**November 21, 2022**

**Response to Ontario’s Proposed Updates to the Ontario Wetland Evaluation System (OWES; 2022-10-25)**

I am a field botanist who specializes in plant identification, Ecological Land Classification (ELC), and wetland delineations/evaluations. I have been employed in this profession for the past 16 years, all of which has been with two consulting companies. I have completed vegetation and wetland surveys throughout Ontario, as well as parts of Alberta, Quebec, and Michigan. I became certified under the OWES in 2009 and have been actively practicing it ever since. The vast majority of my work is for development proposals in a variety of sectors (urban development, linear infrastructure, oil and gas, etc.).

While I can very much appreciate the need for changes to the OWES, I have significant concerns regarding the proposed approach. I have outlined my concerns below, as well as provided discussion of the changes that I feel are more appropriate.

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* *“Evaluators should rely on their observation, data collection and research and use their professional judgement and expertise in applying the OWES.”*
  + Define “expertise”. There appears to be a mindset here that once an individual is certified under OWES they are considered an “expert”. In the existing system there was more room to allow evaluators of varying experience levels to complete an evaluation – this is because all evaluations would have to be reviewed and approved by the authority that wrote the methodology (MNRF). By removing that requirement and assigning it to a municipal “decision maker” raises the need for evaluators to have a certain level of experience prior to completing evaluations on their own. Think of it like an apprenticeship that is typical of trades. Without this, and without review by someone with significant experience as an ecologist with wetland expertise, we can expect to see an extreme variation in the quality and thoroughness of evaluations. This will undermine the importance of the evaluation and approval process.

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* *“Mapping updates to previously evaluated wetlands… A mapping update can be undertaken without undertaking a re-evaluation”*
  + Significant changes to wetland size and boundary delineations can influence the overall evaluation score (e.g., area calculations, interspersion, etc.). It doesn’t make sense to make these changes and not apply them to the original evaluation to see how it affects the score. This is particularly true over time, where if multiple edits are made over years by various evaluators, we gradually lose our ability to retain confidence in the original evaluation.
* *“decision maker”*
  + Who exactly will be a "decision maker"? The wording here is concerningly vague. Will they be OWES certified with a minimum level of applicable wetland-specific experience? Will they be capable of recognizing OWES submissions that have insufficient or inappropriate data collection efforts? It’s easy enough for an inadequately qualified “decision maker” to ‘check boxes’ to ensure each component of the evaluation process is present, but it’s an entirely different story for that ‘decision maker’ to understand wetland functional dynamics, species interaction, appropriate timing windows, soils/hydrology, etc. A ‘decision maker’ can’t comment or ask questions if they don’t know what the questions are.

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* *“In contrast, planting of crops or* ***tillage*** *tends to destroy wetland values and thus should no longer be considered as wetland.”*
  + I can not stress enough how inappropriate and frightening it is to add the word “tillage” here. Many times I have witnessed land owners plough a wetland (marshes and even thicket swamps) ahead of my site visit in an attempt to pass it off as being for agricultural purposes. Luckily the current OWES allows me to assess remaining visible vegetation, and check if soils are hydric to ensure it continues to be mapped as wetland. This won’t be the case anymore if OWES literally says a tilled area cannot be a wetland. With this wording in place, I am confident Ontario will not see a net-gain in wetland creation through offsetting practices. It is unquestionably less expensive for a landowner to just plough through a wetland to make it “disappear”, rather than protect or compensate for its removal. Please remove the term “tillage”. **Please** remove the term “tillage”.

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* The following expectation was removed: *“In cases where landowner permission can not be obtained, evaluators should conduct the evaluation using any other information they can gather (e.g., aerial imagery, information from adjacent lands, information that can be observed from roads, etc.)”*
  + Let's say you have access to a small portion of an otherwise large, contiguous wetland. You are not granted access to the larger portion, which appears to have a higher probability of containing significant species or features. You score the small portion with the data you have, and it comes out as non-significant. Is that conclusion valid or would there be an expectation to assume significance until appropriate property access could be obtained. Is the surveyor allowed to make assessments for the larger portion using any publicly available data/access to assist with that evaluation? Language needs to be clarified here. I would hope the evaluation would be rejected in this example, until property access could be retained.

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* *Statement added: “While only a trained wetland evaluator can undertake an evaluation, it is recognized that trained evaluators may make use of other persons who may have specialized skills that can aid an evaluator. This can include having persons not trained in OWES helping an evaluator undertake field visits.”*
  + While I can appreciate some aspects of this statement (e.g., allowing a non-OWES certified but qualified ornithologist complete avian surveys), it also opens the door to a wide range of possibilities. One scenario is that someone who is OWES certified on paper but with little applicable experience decides to send out someone who has some entry-level experience identifying plants. It’s very possible the certified evaluator won't fully appreciate the needs of the inventory, while the surveyor could very easily overlook significant species. This adds to a recurring concern here that the quality of the province’s evaluations will be extremely variable and thus less meaningful. At the very minimum, I would suggest adding a requirement that the certified evaluator needs to be specialized in at least one of the four OWES components **and** must participate in at least 50% of the field hours used for the evaluation.

