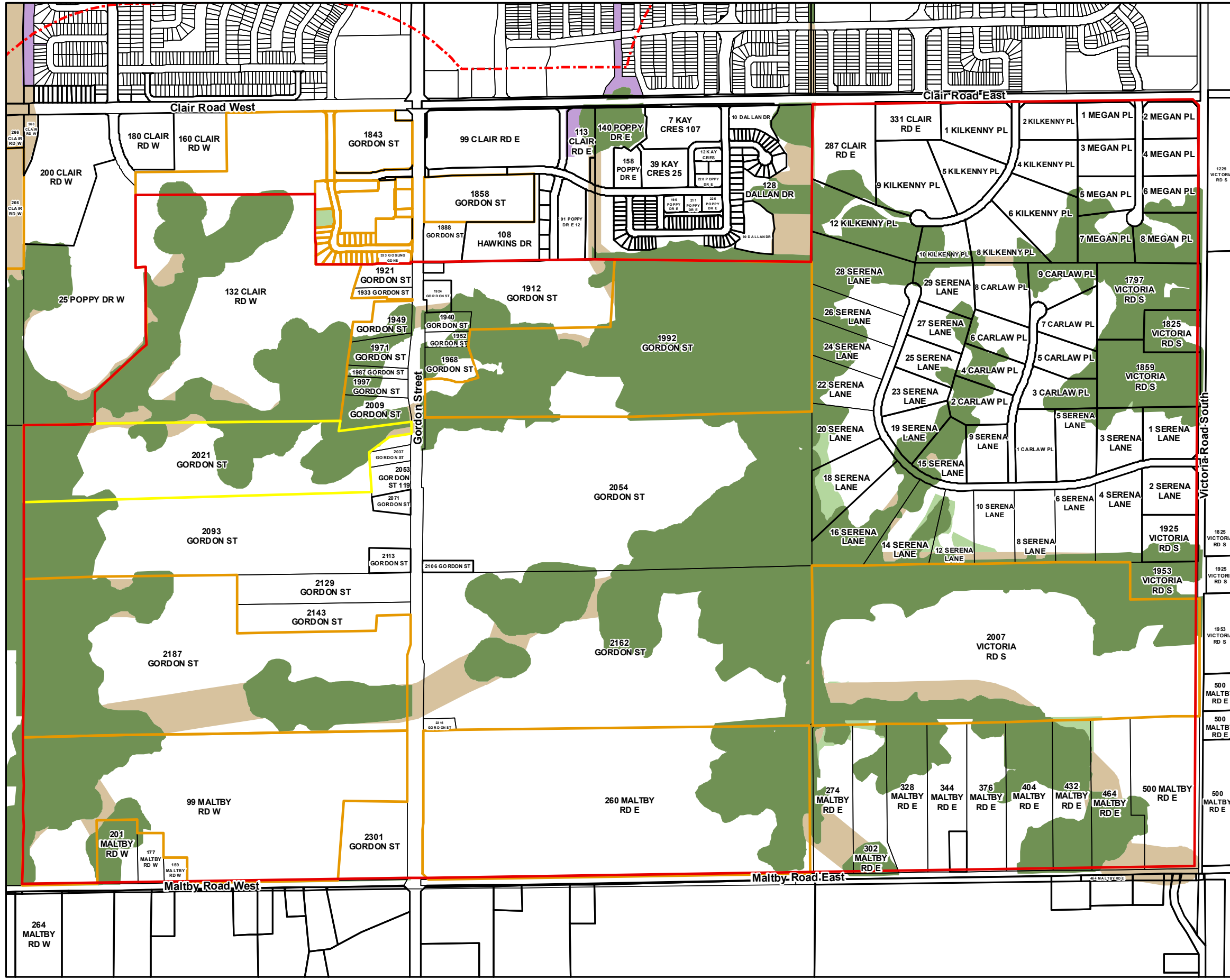


Appendix F

Natural Heritage Mapping



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OPA 42 Approved Natural Heritage System (NHS)

Map NH-1

Clair-Maltby Secondary Plan Phase 1 and 2 Characterization Report

Legend

- Secondary Plan Area Boundary (SPA)
- Primary Study Area Boundary (PSA)
- Parcel Fabric
- Properties with Appeals Settled under OPA 42
- City and Owner Currently Before the Courts
- Significant Natural Areas
- Natural Areas
- Ecological Linkages
- Restoration Areas

City of Guelph: Secondary Plan Area Boundary, Parcel Fabric, 2016.

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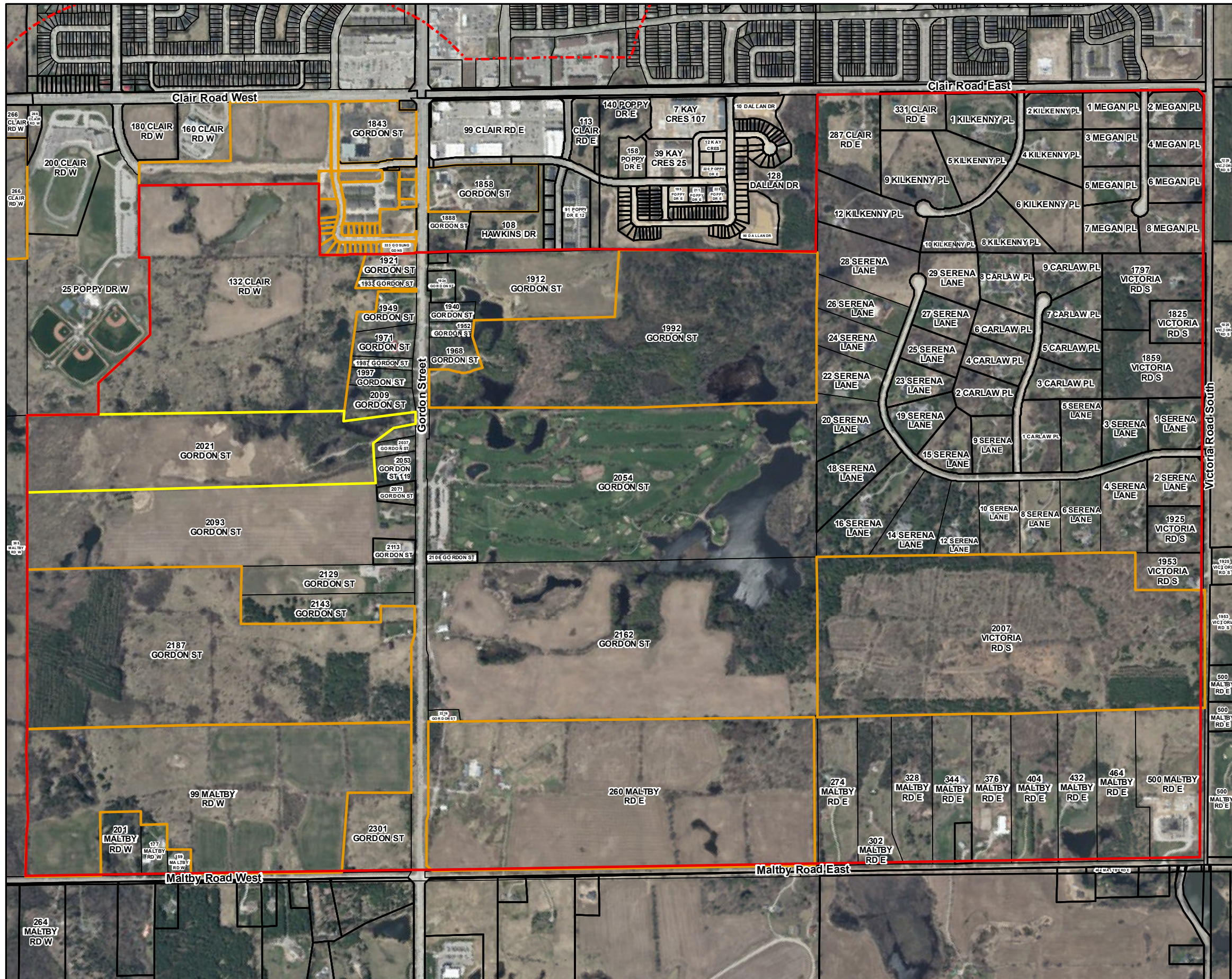


