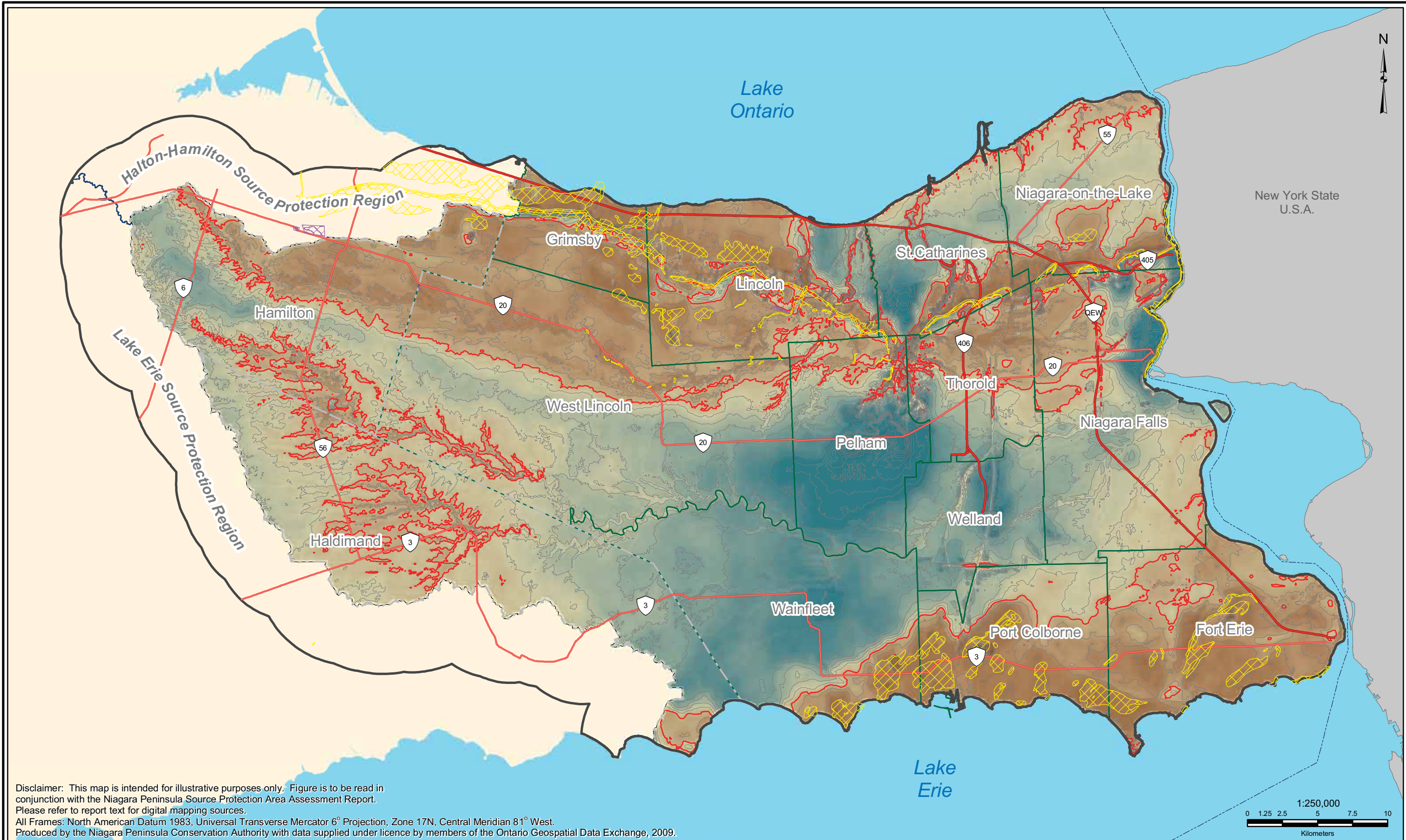


Legend --- International Boundary --- Major Highways --- Highways --- Roads Extended Context Area Niagara Peninsula Source Water Protection Area Lower Tier Municipality Upper Tier Municipality		Bedrock topography (m) above sea level High : 220 Low : 48 Bedrock Outcrop Escarpment 5 m Contours Bedrock Valleys		Note: 'Bedrock Outcrop' denotes areas where there is less than 1m of overburden. The bedrock topography depicted in the St. David's Buried Gorge area may not be accurately represented due to a lack of well data. Previous interpretations indicate the gorge cuts approximately 60 to 130 m into the bedrock.				 NPSPA Assessment Report Figure 3.11: Bedrock Topography Thursday, July 14, 2011 	
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Disclaimer: This map is intended for illustrative purposes only. Figure is to be read in conjunction with the Niagara Peninsula Source Protection Area Assessment Report. Please refer to report text for digital mapping sources.
All Frames: North American Datum 1983, Universal Transverse Mercator 6° Projection, Zone 17N, Central Meridian 81° West.
Produced by the Niagara Peninsula Conservation Authority with data supplied under licence by members of the Ontario Geospatial Data Exchange, 2009.

