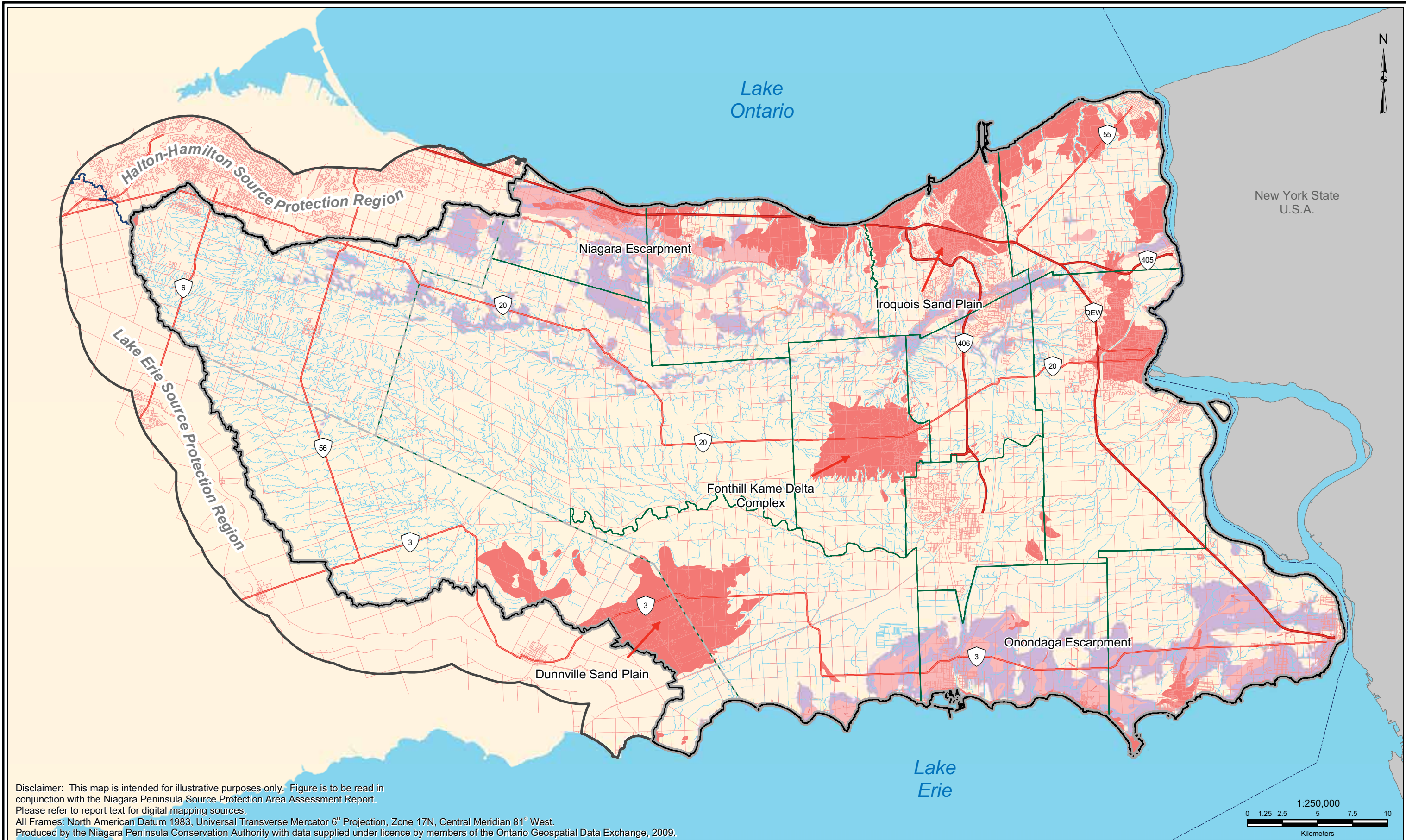
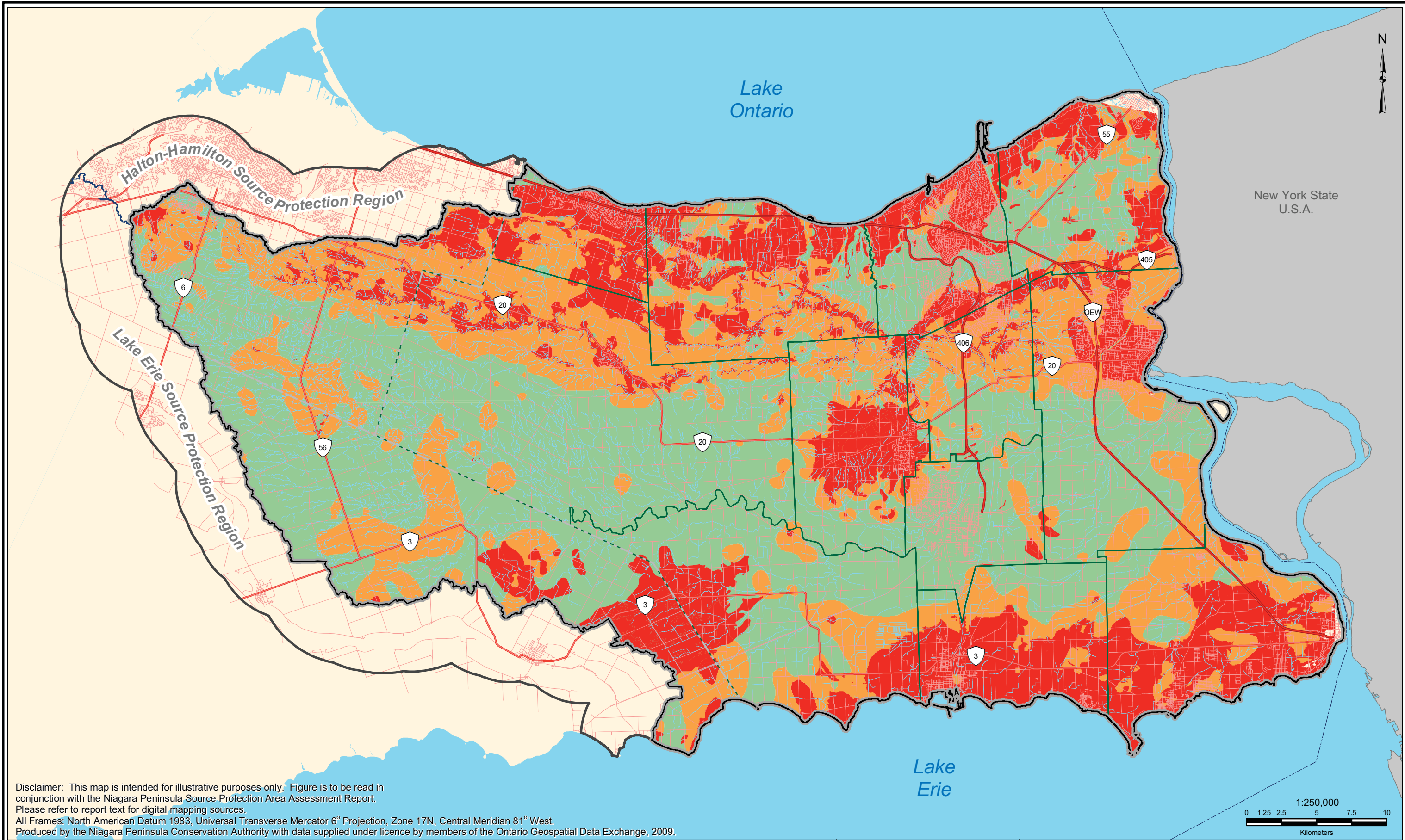


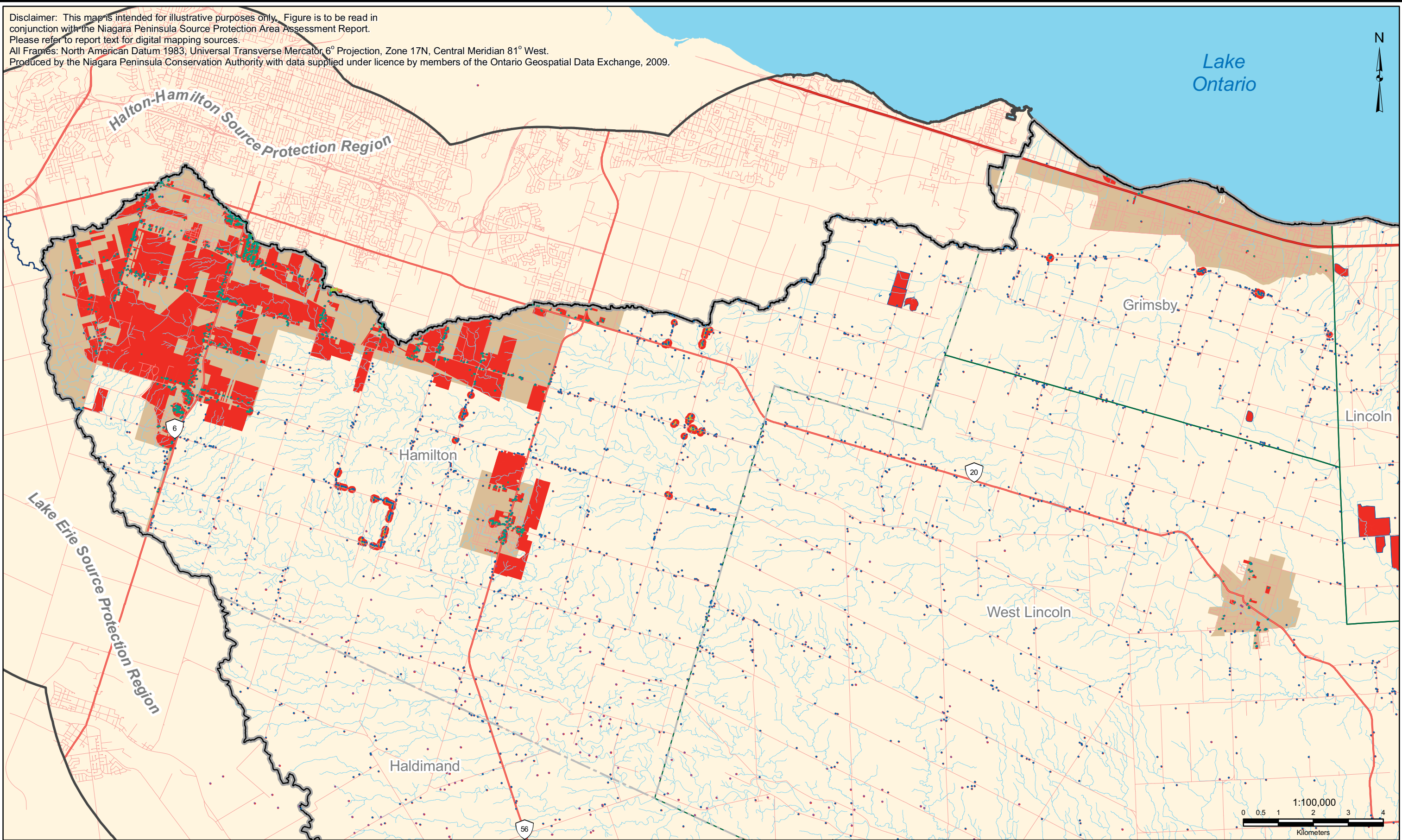
Legend --- International Boundary Ponds, Reservoirs, Lakes --- Major Highways Extended Context Area --- Highways Source Water Protection Area --- Watercourse		Lower Tier Municipality Upper Tier Municipality	Groundwater Susceptibility (GwISI) High Medium Low	GwISI Data Points High Medium Low			NPSPA Assessment Report Figure 4.1: Rule 37(1)/38(1) Groundwater Vulnerability – Intrinsic Susceptibility Index		Thursday, July 14, 2011	