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Secondary Plan Area Parcels on Air Photo

Map NH-2

Clair-Maltby Secondary Plan
Phase 1 and 2 Characterization Report

Legend

- Secondary Plan Area Boundary (SPA)
- Primary Study Area Boundary (PSA)
- Properties with Appeals Settled under OPA 42
- City and Owner Currently Before the Courts
- Parcel Fabric

City of Guelph: Secondary Plan Area Boundary, Parcel Fabric, 2016.

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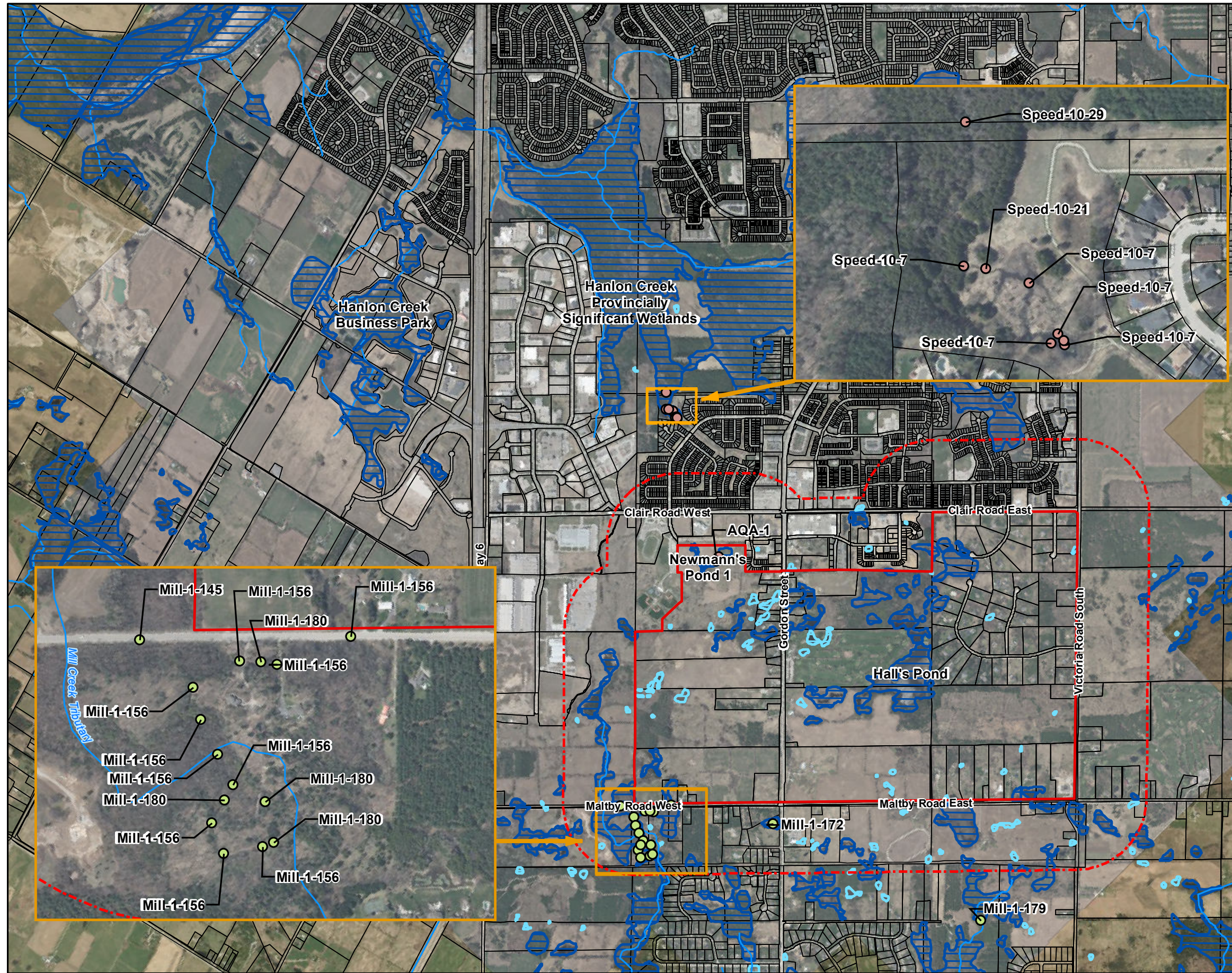
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Scoped Fisheries Assessment

Map NH-3

Clair-Maltby Secondary Plan Phase 1 and 2 Characterization Report

Legend

- Primary Study Area
- Secondary Plan Area
- Watercourse (MNRF 2017)
- Hanlon Creek (MNRF 1999)
- Mill Creek (MNRF 2010-2012)
- Aquafor Beech Limited Data (2012)

Wetlands

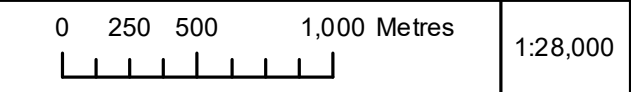
- Provincially Significant Wetlands (MNRF 2017)
- Unevaluated Wetlands (MNRF 2017)

Beacon Environmental: Watercourse, Primary Study Area Boundary, 2016;
City of Guelph: Secondary Plan Area Boundary, Parcel Fabric, 2016;
Ministry of Natural Resources and Forestry: Hanlon Creek, Mill Creek;
Aquafor Beech Limited: Sample Data, 2011

