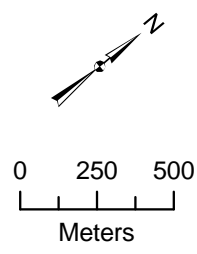




NORTH OAKVILLE CREEKS SUBWATERSHED STUDY



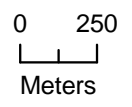
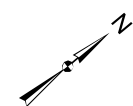
- Legend**
- East Study Area
 - Road
 - Watercourse
 - Reach Break
 - Electrofishing Station
 - Macro Invertebrate Sampling Station

East Study Area
Aquatic Survey Map

Figure 4E.9.3



NORTH OAKVILLE CREEKS SUBWATERSHED STUDY



Legend

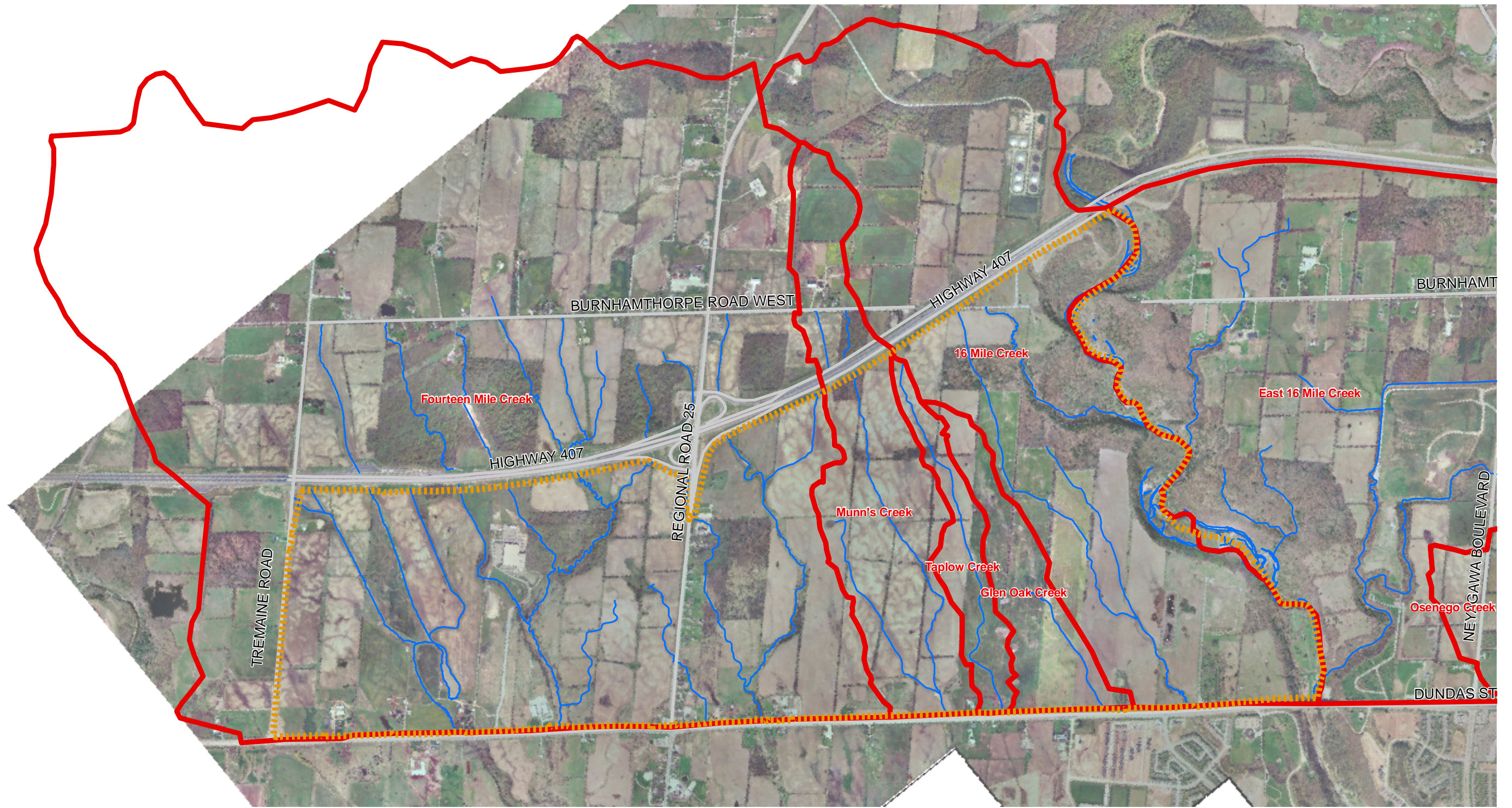
- East Study Area
- Road
- Watercourse
- Reach Break
- Electrofishing Station
- Macro Invertebrate Sampling Station

Fisheries Sampling Sites

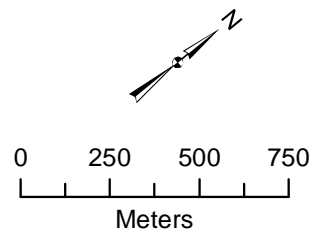
- Joshua's Creek MNR Fisheries Sampling Site (2002/2003)
- Morrison Creek MNR Fisheries Sampling Site (2002/2003)
- Sixteen Mile Creek MNR Fisheries Sampling Site (2002/2003)

East Study Area Aquatic Survey Map

Figure 4E.9.3



NORTH OAKVILLE CREEKS SUBWATERSHED STUDY



Legend

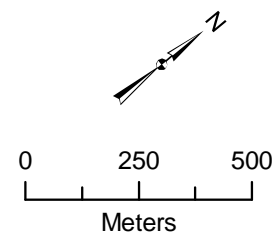
- Road
- Watercourse
- West Study Area
- Watershed

West Study Area
Watershed Boundaries

Figure 4W.1.1



NORTH OAKVILLE CREEKS SUBWATERSHED STUDY



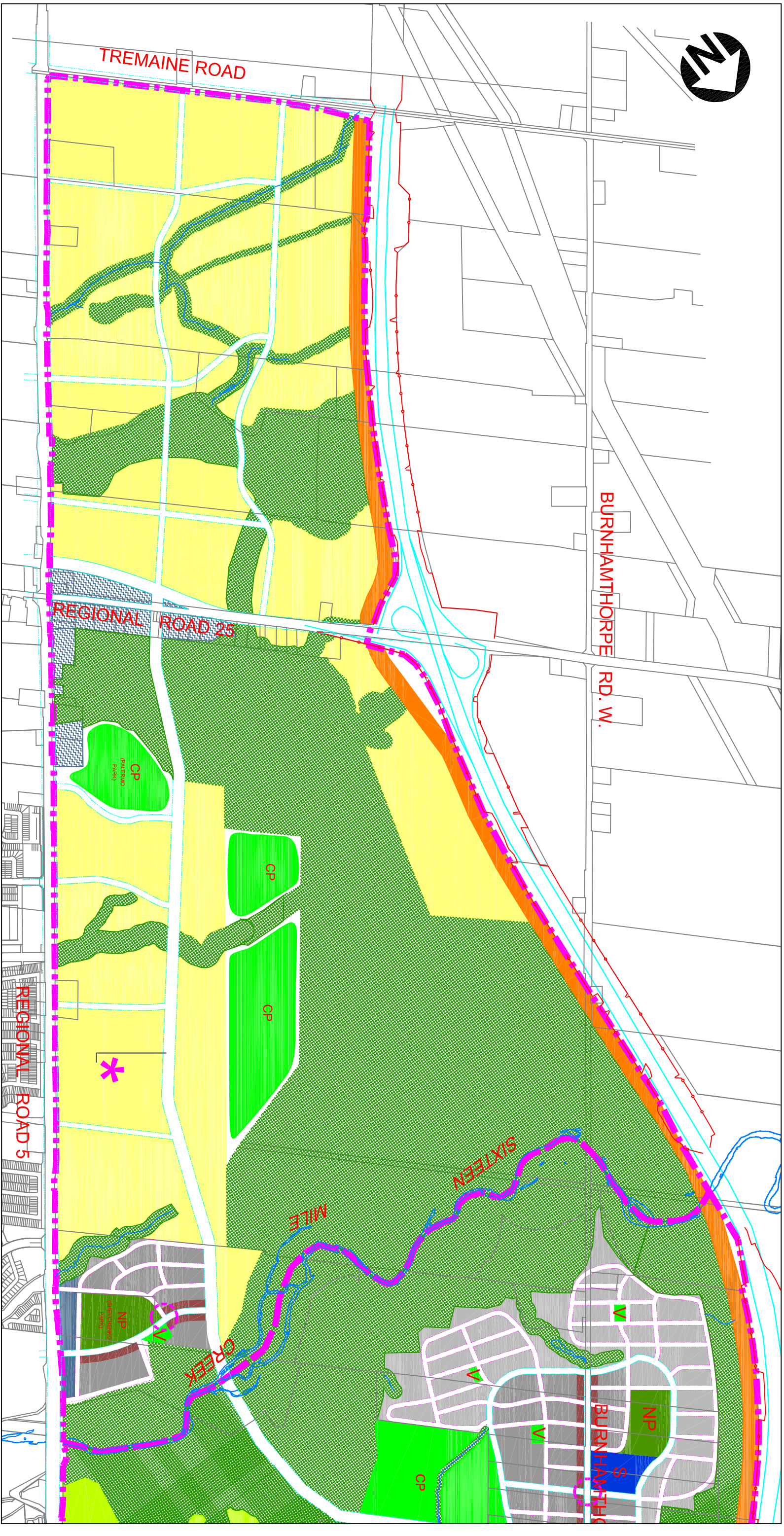
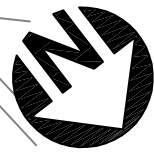
Legend