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* *Text added in relation to the newly defined ‘very closely grouped wetlands’: “…areas comprised of very closely spaced small wetland ponds/pools (e.g., within 30 metres from each other) interspersed with small pockets of upland forest (e.g., a ‘mosaic wetland’ or a’ slough wetland’).*
  + The vague use of "e.g. 30m" will become a very debated statement. Avoid this by stating a distance rather than giving an example distance. And ensure the distance is supported by credible research showing that the distance provided makes ecological sense.
* *Text added in relation to the newly defined ‘very closely grouped wetlands’. “…* wetlands along a river or lake that are separated by 100 feet or less”
  + Not sure why first bullet and second bullet jump from metric to imperial. Ensure this distance is supported by credible research showing that the distance makes ecological sense.

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* *“This map should show boundary of the wetland’s catchment and all of its detention areas, including its wetlands and other additional wetlands or water bodies. ~~This map will be used to determine scoring for the Hydrological Component of the wetland evaluation and might be used during future updates of the wetland file~~.”*
  + Did something change to the hydrological scoring component? The province has not shown any changes to the hydrological scoring component, so it’s unclear why the above statement was removed. You can't understand wetland hydrology without understanding and evaluating catchment area size... it would be a blind, 'fingers-crossed' style of evaluation....

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* There is always so much debate around wetland size, where the OWES refers to guidelines rather than giving defined sizes - if the province is looking to expedite the process, provide a minimum size threshold for wetland units than can be evaluated (e.g., 0.1 ha if wetland ‘complexing’ is eliminated, or 0.5 ha if complexing is retained). I would suggest the 2ha minimum guideline currently provided in OWES is much too large for wetlands in southern Ontario – this is particularly true if complexes are no longer a thing.

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* *“The wetland evaluator must document ~~evaluation file must include~~ the EO ID (if scoring for an existing EO) and the observation should be submitted to the NHIC along with information associated with the observation… ~~The NHIC may be able to assist in the confirmation of specimens or high resolution photographs~~”*
  + It is unreasonable for the province to tell the evaluator to submit EO’s to NHIC, but also remove the option for the evaluator to contact NHIC to assist with confirming a potential EO. MNRF/NHIC has expertise that must be made available to evaluators.

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* *“When an animal species that is ~~endangered, threatened, or~~ provincially, regionally or locally significant, is found outside the wetland in the surrounding upland, but where it also makes sound ecological sense that such an individual or group of animals is dependent on that wetland for an essential part of its life cycle, then a score can be recorded in the appropriate category.”*
  + There is no logic here. This says the province is keen to acknowledge and score rare species here, but species with a provincially recognized heightened conservation concern are to be excluded?? How does that make sense when assessing significance of a feature? Instead of removing endangered and threatened species from this component, why not just create a list of the END and THR species that are allowed to be scored here. For example, aerial insectivore birds that feed over multiple habitat types could reasonably be excluded.
* *“Since different animal species have different home range sizes and utilize surrounding uplands in different seasons, an evaluator must use their professional judgement.”*
  + Again, just another example of how varied evaluations will be when a junior ecologist who’s had their OWES for 2 weeks attempts to use professional judgement, relative to a 20-year ecologist/evaluator. Without MNRF to review, there will not be consistency.

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* *4.1.2.1 ~~Reproductive Habitat for Endangered or Threatened Species~~*
  + This is the reproductive habitat of species that the province has designated as the most crucial for protection. Wetland protection for that use doesn’t get much more important than that, and it’s not unreasonable that it automatically triggered significance. I can appreciate that some species might be more appropriately scored here than others. So instead of eliminating this section altogether, just simply provide a list of species that should not be scored under this section. Species to be excluded should be species that are in decline due to pathogens or other pressures that aren’t a result of habitat loss. Black Ash is an example, where an insect is causing its decline and it could therefore arguably be excluded from this section. The reproductive habitat of an END or THR species that depends on wetlands to reproduce is of the utmost importance – this becomes even truer if we are no longer complexing wetlands.

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* *4.1.2.2 ~~Migration, Feeding or Hibernation Habitat for an Endangered or Threatened Species~~*
  + Same response to this as the above comment. Prepare a list of species that should be excluded from this section. Species that are not dependent on wetlands for migration, feeding, or hibernation (i.e., the species is known to use a wide variety of habitat types) could be excluded from this section. Some aerial insectivore birds could fit into that list of exclusionary species.