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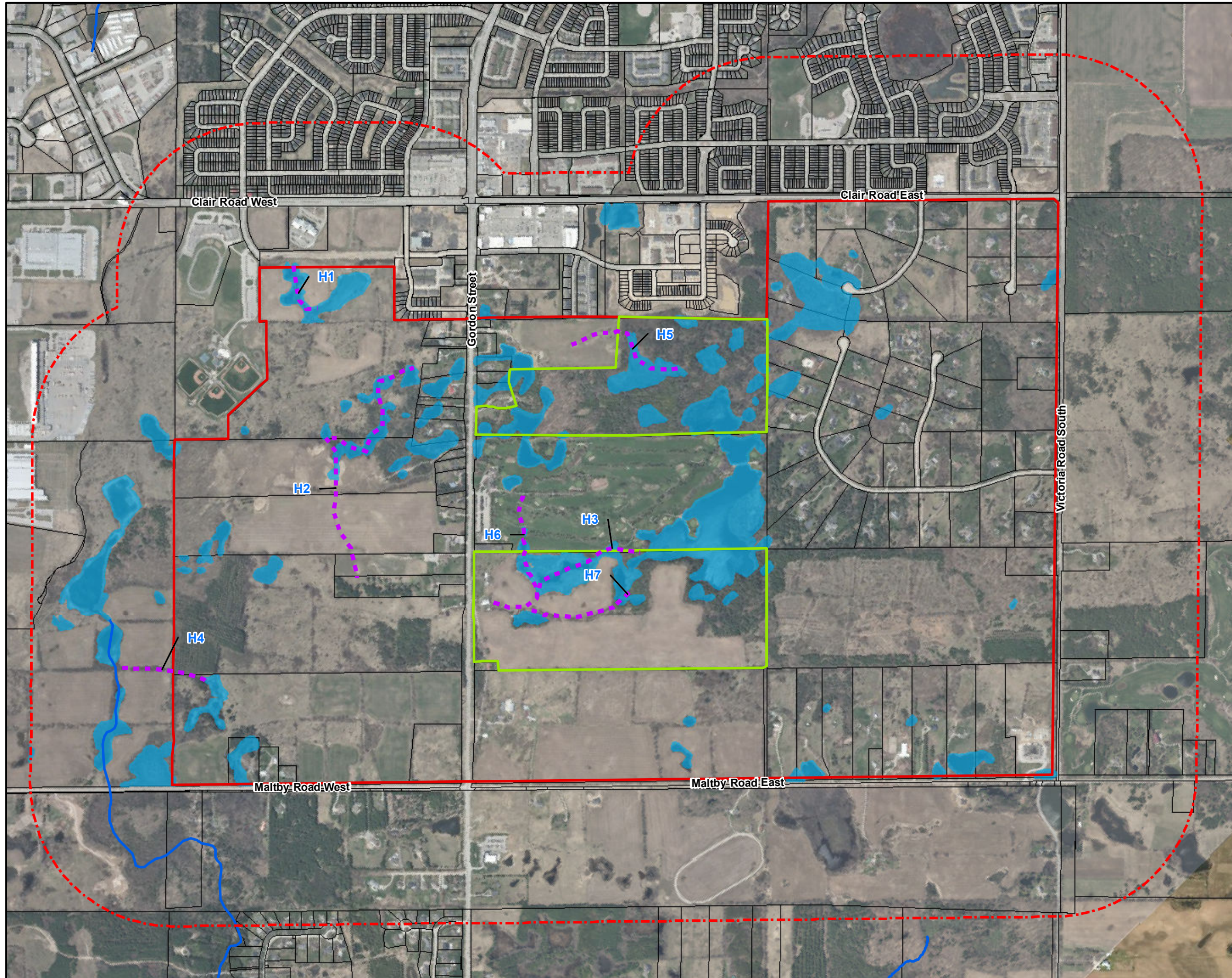


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Scoped Headwater Drainage Feature Assessment (Potential HDFs)

Map NH-4A

Clair-Maltby Secondary Plan
Phase 1 and 2 Characterization Report

Legend

-  Secondary Plan Area Boundary
-  Primary Study Area Boundary
-  Parcel Fabric
-  Access Provided for HDF Assessment
-  ELC Wetland Communities and Ponds (Beacon 2017)
-  Potential Headwater Drainage Feature (HDF) (Beacon 2018)
-  Watercourse (MNR 2017)

City of Guelph: Secondary Plan Area Boundary, 2016

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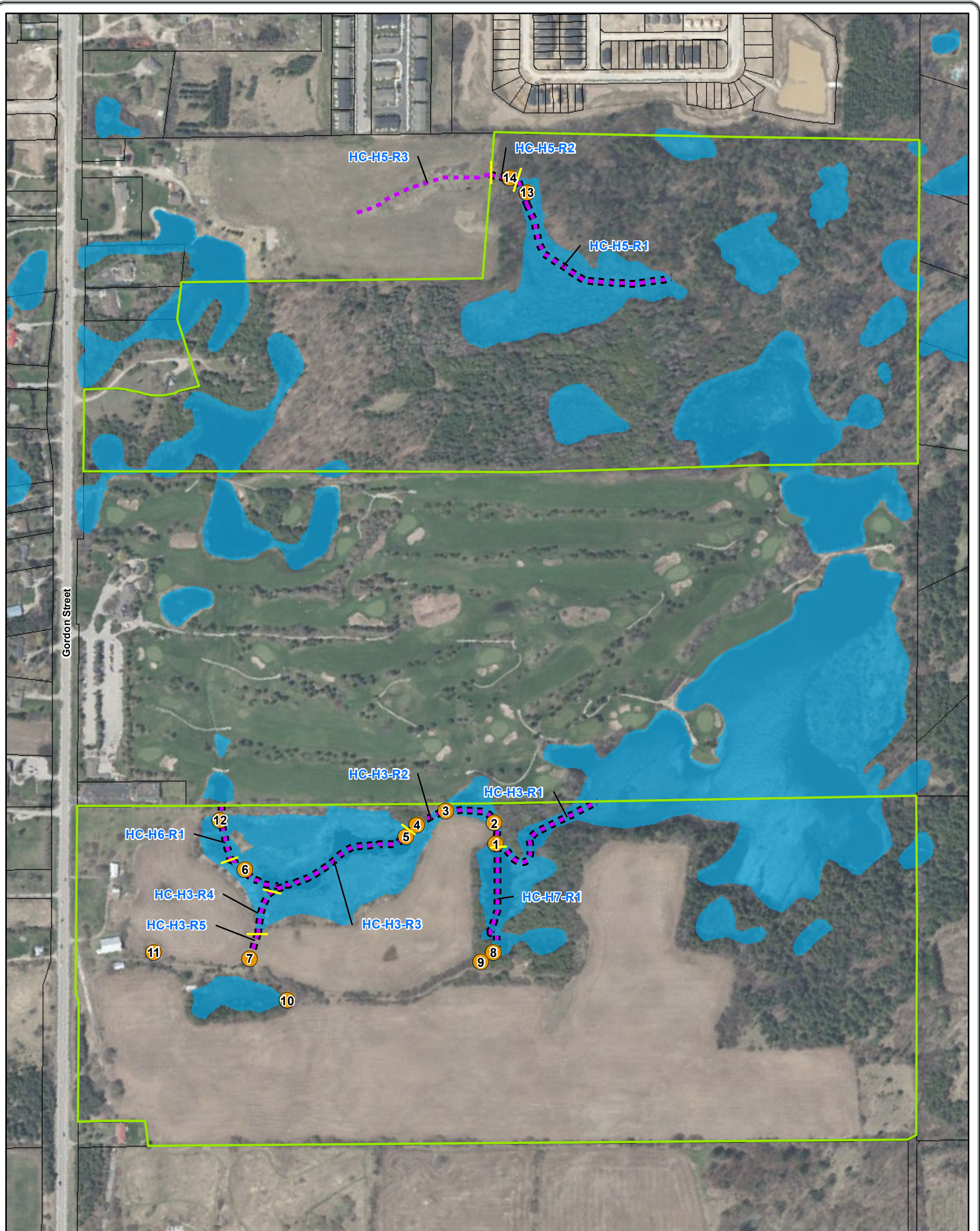
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Legend

