**Decision Support Tool – Screening Criteria**

All criteria in Tables 1 and 2 of the Decision Support Tool are intended to help practitioners determine whether an area meets the Pan-Canadian standards and is therefore eligible to be reported as a Protected Area or an “Other Effective Area-based Conservation Measure" (OECM) under the pan-Canadian standards. Criteria in Table 1 apply similarly to both Protected Areas and OECMs. Criteria in Table 2 help to both define and distinguish between Protected Areas and OECMs. All criteria in Table 2 must be met at the PA level for an area to be reported as protected, or at the OECM level or combination of OECM and PA levels for an area to be reported as an OECM. **This template is intended to be used in conjunction with the decision support tool and detailed interpretation guide.**

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| **BASIC INFORMATION** | |
| **Name of Site** | **Cootes Paradise Sanctuary** |
| **Designation** | Provincially Significant Wetland (in part); Cootes Paradise Provincially Significant Life Science Area of Natural and Scientific Interest; Cootes Paradise Environmentally Significant Area in City of Hamilton Official Plan; part of Cootes to Escarpment EcoPark (see Wong, 2009); Niagara Escarpment Plan (NEPOSS #131 – Natural Environment); Important Bird Area |
| **Province/Territory** | Ontario |
| **Year of Establishment / Securement** | 1927 |
| **Area (ha)** | 570 ha |
| **Management Authority** | Royal Botanical Gardens (RBG) |
| **Explanation of Management Authority** *(optional)* |  |
| **Governance Type *(CPCAD type*)** | Private |
| **Legal Basis / mechanism(s)** | RBG Fee-simple ownership  Provincial Policy Statement  Niagara Escarpment Planning and Development Act  Niagara Escarpment Plan  NEPOSS Natural Environment designation  Royal Botanical Gardens Act  City of Hamilton’s Official Plan (Environmentally Sensitive Area and Natural Heritage system designations) |
| **Explanation of legal basis / mechanism(s)** *(optional)* | Multi-layered mechanisms provide for protection of this nature sanctuary including the fee-simple ownership, numerous designations in regulated plans (NEP-Natural Environment, City of Hamilton Official Plan), and policy protection for PSW and ANSI through PPS. |
| **Summary of Essential / Relevant natural, social and cultural values** | Numerous (20+) SAR present on the property with a total of 35 regulated species found onsite focused to the forest areas. Significant restoration projects taking place included wetland restoration, carp elimination via fishway, forest invasive plant removal, and prairie and savannah restoration. There are 16 creeks flowing to Cootes Paradise Marsh with 25 km of shoreline. Cootes Paradise Marsh is the largest provincially significant wetland complex on western Lake Ontario. The property is managed as a nature sanctuary by RBG and has 3 public access points/cultural use areas abutting the environmental protection area.  Ecosystem services provided include flood attenuation and other wetland functions, habitat provision and soil and water conservation.  There is low intensity recreation on trail system and one trail specifically focussed on Anishinaabe cultural use of native plants. |

| **TABLE 1: STANDARDS COMMON TO PROTECTED AREAS AND OECMS** | | | | |
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| **CRITERIA:** | **INTENDED EFFECT OF THE CRITERION** | **SCREENING CHOICE** | **EVIDENCE-BASED RATIONALE  Rationale/evaluation of how area meets or does not meet the intended effect of the criterion** | **MEETS INTENDED EFFECT?** |
| **GEOGRAPHICAL SPACE** | Demarcates the area to facilitate the in-situ conservation of biodiversity. | A. The geographical space has clearly defined and agreed-upon borders. | Boundary mapped (map with trail system at <https://www.rbg.ca/file/RBGCootesTG16tab.pdf>) | Yes |
| **EFFECTIVE MEANS – 1** | Activities incompatible with the in-situ conservation of biodiversity do not occur and compatible activities are effectively managed. | A. The mechanism(s) provide(s) the ability to prevent incompatible activities and manage all other activities within the area, such that the in-situ conservation of biodiversity can be achieved. | The multiple protection mechanisms that exist on this property (noted above) have the power to, and compel the Royal Botanical Gardens, to exclude, control, and manage all activities within the area that are likely to have impacts on biodiversity.  Fee-simple ownership with associated policies, bylaws, and management direction, numerous designations in regulated plans (Niagara Escarpment Plan), City of Hamilton Official Plan, etc. Policy protection for provincially significant wetland and provincially significant ANSI through Provincial Policy Statement, although not a strong mechanism in its own right, supplements the other protection mechanisms at this site.  (Niagara Escarpment Planning & Development Act)   1. Despite any other general or special Act, when the Niagara Escarpment Plan is in effect, 2. no municipality or local board as defined in the Municipal Affairs Act having jurisdiction in the Niagara Escarpment Planning Area, or in any part of the Area, and no ministry, shall undertake any improvement of a structural nature or any other development or undertaking within the Area if the improvement, development or undertaking is in conflict with the Niagara Escarpment Plan; and 3. no municipality having jurisdiction in the Niagara Escarpment Planning Area, or in any part of the Area, shall pass a by-law for any purpose if it is in conflict with the Niagara Escarpment Plan. 2000, c. 26, Sched. L, s. 7 (6); 2002, c. 17, Sched. F, Table; 2009, c. 12, Sched. L, ss. 7, 12 (1). | Yes |
