

The proposed Ontario Permit to Take Water changes, what does it mean for the practicing hydrogeologist?

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It is difficult to proceed with almost any project without a source of water, and in Ontario, the act of taking water can be authorized by the Ministry of Environment and Climate Change (MOECC) by applying for and receiving a Permit To Take Water (PTTW). These permits often require supporting hydrogeology studies and significant time needs to be built into a project schedule for their approval by the MOECC. So when changes are proposed to the way the MOECC treats PTTW applications, it may be worth paying attention.

The proposed changes apply mostly to construction-related water taking activities. These proposals are described in a technical discussion paper posted on the MOECC website for comment and are summarized herein. For eligible activities, the proposed changes will either eliminate the need for a PTTW or replace the need to apply for the PTTW with posting on the Environmental Activity and Section Registry (EASR). The key criterion for the applicability of the EASR is that the taking will not have a significant risk of an adverse environmental impact, and the discussion paper provides some guidance on how this will be evaluated.

The purpose of the proposed changes is presumably to speed up the MOECC issuance of approvals of less complex water takings that are not anticipated to have adverse environmental impacts. The current MOECC review process takes several months, regardless of whether the water taking is routine or complex. The proposed changes will allow proponents to proceed with some more routine water taking activities without requiring and waiting for a MOECC review.

With a few exceptions, PTTW's are required in Ontario for water takings of 50,000 litres/day and greater. PTTW applications are categorized and reviewed with different levels of scrutiny by the MOECC depending on the perceived risk to the environment or existing water supply. For instance, at one end of the spectrum a PTTW application to renew an existing taking (Category 1) with no history of complaints, is considered low risk and rarely undergoes a detailed review by the MOECC. While at the other end of the spectrum, a new large, long-term water taking (Category 3) will need to be supported by scientific studies and will likely be reviewed in detail. Temporary, construction type dewatering or pumping tests with little chance of causing environment harm (Category 2) fall in the middle. For these short-term water takings, only a statement from a qualified hydrologist, hydrogeologist or engineer is required with the application providing an opinion that the impacts from the proposed water taking are minimal. Where environmental or other impacts might arise from this types of takings, a Category 3 application can be made instead.

As currently proposed, the changes to PTTW process will not affect applications for new or renewed takings from large or long-term sources, such as drinking water supplies, quarries, mines, irrigation wells or long-term pumping tests (i.e. most Category 1 and 3 applications). However, the changes will affect PTTW applications for some surface water diversions and some short-term construction related water takings (some Category 2 applications and possibly a few Category 3 applications).

The proposed changes include a suggestion to exclude some activities within the definition of a water taking or to exempt others from the PTTW process. The activities to be excluded or exempted include:

- Existing weirs constructed for public benefit for such purposes as recreation, flood/ice control, flow augmentation or maintenance of historic sites, where a weir allows continuous flows to continue. This does not include hydro-electric projects.
- Surface water diversions for wetland conservation projects, and
- Surface water diversions around construction sites partially or wholly within a watercourse (the definition of a construction site does not include a mine, pit or quarry). This includes:
 - Flowing water being diverted around an excavation within a waterbody by temporary dam(s)
 - Water pumped from the watercourse and returned to the same watercourse (after measures to ensure no erosion, and remove sediment and visible sheens).

The above activities would no longer be considered a water taking or will be made exempt from the PTTW approval process. They would not be replaced with another MOECC approval process, although permits and approvals from other government agencies could still apply.

Other changes are proposed to some construction water takings. Presently, PTTW's are required for any short-term construction water taking at rates of over 50,000 litres/day. The proposed changes would eliminate the need for a PTTW for some construction water takings and replace them with a new EASR process. The types of takings which might fall into the EASR process are:

- Relatively small water takings from large waterbodies like rivers and lakes or from offline ponds for temporary construction related activities for a public road way or bridge such as:
 - dust suppression and compaction,
 - hydraulic seeding,
 - landscaping, and
 - cleaning and on-site preparation of materials.
- Construction dewatering involving less than 400,000 litres/day, as long as the water is discharged to an approved waste management system, sewage works, municipal sanitary sewer, or to land (i.e. >30 metres from any watercourse). Where discharge to land is to occur, additional criteria are given to test and meet water quality requirements including the preparation of a discharge plan by a qualified person that includes erosion and sedimentation control measures.