- Parcel Fabric
- Access Provided for HDF
- ELC Wetland Communities (Beacon 2017)
- Photo Location
- Reach Break
- Potential Headwater Drainage Feature (HDF) (Beacon 2018)
- Confirmed Headwater Drainage Feature (HDF) (Beacon 2018)
- Watercourse (MNRF 2017)

Confirmed Headwater Drainage Features

Figure 4B

Clair-Maltby Secondary Plan
Phase 1 and 2 Characterization Report



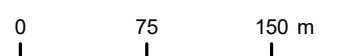
Project: 216002
Last Revised: August, 2018

Client: City of Guelph

Prepared by: DU
Checked by: SG

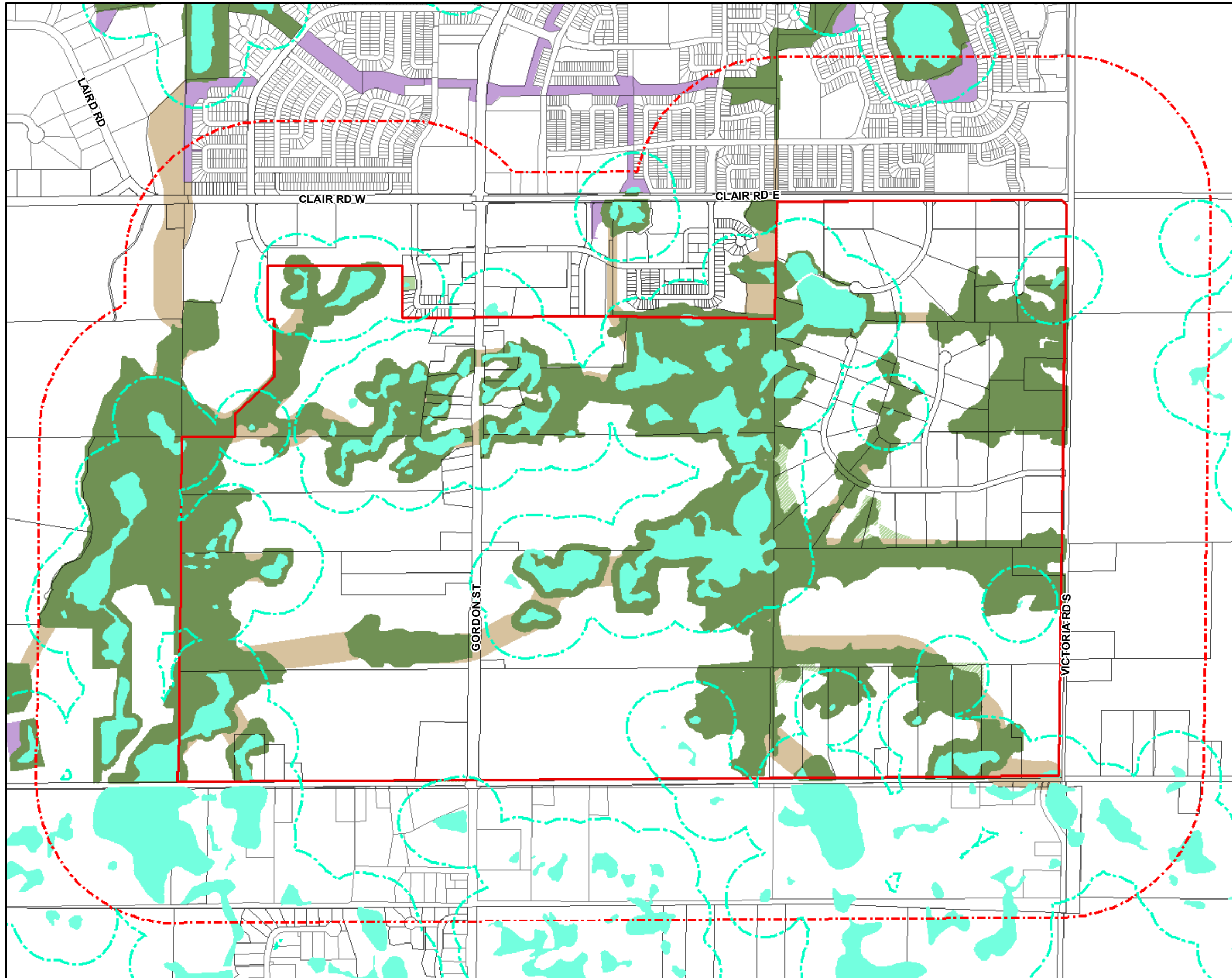


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Orthoimagery Baselayer: FBS Guelph and Kitchener, 2017

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GRCA Wetlands and Regulated Areas

Map NH-5A

Clair-Maltby Secondary Plan
Phase 1 and 2 Characterization Report

Legend

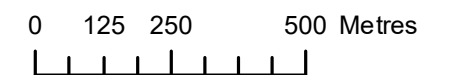
- Primary Plan Area
 - Secondary Study Area
 - Parcel Fabric
 - GRCA Wetlands
 - GRCA 120m Regulation Limit
- City of Guelph Natural Heritage System (2014)**
- Significant Natural
 - Natural Areas
 - Natural Areas
 - Ecological Linkages
 - Restoration Areas
 - GRCA 120m Regulation Limit

