideration of provisions that allow the financial compensation to landowners to keep wetland areas, or the restoration or wetland creation grants.
- There needs to be a thorough assessment of the range of environmental impacts associated with drainage projects.
- An institutional change is required to strengthen the authority of government agencies in evaluating new drains.

- Drainage legislation should give adverse drainage effects greater weight in the decision making process.
- Provisions of the Drainage Act could focus on maintaining water levels that support the various functions and values of wetlands.
- Provisions of the Drainage Act could focus on implementing direct penalties or incentives that prevent farmers from draining wetlands.
- Consideration to ensure representation on The Court of Revisions and Drainage Tribunal with background and specific knowledge of environmental issues.
- Preliminary reports by engineers or others (e-g. environmental impact or benefit-cost statements) may be required to determine the merit of completing a full report;
- That environmental impact statements and benefit-cost certificates should be filed with the engineer's report for petition drains and maintenance projects involving substantial changes;
- that CAs be permitted to appeal any new drainage proposal on environmental grounds, and that there be a cost recovery mechanism to CAs for associated study and review
- Monitoring and Compliance measures need to be included in the process and funded appropriately through province and municipal support, not by requiring the CAs to take this on in the Provincial Offences Court at their cost.
- CA Approvals and other agency approvals, Technical guidelines for erosion control, sediment and erosion control timing windows, appropriate drainage depths through wetlands etc.
- The removal of the requirement for Municipalities to provide the opportunity for CAs to request an EA should be removed from DA and replaced with a requirement for appropriate preliminary baseline reports if required for review funded appropriately through provincial, proponent and municipal support.
- Additional funding put in place to support agency review involved with natural features and resources to improve efficiency and streamlining initiative.
 - For example, SCRCA has 17 member municipalities, most with extensive drainage infrastructure, and review high workload under the CAA with regard to the Drainage Act.
- Policy changes required to remove conflicting interests. Those hired to put forth drainage applications under the Drainage Act and those hired to protect the public from impacts from those applications have competing interests. The reviewing agency needs the power to turn down some proposals. As long as equal footing between the Drainage Act and the Conservation Authorities Act continues, wetland loss and the increase in potential flooding will occur as it has been over the last 100 years. Notification has not stopped this process because Municipalities have the requirement under the DA to provide outlet which allows wetland loss.

General Comments: Drainage Act Discussion Paper (ERO#019-1187) Comments Background

Progression of Drainage in Ontario: Before the Drainage Act there was "The Natural Drainage Principle" (Common Law): that of water flowing onto neighbouring lands is not actionable so long as he does nothing materially to increase or change the direction of the flow. (Natural flow of water has no legal complaint).

The Drainage Act provides a legal arrangement and allows this type of private agriculture drainage system with agricultural grants, and has so for 150 years in essentially the same format. The Drainage Act was critical and has greatly benefitted agriculture up to a certain point because admittedly, drainage is essential for this sector.

Now that Ontario has had some form of field tile and outlet system since 1859, the drainage in the majority of agriculture dependent watersheds has shifted to "improving" the drainage to today's standards and usually means a revamp of the entire original Municipal Drain report. This is usually because a landowner is requiring outlet (fall) for additional field tile or new field tile in lower lands, which may for example have been previously pasture, unmapped or sometimes mapped wetlands, or new largescale residential developments requiring the alteration to the depth of a channel downstream, the upgrading of previously enclosed watercourses and/or the enclosing of the watercourse. In some previously unaltered systems, it is essentially the same process, only slightly changed as a "petition" for new drainage where there was previously none.

