

Attachment 7



April 14, 2020

BY E-MAIL ONLY (invasive.species@ontario.ca)

Biodiversity Coordinator
Ministry of Natural Resources and Forestry
300 Water Street,
5th Floor, North Tower
Peterborough, Ontario K9J 3C7

Attention: Mr. Jeremy Downe
Invasive Species Policy Advisor
Biodiversity Section

Re: Developing Prevention and Response Plans for European water chestnut and water soldier under the Invasive Species Act, 2015 (ERO #019-1163)

Thank you for the opportunity to comment on the Ministry of Natural Resources and Forestry's (MNRF) Environmental Registry (ERO) posting on the proposed Prevention and Response Plans (the Plans) for European water chestnut and water soldier under the *Invasive Species Act*, 2015.

The Toronto and Region Conservation Authority's (TRCA) is actively involved in invasive species management strategy and implementation within our jurisdiction, in order to conserve natural resources. TRCA conducts itself in accordance with the objects, powers, roles and responsibilities set out for conservation authorities (CA) under the *Conservation Authorities Act* and the MNRF Procedural Manual chapter on CA policies and procedures for plan review and permitting activities as follows:

- A public commenting body under the *Planning Act* and *Environmental Assessment Act*;
- An agency delegated the responsibility to represent the provincial interest on natural hazards under Section 3.1 of the Provincial Policy Statement;
- A regulatory authority under Section 28 of the *Conservation Authorities Act*;
- A service provider to municipal partners and other public agencies;
- A Source Protection Authority under the *Clean Water Act*;
- A resource management agency; and
- A major landowner in the Greater Toronto Area.

In these roles, and as stated in the *Made-In-Ontario Environment Plan*, CAs work in collaboration with municipalities and stakeholders to protect people and property from flooding and other natural hazards, and to conserve natural resources. TRCA's municipal partners rely on TRCA's assistance for implementing the natural heritage policies of the Provincial Policy Statement by protecting and restoring natural heritage resources through our mandate under the *Conservation Authorities Act*.

Government Proposal

We understand the government's current proposal is to develop Prevention and Response Plans for European water chestnut (*Trapa natans*) and water soldier (*Stratiotes aloides*), two prohibited invasive species under the *Invasive Species Act* (ISA). The Act gives Ontario tools to prevent, detect, and manage invasive species in the province. The draft Prevention and Response Plans are to enable management and eradication activities which would otherwise be prohibited by regulation under the ISA.

The proposed Prevention and Response Plans for European water chestnut and water soldier identify persons authorized to implement the Plans, sets out the types of activities for which the Plans apply and describes the conditions under which these persons will be permitted to possess, transport, and deposit these species in Ontario. The Plans are intended to ensure that monitoring, control and eradication activities do not further spread these species or introduce them to new areas.

General Comments

TRCA staff have reviewed the draft Prevention and Response Plans and generally support provincial action to ensure the target species are prevented from spreading to new areas and are monitored, controlled and eradicated effectively.

In TRCA's jurisdiction, invasive species management is an important consideration for ecological and socio-economic reasons. Much of TRCA's jurisdiction contains highly altered landscapes and urban areas with a high prevalence of invasive flora and fauna. TRCA and its partner municipalities have repeatedly expressed a strong commitment to healthy terrestrial and aquatic ecosystems that provide numerous ecosystem functions and services, which are critical for human health and well-being.

TRCA's *The Living City Policies, 2014* (LCP) highlights TRCA's mission to work with our partners to ensure that The Living City is built on a natural foundation of healthy rivers and shorelines, greenspace and biodiversity, and sustainable communities. It acknowledges that the loss of native plants and animals and the proliferation of invasive species are increasingly a threat to local ecosystem function and that both land use and climate changes are expected to exacerbate these issues. Accordingly, the LCP, used to guide staff review of proposed works either under the *Planning Act*, *Environmental Assessment Act* or permits under TRCA's regulation under the *Conservation Authorities Act*, contains policies to recommend a natural approach to the landscaping adjacent to natural heritage systems with native, non-invasive and locally appropriate species.

Further, an action in TRCA's ten-year *Strategic Plan* (2013-2022) is to enhance our regional watershed monitoring network so that we can identify new threats like invasive species and regularly evaluate the effectiveness of our efforts to protect, manage, and restore greenspace. A priority of TRCA's five-year update to the Strategic Plan is to share TRCA's research, data and leading science to inform provincial initiatives such as this ERO posting.