Beacon Environmental: GRCA 120m Regulation Limit, Secondary Study Area Boundary;
City of Guelph: Secondary Plan Area Boundary, Parcel Fabric, Existing Natural Heritage System, 2016; GRCA: GRCA Wetlands

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Refinements to Provincial Wetland Mapping

Map NH-5B

Clair-Maltby Secondary Plan
Phase 1 and 2 Characterization Report

Legend

- Primary Plan Area Boundary
- Secondary Study Area Boundary
- Parcel Fabric
- Significant Wetlands**
- Provincially Significant Wetlands (MNRF 2017)
- Unevaluated Wetlands (MNRF 2017)
- Proposed Wetland Refinements**
- Proposed Additions to PSW (Beacon)
- Proposed Additions to Unevaluated Wetlands (Beacon 2018)
- Proposed Removals from PSW (Beacon 2018)
- Proposed Transition from Unevaluated Wetlands to PSW (Beacon 2018)
- Proposed Removals from Unevaluated Wetlands (Beacon 2018)
- City of Guelph Natural Heritage System (2014)**
- Significant Natural Areas
- Natural Areas
- Ecological Linkages
- Restoration Areas

City of Guelph: Secondary Plan Area Boundary, Parcel Fabric, Existing Natural Heritage System, 2016.

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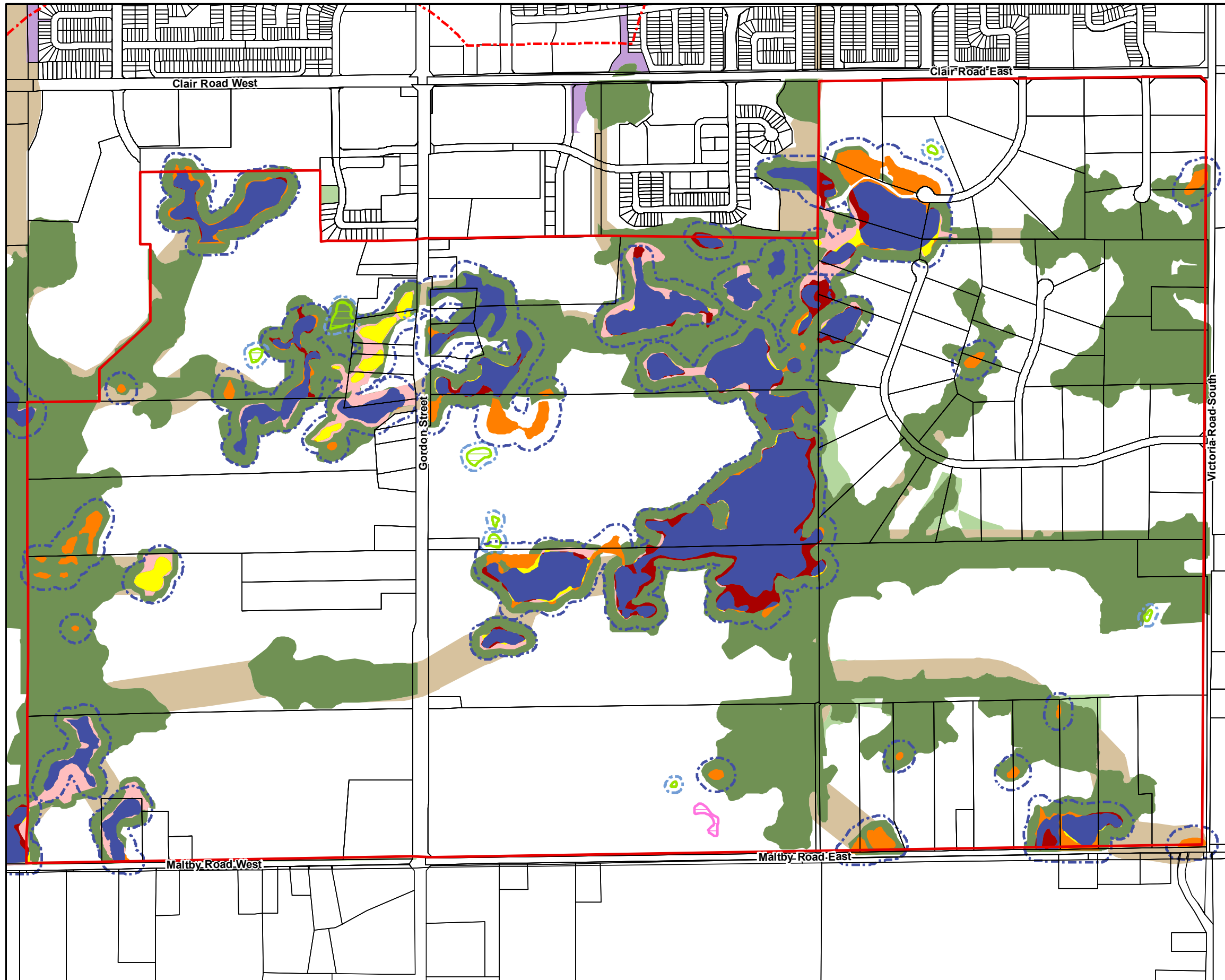
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Refinements to City Significant Wetland Mapping

Map NH-6

Clair-Maltby Secondary Plan Phase 1 and 2 Characterization Report

Legend

- Primary Plan Area Boundary
- Secondary Study Area Boundary
- Parcel Fabric

MNR Provincial Wetlands

- Proposed MNR Provincial Wetlands to Remain (Beacon, 2018)
- Proposed Additions to MNR Provincial Wetlands (Beacon, 2018)
- Proposed Other Wetlands >0.5 ha to MNR Provincial Wetlands (Beacon, 2018)
- Proposed Removals from MNR Provincial Wetlands (Beacon, 2018)

Other Wetlands ≤ 0.5 ha

- Proposed Additions from Other Wetlands ≤ 0.5 ha (Beacon, 2018)
- Proposed Removals from Other Wetlands ≤ 0.5 ha (Beacon, 2018)
- Proposed Removals from LIO Unevaluated Wetlands ≤ 0.5 ha (Beacon, 2018)

Wetland Buffers

- MNR Provincial Wetland 30 m Buffer
- Locally Significant / Other Wetlands 15 m Buffer

City of Guelph Natural Heritage System (2014)

- Significant Natural Areas
- Natural Areas
- Ecological Linkages
- Restoration Areas

