

Minesing Wetlands

Natural Area Conservation Plan

Executive Summary

Approved in 2017

Vision Statement

The Minesing Wetlands is one of the largest wetland systems in southern Ontario and supports a diversity of rare species and wetland habitats including extensive marshes, fens, and treed swamps. Conservation activities focus on strategic securement of remaining private land parcels, and restoration activities in a variety of habitats to retain the full complement of ecological functions and structures. Conservation partners, compatible recreational users, researchers and community members are cooperatively engaged in the long-term conservation, promotion, and understanding of this Ramsar Wetland of International Importance.

Project Team

Name	Organization	Role	Phone	Email
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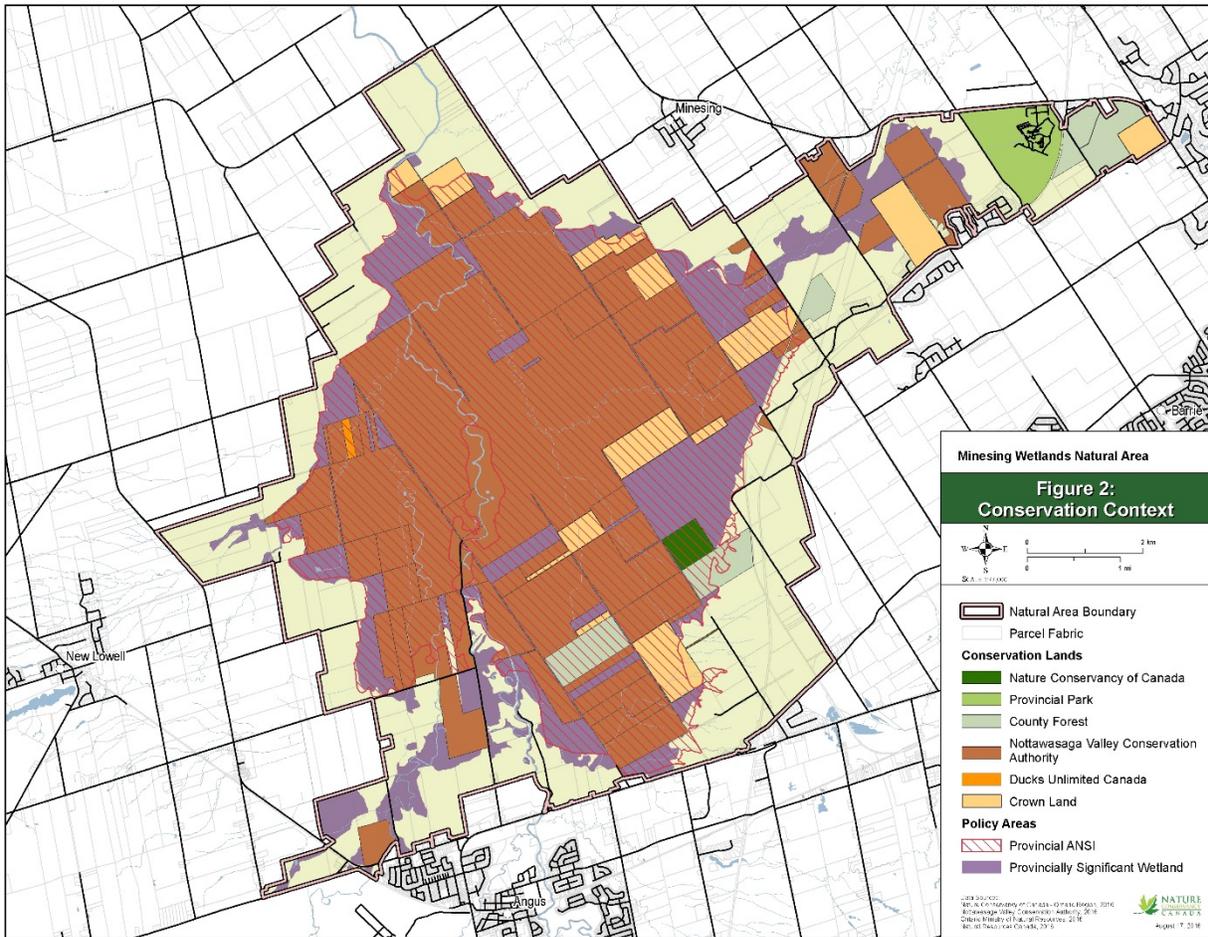
Sean Rootham	Ducks Unlimited Canada	Project advisor		
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Graham Findlay	Ministry of Natural Resources and Forestry	Project advisor		
Harold Parker	Local landowner	Stakeholder		
Terry Walton	Local landowner	Stakeholder		