In his thesis report, the relationship between the Drainage Act and wetland management was evaluated by Daniel F. Walters in 1999. The resulting recommendations of Walters report are summarized as:

- In order to maintain the score of a wetland under the Ontario Wetland Evaluation System, CAs should ensure that mitigation measures are reflective of the various functions and values of the particular wetland.
- Wetland evaluation files should be updated every five years to enable the assessment of cumulative impacts and monitoring of changes in wetland boundaries.
- 3) The council meetings for the acceptance or rejection of petition by-laws should be open to the public for comment.
- 4) A formal arrangement should be established with the MNR and the conservation authorities in order to facilitate the exchange of information on fisheries data between the two agencies.
- 5) Conservation authority staff should attend initial site meetings to enhance their relationship with local farmers and drainage engineers. Attendance at site meetings will enable conservation authority staff to emphasize BMPs in all drainage construction, not only in environmentally sensitive areas.
- 6) The Drainage Act should be amended to give greater weight to environmental and economic considerations of drainage projects, not only the requisition drains. The Drainage Act should also clearly define the process for conducting an environmental appraisal of drainage works.
- 7) In order to provide more flexibility, CAs should be able to incorporate off-site mitigation techniques (enhancement, restoration or wetland banking) as an alternative to on-site mitigation.

- 8) Drainage works under the Tile Drainage Act should be incorporated into the assessment of municipal outlet drainage schemes. To ensure the complete range of environmental impacts are being considered in the assessment of drainage works, conservation authorities should be allowed to assess the entire drainage system rather than the individual municipal drain.
- 9) The timing of drainage works in environmental sensitive areas should take place during low flow conditions.

Twenty years later, many of the recommendations of Walter's report still hold true.

Construction Timing: The length of time prior to construction gives Drainage Superintendents the ability to schedule drainage works in environmentally sensitive areas during the low flow time-period, generally between July 1 and September 30 of any given year.

The landscape is changing, the SCRCA is seeing increased development and future plans for increased development in rural landscapes. In addition, there appears to be continuing changes and intensification of farming practices such as the removal of hedgerows, less pasture land and the encroachment into formerly low lying lands in southwestern Ontario. Amendments to legislation including the Drainage Act should consider the balance required to ensure private property rights and economic interests are weight in the decision-making process appropriately with the public interest of integrated watershed management and protection from natural hazards.

In addition, the environment should have the same rights that currently tip in the agricultural industry's favour. With the changing agricultural landscape and a changing climate, oversight is important for the good of the entirety of the watershed.

All engineered systems are designed to remove surface water efficiently into an altered channel or enclosure and may increase some natural hazards that may result in increased flooding and or drought or cause a permanent alteration or destruction to aquatic habitat. This alteration will affect upstream or downstream landowners and the environment in some way and therefore requires the review and oversight by appropriate agencies albeit in a swift way according to agreed upon timelines. The process that currently holds up Section 4 and 78 approvals is the Engineer's report, and if it is done before any baseline studies are done, it is impossible to drastically alter this process after the fact.

Although downstream landowners are not obligated to accept increased flow from any directed flow of increased velocity or size, this is commonly done by private tile contractors by adding to the amount of perforated field tile or increasing field tile diameters, essentially taking water that used to infiltrate and replenish aquifers downstream. Once there is this "need" for better fall, it requires new drainage and as more water is placed into the system the request is for "an upgrade to today's standard" or complain that their existing tiles are under water and now need more fall. The reviewing agency has no idea if this has been done in some cases as there is no requirement for approval for field tile. The Drainage Act is a system that forces all

downstream landowners to accept this water and with it an increased flood risk because baseline studies were not done on pre-existing flow, but are designed by Engineers to efficiently take all flow to an appropriate outlet. The design is based on a chart in a mm/hr to pipe size format included in the Drainage Guide for Ontario (Publication 29).

Although Conservation Authorities are required to request information that will protect downstream landowners from increased floodwater, information isn't given regarding the existing and increased water into the system, only that it was designed to a certain standard and not based on pre-existing conditions. In addition, the downstream landowners are required to pay for the privilege of accepting more water with an improvement to the system because the Drainage Act assesses based on the fact that you now have the ability to tie your field tiles into the drain thereby adding to the amount of water that flows quickly downstream. This seems to be in direct opposition to understood conservation practices which would encourage infiltration.