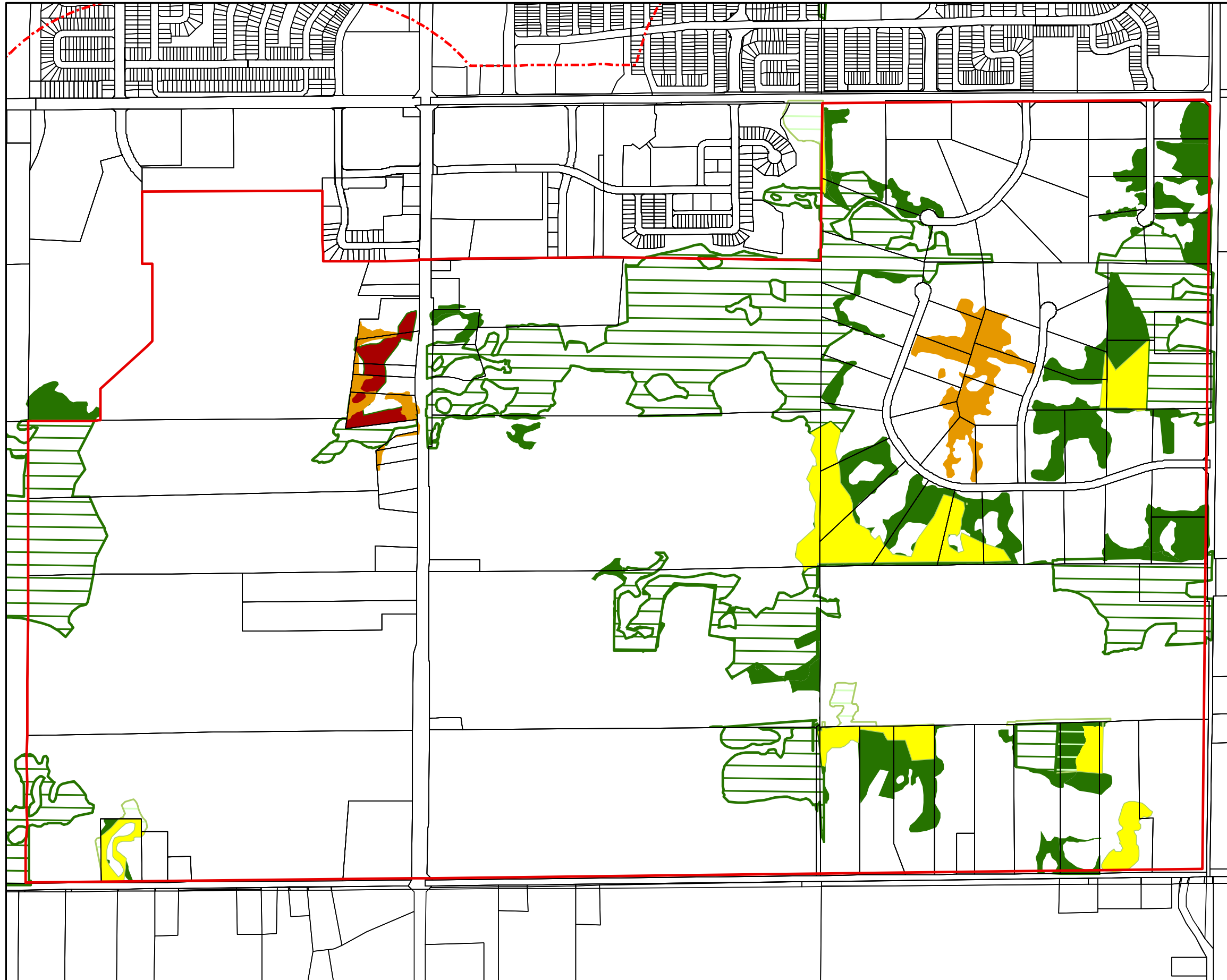
City of Guelph: Secondary Plan Area Boundary, Parcel Fabric, Existing Natural Heritage System, 2016.

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Refinements to City Woodlands Mapping

Map NH-7

Clair-Maltby Secondary Plan
Phase 1 and 2 Characterization Report

Legend

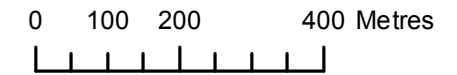
- Primary Plan Area Boundary
- Secondary Study Area Boundary
- Parcel Fabric
- Proposed Additions**
- Proposed Additions to Significant Woodlands (Beacon 2018)
- Proposed Additions to Cultural Woodlands (Beacon 2018)
- Proposed Transition**
- Proposed Transition from Cultural Woodlands to Significant Woodlands (Beacon 2018)
- Proposed Transition from Significant Woodlands to Cultural Woodlands (Beacon 2018)
- Woodlands (City of Guelph 2014)**
- Significant Woodlands
- Cultural Woodlands

City of Guelph: Primary Plan Area, Parcel Fabric, Natural Heritage System, 2016.

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Refinements to City Woodlands Mapping and Current City NHS

Map NH-8

Clair-Maltby Secondary Plan Phase 1 and 2 Characterization Report

Legend

- Primary Plan Area Boundary
- Secondary Study Area Boundary
- Parcel Fabric
- Proposed Additions**
- Proposed Additions to Significant Woodlands (Beacon 2018)
- Proposed Additions to Cultural Woodlands (Beacon 2018)
- Proposed Transition**
- Proposed Transition from Cultural Woodlands to Significant Woodlands (Beacon 2018)
- Proposed Transition from Significant Woodlands to Cultural Woodlands (Beacon 2018)
- Woodlands (City of Guelph 2014)**
- Significant Woodlands
- Cultural Woodlands
- 10m Buffer from Existing and Proposed Woodlands
- City of Guelph Natural Heritage System (2014)**
- Significant Natural Areas
- Natural Areas
- Ecological Linkages
- Restoration Areas

City of Guelph: Primary Plan Area, Parcel Fabric, Natural Heritage System, 2016.