Conservation Context

The Minesing Wetlands Natural Area (MW NA) covers 10,936.9 ha (27,025 ac) and contains 33 COSEWIC listed species, 34 provincial species at risk, 37 provincially rare tracked species, and two globally imperilled species. Three swamp communities totalling 223 ha are considered significant, including the Hackberry and Bur Oak Deciduous Swamps that characterize the levees of



the Nottawasaga River. Lands protected by policy in the NA include a Provincially Significant Wetland (PSW) (6,515.3 ha) and an Area of Natural and Scientific Interest (ANSI) (5,697.3 ha); the Minesing Wetlands are also recognized as a Ramsar wetland of international importance, a designation on par with the Everglades in Florida. NCC currently owns 44 ha of conservation land in the NA, NVCA owns 4,411 ha, Ducks Unlimited owns 10 ha, Simcoe County owns 314 ha, the Province of Ontario owns 780 ha (made up of Crown Land (586 ha), and Springwater Provincial Park (194 ha)).



The Minesing Wetlands NA is the third-largest wetland system in southern Ontario. Though the surrounding landscape has been significantly impacted by agriculture and residential development, the wetlands themselves remain largely intact. NCC has been working in this natural area since 1974, and has secured a number of projects, many of which are now owned and managed by the Nottawasaga Valley Conservation Authority (NVCA). The previous generation NACP resulted in the successful conservation of 153 ha (379 acres), exceeding the original securement target of 40 ha (100 acres) and nearly meeting the revised NACP target of 182 ha (450 acres). The plan also accomplished ambitious conservation planning targets such as the creation of a complementary Forest Health Plan and landscape conductivity study. The original plan did not address the restoration needs for the Natural Area, including riparian plantings, streambank stabilization initiatives, and invasive species control, instead referring to the Minesing Wetlands Property Management Plan for that level of detail. It was determined during the development of the third generation NACP that these types of activities should be tracked at a Natural Area level, as they are occurring on NCC owned lands, NVCA owned lands, as well as public and private landholdings, and can be fed into higher level Goals, with measurable Objectives, as part of the NACP. As such, the action list for the NACP is now more robust, and addresses high-priority emerging threats such as rapidly increasing Common Reed populations and upstream influences that could be guided by sound conservation science. If this plan is successfully implemented, it will result in the acquisition of an additional 450 ha of land, the restoration of 30 ha of riparian habitat in 1 km of stream banks, successful responses to priority species at risk needs, control of Common Reed and Dog-strangling Vine to manageable levels, improved signage and access, measurable outreach and education initiatives, and the development and maintenance of key partnerships.

Biodiversity Targets

Table listing each of the targets stated in your plan, their current and desired future status based on viability ratings, and the goals associated with each target.

Target	Current Status	Desired Future Status	Goal (s)
Fens	Very Good	Very Good	There is no net loss of Fen habitat in the Minesing Wetlands, achieved through land stewardship and conservation of remaining 97 ha of unprotected fen by 2037
Hackberry and Bur Oak Woodlands	Good	Good	Increase size of Hackberry and Bur Oak Woodlands and Deciduous Swamp forests by reforesting 70 ha by 2027, and acquiring at least 500 ha of unprotected deciduous swamp by 2047
Deciduous Swamp Forests	Good	Good	Increase size of Hackberry and Bur Oak Woodlands and Deciduous Swamp forests by reforesting 70 ha by 2027, and acquiring at least 500 ha of unprotected deciduous swamp by 2047
Mixed and Coniferous Swamp Forests	Very Good	Very Good	There is no net loss of Mixed and Coniferous Swamp Forest habitat in the Minesing Wetlands, achieved through land stewardship and conservation of at least 500 ha of unprotected Mixed and Coniferous Swamp Forest habitat by 2057
Marshes	Good	Good	Reduce Common Reed occurrences from Occasional ¹ to Rare to None by 2022 There is no loss of Marsh habitat in the Minesing Wetlands, achieved through land stewardship and acquisition of remaining 508 ha of unprotected Marsh habitat by 2047
Thicket Swamps	Very Good	Very Good	There is no loss of Thicket Swamp habitat in the Minesing Wetlands, achieved through land stewardship and opportunistic acquisition of remaining 197 ha of unprotected Thicket Swamp habitat by 2037
Rivers, Streams and Creeks	Fair	Good	There is no net loss in natural riparian landcover from current level of 840 ha (82.7% of stream lengths) beginning in 2017
Upland Forests	Good	Good	Invasive forest species do not increase from Occasional in Upland Forest habitats, beginning in 2017
Reptiles and Turtles	Fair	Good	Maintain or increase existing populations of Reptiles and Turtles in perpetuity through habitat conservation and restoration, with an emphasis on SAR turtles