- Road
- Watercourse
- ▨ West Study Area
- - - Reach Break
- Water Quality Monitoring Station

West Study Area

Water Quality Monitoring Stations

Figure 4W.10.1



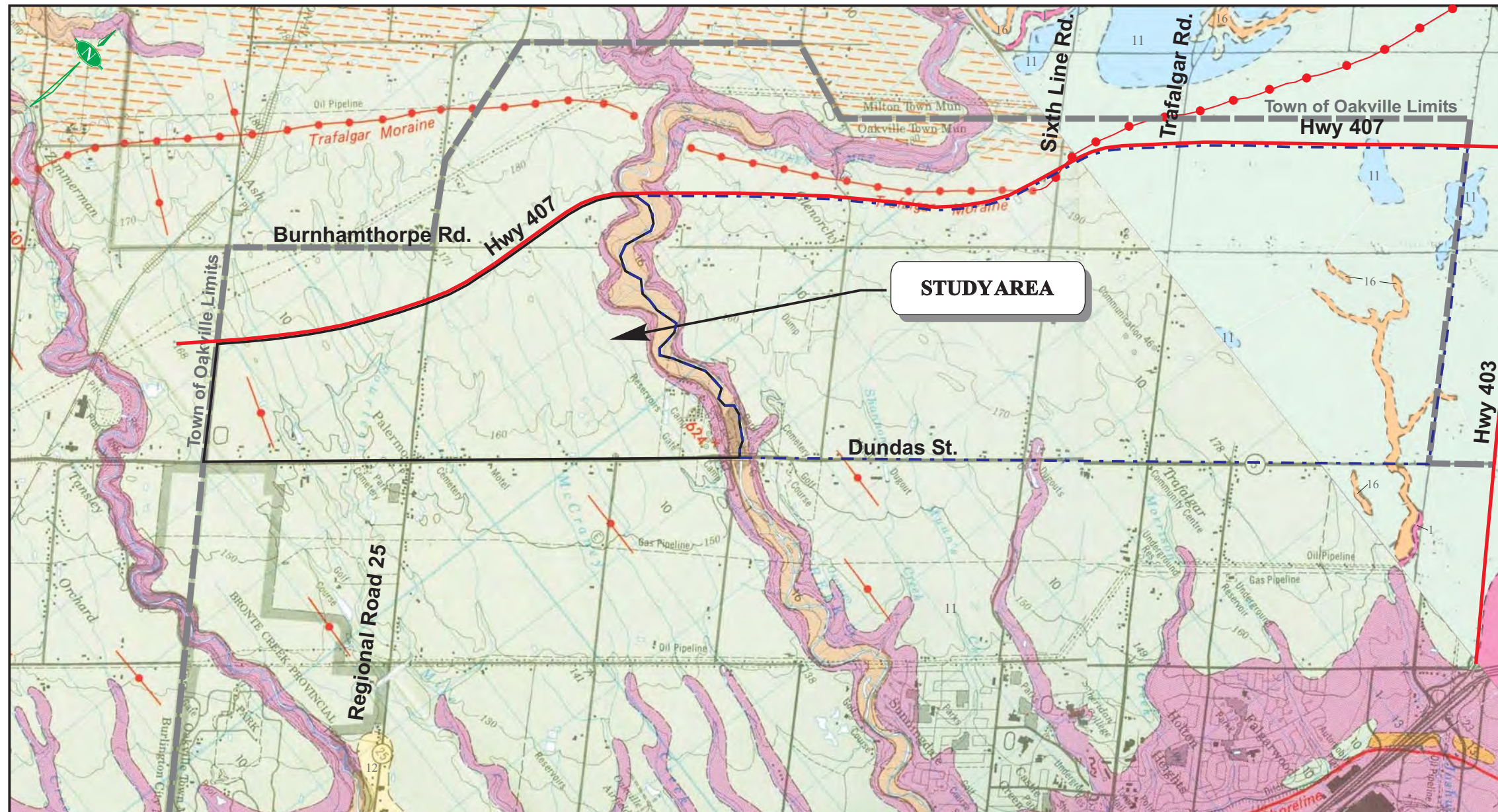
North Oakville Creeks
Subwatershed Study

West Study Area
Land Use

- LEGEND**
- SECONDARY PLAN AREA BOUNDARY
 - PROVINCIAL FREEWAY
 - BOULEVARD/TRANSIT CORRIDOR
 - MAJOR ARTERIAL/TRANSIT CORRIDOR
 - MINOR ARTERIAL/TRANSIT CORRIDOR
 - AVENUE/TRANSIT CORRIDOR
 - CONNECTOR/TRANSIT CORRIDOR
 - TRANSITWAY
 - VILLAGE SQUARE
 - HIGH OR MEDIUM CONSTRAINT STREAM
 - DUNDAS STREET URBAN CORE AREA
 - NEYAGAWA BLVD. URBAN CORE AREA
 - REGIONAL ROAD 25 URBAN CORE AREA
 - TRAFALGAR ROAD URBAN CORE AREA
 - TRANSITIONAL AREA
 - EMPLOYMENT DISTRICT
 - NATURAL HERITAGE SYSTEM AREA
 - URBAN CENTRES
 - STORMWATER MANAGEMENT (SMM) PONDS
 - HEALTH ORIENTED MIXED USE NODE
 - COMMUNITY PARK AREA
 - CEMETERIES
 - INSTITUTIONAL
 - ELEMENTARY SCHOOL SITE
 - SECONDARY SCHOOL SITE
 - NEIGHBOURHOOD PARK
 - NEIGHBOURHOOD CENTRE
 - GENERAL URBAN
 - SUB URBAN
 - HIGH CONSTRAINT STREAM CORRIDOR AREA IN NHS

August 2006

Figure 4W.2.1



LEGEND

PHANEROZOIC
CENOZOIC
QUATERNARY
RECENT

- 17 Lake Ontario deposits: stratified sands, gravel
- 16 Stream deposits: gravel, sand, silt, and clay
- 15 Peat and muck

PLEISTOCENE
LATE WISCONSINAN

- 14 Alluvial fan gravel
- 13 Beach gravel
- 12 Lacustrine and outwash sand
- 11 Lake deposits: stratified to varved clay, silt, and fine sand
- 10 Halton Till: clay or silt till
- 9 Outcrop complex: bouldery till and bedrock ridges
- 8 Ice-contact sand: kames and eskers
- 7 Outwash gravel
- 6 Ice-contact gravel: kames and eskers
- 5 Wentworth Till: stony, sandy, silt till
- 4 Port Stanley Till*: silt to sandy silt till
- 3 Maryhill Till*: clayey silt till
- 2 Catfish Creek Till*: stony, sandy, silt till

PALEOZOIC
ORDOVICIAN AND SILURIAN

- 1 Shale and dolomite

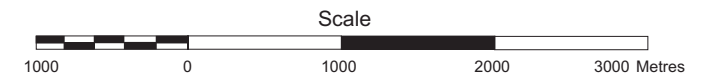
Notes
 *Not present on this map sheet.
 Deposits on this sheet are mapped only where they reach 1 m or more in thickness. Thinner deposits are not shown.