TRCA has actively managed invasive species in its jurisdiction for many years to protect and enhance ecological features and functions, to protect human health, and to engage and educate the public. Included in these initiatives are monitoring, controlling, and treating invasive species, restoring invasive species-dominated habitat on TRCA properties, and promoting general public awareness. Some examples of this work include:

- community-based garlic mustard and burdock management projects,
- Asian long-horned beetle surveillance work,
- buckthorn, dog-strangling vine and *Phragmites* management at select sites,

- emerald ash borer hazard tree management, and
- participating in the development of the Ontario Invasive Plant Council's "Grow Me Instead" booklets.

With TRCA's roles and experience in mind, we offer the following feedback.

European water chestnut and water soldier Prevention and Response Plans

Roles and responsibilities

TRCA requests that the Plans' sections on "Resources to Support the Implementation of the Prevention and Response Plan" provide specific guidance as to who is responsible for supporting the Plans' implementation, including the roles of the Province, municipalities, conservation authorities, and others.

Prevention and monitoring

TRCA recognizes these draft Prevention and Response Plans are the first issued by the Province since the ISA came into effect. Critical tools for invasive species management, as recognized by the ISA, include prevention, monitoring, and control and eradication activities. The current draft Plans focus on control of invasive species after they have been introduced to an area. TRCA suggests the Plans include a greater focus on measures to help prevent these invasive species from entering additional parts of Ontario and practices to promote their early detection, per the *Invasive Species Act*, Section 13(2). Prevention measures are often more cost-effective than implementing removal measures after species have established in a new area. Monitoring activities enable early detection and can reduce the required total cost and effort of control activities.

Reducing incidental spread

TRCA has identified incidental spread of invasive species as a major obstacle to effective invasive species eradication in the province. Greater detail on appropriate biosecurity measures could be provided for both authorized persons and those handling the species incidentally. The public and in particular recreational water body users, (anglers and recreational water body users including watercraft operators and others), should be educated on specific, appropriate measures to reduce incidental transport and deposition of these invasive species.

Regarding authorized activities and measures the Province may take beyond providing guidance and education, restrictions on recreational use of water bodies or areas within water bodies that European water chestnut and/or water soldier have been detected may be appropriate in certain circumstances to reduce incidental species transportation. Exceptions allowing continued professional operations, (such as fisheries), in these areas could be accompanied by outreach campaigns and enforcement of due diligence practices to reduce incidental spread of these aquatic invasive species caused by professional activities. Geographic restrictions for recreational watercraft operation may reduce instances of incidental possession and transport of European water chestnut and water soldier plants that attach to a boat as a result of operating it in infested waters; this is not an offence under the regulation prohibiting these species (O. Reg. 354/16) but nonetheless contributes to incidental transport and spread of these species.

Detailed direction required to enhance compliance

Item (b) in the Authorized Activities section of each Plan states that the following activity may occur: "deposit and release of [European water chestnut/water soldier] away from any body of water as required to dispose of plants or plant parts that were removed from a body of water". Condition #5 states that once these plant species are removed from the water they, "must be disposed of or destroyed in a manner that ensures that no part of the plant will re-enter the body of water or enter into any other body of water." It would be helpful to provide more information on proper disposal

methods to enable authorized persons to effectively dispose of collected European water chestnut and water soldier plants and plant parts. For example, the Plans could state whether there are certain facilities the plants should be taken to, whether the plants can be disposed of in a landfill or regular municipal garbage, whether they can be incorporated into compost (noting that the seeds may remain viable), or can be incinerated.

The Plans' Conditions sections should be expanded to include detailed direction on methods to achieve compliance with the Plan. For example, condition #3 in each Plan states that, "All equipment and/or watercraft used in infested waters during the course of water soldier prevention, monitoring, or control or removal activities must be inspected and cleaned of any European water chestnut/water soldier prior to movement overland." TRCA suggests including step-by-step instructions on how to inspect equipment and watercraft, direction on what types of products (if any) should be used to clean equipment and watercraft, whether the authorized person completing the inspection should wear Personal Protective Equipment (PPE) and, if so, direction on appropriate PPE, and direction on how to disinfect or dispose of PPE and other materials that the invasive plant may come in contact with during the inspection and cleaning process (as appropriate). This information should also be provided or referenced in the "Tips for controlling European water chestnut/water soldier" sections under #4 Clean equipment and watercraft.

