

Acton Quarry Extension

Community Advisory Panel Meeting – January 13, 2014

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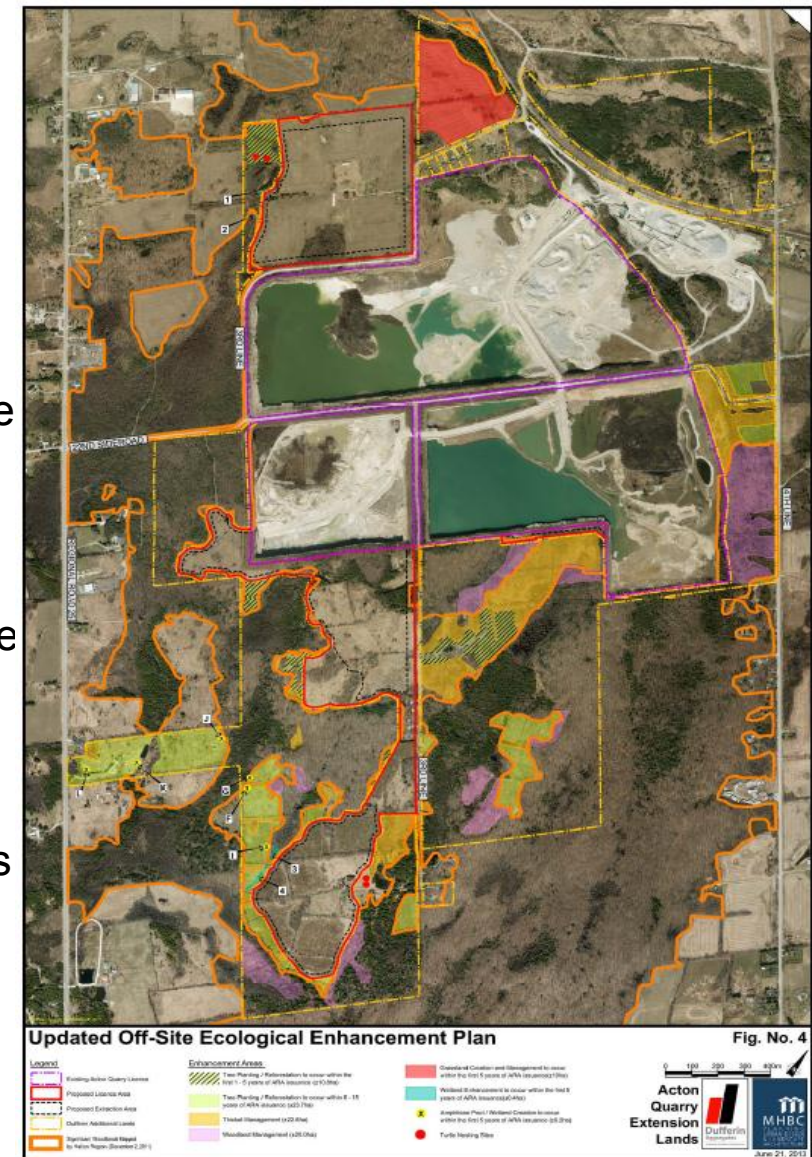


The Ecological Enhancement Plan (EEP) for the Acton Quarry Extension has been designed to expand and enhance the ecological features and functions of the Regional Greenlands System.

The ecological enhancement and restoration measures proposed by Dufferin fall into three general categories:

- Off-site Ecological Enhancement Plan (EEP) for Dufferin lands outside of the proposed Licence Area;
- On-site Ecological Enhancement Plan (within Licence Area) for lands that are not proposed for extraction; and,
- Progressive and Final Rehabilitation for lands that are proposed for extraction.

This presentation gives an overview of the off-site ecological enhancements proposed for Dufferin lands that are not proposed for extraction.