--- OPA 198 Area East of Sixteen Mile Creek

SYMBOLS

- Geological boundary, approximate
- Abandoned shoreline feature
- Hummocky topography
- Glacial fluting
- Trend of moraine crest
- Shallow lacustrine sediments of Lake Peel
- Sample site

For other conventional signs refer to 1:50 000 National Topographic System maps.



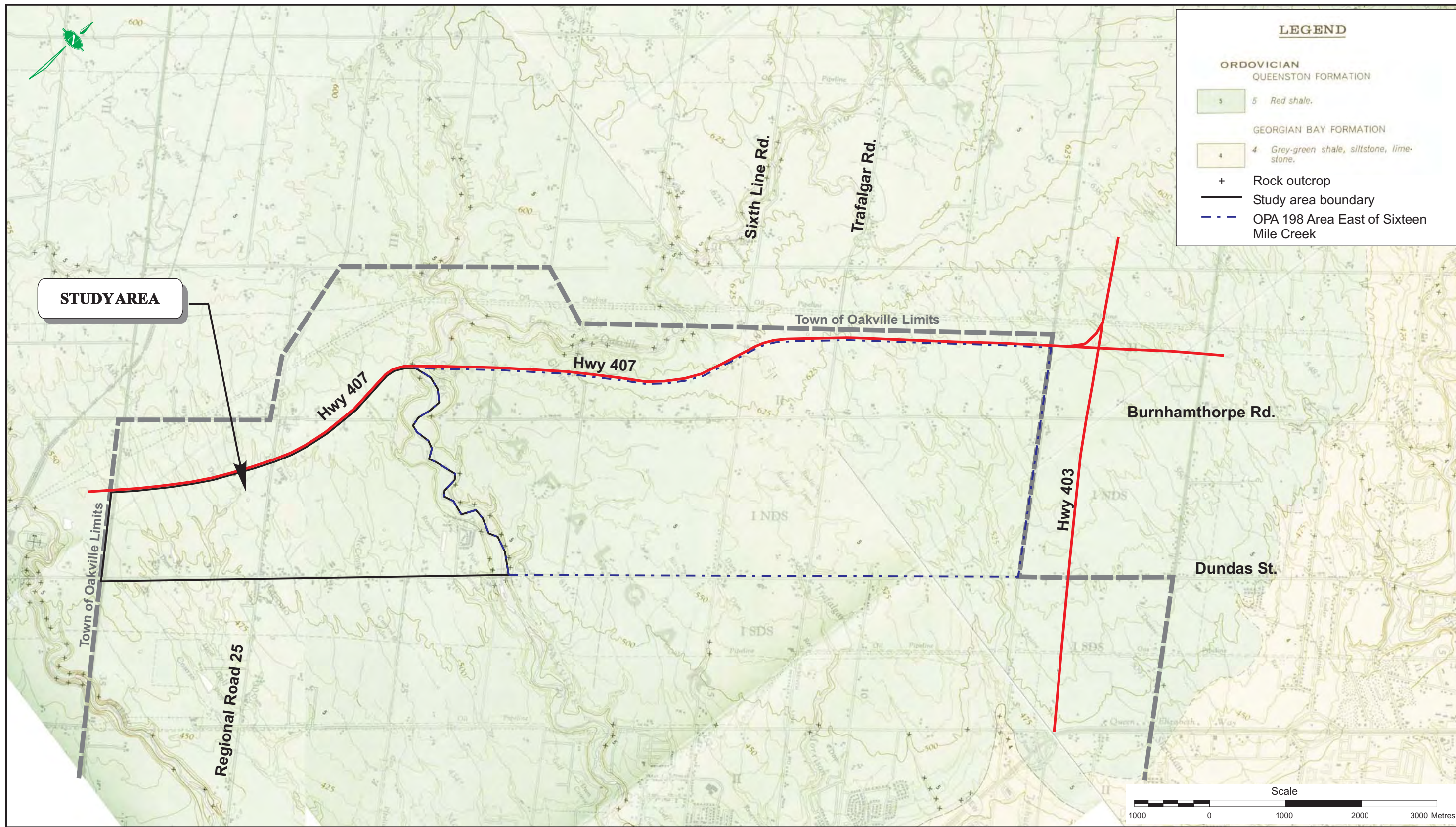
230-021\quar.cdr\July 29, 2003

Reference: OGS Map 2509 Quaternary Geology, HAMILTON AREA, and Map P3171 Quaternary Geology, BRAMPTON AREA.

FIGURE 4W.3.1

QUATERNARY GEOLOGY
NORTH OAKVILLE SUBWATERSHED
STUDIES WEST OF 16 MILE CREEK
 Oakville, Ontario





Reference: OGS Map 2336 HAMILTON, Paleozoic Geology, and 2337 BRAMPTON, Paleozoic Geology,