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Legend --- International Boundary Ponds, Reservoirs, Lakes Lower Tier Municipality --- Major Highways Extended Context Area Upper Tier Municipality --- Highways Source Water Protection Area --- Watercourse			Groundwater Vulnerability High Medium Low			NPSPA Assessment Report
Figure 4.3: Groundwater Vulnerability Rules 37(1)/37(2)/38(1)						Thursday, July 14, 2011

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 | Ponds, Reservoirs, Lakes | Lower Tier Municipality | Cluster Wells (≥ 6 Wells in 100m Radius) |
| Major Highways | Extended Context Area | Upper Tier Municipality | Unknown Status Oil and Gas Wells |
| Highways | Source Water Protection Area | Municipally Served Water Areas | Municipally Served Areas WWIS Wells |
| Watercourse | Aggregate Operations | Groundwater Vulnerability (High) | MOE WWIS Pre-2000 |

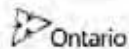


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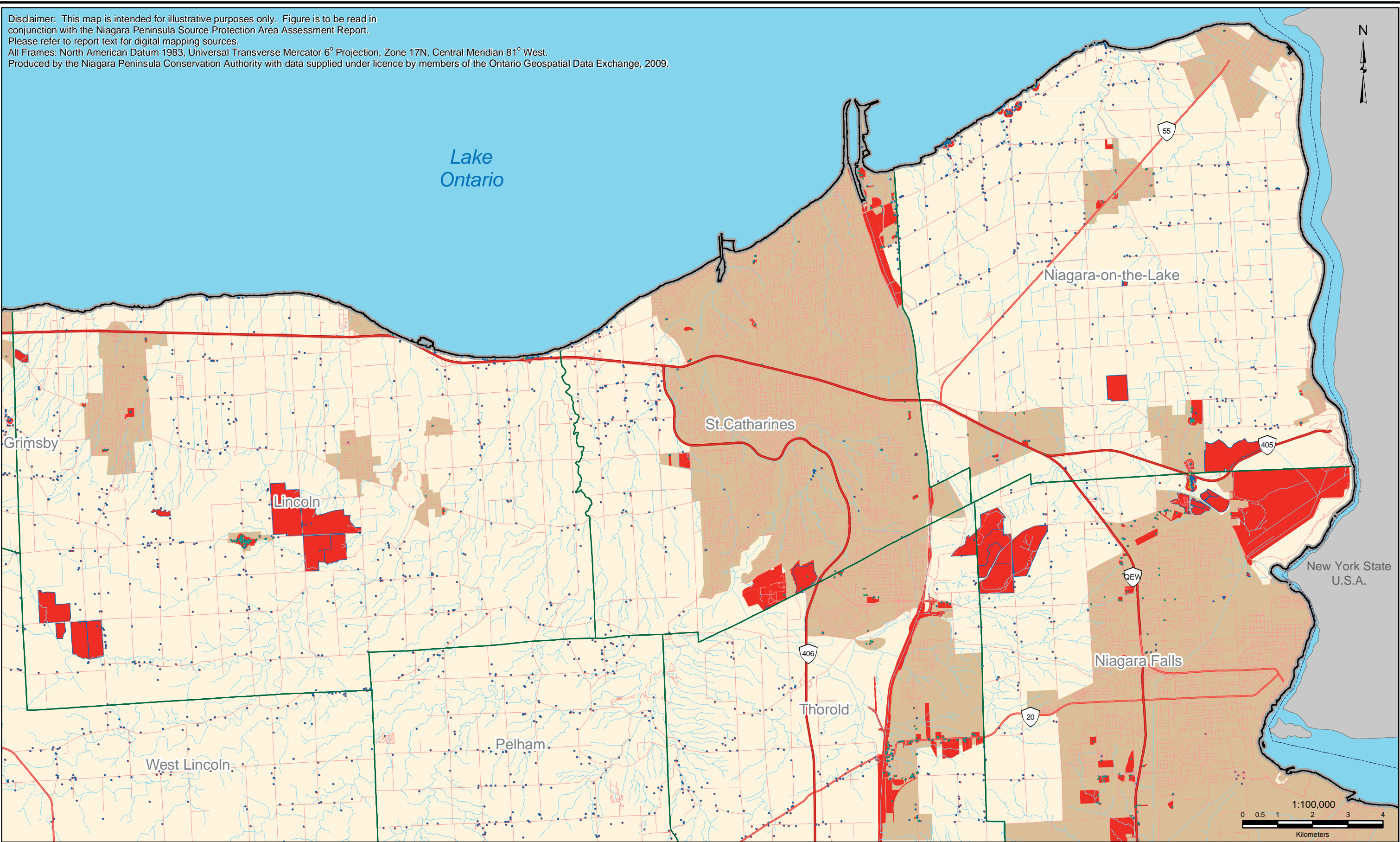