| **EFFECTIVE MEANS – 2** | A. The mechanism(s) compel(s) the authority(ies) to prohibit activities that are incompatible with the in-situ conservation of biodiversity. | From the NEPOSS Planning Manual, management direction states that “Natural Environment lands provide opportunities for the protection of important natural heritage features and cultural heritage features” therefore compelling RBG to prohibit activities that are incompatible with the in-situ conservation of biodiversity.  Compelling objectives and management direction can be found from the Royal Botanical Gardens Act (1989):  The objects of the corporation are,   1. to develop, assemble, document and maintain living collections of plants and animals; 2. to maintain nature preserves; 3. to protect specific environments and flora and fauna that are of special value as parental stocks or may be in danger of extinction; 4. to exhibit its collections to the public in cultivated and natural areas, museums and galleries; 5. to conduct botanical, horticultural and related biological research; 6. to prepare and distribute publications in the areas of research referred to in clause (e); 7. to act as an information resource centre for plant sciences and the understanding of natural phenomena, and conduct educational programs, including extension activities; 8. to develop supporting resources such as herbaria, libraries, conservatories, greenhouses and propagation facilities; and 9. to co-operate with other institutions of learning, research and extension on matters pertaining to biology, horticulture, landscape design, floral art and related pursuits appropriate to a botanical garden.   From the Provincial Policy Statement (2014):  2.0 Wise Use and Management of Resources  Ontario's long-term prosperity, environmental health, and social well-being depend on conserving biodiversity, protecting the health of the Great Lakes, and protecting natural heritage, water, agricultural, mineral and cultural heritage and archaeological resources for their economic, environmental and social benefits.  (2.1) Natural Heritage  (2.1.1) Natural features and areas shall be protected for the long term.  (2.1.2) The diversity and connectivity of natural features in an area, and the long-term ecological function and biodiversity of natural heritage systems, should be maintained, restored or, where possible, improved, recognizing linkages between and among natural heritage features and areas, surface water features and ground water features.  (2.1.3) Natural heritage systems shall be identified in Ecoregions 6E & 7E1, recognizing that natural heritage systems will vary in size and form in settlement areas, rural areas, and prime agricultural areas.  (2.1.4) Development and site alteration shall not be permitted in:   1. significant wetlands in Ecoregions 5E, 6E and 7E1; and 2. significant coastal wetlands.   (2.1.5) Development and site alteration shall not be permitted in:  a. significant wetlands in the Canadian Shield north of Ecoregions 5E, 6E and 7E1;  b. significant woodlands in Ecoregions 6E and 7E (excluding islands in Lake Huron and the St. Marys River)1;  c. significant valleylands in Ecoregions 6E and 7E (excluding islands in Lake Huron and the St. Marys River)1;  d. significant wildlife habitat;  e. significant areas of natural and scientific interest; and  f. coastal wetlands in Ecoregions 5E, 6E and 7E that are not subject to policy 2.1.4(b)  Unless it has been demonstrated that there will be no negative impacts on the natural features or their ecological functions.  (2.1.7) Development and site alteration shall not be permitted in habitat of endangered species and threatened species, except in accordance with provincial and federal requirements.  (2.1.8) Development and site alteration shall not be permitted on adjacent lands to the natural heritage features and areas identified in policies 2.1.4, 2.1.5, and 2.1.6 unless the ecological function of the adjacent lands has been evaluated and it has been demonstrated that there will be no negative impacts on the natural features or on their ecological functions.  From the City of Hamilton Official Plan:  (2.0) The Natural Heritage System, identified on Schedule B – Natural Heritage System, consists of the Niagara Escarpment Plan area, and Core Areas and Linkages identified by the City, based on requirements of the Provincial Policy Statement. Together, provincial and local planning objectives for the Natural Heritage System focus on protecting and restoring these features and natural functions as a permanent environmental resource for the community. The City shall focus on protecting and enhancing the natural heritage system through stewardship, education and awareness, land use planning policies, habitat restoration and management, and acquisition.  (2.1) Policy Goals  (2.1.1) Protect and enhance biodiversity and ecological functions.  (2.1.2) Achieve a healthy, functional ecosystem.  (2.1.3) Conserve the natural beauty and distinctive character of Hamilton’s landscape.  (2.1.4) Maintain and enhance the contribution made by the Natural Heritage System to the quality of life of Hamilton’s residents.  (2.1.5) Restore and enhance connections, quality and amount of natural habitat.  (2.1.6) Provide opportunities for recreational and tourism uses where they do not impact natural heritage features. | Yes |