Legend		Overburden thickness (m) above sea level		* Bedrock outcrop denotes areas where there is less than 1m of overburden			NPSPA Assessment Report
--- International Boundary	Extended Context Area	Bedrock Outcrop	High : 106.9				
Major Highways	Niagara Peninsula Source Water Protection Area	Contour 5m Interval	Low : 0.0				
Highways	Lower Tier Municipality	15 m Thickness					
Roads	Upper Tier Municipality	Karst					

Figure 3.12: Overburden Thickness

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Ontario





Disclaimer: This map is intended for illustrative purposes only. Figure is to be read in conjunction with the Niagara Peninsula Source Protection Area Assessment Report. Please refer to report text for digital mapping sources.
 All Frames: North American Datum 1983, Universal Transverse Mercator 6° Projection, Zone 17N, Central Meridian 81° West.
 Produced by the Niagara Peninsula Conservation Authority with data supplied under licence by members of the Ontario Geospatial Data Exchange, 2009.

- Legend**
- International Boundary
 - Major Highways
 - Highways
 - Watercourse
 - Ponds, Reservoirs, Lakes
 - Extended Context Area
 - Source Water Protection Area
 - Lower Tier Municipality
 - Upper Tier Municipality
 - Other Water Wells
 - Water Supply Wells
 - Surficial Overburden Aquifers