Other "Tips" that we recommend expanding to provide more detailed direction include tip #5 Dispose of European water chestnut/water soldier carefully, and #6 Handle with care/Beware of the seeds. Tip #5 could provide direction on whom should carry out disposal procedures (i.e., specify if this is limited to authorized persons) and what unauthorized persons should do if they find one of these species on their watercraft (such as recreational watercraft operators), how exactly the plants or plant parts should be handled and disposed of, and how and to which government agency the sighting should be reported. Tip #6 could provide direction on proper PPE to use during handling of the plants, if any is required in addition to gloves.

Plan and data updates

TRCA recommends that the Plans affirm that any updates to or cancellation of the Plans will be informed by the best available science and will be communicated to the public via appropriate media mechanisms in order to reach relevant stakeholders. TRCA also requests information on how the Province plans to disseminate to the public existing and forthcoming records of sightings and spread of these species.

Herbicides

Regarding the application of herbicides (Water soldier Plan page 8, European water chestnut Plan pages 9-10), TRCA is interested in whether the recommended herbicide (diquat) affects local fauna. If there is potential for off-target fauna impacts, a characterization of local fauna should be required prior to herbicide application in a water body and inform subsequent decisions on measures to avoid or minimize off-target exposure and impacts. Such measures may include seasonal restrictions on herbicide application, depending on the species present in a water body. Further, TRCA notes that the Herbicide section of Other Considerations (page 10) in the European water chestnut Plan is absent from the water soldier Plan, and we suggest including the same language in both Plans.

By-catch and off-target flora and fauna impacts

TRCA suggests that the Other Considerations sections of both Plans include guidance on how authorized persons should deal with by-catch, such as amphibians and reptiles, that may be inadvertently removed from the water during invasive species control activities. As well, the In-water Work Timing Window Guidelines cited only consider relevant timelines for protection of fish, not amphibians or reptiles. TRCA therefore recommends additional guidance be provided on avoiding

impacts to amphibians through appropriate seasonal or other restrictions on control activities targeting both invasive species. We also recommend the Plans provide additional guidance, as appropriate, on avoiding impacts to off-target flora and fauna resulting from control measures.

As an aside, the second paragraph of page 3 of the draft Plan for European water chestnut references water soldier when it should be referencing European water chestnut. Also, in the European water chestnut Plan, page 5, b) ii., last sentence, appears to be incomplete.

TRCA Recommendations

In order to further the conservation, restoration and management of natural resources within our watersheds, TRCA recommends that:

- 1) The Plans provide direction on the roles and responsibilities of the Province, municipalities, conservation authorities, and others to better support Plan implementation.
- 2) Prevention measures used to avoid further spread and establishment of invasive species across the province and measures to enable early detection of the species in new areas of the province be expanded upon in the Plans, recognizing the general cost-effectiveness of executing prevention and monitoring measures in concert with control measures, as compared with an invasive species response regime that solely targets already-established invasive plant populations.
- 3) The Plans provide more information on proper disposal, inspection methods and Personal Protective Equipment (PPE) to enable authorized persons to effectively and safely detect and dispose of collected European water chestnut and water soldier plants and plant parts, and avoid contamination of other water bodies.
- 4) The Plans provide direction on the steps unauthorized persons should take when incidental possession of European water chestnut and water soldier plants and plant parts occurs, including direction on how to report species sightings.
- 5) Potential impacts of herbicides on in-water fauna be examined prior to herbicide application, including through characterizations of fauna present in the water body and consideration of measures to avoid or minimize off-target exposure.
- 6) The Plans provide direction to authorized persons on how to deal with by-catch, including amphibians and reptiles, that may be inadvertently removed from the water during invasive species control activities
- 7) The Plans provide direction on avoiding impacts to amphibians and reptiles that may occur during mechanical invasive plant removal, including but not limited to seasonal restrictions on invasive plant control activities. The Plans should also provide direction on avoiding impacts to off-target flora and fauna during control activities.

Thank you once again for the opportunity to provide feedback on the draft Prevention and Response Plans for European water chestnut and water soldier. Should you have any questions, require clarification on any of the above, or wish to meet to discuss our remarks, please contact the undersigned at 416.667.6290 or at john.mackenzie@trca.ca.

Sincerely,



John MacKenzie, M.Sc.(PI) MCIP, RPP
Chief Executive Officer

BY E-MAIL

cc:

TRCA: Laurie Nelson, Director, Policy Planning
Sameer Dhalla, Director, Development and Engineering Services
Moranne McDonnell, Director, Restoration and Infrastructure