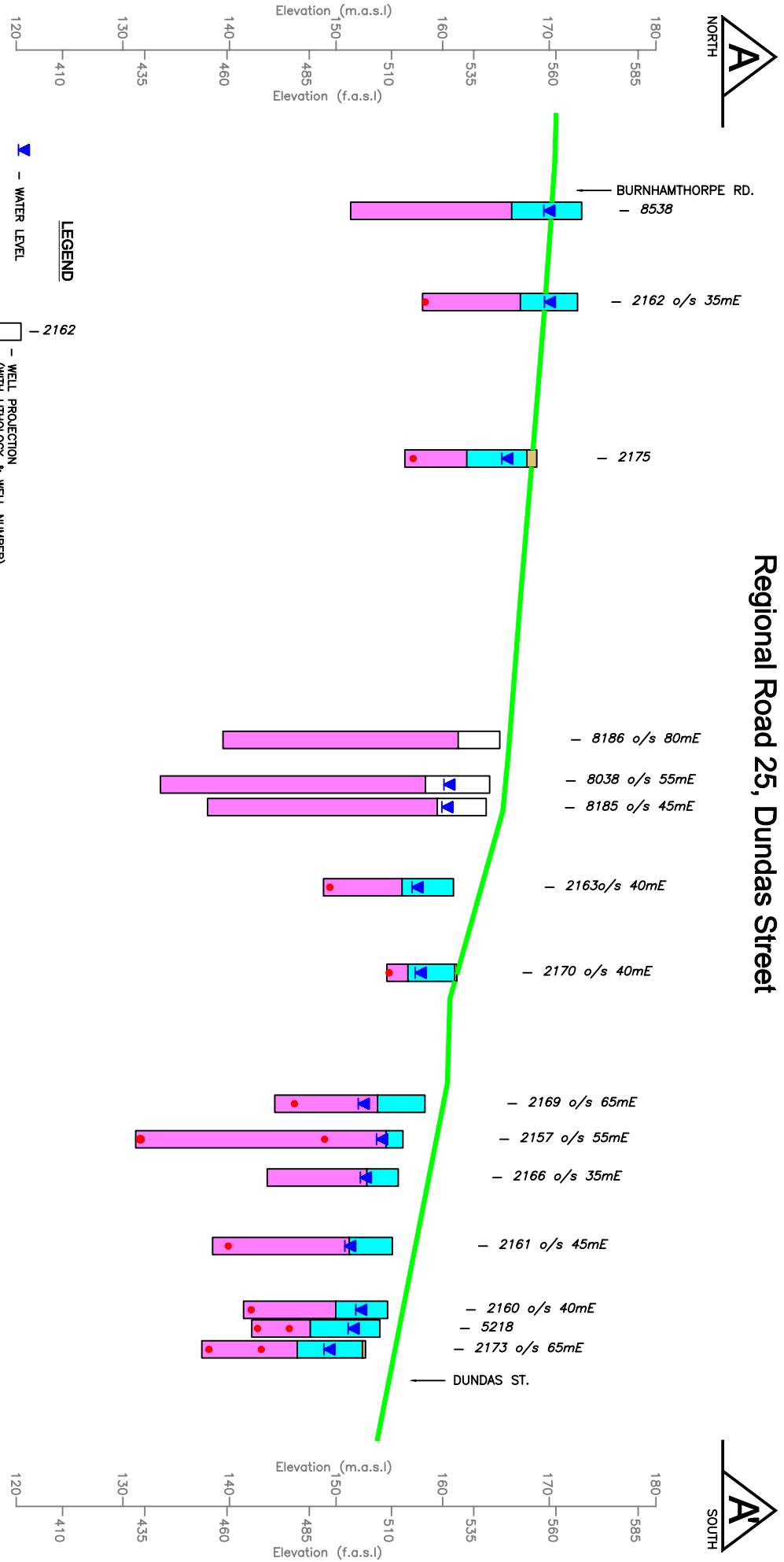
FIGURE 4W.3.2

BEDROCK GEOLOGY
NORTH OAKVILLE SUBWATERSHED
STUDIES WEST OF 16 MILE CREEK
 Oakville, Ontario



230-021\bedrock.cdr\July 29, 2003

Regional Road 25, Dundas Street

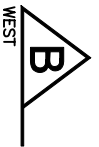


CROSS SECTION A-A'

NORTH OAKVILLE SUBWATERSHED STUDIES WEST OF 16 MILE CREEK
Town of Oakville



FIGURE 4W.3.3



Tremaine Road - East of Regional Road 25 along Dundas Street

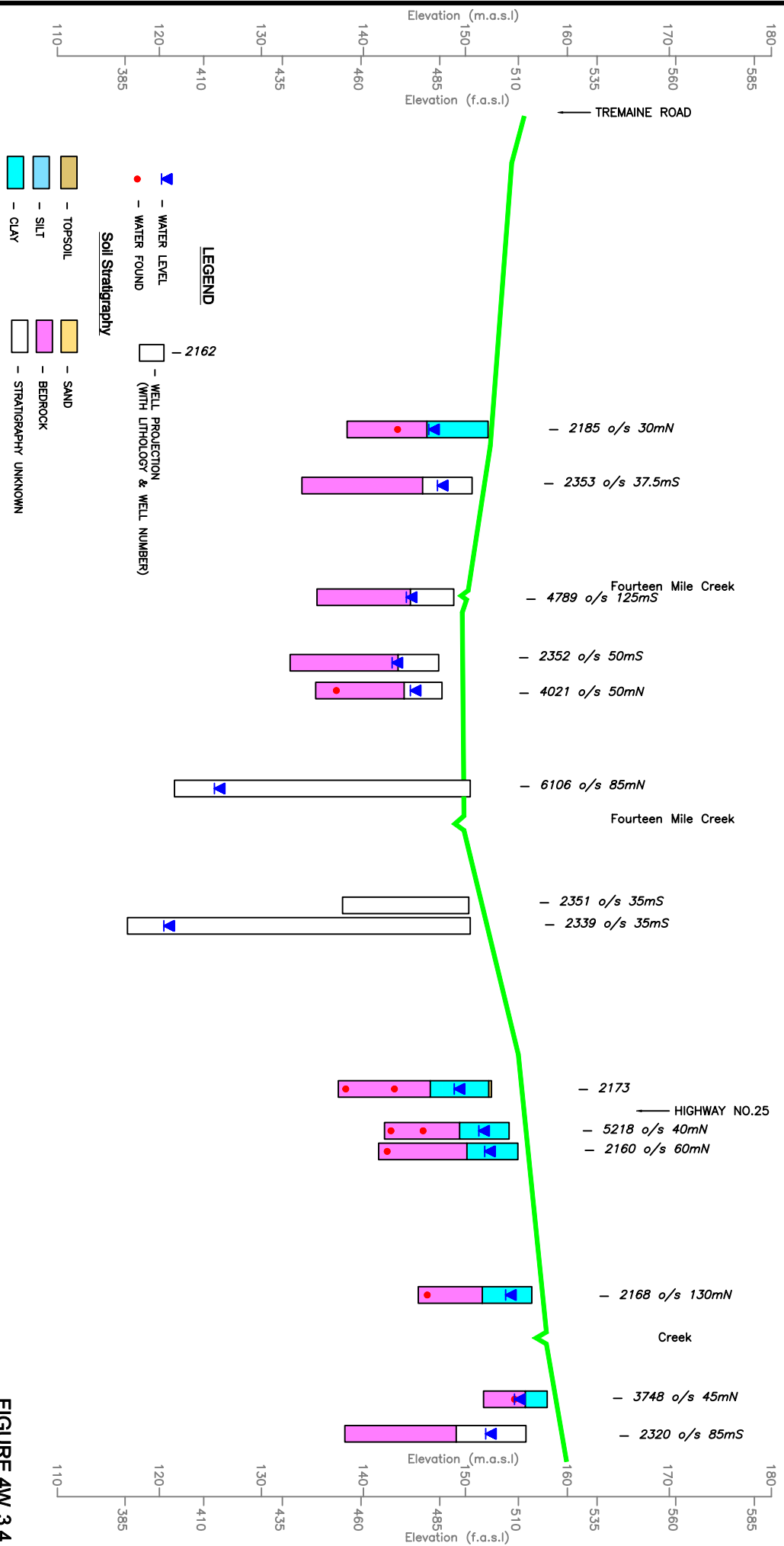
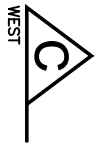