| **LONG TERM** | The area is permanently protected or conserved and not easily reversed. | A. The mechanism(s) is/are intended to be in effect for the long term and not easily reversed. | Ownership by conservation agency in perpetuity, along with Niagara Escarpment Plan NEPOSS Natural Environment designation, and Environmentally Sensitive Area and Natural Heritage system designations under the City of Hamilton’s Official Plan, as well as the long existence of the site as a private protected area. | Yes |
| **TIMING** | Biodiversity is protected or conserved year-round. | A. The mechanism(s) is/are in effect year-round. | Royal Botanical Gardens ownership, management direction, plan designations all lead to year-round protection. | Yes |

| **TABLE 2: STANDARDS THAT FURTHER DEFINE AND DISTINGUISH BETWEEN PROTECTED AREAS AND OECMS** | | | | |
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| **CRITERIA:** | **INTENDED EFFECT OF THE CRITERION** | **SCREENING CHOICE** | **EVIDENCE-BASED RATIONALE:**  **Rationale/evaluation of how area meets or does not meet the intended effect of the criterion** | **OUTCOME** |
| **SCOPE OF OBJECTIVES** | Objectives have sufficient scope to result in the in-situ conservation of biodiversity. | A. The objectives are for the in-situ conservation of biodiversity as a whole, or for indigenous values accomplished through the in-situ conservation of biodiversity. | Managed as a nature sanctuary, with a core area designated as the Spencer Creek Floodplain Special Protection Area and Hopkins Woods Special Protection Area “Royal Botanical Gardens’ nature sanctuaries are a biodiversity hotspot, and the wetlands and terrestrial areas are subjects of intensive restoration programs. For this reason certain activities are not allowed in RBG’s natural lands. These include running or bicycle use on any trails, going off-trail, using ‘drones’ or other model aircraft, powered watercraft, or collection of any biological (living or dead) or non-biological specimens, handling of wildlife, or the release or planting of any organisms, without express permission.” (https://www.rbg.ca/uniportal)  Management objectives for Cootes Paradise Sanctuary focus on environmental protection and education.  RBG has a 20+ year habitat restoration initiative called Project Paradise for which the primary goal is to create underlying conditions for ecosystem recovery.  Short-term goals:  • Improve water quality  • Eliminate introduced species  • Manager stream channel instability  • Restore habitat connectivity  • Clean up old infrastructure  Long-term goals:  • Improve inflowing water quality  • Reintroduce extirpated species  • Restore natural water cycles  Goals, objectives and themes contained within the RBG Wetlands Restoration Plan include:  Themes:  1. Exclusion and removal of Common Carp from the marsh areas.  2. Emergent marsh planting to ameliorate Lake Ontario water level regulation.  3. Removal and repair of historically armoured shorelines in Cootes Paradise Marsh.  Goals:  Natural Lands Biodiversity - To manage Royal Botanical Gardens’ conservation lands as integrated sanctuaries in the context of their international and local significance, both ecologically and culturally by enhancing, restoring, and maintaining habitats and linkages in balance with the public’s need for spiritual renewal and exploration.  Wetland Restoration - While maintaining system connectivity, restore the underlying conditions for biodiversity recovery and sustainability, quantified as a mesoeutrophic environment in the deltas & mesotrophic in the sheltered bays.  Longer Term Objectives  1. With partners, recover inflowing water quality to meet provincial/federal water quality objectives.  2. Restore natural water cycle patterns of Spencer Creek and Lake Ontario.  3. Remove non-native species dominating the system.  The NEPOSS is a provincially coordinated system that secures and protects significant Escarpment features and scenic landscapes and provides the public with opportunities for compatible recreation in a manner that satisfies the broad park and open space objectives set out in this Plan. In this context, the objectives of the NEPOSS are:  1. To protect the Niagara Escarpment’s natural heritage resources and conserve its cultural heritage resources;  2. To provide opportunities for outdoor education and recreation;  3. To provide for public access to the Niagara Escarpment;  4. To complete a public system of major parks and open spaces through land acquisition and Master/Management planning;  5. To secure a permanent route for the Bruce Trail;  6. To protect and enhance the natural environment of the Niagara Escarpment, including the protection of natural heritage and hydrologic features and functions;  7. To support tourism by providing opportunities on public land for discovery and enjoyment by Ontario’s residents and visitors;  8. To provide a common understanding and appreciation of the Niagara Escarpment; and  9. To show leadership in supporting and promoting the principles of the Niagara Escarpment’s UNESCO World Biosphere Reserve designation through sustainable park planning, ecological management, community involvement, environmental monitoring, research and education. | Yes - PA |