EEP Components

- The main Ecological Enhancement Plan components include:
 - Tree-planting – Reforestation (**34.5 ha**)
 - Active Thicket and Woodland Management (**42.6 ha**)
 - Grassland Creation and Management (**10 ha** grassland)
 - Amphibian Pool/Wetland Creation (6 pools)
 - Wetland Enhancement (0.4 ha at 4 locations)
 - Creation of 4 Turtle Nesting Sites Near Existing Ponds

Tree-planting / Reforestation

- Tree-planting/reforestation is proposed for 34.5 ha of Dufferin land at Acton, outside of the proposed extension licence area.
- Within the licence area, an additional 5.5 ha of land will be reforested.
- 16.3 ha will be reforested within 5 years of licence issuance.
- A further 23.7 ha will be planted between 6 and 15 years after licence issuance.



Tree-planting / Reforestation

- The 34.5 ha off-site tree-planting areas are located close to Significant Woodlands.
- Over time, the tree-planting efforts will increase the extent of Significant Woodlands, enhancing conditions for a variety of species dependent on larger blocks of forested habitat, including the Jefferson Salamander and area-sensitive forest bird species.



Thicket Management

- 22.6 ha of thicket management is proposed.
- Invasive shrubs like Common Buckthorn will be removed.
- The main management goal is to promote woodland conditions and expand Significant Woodlands.



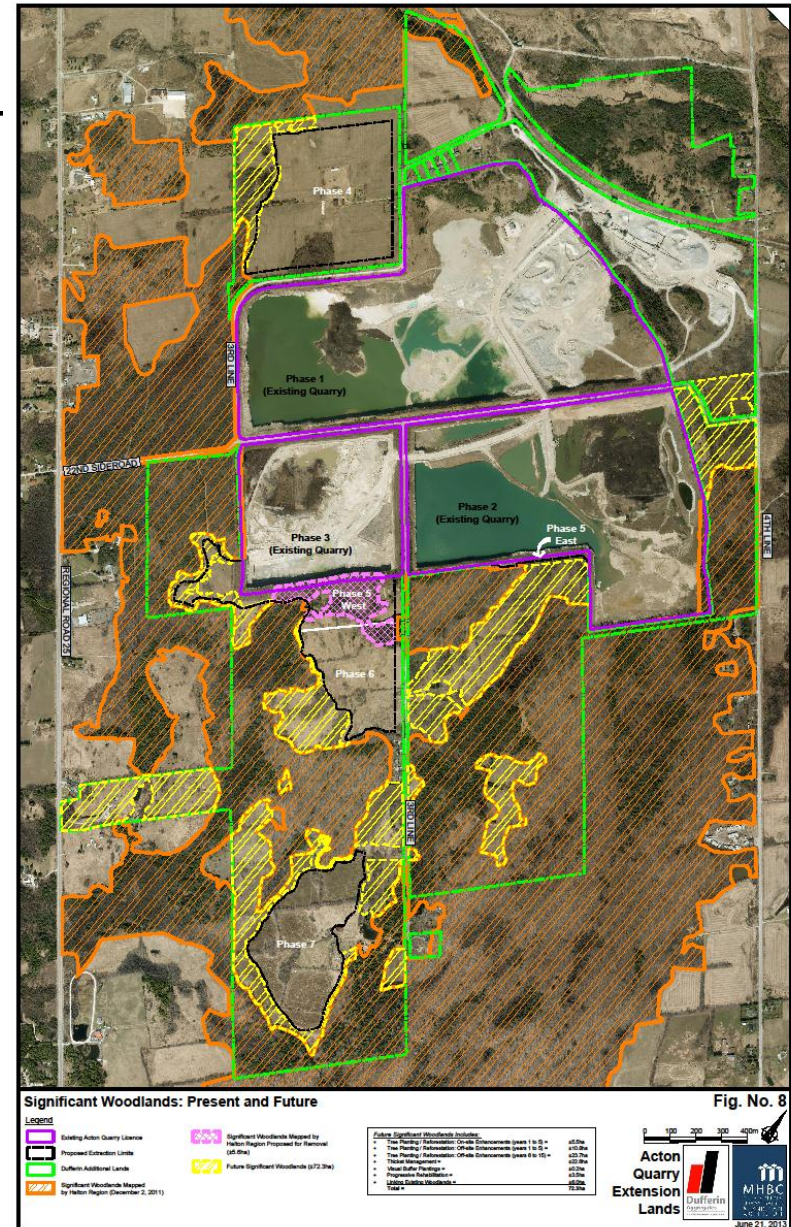
Woodland Management

- Approximately 20.0 ha within Significant Woodlands are proposed for woodland management.
- These areas mainly comprise early successional and/or disturbed forest stands that will benefit from some management, especially the control of invasive woody species such as Common Buckthorn.
- Woodland management activities will occur gradually over 15 years after licence issuance.