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* *4.1.2.5 and 4.1.2.6 Regionally and Locally Significant Species*
  + I see that, other than voiding consultation with MNRF, no changes are proposed here. Wording in the current OWES is a bit unclear if the species must be ranked as “rare”, or if a rank of “uncommon” is also suitable to score here. I can think of one MNRF employee who always insisted that “uncommon” species get scored here. I suggest cleaning up the wording so that only “rare” species are scored here, as I think that’s what was originally intended.

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* *~~MNR District, Regional or area offices and the Canadian Wildlife Service should be consulted for areas of national, provincial, regional (Ecoregion) and Ecodistrict importance~~*.
  + I do not understand the consistent deletion of all mention of the evaluator consulting with a knowledgable government body to ensure they are applying the best possible data. Even if MNRF is not going to be the deciding authority on OWES evaluations anymore, it makes no sense that an evaluator can’t contact them for information.

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* 5.0 Documentation of Wetland Features Not Included in the Evaluation
  + Why keep Section 5.0 if all the subsections are being deleted?

Overall

* *Removal of wetland complexing*
  + Wetland complexes are the majority of what gets evaluated in southern Ontario. Evaluating wetlands on a unit basis with no consideration to complexing is not how OWES was designed and could lead to misleading results that do not reflect the intent of the evaluation process. The existing evaluation process is based on decades worth of data collection, trial evaluations, and refinements to the process. The province is proposing to remove a core component of OWES and bypass a rigorous trials period to ensure the new approach renders appropriate designations to wetlands.   
      
    Although there are some inherent problems with our 'complexing' approach, I do believe it's an important component of OWES and should not be removed. Instead, we must remove some of the subjectivity when determining wetlands that get included in a complex. (1) Define a minimum size for wetland units. For southern Ontario a blanket threshold of 2 ha is too large; I would recommend 0.5 ha. For rare or unique vegetation types that inherently tend to remain small, use a smaller threshold (e.g., 0.1 ha). (2) Refine the OWES application of "catchment area" so that only wetlands that occur within the same sub-catchment area can be evaluated as a complex - even if other wetlands exist within 750m. The thought process should be that if you remove one wetland within the complex, how does that affect wetlands upstream and downstream. This prevents wetland complexes from jumping from one sub-catchment into another - a scenario where the wetlands might not have any association from surface water standpoint. That also removes subjectivity; catchment areas are determined through a GIS analysis, the results of which are repeatable. (3) Identify wetland types that can (in theory) be easily replicated, such as certain mineral marsh communities, or even some mineral thicket swamps. Create language that allows those community types to be considered for removal and compensation - even if they meet PSW criteria. A reed-canary grass mineral marsh, for example, is a classic example of a wetland that might not warrant PSW protection if it can be demonstrated that its removal within the sub-catchment and replication are feasible.
* *There will be no file system for storing/accessing evaluations*
  + It seems there will be no file system for storing/accessing evaluations under the proposed changes. A filing system that is accessible to evaluators is critically important. If I’m working on a project where an evaluated wetland is nearby, I often need to access that evaluation to understand where it came up short of being significant, or what features triggered significance. I can then also understand when it was last evaluated, when and how much of the feature was accessed, and what refinements have been made over time. This helps me understand if the evaluation is adequate as-is, or if it should be reviewed. Another critical piece to maintaining a file system is to ensure edits to an evaluation are filed with the original evaluation, and that the scoring to the original evaluation is properly adjusted to account for those edits. It also appears the checklist outlining the necessary components of a complete evaluation was removed. Why??
* I would suggest reconsidering our application of the 50% rule. Too often I see fringe communities being included as wetland because, technically, they have greater than 50% cover of “wetland species”. These are communities that often don't contain any wetland indicator species, but often include wetland tolerant species. “Indicator” and “tolerant” wetland plants are collectively treated as “wetland species” by OWES. The OWES system too easily causes moist uplands to be mapped as wetland. Soils are supposed to help, but they often don't for these types of wetland-upland transitional vegetation community types.   
    
  I suggest revising the OWES plant list to address this. One approach that should be considered is to only include species having a wetness index of -3 (facultative wetland) and -5 (obligate wetland) in the list of “wetland species”. As is, our list currently includes many species that grow in uplands just as often as they grow in wetlands (i.e., those with a wetness index of 0). Given that “wetland species” are relied on to define and delineate wetlands, we are placing an over-reliance on species that can just as likely occur in uplands. Further, we even have some species identified as “wetland species” that are considered facultative upland (+3 wetness index; i.e., more likely to occur in upland habitats than wetlands). If we opt not to take that approach, we at minimum should prepare a list of “wetland species” that are considered unsuitable when applying the 50% rule. OWES already provides a cursory list of example tree species that are not to be relied upon – the province could make that list comprehensive for trees, while also including shrubs (e.g., Common Buckthorn), and herbs (e.g., White Avens).