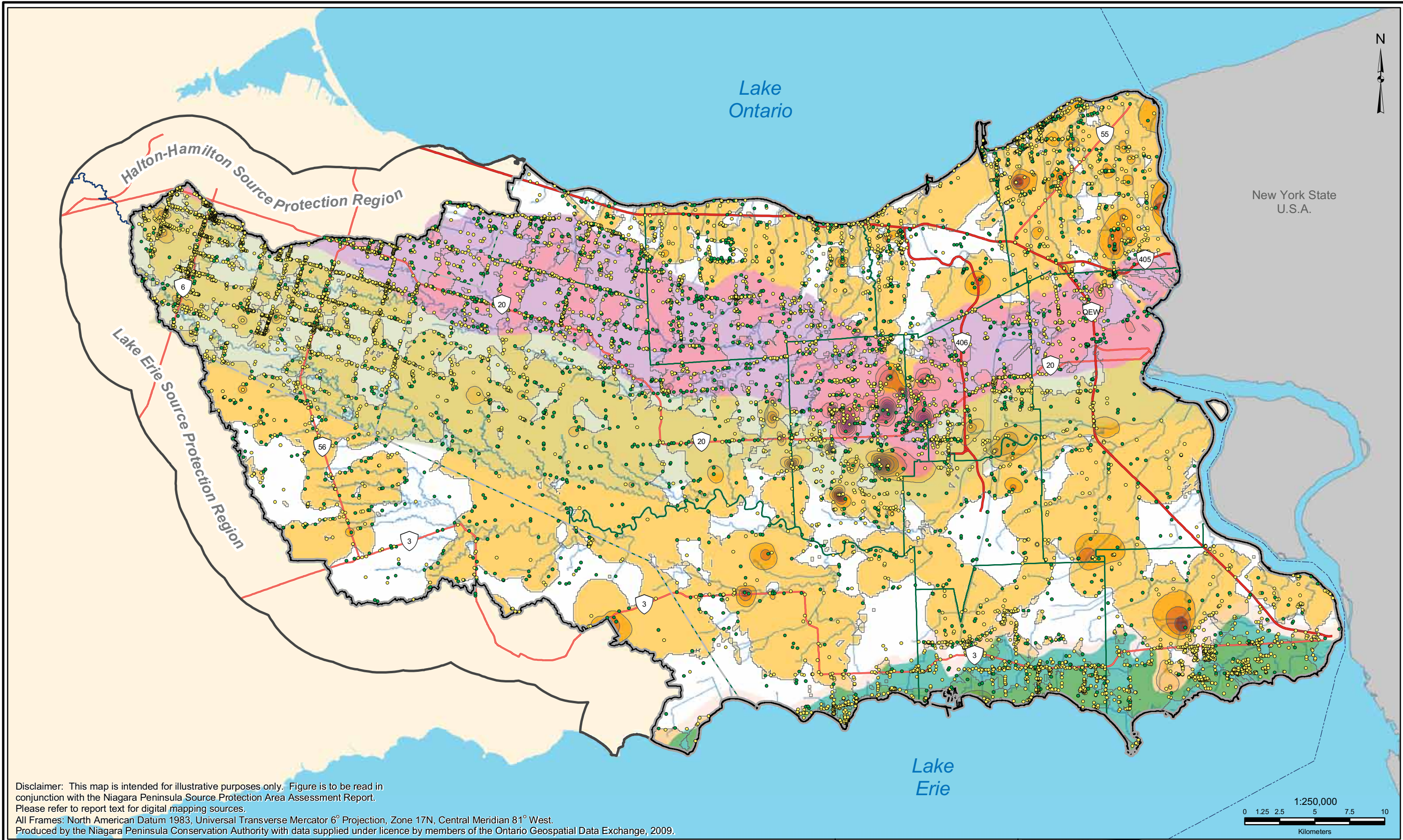
NPSPA Assessment Report

Figure 3.14: NPSPA Area Surficial Overburden Aquifers



Thursday, July 14, 2011





Legend

- International Boundary
- Major Highways
- Highways
- Watercourse
- Ponds, Reservoirs, Lakes
- Extended Context Area
- Source Water Protection Area
- Contour 5 m
- Lower Tier Municipality
- Upper Tier Municipality
- Other Water Wells
- Water Supply Wells

Bedrock Water Supply Aquifers

- Bois Blanc Formation
- Onondaga Formation
- Guelph Formation
- Lockport Formation

Sand and Gravel Aquifer Thickness Above Bedrock (m)