Expansion and Enhancement of Significant Woodlands

- The reforestation and thicket management enhancements will, over time, expand Significant Woodlands by 72.3 ha (shown in yellow).



Grassland Creation and Management

- Old field grasslands may provide habitat for species at risk such as the Eastern Meadowlark, Bobolink and Barn Swallow.
- North of Phase 4 there is a 10 ha area of Dufferin-owned land that is in active agricultural use (crop rotation). This area is proposed as a grassland management area.
- This 10 ha area will be converted from row crops to old field meadow habitat (mix of grasses and wildflowers).



Amphibian Pool Creation

- 6 wetland pools suitable as amphibian breeding habitats are proposed.
- Pools will have characteristics that will support amphibian breeding functions.
- Pool 'G' was constructed in fall 2011 as a pilot project.
- Excellent results to-date, including establishment of wetland vegetation and 5 amphibian species breeding.
- To be discussed further...



Wetland Enhancements

- Four (4) small areas covering approximately 0.4 ha in total within PSW's are proposed for wetland enhancement activities.
- The wetlands and adjacent areas proposed for restoration and enhancement include an informal camp site, an old farm lane crossing with deep rutting, ditch lines within a deciduous swamp, and a wetland swale with limited woody cover.



Turtle Nesting Areas

- Dufferin also proposes to construct at least four turtle nesting sites next to ponds within wetlands W1 (H19) and W9 (H16c).
- Dimensions will be approximately 8-10 m x 4-5 m and the nesting areas will be oriented to provide south and/or south-west exposures. Suitable granular material will be piled on top of landscape fabric (up to 1.5 m deep).



Off-site EEP Summary

- Tree-planting/reforestation = 34.5 ha
 - ▶ 10.8 ha within 5 years of licence (future Significant Woodlands)
 - ▶ 23.7 ha within 6 to 15 years of licence (future Significant Woodlands)
- Thicket Management = 22.6 ha outside Significant Woodlands (future Significant Woodlands)
- Woodland Management = 20.0 ha within existing Significant Woodlands
- Grassland Creation and Management = 10 ha
- Amphibian Pool/Wetland Creation = 6 pools (approximately 450 m² each)
- Wetland Enhancement = at least 0.4 ha at 4 locations
- Turtle Nesting Sites = 4 nesting sites

Other Biodiversity Projects – Acton Quarry

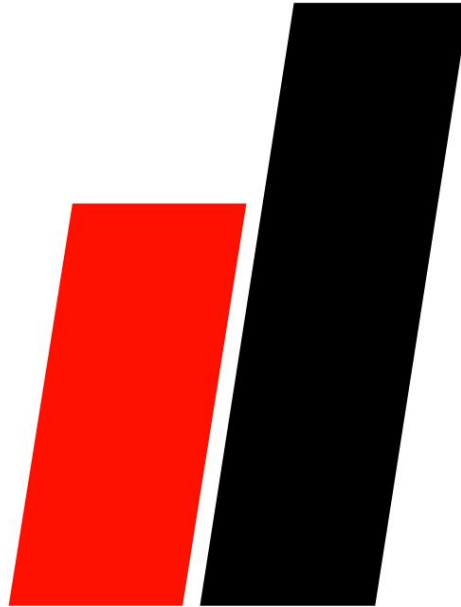
- Dufferin will construct a Barn Swallow nesting structure in spring 2014.



Other Biodiversity Projects – Milton Quarry

- Dufferin has constructed 969 m of salamander drift fence to direct salamanders away from the future extraction area.





Dufferin Aggregates

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