FIGURE 4W.3.4

CROSS SECTION B-B'
NORTH OAKVILLE SUBWATERSHED STUDIES WEST OF 16 MILE CREEK
Town of Oakville





East of Regional Road 25 - 16 Mile Creek

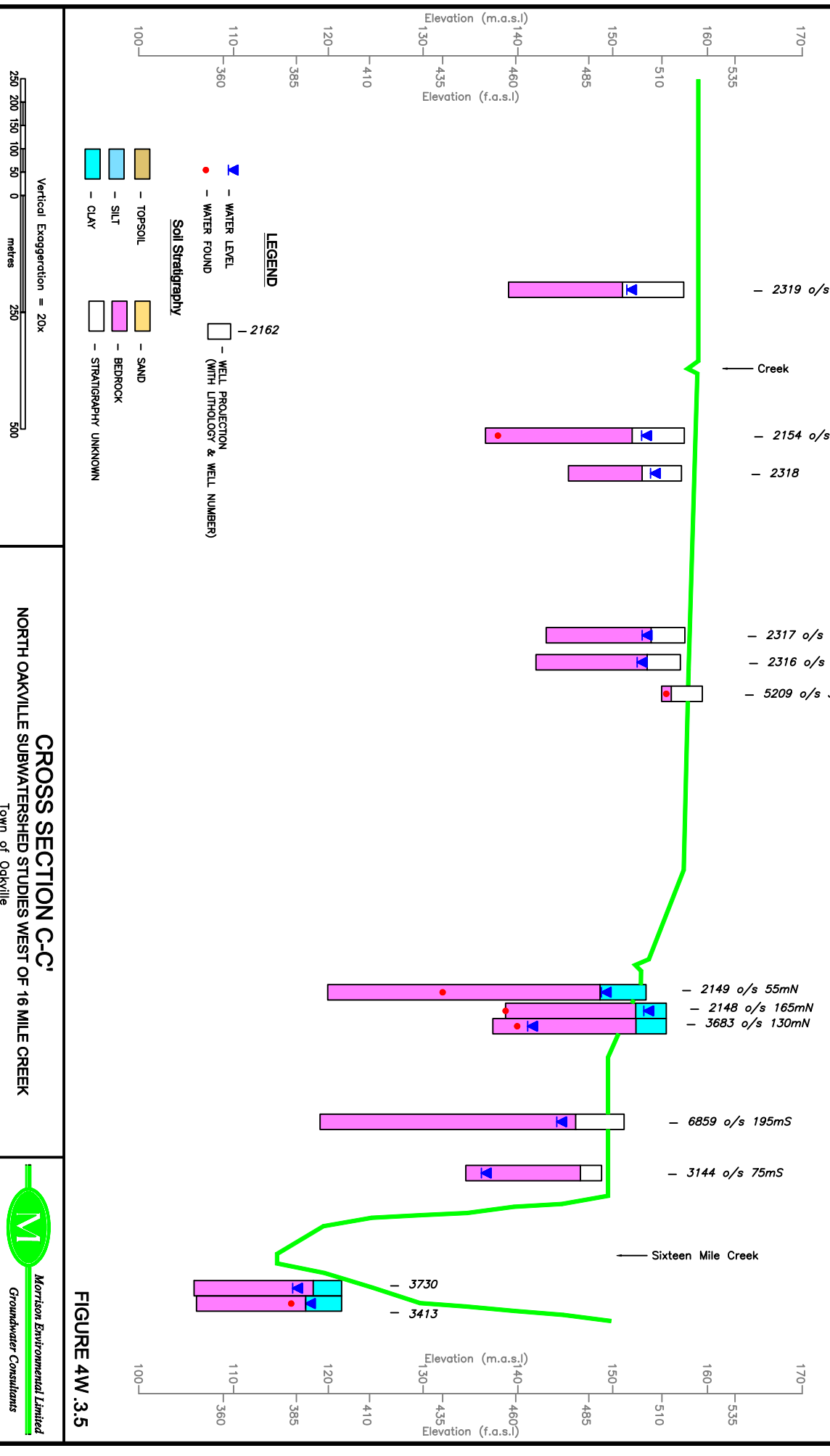
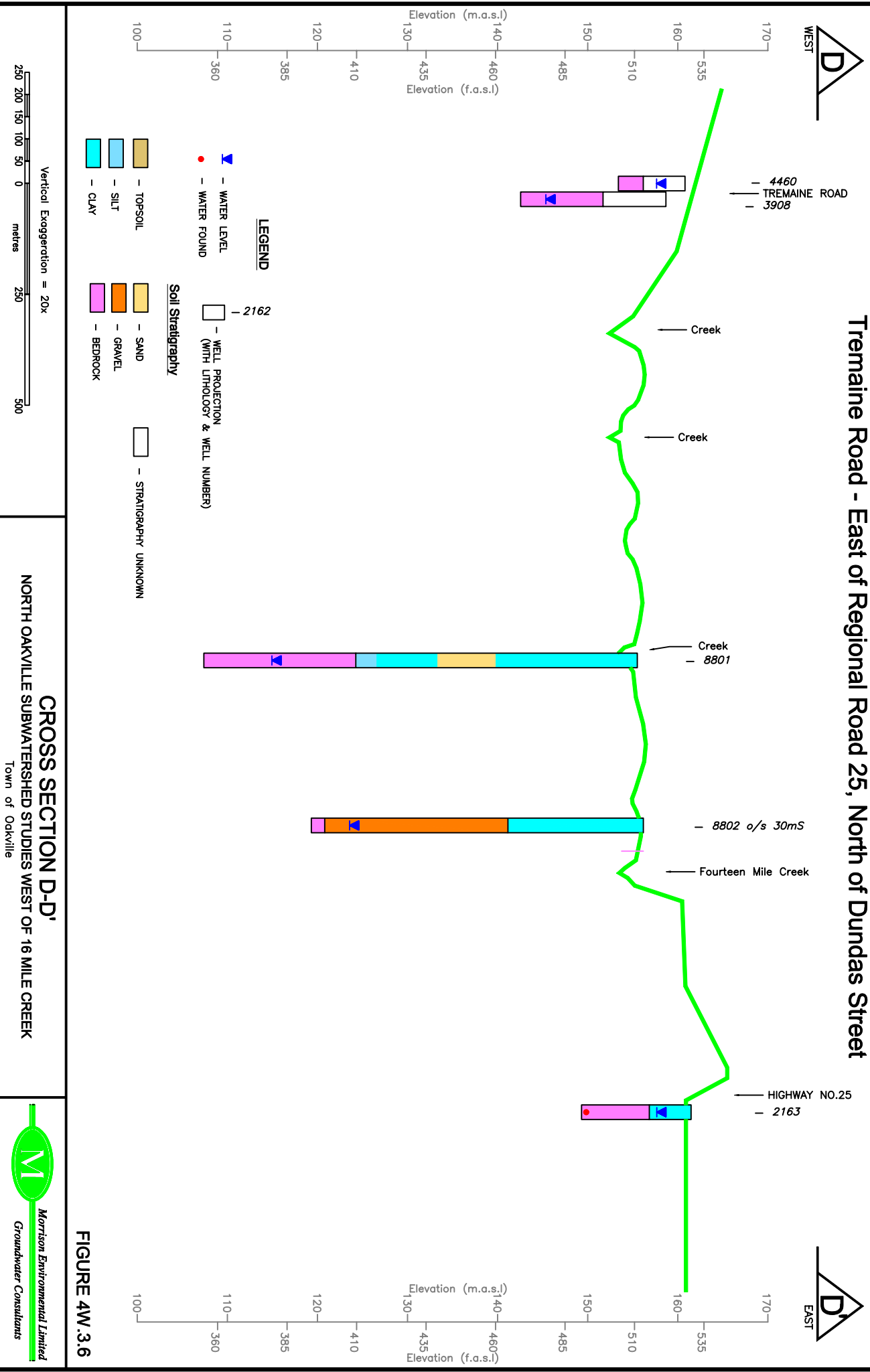