0	10.1 - 15
0.1 - 5	15.1 - 25
5.1 - 10	25.1 - 55

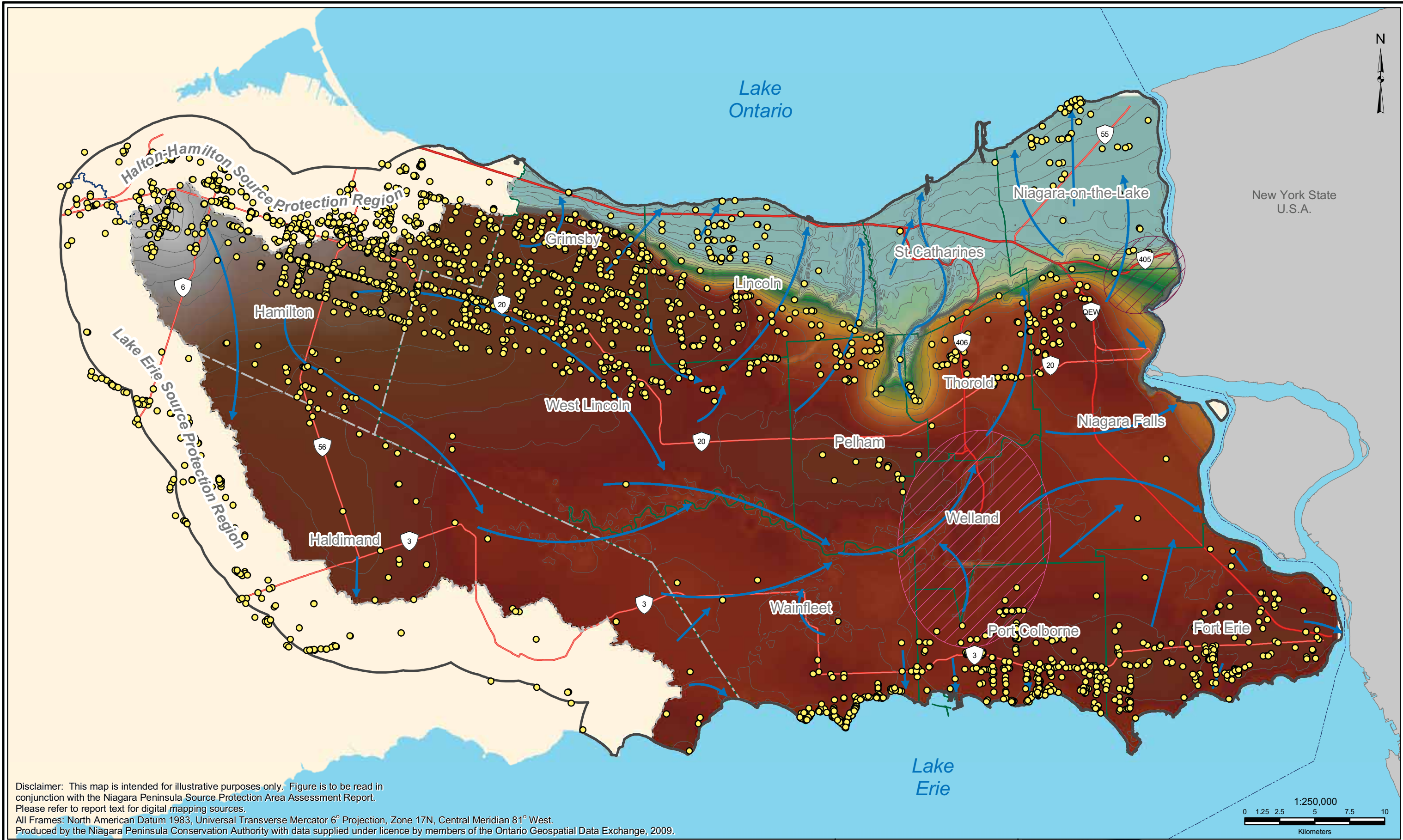
DRINKING WATER SOURCE PROTECTION
ACT FOR CLEAN WATER