Hine's Emerald	Fair	Good	Maintain existing populations of Hine's Emerald through habitat conservation and restoration, including the acquisition of at least 200 ha of Hine's Emerald critical habitat by 2037.
Overall Target Viability for the NA	Good	Good	

Threats

IUCN Classification	Threat	Overall Magnitude
1.1.1	Residential Development and Municipal Effluent	High
2.1.1	Agricultural Intensification and Expansion within the Minesing Wetlands Catchment	High
5.3.1	Incompatible Forestry	Medium
8.1.1	Wetland Invasive Species	Medium
8.1.3	Emeral Ash Borer	Medium
8.2.1	Overabundant Medopreadors	Medium
	Overall Threat Status for the Natural Area	High

Strategic Plan

IUCN Classification	Strategy ○ Activity	Importance
1.1	Secure 450 ha of conservation lands in the Natural Area <ul style="list-style-type: none"> ○ Protect 350 ha of P1 and P2 properties through fee-simple purchase or donation ○ Protect 100 ha of P1 and P2 properties through fee-simple purchase or donation 	Necessary Necessary
	<ul style="list-style-type: none"> ○ Update landowner database and create targeted securement strategy 	Necessary
1.3	Implement sound conservation planning <ul style="list-style-type: none"> ○ Update this NACP in 10 years ○ Conduct annual status monitoring (see status monitoring plan) ○ Conduct annual effectiveness monitoring (see effectiveness monitoring plan) ○ Develop and seek approval of variance reports and Annual Progress Reports ○ Address identified knowledge gaps 	Necessary Necessary Necessary Necessary Necessary
2.2	Undertake invasive species control program <ul style="list-style-type: none"> ○ Control Common Reed on conservation, public, and partner lands where opportunities exist ○ Control Dog-strangling Vine in known and newly found locations 	Critical Necessary

	<ul style="list-style-type: none"> ○ Monitor for new invasions of problematic invasive species, and control where feasible 	Necessary
2.3	<p>Restore target habitats</p> <ul style="list-style-type: none"> ○ Restore 70 hectares of Deciduous Swamp Forest and Hackberry/Bur Oak Woodland habitats by planting trees and shrubs ○ Implement stream stabilization initiatives such as live staking, soil anchoring and wing deflector installation along at least 1 km of shoreline 	Necessary Necessary
3.2	<p>Assist in species recovery of Hine's Emerald and other priority SAR</p> <ul style="list-style-type: none"> ○ Assist Hine's Emerald recovery team with priority actions from the Hine's Emerald Recovery Strategy ○ Participate in species recovery actions for emerging priority species at risk in the Minesing Wetlands area 	Critical Necessary
4.3	<p>Increase public engagement in Natural Area</p> <ul style="list-style-type: none"> ○ Maintain existing trails ○ Educate the public on the role and importance of the Minesing Wetlands through educational events, guided tours, printed materials, volunteer and citizen science opportunities, and other means 	Necessary Necessary
7.2	<p>Maintain and develop partnerships</p> <ul style="list-style-type: none"> ○ Maintain beneficial partnership between NCC and NVCA and continue to work together to share information and ensure the conservation of the biodiversity targets in the NA 	Necessary
4.2/1.3	<p>Influence conservation practices outside the Natural Area</p> <ul style="list-style-type: none"> ○ Address opportunities to influence conservation in the subwatersheds feeding the Minesing Wetlands, such as invasive species management, Hine's Emerald habitat management and buffer/corridor restoration guidance ○ Determine practicality, feasibility and desirability of expanding the Minesing Wetlands Natural Area boundary to incorporate a least one subwatershed that does not meet How Much Habitat Is Enough landcover guidelines (Environment Canada document published in 2013) 	Necessary Necessary
7.3	<p>Raise required funds to implement NACP</p> <ul style="list-style-type: none"> ○ Raise the funds needed for 2017 - 2027 NACP activities 	Necessary

Monitoring Plan

Status monitoring

Target	Key Ecological Attribute (KEA)	Monitoring Question
All	Species composition / dominance	How many SAR observations are occurring within the NA?