Small scale farmers, recreation or parkland owners and residential landowners are advised of the option to appeal the decision but after thousands of dollars have been spent on the design there are no real appeal options, only small scale changes of no real impact. In addition, the appeals cite the Drainage Act, so there is no precedent for the landowner who wants a natural stream or a riparian zone left on a stream and appeals are often dismissed because the process correctly followed the Drainage Act. The DART system allows the complete removal of all vegetation. The Engineer's reports often do not allow the replanting of any vegetation in order to maintain a defined working corridor on one side of the drain. Everyone assessed into the drain is invited to preliminary meetings and have the option of being heard at meetings, but it isn't made clear as to what will occur and at what cost until the design is completed at which point it is too late.

Some municipalities in Ontario are looking to the Drainage Act to address storm water management in rural development. SCRCA is looking for further guidance as to how referral agencies are to work together to review such proposals.

OMAFRA's Drainage Discussion paper is suggesting that some stakeholders have indicated there are too many steps and agencies involved. SCRCA has no opposition to a simplified process to speed up the review time and reduce costs, however we would prefer to see the Drainage Act review to be broader and, at the very least include:

- Consultation with all review and referral agencies would assist with improvements to ensure cross compliance in the most effective and efficient manner
- Balancing ecological, environmental, economical and societal risk
- Clear requirements outlined

With regard to specific proposed changes in the discussion paper:

- Minor improvements (as outlined in the posting) must continue to be reviewed by all applicable authorities and agencies
- No changes to update a report to account for changes made during construction be allowed unless reviewed and approved
- Mechanisms for compliance monitoring must be incorporated into all aspects of the Drainage Act

CA's are also seeking a reduction in red tape and operating costs with a new streamlined Drainage Act process. Key to this, is improved technical guidance, compliance monitoring, etc.

Further General Comments

SCRCA's Experiences - DART

Protocols such as the Drainage Act and Conservation Authorities Act Protocol which has been adopted reduces frustrations and reduces delays, but doesn't appropriately address environmental protection in all circumstances. There are situations where the protocol is not understood or interpreted the same from the CA and Municipal standpoint, and therefore concerns with implementation and compliance arise. Consideration for further technical guidelines to outline implementation, monitoring and compliance for works along with protocols is recommended.

The SCRCA sees situations where current maintenance practise (removing all vegetation, both mechanically and through application of herbicide on systems that have no riparian zone left) is leading to degradation of the health of the system (water quality, fish habitat, bank stability, etc.). This can result in topsoil quickly entering the system during storm events which then needs to be dredged back out again. Maintenance is intended to be to the standards of the existing report, but the SCRCA is concerned that maintenance is deepening the bottom elevation of drains compared to the reports resulting in multiple negative impacts.

In addition to the stabilization of stream banks, the vegetated riparian zone slows surface water, removes pollutants such as petroleum products, road salt and road sand on watercourses that have been realigned off of agricultural land to run adjacent to roadsides and sediment (topsoil) carried by overland flow which also carries superfluous nutrients and pesticides. The removal of trees under maintenance for access eliminates shade. Shade assists in keeping water temperatures stable, increases dissolved oxygen levels, minimizes growth of shade intolerant Phragmites in the drain and is important to cold and cool water fisheries. Drains are a habitat refuge for a broad spectrum of plants and animals.

A top of bank buffer can an important feature in municipal drainage infrastructure. Reducing runoff, nutrient loading and sedimentation while controlling the loss of topsoil and supporting biodiversity.

Broader adoption of a streamlined approach will only work with legislative authority and the ability to enforce the technical protocols that can be agreed to be put into practice.

Process and Communication Improvements

Under the current system, Conservation Authorities are required to either sign off on or pay for any environmental appraisals (EA) under the Drainage Act, but although there are grants to pay landowners for parts of the costs of the works, the CAs do not receive any funding to pay for these EAs and it would need to come from CA general revenue (levy). Further, under the current Act, a request for an EA must be submitted within 30 days and in most instances it is impossible to know if or if a Phase 1 EA may be required due to the lack of information being available.