NPSPA Assessment Report

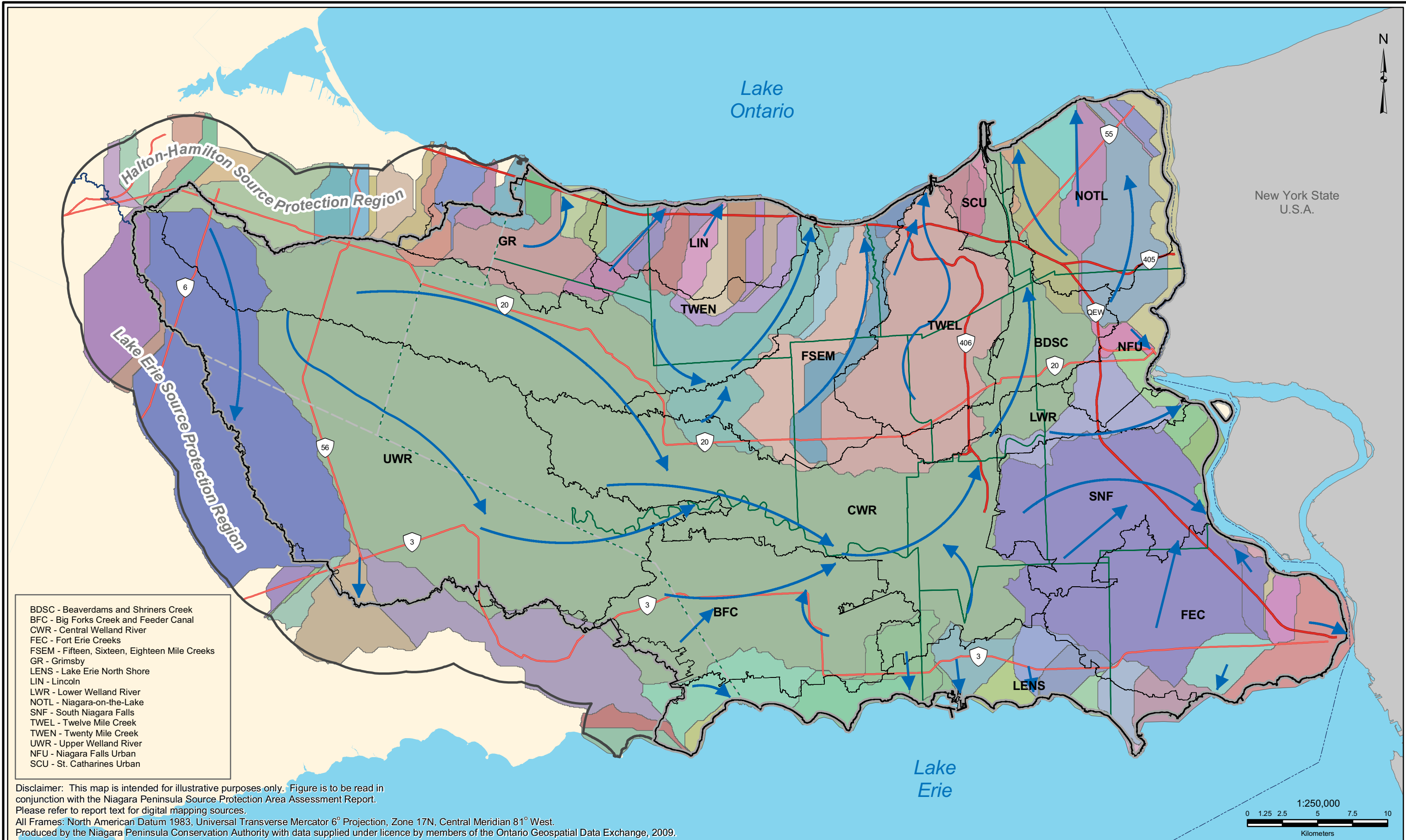
Figure 3.15: NPSPA Area Contact-Zone and Prominent Bedrock Aquifers