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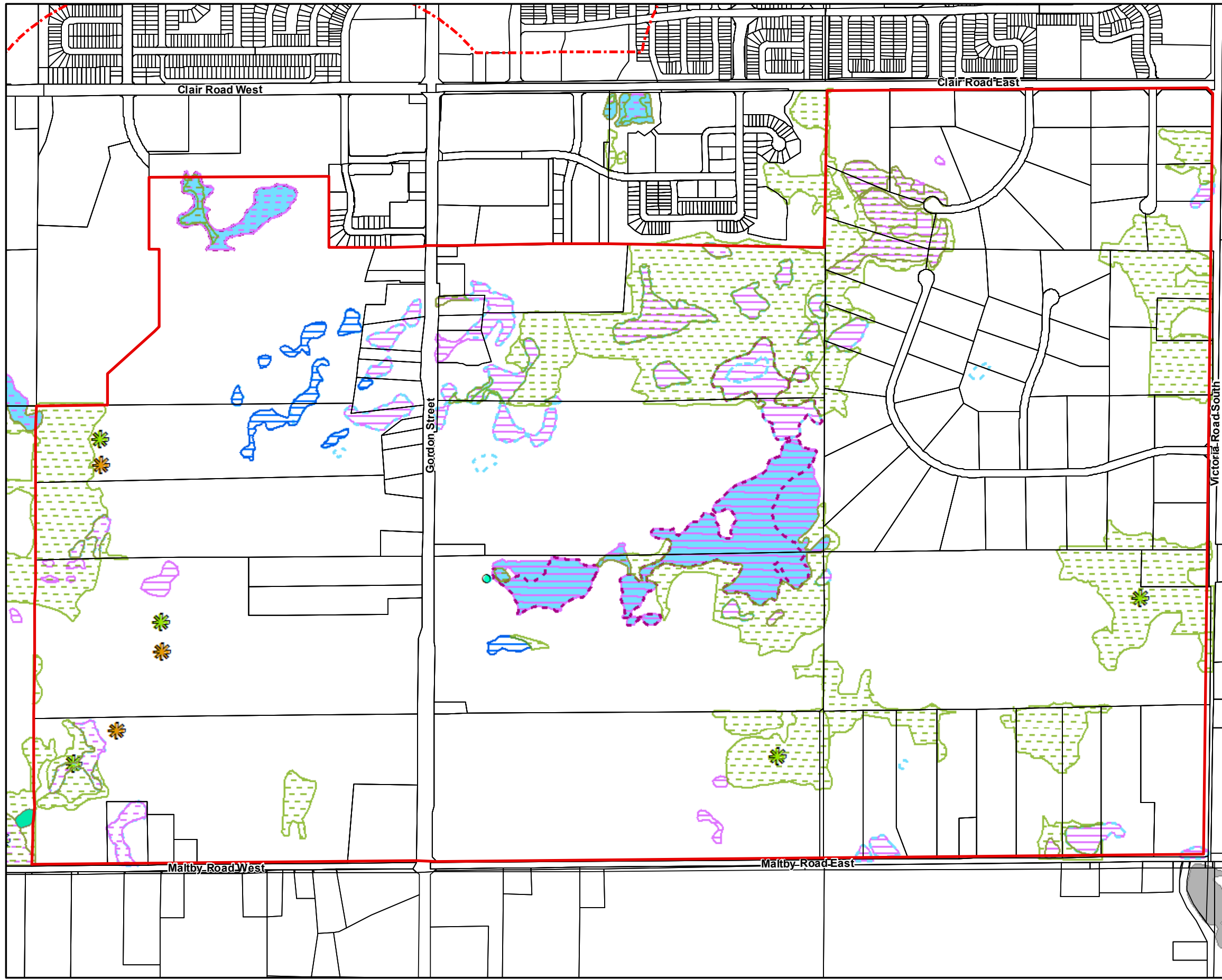


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Preliminary Significant Wildlife Habitat (SWH)

Map NH-9

Clair-Maltby Secondary Plan Phase 1 and 2 Characterization Report

Legend

- Secondary Plan Area Boundary (SPA)
 - Primary Study Area Boundary (PSA)
 - Significant Wildlife Habitat**
 - Candidate Amphibian Breeding Habitat (Woodland)
 - Confirmed Amphibian Breeding Habitat (Woodland)
 - Candidate Amphibian Breeding Habitat (Wetland)
 - Candidate Bat Maternity Colonies
 - Confirmed Rare Vegetation Community
 - Candidate Turtle Wintering Areas
 - Confirmed Turtle Wintering Areas
 - Candidate Waterfowl Stopover and Staging Areas (Aquatic)
 - Candidate Shrub/Early Successional Bird Breeding Habitat *
 - Candidate Raptor Wintering Areas *
 - Confirmed Seeps and Springs
 - Halligan's Pond**
- * Several Candidate SWH areas are shown approximately with asterisks; Site-specific study will be needed to capture the best and most representative area(s) in the SPA.
- ** Halligan's pond could be considered Candidate SWH for amphibian breeding, waterfowl stopover and turtle wintering but has not been mapped as such as it is outside the City of Guelph.

City of Guelph: Secondary Plan Area Boundary, Parcel Fabric, 2016.

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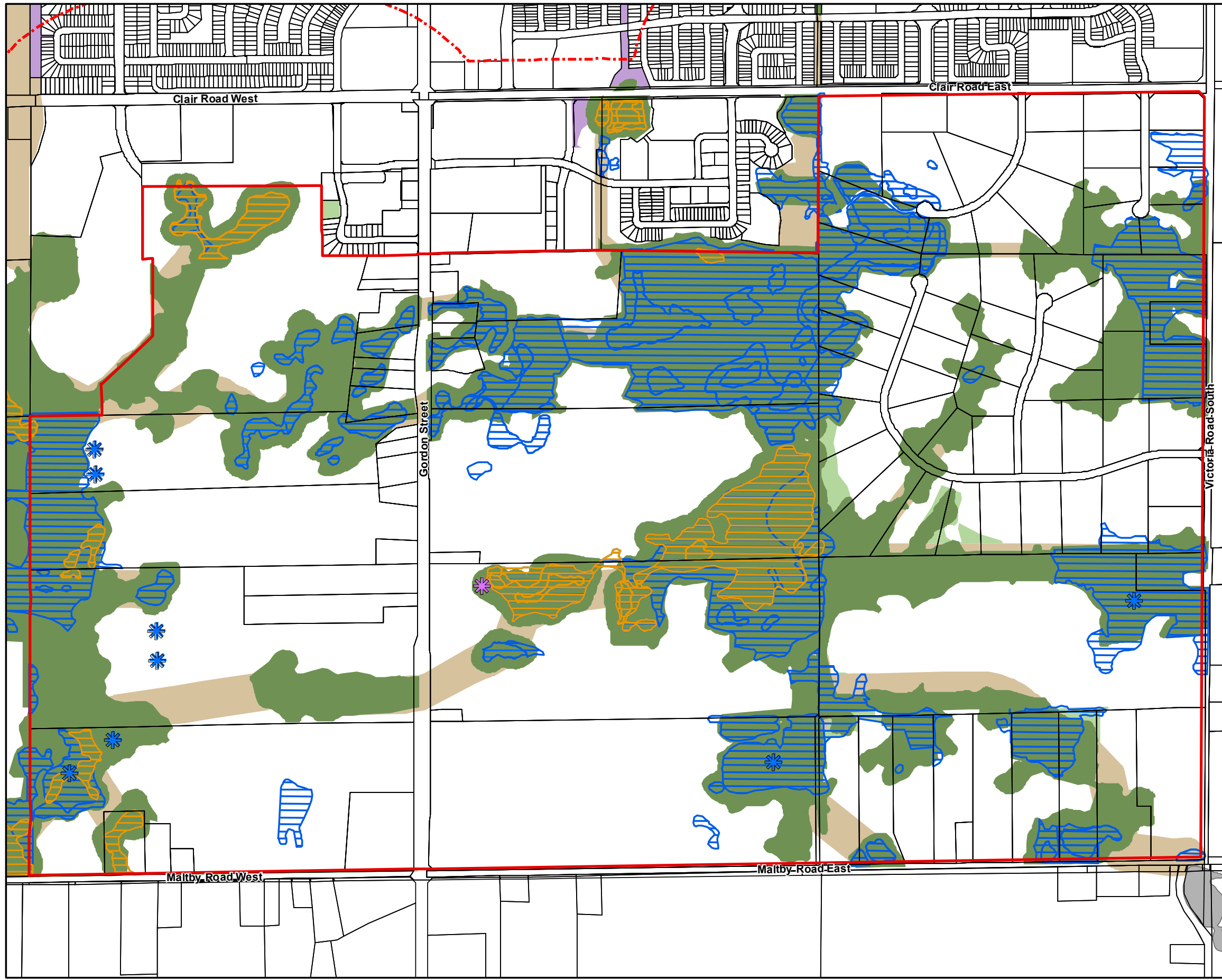