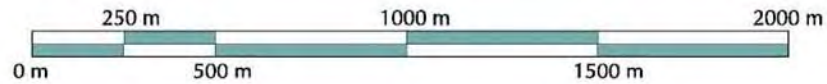
FIGURE 4W .3.5

CROSS SECTION C-C'
NORTH OAKVILLE SUBWATERSHED STUDIES WEST OF 16 MILE CREEK
Town of Oakville



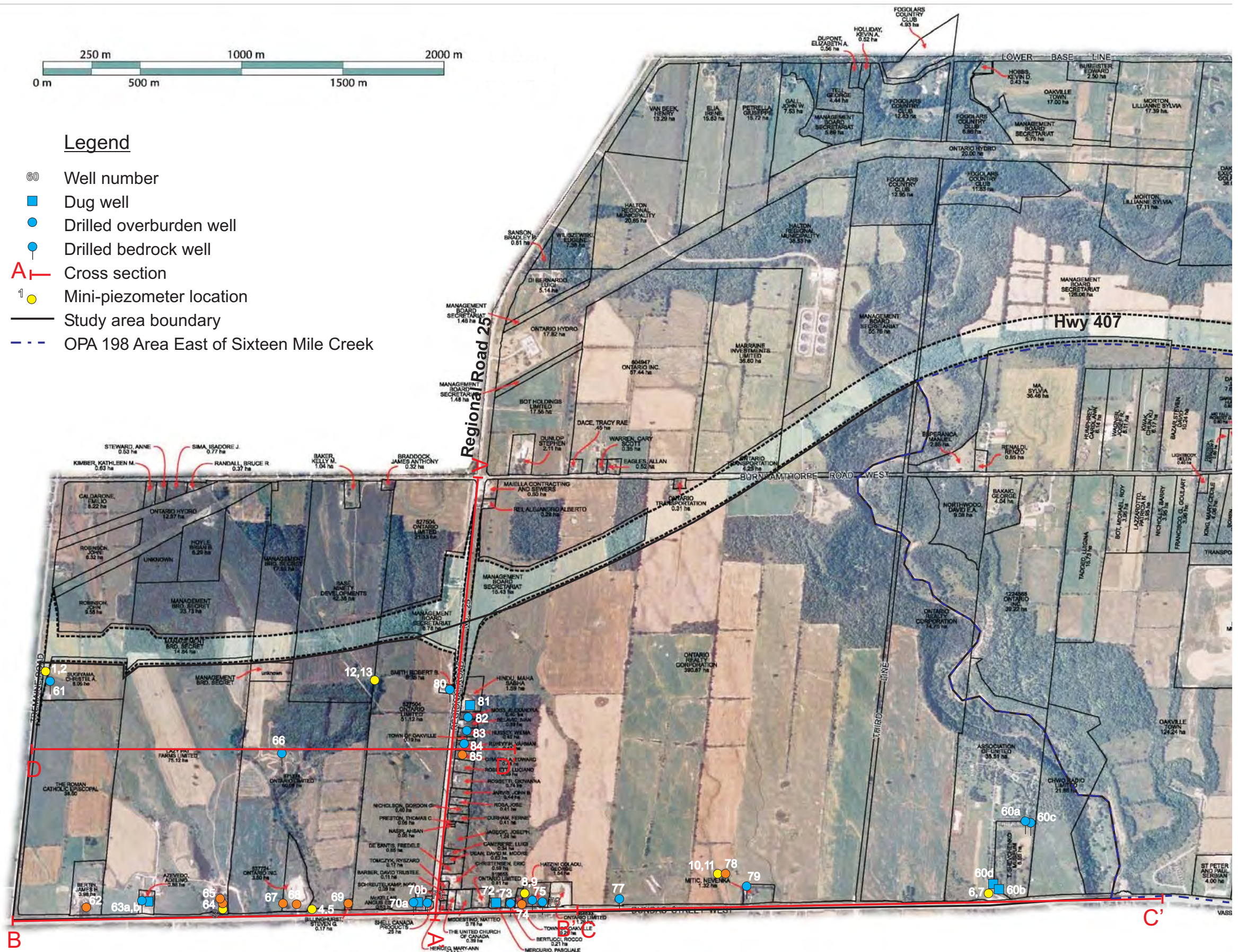
Tremaine Road - East of Regional Road 25, North of Dundas Street





Legend

- 60 Well number
- Dug well
- Drilled overburden well
- Drilled bedrock well
- A— Cross section
- 1 ● Mini-piezometer location
- Study area boundary
- - - OPA 198 Area East of Sixteen Mile Creek



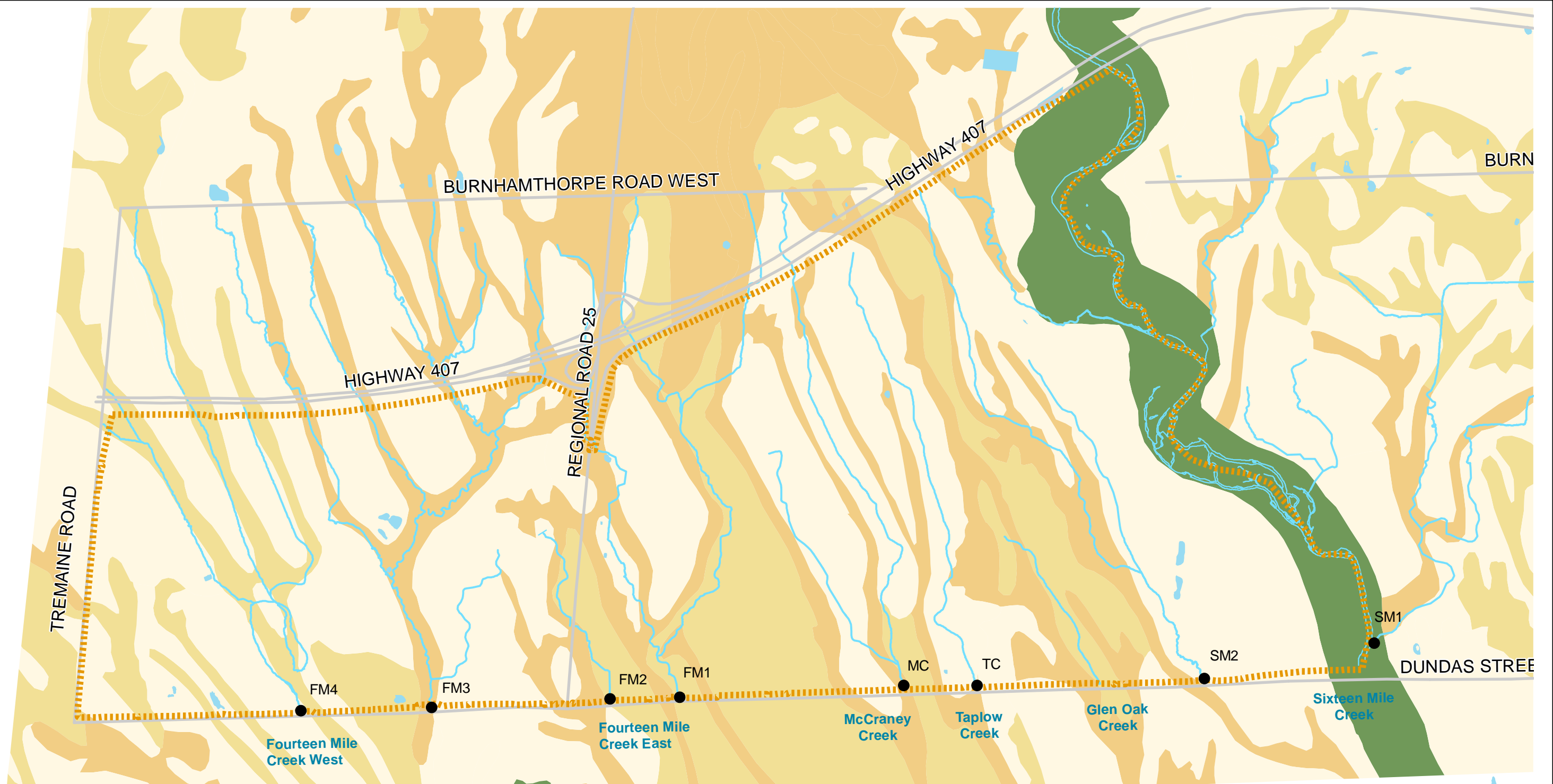
Reference: Planning Services Department, Corporate Drafting & Design Office, Town of Oakville.

FIGURE 4W.4.1

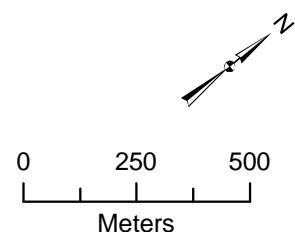
WELL LOCATION MAP
NORTH OAKVILLE SUBWATERSHED
STUDIES WEST OF 16 MILE CREEK
 Town of Oakville



230-021WELL-LOC 1x17.cdr



NORTH OAKVILLE CREEKS SUBWATERSHED STUDY



Legend

- West Study Area
- Road
- Watercourse
- Pond
- Flow Monitoring Station

Soil Type

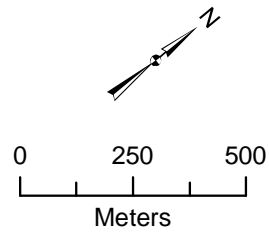
- Bottom Land
- Brady (Sandy Loam)
- Chinguacousy (Rocky Phase)
- Chinguacousy Clay Loam
- Jeddo Clay Loam
- Lockport Clay
- Oneida (Rocky Phase)
- Onieda Clay Loam
- Trafalgar Clay