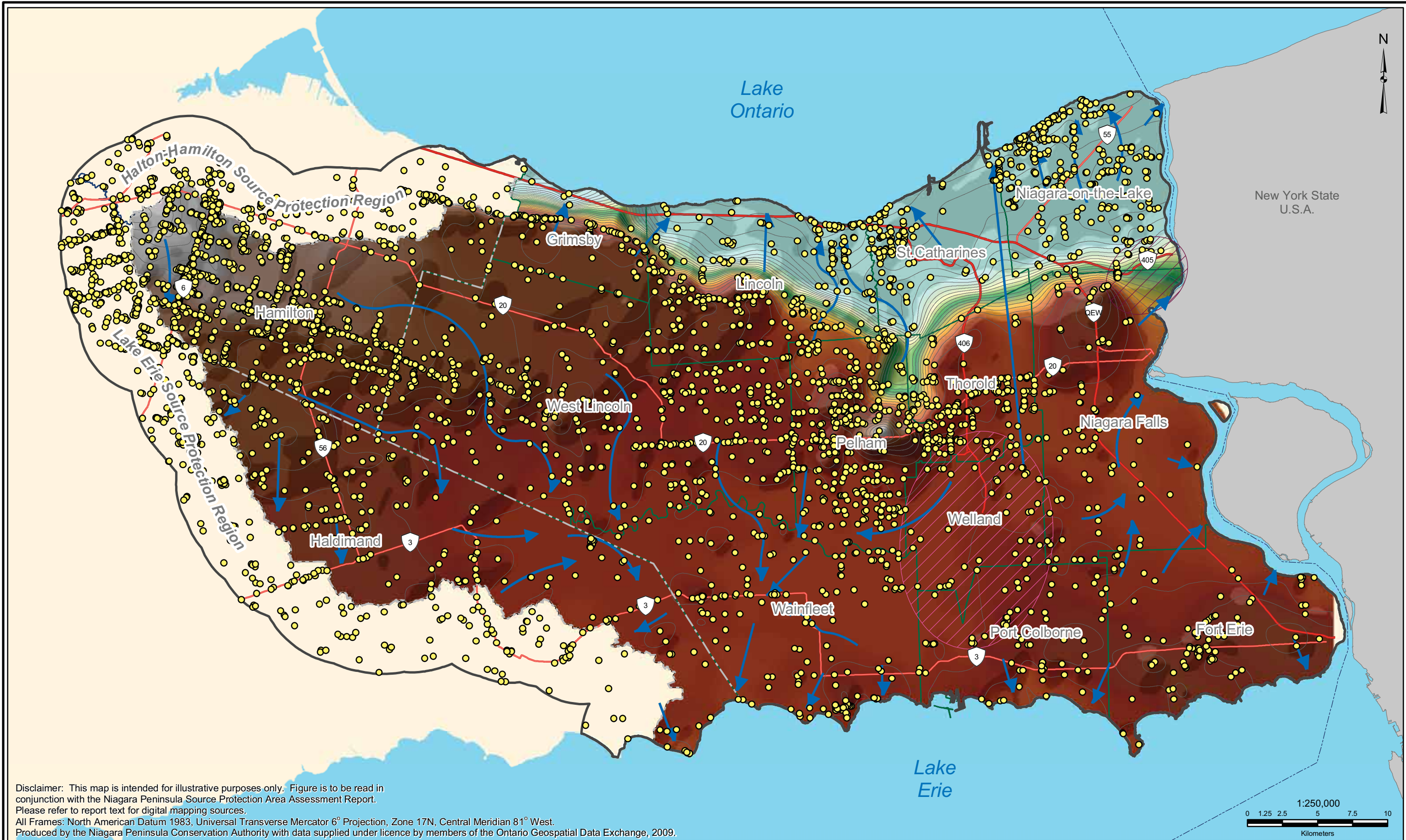
NIAGARA PENINSULA CONSERVATION AUTHORITY