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Preliminary Significant Wildlife Habitat (SWH) and Current City NHS

Map NH-10

Clair-Maltby Secondary Plan Phase 1 and 2 Characterization Report

Legend

- Secondary Plan Area Boundary (SPA)
- Primary Study Area Boundary (PSA)
- Candidate Amphibian Breeding Habitat (Wetland)

Significant Wildlife Habitat

- ✱ Candidate SWH – Presence and Extent To Be Verified *
- ✱ Confirmed SWH
- Candidate SWH – Presence To Be Verified
- Confirmed SWH (based on ELC polygon(s))
- Halligan's Pond**

City of Guelph Natural Heritage System (2014)

- Significant Natural Areas
- Natural Areas
- Ecological Linkages
- Restoration Areas

* Several Candidate SWH areas are shown approximately with asterisks; Site-specific study will be needed to capture the best and most representative area(s) in the SPA.

** Halligan's pond could be considered Candidate SWH for amphibian breeding, waterfowl stopover and turtle wintering but has not been mapped as such as it is outside the City of Guelph.

City of Guelph: Secondary Plan Area Boundary, Parcel Fabric, 2016.

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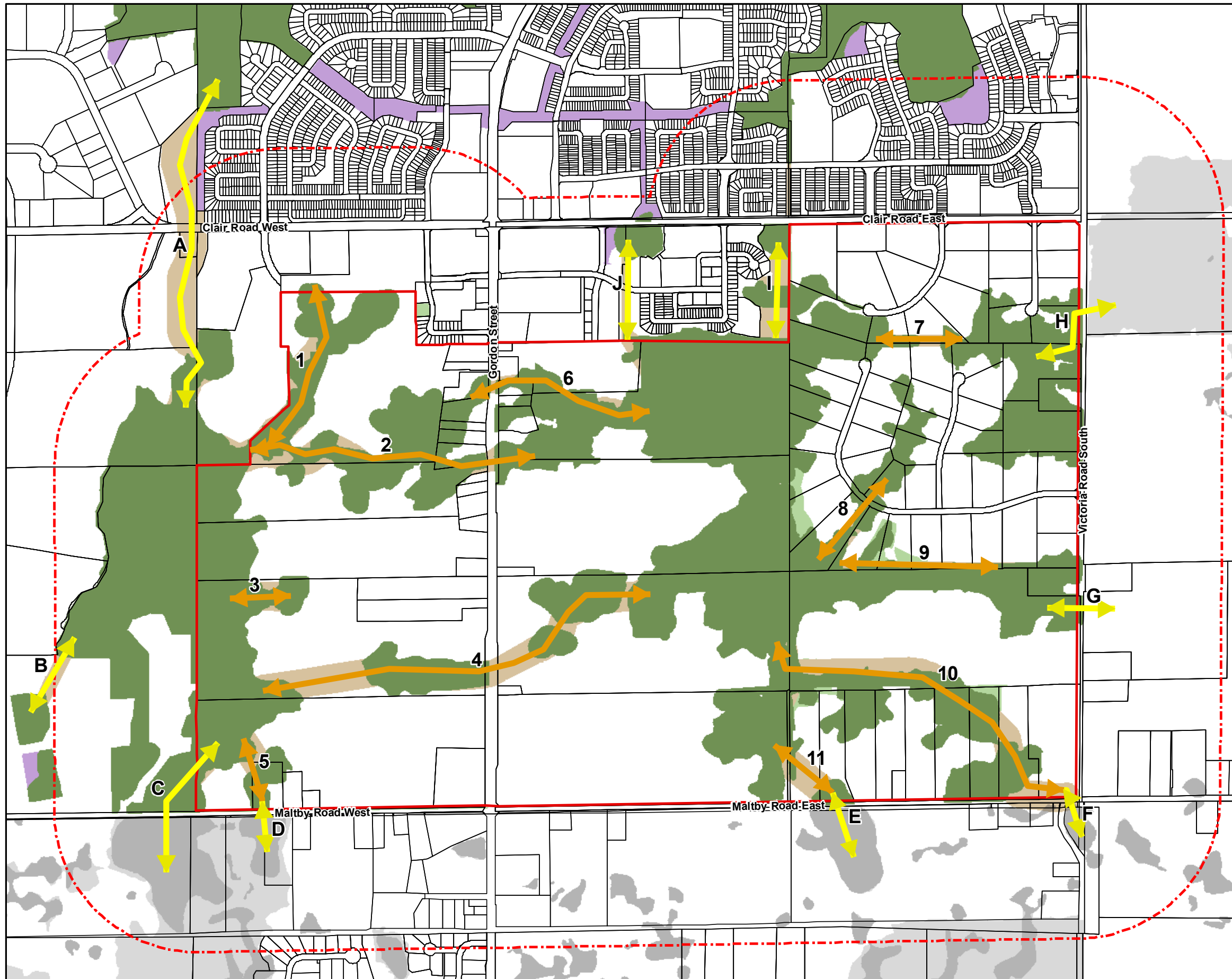
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Ecological Linkages

Map NH-11

Clair-Maltby Secondary Plan Phase 1 and 2 Characterization Report

Legend

- Secondary Plan Area Boundary
- Primary Study Area Boundary
- ➔ Ecological Linkages within the PSA
- ➔ Ecological Linkages within the SPA
- City of Guelph Natural Heritage System (2014)**
- Ecological Linkages
- Significant Natural Areas
- Natural Areas
- Restoration Areas
- Wildlife Crossings**
- ➔ Amphibian Crossings
- ↔ Deer Crossings
- ◆ Other Wildlife Crossing Opportunities

* Several Candidate SWH areas are shown approximately with asterisks; Site-specific study will be needed to capture the best and most representative area(s) in the SPA.

** Halligan's pond could be considered Candidate SWH for amphibian breeding, waterfowl stopover and turtle wintering but has not been mapped as such as it is outside the City of Guelph.

City of Guelph: Secondary Plan Area Boundary, Parcel Fabric, 2016.

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