The EASR was implemented by the MOECC in 2011 as part of a risk-based approvals program for businesses to register activities on the EASR rather than seeking an Environmental Compliance Approval. The purpose of the EASR is to allow public access to a database of activities which are "routine, well understood and have minimal environmental effects when complying with standard regulatory requirements" (p. 8 of MOECC, Short-term Water Taking Activities Technical Discussion Paper, 2015).

Where a construction water taking is proposed under the EASR, the proponent must ensure that the eligibility criteria have been met through the preparation of written confirmation from a qualified person, including supporting calculations. This step is similar to the criteria prescribed in the MOECC "Guide to Permit To Take Water Application Form" document; and effectively this means that there should be no change in the requirement for study of the proposed taking. Critically, a qualified person must provide written confirmation that there only a low risk of an environmental impact. Presumably where an impact is thought likely, the proponent should apply for a PTTW instead.

The MOECC discussion paper did not describe how the opinions of qualified persons would be audited, other than to indicate records are to be retained for five years. The absence of an auditing process from the discussion paper is possibly an important oversight. It is not clear for instance, if the MOECC will rely on the Association of Professional Geoscientists to discipline the process, if the MOECC will maintain a list of qualified persons or if some other process will apply.

A water taking for construction dewatering that is posted on the EASR is valid for one year, at which point the MOECC must be notified if the posting is to remain valid. It is not clear whether the taking will be allowed to continue beyond the first year. This is potentially a very significant change from the existing PTTW process, where pumping at rates for more than 400,000 litres/day for more than 30 days requires a complex Category 3 PTTW application.

Importantly for the 400,000 litres/day limit on construction dewatering, the MOECC is considering excluding storm water events from this amount, as long as the date and duration of the rain event is recorded to confirm increased taking was not required for any other reason.

Interestingly, where the effect of discharge to the natural environment is being considered, the proposal calls for the discharge water quality to be compared to “The Canadian Water Guidelines for the Protection of Aquatic Life” prepared by the Canadian Council of the Ministers of Environment (CCME), and not to the Ontario Provincial Water Quality Objectives for the protection of aquatic life. As several of the CCME criteria for metals are lower than those of the PWQO, this may disproportionately affect the mining industry should this direction be applied to other PTTW applications.

The proponent would still need to record the dates and duration of pumping, the daily average taking rate, and daily total taking rate. It is proposed that water takings that are proposed to fall under the EASR be recorded in the MOECC Water Tracking Reporting System.

The proponent must notify the local MOECC district manager if a complaint is received relating to the natural environment. Furthermore, if an impact is observed by the person taking the water, pumping is to stop until measures are taken to address the cause of the impact. Water taking records, complaints, and water quality testing results must be kept for a period of five years.

None of the above liberate the proponent from other authorizations. For instance, authorizations from Conservation Authorities, the Ministry of Natural Resources and Forestry, Fisheries and Oceans Canada or municipal bylaws, are not changed by this proposal.

To summarize, the proposed changes are unlikely to affect large water takings nor do they appear to substantially eliminate the requirement for study, with the possible exception of longer term construction dewatering. The advantage appears to be that by moving certain types of PTTW applications to self-posting on EASR, the 90 day wait time for MOECC review of a PTTW application is avoided.

This article is a brief summary of the information available on the proposed changes. The proposed changes are undergoing public consultation and are subject to change. For instance, there is no mention of water taking for winter road construction being included in the type of taking with might fall under the EASR approach. Additional information and details can be found on the MOECC Environmental Registry at the link below:

<http://www.ebr.gov.on.ca/ERS-WEB-External/displaynoticecontent.do?noticeId=MTIxMTAz&statusId=MTgxMjk1&language=en>