Thursday, July 14, 2011

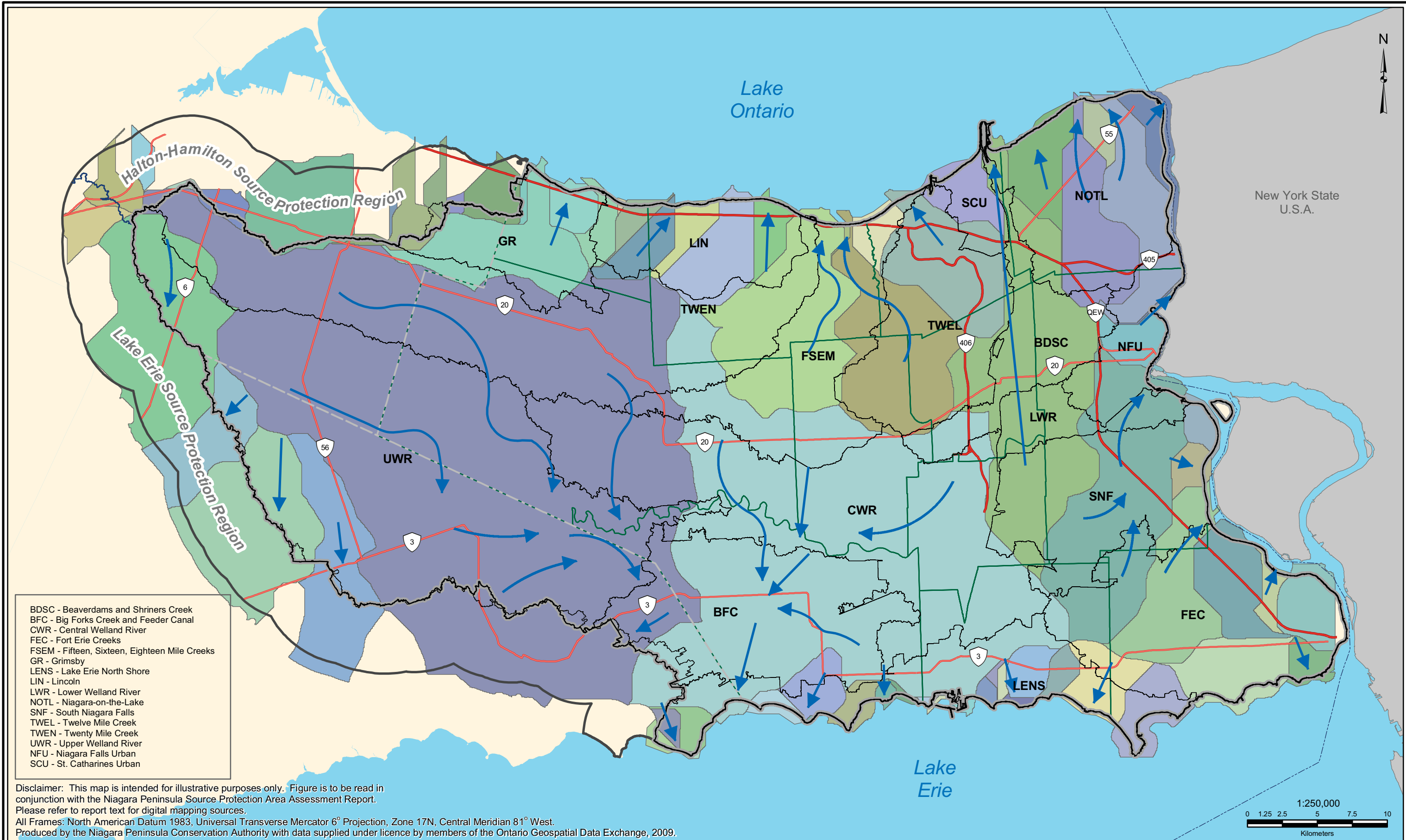


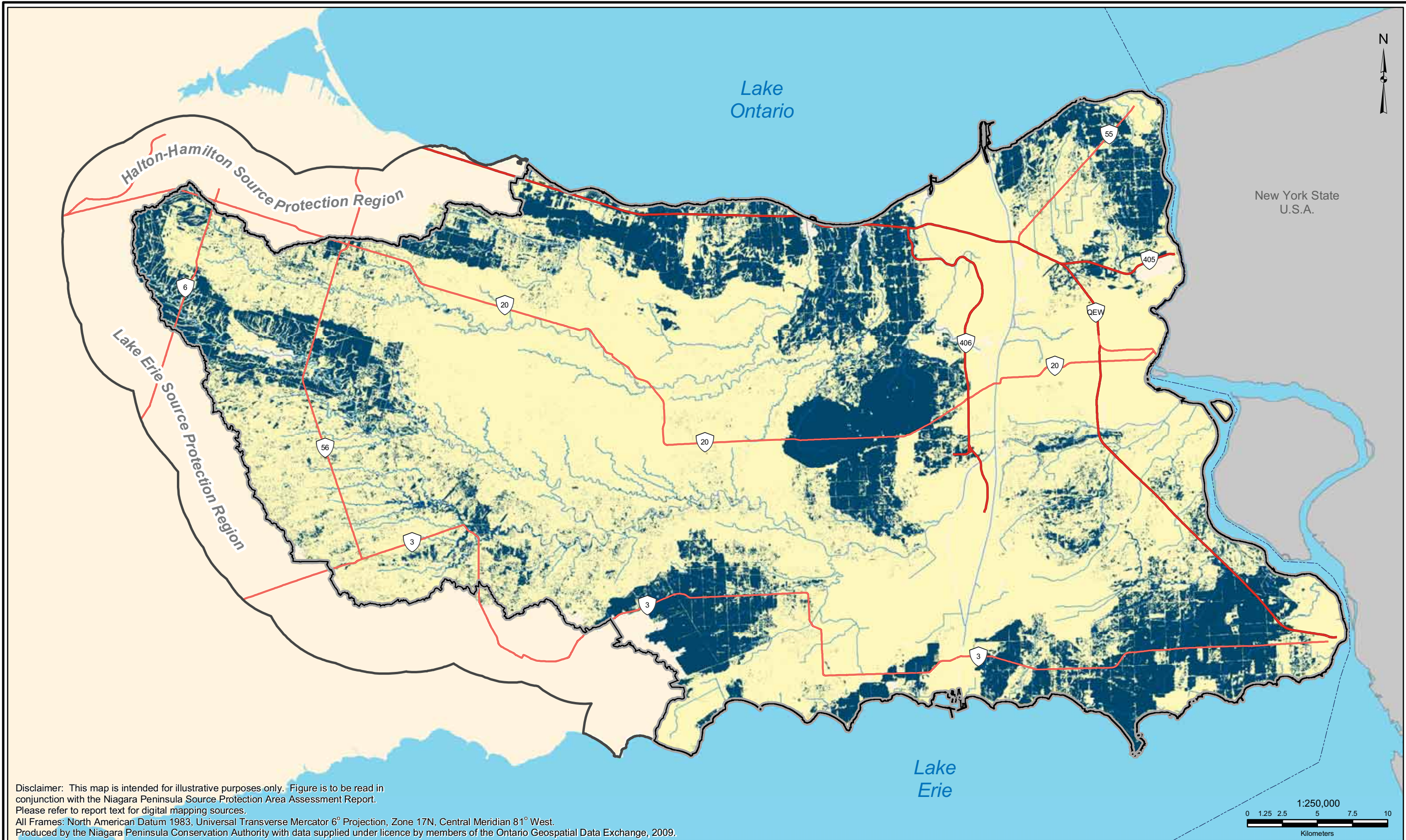
Legend --- International Boundary --- Major Highways --- Extended Context Area --- Niagara Peninsula Source Water Protection Area		Lower Tier Municipality Upper Tier Municipality Wells Used in Analysis Contour 5 m		Ground Water Flow Welland Canal Dewatering PGS Reservoir Area Elevation (m) above sea level High : 243.377 Low : 73.1598 <small>Elevation inaccurate due to radial outflow from power generating station reservoir (PGS)</small>				NPSA Assessment Report Figure 3-16: Water Table Elevations			Thursday, July 14, 2011	
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Legend --- International Boundary --- Major Highways Extended Context Area Niagara Peninsula Source Water Protection Area		Lower Tier Municipality Upper Tier Municipality Wells Used in Analysis Contour 5 m		Groundwater Flow Welland Canal Dewatering PGS Reservoir Area Elevation (m) above sea level High : 237.5 Low : 69.6 <small>Elevation inaccurate due to radial outflow from power generating station reservoir (PGS)</small>				NPSPA Assessment Report Figure 3.18: Potentiometric Surface	
							Thursday, July 14, 2011		





Legend

- International Boundary
- Major Highways
- Highways
- Watercourse
- Ponds, Reservoirs, Lakes
- HMS Rivers
- Source Water Protection Area
- Extended Context Area
- Non Modeled Areas

Annual groundwater recharge (mm/yr) 1991 - 2005

- ≤ 53
- > 53, Potential SGRAs



NPSPA Assessment Report

Figure 3.20: Potential Groundwater Recharge Areas



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