A simple system requiring the petitioner or the Drainage Superintendent to provide a plan of work to CAs with the notification will enable CA staff to complete a site inspection to review the work, therefore allowing CA staff to determine any EA requirements.

Currently under the Drainage Act, the SCRCA finds drainage superintendents are not comfortable giving/obtaining permission from the landowner for the CA to walk the drain. It can be difficult for the CA to get this landowner permission to access the site to determine what is existing upfront.

Agency review and streamlining can be improved with simple process changes;

- standardized forms to be submitted to CA's with minimum requirements to be filled in to include the location (a line along an existing drain of the works as known at preliminary stage and the works as they are known).
- The initial request or reason for the works submitted (e.g. New field tile, existing field tile underwater etc.)
- Pictures should be included and if a site visit is required, the local Authority should be invited, or allowed to walk location at later date.

Environmental Baseline Studies

As over 90% of watercourses, brooks and streams are now drains in southwestern Ontario, and some have been straightened, realigned and relocated to property lines and roadsides and have been severely ecologically degraded, local expertise is required to restore the system to a balance.

Economic incentive to improve drainage on existing agricultural lands, or to convert marginal lands into agriculture seem to outweigh the cost of drainage improvements which is no longer a barrier to an applicant who will benefit from the works and have to pay the appropriate share. Balance needs to be restored with the impacts to the watershed, the other landowners, wetlands, aquatic and other species using these systems, SAR and natural channels considered on equal footing.

MNRF and CAs have outlined that the current wetland inventory it is not a comprehensive list of all wetlands. Sections 4 and 78 provide an opportunity for referral agencies to comment on drainage projects, which may seriously impact the environment. If there is not a comprehensive review of these critical landscape features, it is impossible to get an understanding of the areas that require careful attention, such as unmapped wetlands

and recharge areas. Any significant environmental areas not previously identified will not be afforded any protection.

Any significant environmental areas not previously identified will not be afforded any protection and those that are identified do not have adequate protection or enforcement.

In the current system, the Municipality could have already approved an Engineer to investigate "drainage problems", and spent funds on Engineering, site visits and meetings. If an environmental feature is identified, a do nothing approach is never appropriate because someone must be assessed for the works. Municipalities can be left with an expense that cannot be recovered.

Funding needs to be provided to CAs to continue to determine possible wetland locations. Only those mapped by the Province have been included in mapping in some CAs and not always updated. The category of "wet lands" reflects potentially important features where no protection is afforded because they have not been identified as either provincially significant or even included as an "other wetland", meeting the CA Regulation definition.

Tile Drains

As field tile is extended unnoticed into wetland areas and low lying areas, the features are lost. Then, an outlet is required as the water is not draining properly. A request for an improvement to the drain or a petition is then provided to the municipality. The municipality must take action based on the petition or may approve the request for improvement. Therefore, without intent, these improvements to drainage are be a significant contributing factor for wetland loss in Southwestern Ontario.

Minor tweaks cannot be made to a system that was designed for the efficient removal of surface water collected by field tile. There is a great opportunity to open up the Drainage Act to work in concert with today's problems and today's changing climate.

Again, improved timelines could be implemented to provide a much faster system with all checks and balances in place and an updated system requiring a baseline study of existing conditions paid for by the landowner or municipality requesting upgrades with aid as required from the province (OMAFRA, etc. as applicable).

Thank you for the opportunity to provide comments.

References:

Walters, Daniel F. 1999. Evaluating Ontario's Drainage Act and Wetland Management Practices: In The Case of Zorra Township. National Library of Canada. Retrieved February

2, 2020 from:

https://www.collectionscanada.gc.ca/obj/s4/f2/dsk1/tape8/PQDD_0007/MQ42221.pdf

Please note: The ERO comment box does not fit all of SCRCA's comments with its character restriction of 32,000. Please use this complete set of comments, instead of what was submitted in the ERO text box.