**West Study Area
Soils and Flow
Monitoring Locations**

Figure 4W.6.1



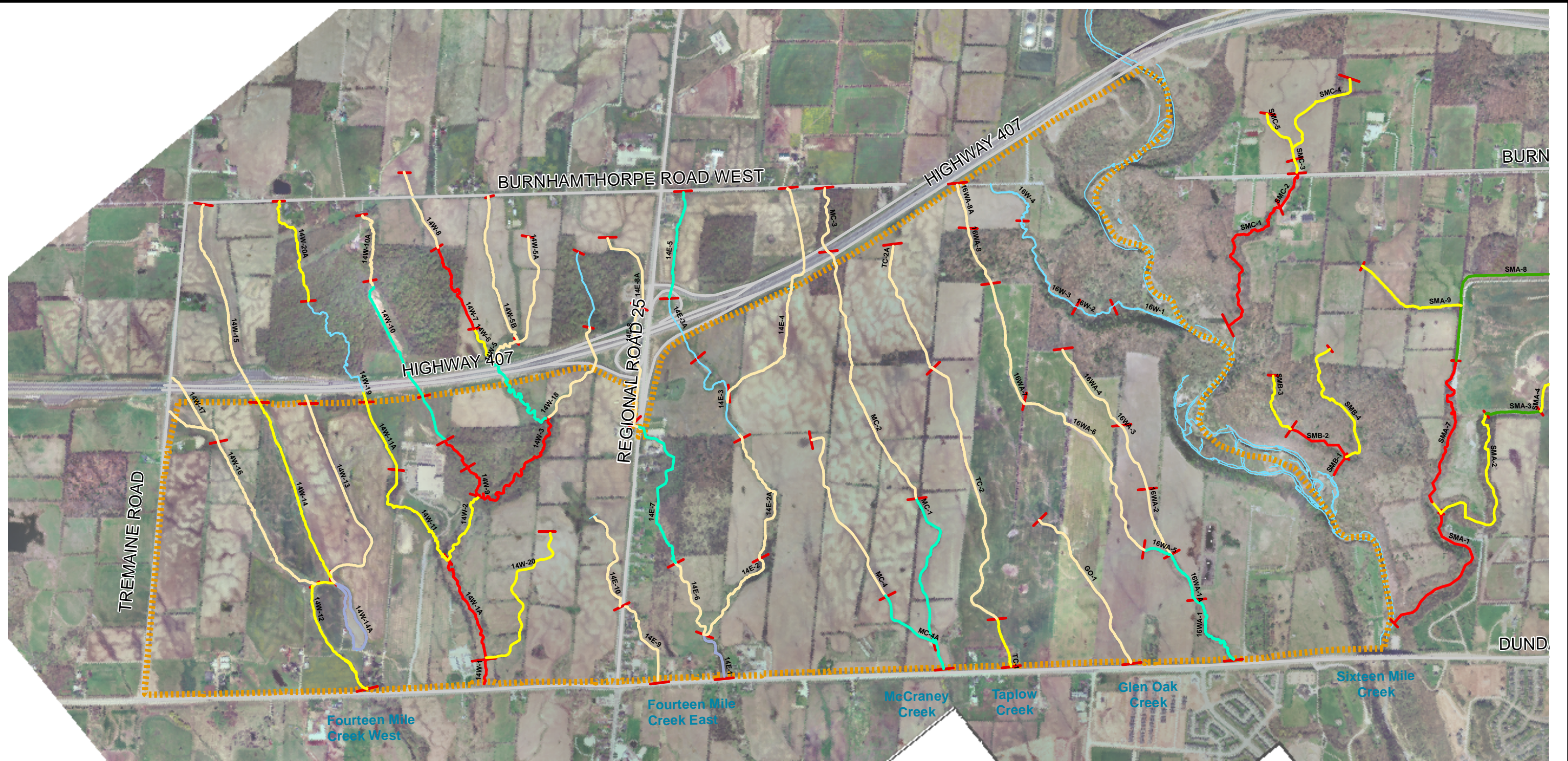
NORTH OAKVILLE CREEKS SUBWATERSHED STUDY



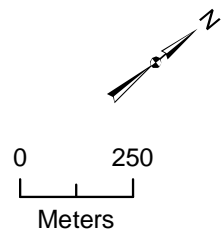
- Legend**
- West Study Area
 - Road
 - Watercourse
 - Reach Break
 - Detailed Field Sites

West Study Area
 Reach Delineation
 and Field Sites

Figure 4W.8.1



NORTH OAKVILLE CREEKS SUBWATERSHED STUDY

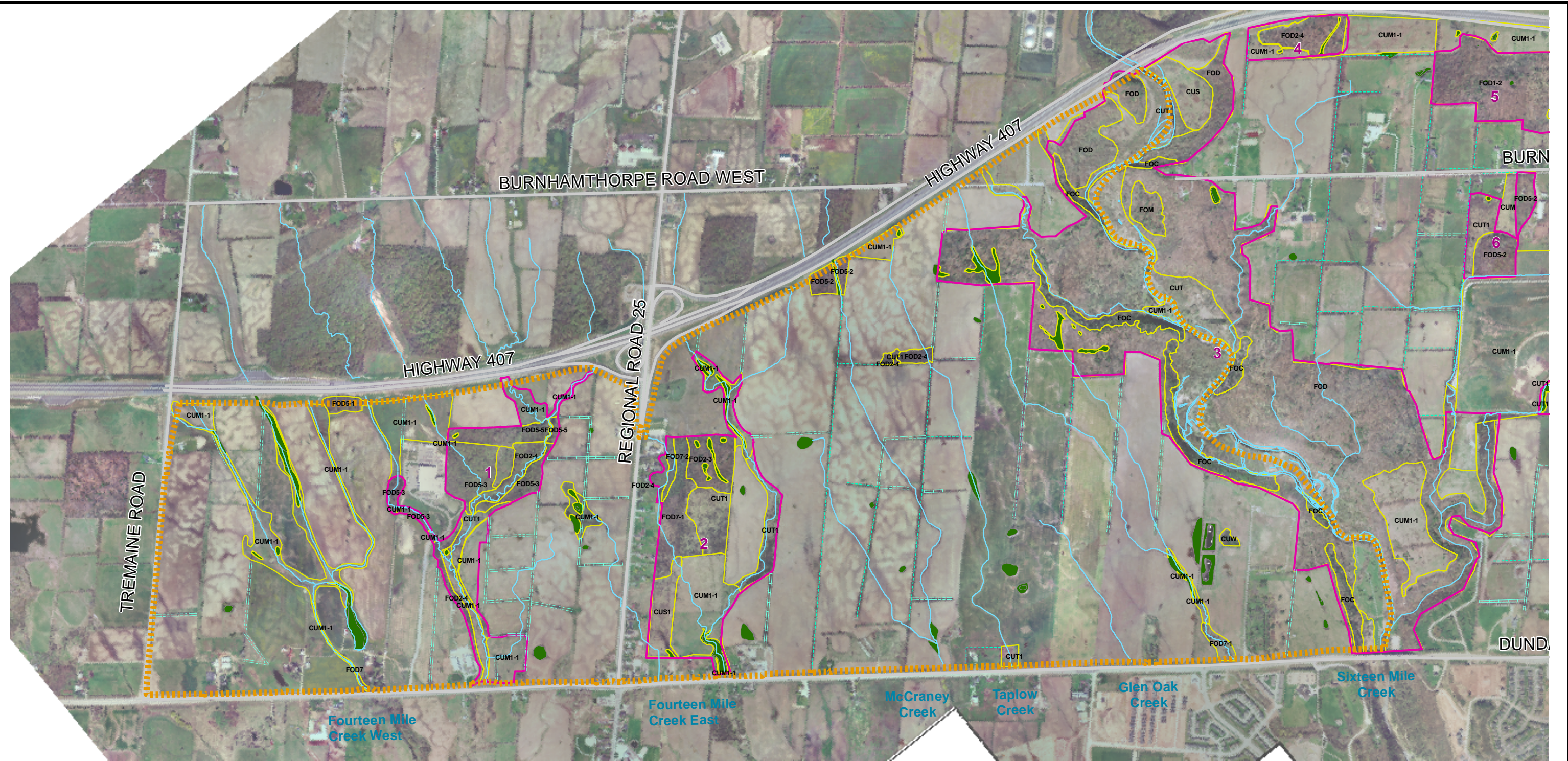


Legend

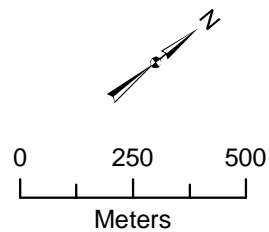
- West Study Area
- Road
- Watercourse
- Reach Break
- Channel Stability: Stable
- Channel Stability: In Adjustment
- Channel Stability: In Regime
- Channel Stability: Transitional
- Swale
- Pond
- No Stability Assigned