Fens	Species composition / dominance	How common are invasive species in fen habitats? (to ensure native plant community viability)
Hackberry and Bur Oak Woodlands	Species composition / dominance	What is the total area of Hackberry and Bur Oak woodland cover in the NA?
Hackberry and Bur Oak Woodlands	Species composition / dominance	How common are invasive species in Hackberry and Bur Oak woodland habitats? (to ensure native plant community viability)
Deciduous Swamp Forests	Size / extent of characteristic communities / ecosystems	What is the total area of deciduous swamp forest cover in the NA?
Deciduous Swamp Forests	Species composition / dominance	How common are invasive species in deciduous swamp forest habitats? (to ensure native plant community viability)
Mixed and Coniferous Swamp Forests	Species composition / dominance	How common are invasive species in mixed and coniferous swamp forest habitats? (to ensure native plant community viability)
Marshes	Species composition / dominance	How common are invasive species in marsh habitats? (to ensure native plant community viability)
Thicket Swamps	Species composition / dominance	How common are invasive species in thicket swamp habitats? (to ensure native plant community viability)
Rivers, Streams, and Creeks	Species composition / dominance	How common are invasive species in the NA's waterways? (to ensure native community viability)
Rivers, Streams, and Creeks	Size / extent of characteristic communities / ecosystems	Is the water quality in the NA's waterways indicative of a healthy aquatic system or a system requiring intervention?
Upland Forests	Species composition / dominance	How common are invasive species in upland forest habitats? (to ensure native plant community viability)
Reptiles and Turtles	Population size & dynamics	How many reptile and turtle observations are occurring within the NA?
Reptiles and Turtles	Population size & dynamics	How many reptile and amphibian roadkills are occurring within the NA?
Hine's Emerald	Population size & dynamics	How many Hine's Emerald observations are occurring within the NA?

Effectiveness Monitoring

IUCN Classification	Strategy/Activity	Objective	Monitoring Question
2.2	Control Invasive Species <ul style="list-style-type: none"> ○ Control Common Reed on conservation, public, 	Common Reed is eradicated (if overwater herbicide	Has Common Reed been eradicated or significantly reduced from the areas in

	and partner lands where opportunities exist Control Dog-strangling Vine in known and newly found locations	becomes available) or significantly reduced in the Natural Area by 2024. Dog-strangling Vine is controlled to a manageable level in the natural area by 2027.	which it occurred and was treated, indicating effective treatment strategies? Is DSV eradicated or reduced to rare ¹ in infestation areas, indicating effective treatment strategies?
2.3	Habitat Management and Natural Process Restoration <ul style="list-style-type: none"> ○ Restore 30 hectares of Deciduous Swamp Forest and Hackberry/Bur Oak Woodland habitats by planting 3 hectares per year with trees and shrubs ○ Implement stream stabilization initiatives such as live staking, soil anchoring and wing deflector installation along at least 1 km of shoreline 	30 ha of Deciduous Swamp Forest and Hackberry/Bur Oak Woodland have been restored by 2027. At least 1 km of shoreline of rivers, streams, or creeks are improved with streambank stabilization measures by 2027	Is the restored Deciduous Swamp Forest and Hackberry/Bur Oak Woodland vegetation community sustained over time? Is erosion reduced on banks that have undergone stabilization efforts, indicating effective treatment strategies?

Communications plan

The Nottawasaga Valley Conservation Authority undertakes a broad range of outreach and communications tactics each year to build support for initiatives to protect and restore the watershed, including initiatives within and influencing the Minesing Wetlands. At NCC, a variety of additional means will be used to raise awareness and support for conservation work in the Minesing Wetlands. Some of these that will be employed by both or either organization include:

- Increasing awareness of the wetlands through the installation of signs throughout the natural area
- Maintaining and improving trails and access routes for visitors to the NA
- Educating members of the public and local landowners about conservation through public or interest-holder meetings (such as the Minesing Management Committee), volunteer stewardship events, education materials and school programming, and conservation work on private lands
- Promote four-season recreational opportunities (e.g. canoeing, snowshoeing, hiking, authorized hunting) in the wetlands through NVCA website, social media and tourism organizations and by supporting the outreach work of the Friends of Minesing Wetlands
- Social media efforts through NVCA and NCC

- Traditional news releases
- Targeted mailings and outreach to landowners in high priority areas for stewardship and/or restoration
- Promotion of NCC's mission and achievements, and possibly information about targeted work in the NA will continue through the publication of NCC materials including the NCC magazine, blog posts and annual reports

The NVCA is the primary point of contact for local landowners and interest-holders within the Natural Area. NCC's outreach work has focused on engaging volunteers and members of the general public through events, and contributions to NVCA and FOMW recreational and education programming.

The communications plan was developed with review by the Ontario Communications Manager and the NVCA Communications Coordinator.

Maps

Map 1 - Conservation Context