| **PRIMACY OF OBJECTIVES** | Objectives are such that they result in the in-situ conservation of biodiversity. | A. Conservation objectives are stated as primary and overriding of other objectives. | Protection is the prime objective, with education and recreation as additional objectives. | Yes - PA |
| **GOVERNING AUTHORITIES** | The in-situ conservation of biodiversity is not jeopardized by relevant governing authorities. | A. All relevant governing authorities acknowledge and abide by the conservation objectives of the area. | RBG acknowledges and abides by the conservation objectives of the area since it is managed as a nature sanctuary with management objectives that focus on protection. The City of Hamilton acknowledges and abides by the policies of its Official Plan that designate the property as an Environmentally Sensitive Area and part of the Natural Heritage System. The province of Ontario acknowledge and abides by the protection provisions of the multiple pieces of legislation and policy that apply to this area (see Effective Means 1 & 2).  Royal Botanical Gardens – Strategic Plan  Strategic Goal #3 – Environmental Leadership  RBG will take leadership on environmental stewardship and education locally, provincially, nationally and internationally.  Actions  1. Create a comprehensive communication plan around environmental issues and climate change  2. Secure key partnerships that build on the “laboratory” nature of RBG’s natural lands, species resources and scientific expertise (intellectual property).  3. Demonstrate leadership in environmental stewardship by continuing to focus on operating in an environmentally responsible manner in everything we do. | Yes - PA |
| **BIODIVERSITY CONSERVATION OUTCOMES** | Biodiversity is conserved in-situ. | A. The area is achieving the conservation objectives. | Biodiversity conservation at this site are effective and enduring. Long-term, effective biodiversity conservation has been, and will continue to be achieved through its central role in the Cootes to Escarpment EcoPark, the Niagara Escarpment Plan, etc. Royal Botanical Gardens undertakes multiple biological monitoring programs to quantitatively measure condition of various levels of the ecosystem.  From the State of Cootes Paradise South Shore Report (2018):  • Overall trends in species richness (for breeding birds) have remained relatively stable since bird monitoring began in 2009. Based on observation, the number of species detected during breeding bird surveys is expected to remain relatively stable.  • 77 ground vegetation species detected in 2016 field season, 17 are non-native meaning that 39% of the combined average percent cover in 2016 was attributed to non-native species.  • 26 species of small trees and shrubs identified in the understory layer in 2012 with 6 of those being non-native.  • Inventories of the canopy tree layer on the South Shore indicate species composition, dominance and density seem to have remained relatively stable since long term forest monitoring began at RBG in 2008.  • Overall, the amphibian surveys indicate fairly stable marsh conditions in recent years. Although frog populations are still low compared to historic levels, detections of certain species have remained stable while the detection of Wood Frogs and Western Chorus Frogs might even indicate improvements in habitat quality.  From the Princess Point 2017 Burn Monitoring Report:  • Data collected from the quadrat surveys indicates that overall plan communities at Princess Point Prairie (area within Cootes Paradise Sanctuary) and savannah are continuing to improve.  • The number of native plants has increased compared to the number of non-native plants since 2011.  • Monitoring following the burn in 2006 documented an increase in species richness overall compared to the previous two years (2003 and 2005) of surveys, from an average of 21.5 plant species to an average of 42 species.  • Overall percent cover, native plant species continue to have the most amount of cover compared to non-native species.  • The prescribed burn schedules for 2017 in the savannah will likely be very beneficial for the native savannah plants and seed bank. | Yes - PA |

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| **SUMMARY OF ASSESSMENT** | |
| **OUTCOME / EVALUATION** | **Screening Outcome:** Protected Area (meets all criteria)  Is this an Interim Target 1 area: No  Is this a candidate Target 1 area: Yes  **Currently reported to CPCAD/CARTS?** No  **Total Area (ha) to be reported to CPCAD/CARTS:** 560 ha |
| Identify deficiencies that could be overcome in order to report as PA or OECM | Monitoring practices or data on conservation effectiveness. |
| Lead evaluator / assessor | Jurisdiction |
| Communications / Engagement | ECCC-CWS-PAD transferred the information to the new template in February 2020 |
| Approvals | Jurisdiction |