West Study Area
Channel Stability

Figure 4W.8.2



NORTH OAKVILLE CREEKS SUBWATERSHED STUDY



Legend

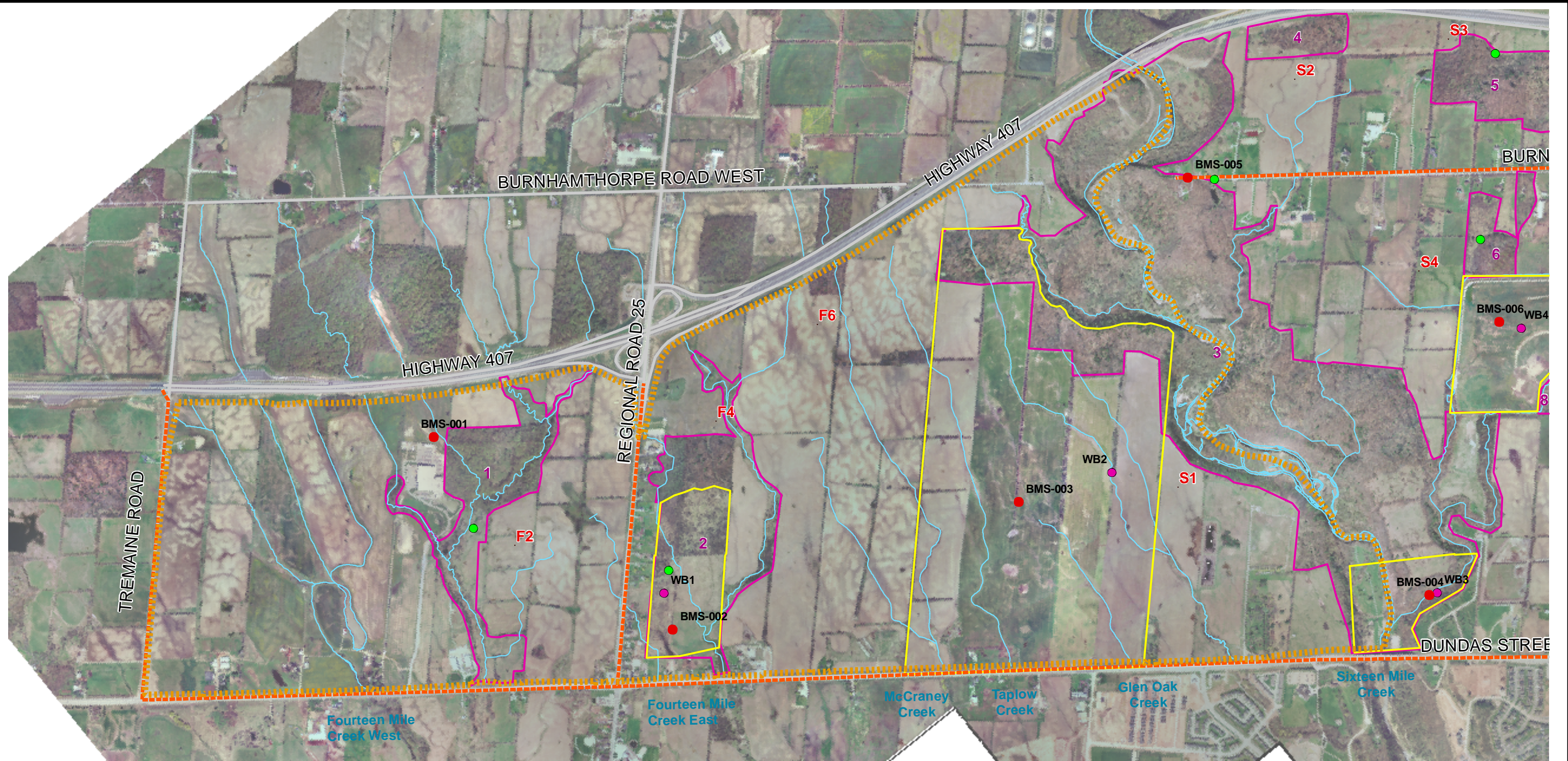
- West Study Area
- Road
- Watercourse
- Wetland
- ELC Polygon
- Habitat Units
- Mixed Hedgerow
- Shrub Dominated Hedgerow
- Tree Dominated Hedgerow

ELC Code & Description

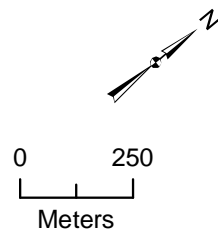
- | | |
|--|--|
| CUM1-1, Cultural Meadow | FOD5-1, Dry-Fresh Sugar Maple Deciduous Forest |
| CUS1-1, Cultural Savannah; CUS1, Cultural Savannah | FOD5-2, Dry-Fresh Sugar Maple-Beech Deciduous Forest |
| CUT1-1, Cultural Thicket | FOD5-3, Dry-Fresh Sugar Maple-Oak Deciduous Forest |
| CUM, Cultural Woodlot | FOD5-5, Dry-Fresh Sugar Maple-Hickory Deciduous Forest |
| FOC, Coniferous Forerst | FOD5-6, Dry-Fresh Sugar Maple - Basswood Deciduous Forest |
| FOD, Deciduous Forest | FOD5-7, Dry-Fresh Sugar Maple - Black Cherry Deciduous Forest |
| FOD1-2, Dry-Fresh White Oak Deciduous Forest | FOD5-8, Dry-Fresh Sugar Maple - White Ash Deciduous Forest |
| FOD2-2, Dry-Fresh Oak Hickory Deciduous Forest | FOD6-2, Fresh-Moist Sugar Maple - Black Maple Deciduous Forest |
| FOD2-3, Dry-Fresh Hickory Deciduous Forest | FOD6-5, Fresh-Moist Sugar Maple-Hardwood Deciduous Forest |
| FOD2-3, Dry-Fresh Hickory Deciduous Forest | FOD7, Fresh-Moist Lowland Deciduous Forest |
| FOD2-4, Dry-Fresh Oak Hardwood Deciduous Forest | FOD7-1, Fresh Moist White Elm Lowland Deciduous Forest |
| FOD3-2, Dry-Fresh White Birch Deciduous Forest | FOD7-2, Fresh-Moist Ash Lowland Deciduous Forest |
| FOD4-1, Dry-Fresh Beech Deciduous Forest | FOM, Mixed Forest |
| | FOM2-2, Dry-Fresh White Pine - Sugar Maple Mixed Forest |

West Study Area Terrestrial Survey Map

Figure 4W.9.1



NORTH OAKVILLE CREEKS SUBWATERSHED STUDY



Legend

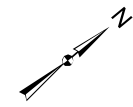
- Road
- Watercourse
- West Study Area
- Habitat Units
- Bird Survey Area 2005
- Winter Bird Survey Route 2006
- Winter Bird Monitoring Station 2006
- Bird Monitoring Station 2005
- Amphibian Survey Station 2002 (location as per LGL 1999)
- F5 Breeding Bird Survey Area 2002 (location as per LGL 1999)

West Study Area Wildlife Monitoring Stations

Figure 4W.9.2



NORTH OAKVILLE CREEKS SUBWATERSHED STUDY



0
|
Meters

Legend

- Road
- Watercourse
- West Study Area
- Electrofishing Station
- Macro Invertebrate Sampling Station
- Reach Break
- Reaches not included in Aquatic Survey

Fisheries Sampling Sites

- Fourteen Mile Creek MNR Fisheries Sampling Site (2002/2003)
- Sixteen Mile Creek MNR Fisheries Sampling Site (2002/2003)

West Study Area

Aquatic Survey Map

Figure 4W.9.3



August 2006