Figure 4.4: Transport Pathways - Northwest Quadrant



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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

- | | | | |
|----------------------------|------------------------------|--------------------------------|---|
| --- International Boundary | Ponds, Reservoirs, Lakes | Lower Tier Municipality | Municipally Served Areas WWIS Wells |
| Major Highways | Extended Context Area | Upper Tier Municipality | Unknown Status Oil and Gas Wells |
| Highways | Source Water Protection Area | Municipally Served Water Areas | MOE WWIS Pre-2000 |
| Watercourse | Welland Canal on Bedrock | Aggregate Operations | Cluster Wells (>= 6 Wells in 100m Radius) |
| | | | Groundwater Vulnerability (High) |

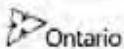


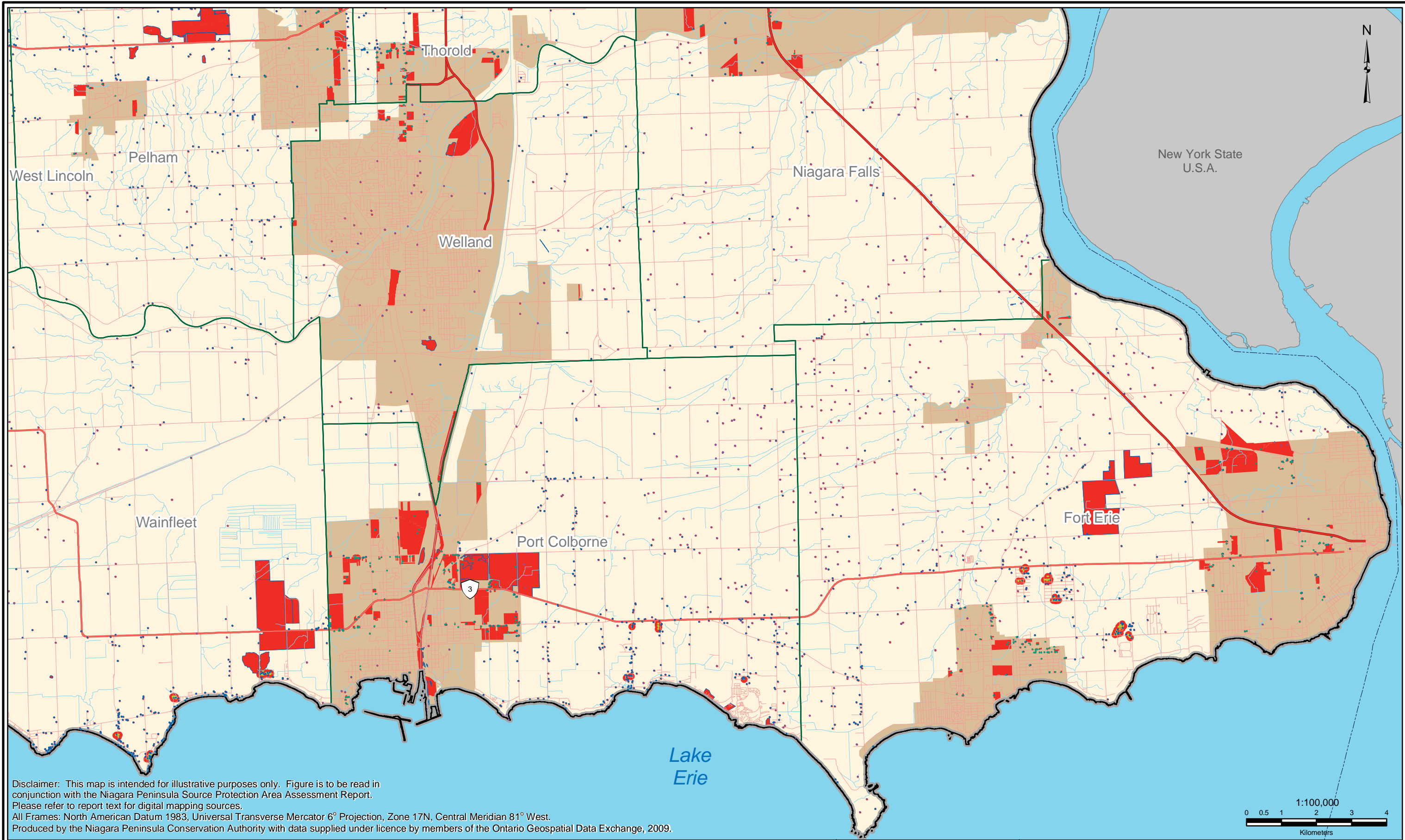
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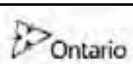
Figure 4.5: Transport Pathways - Northeast Quadrant

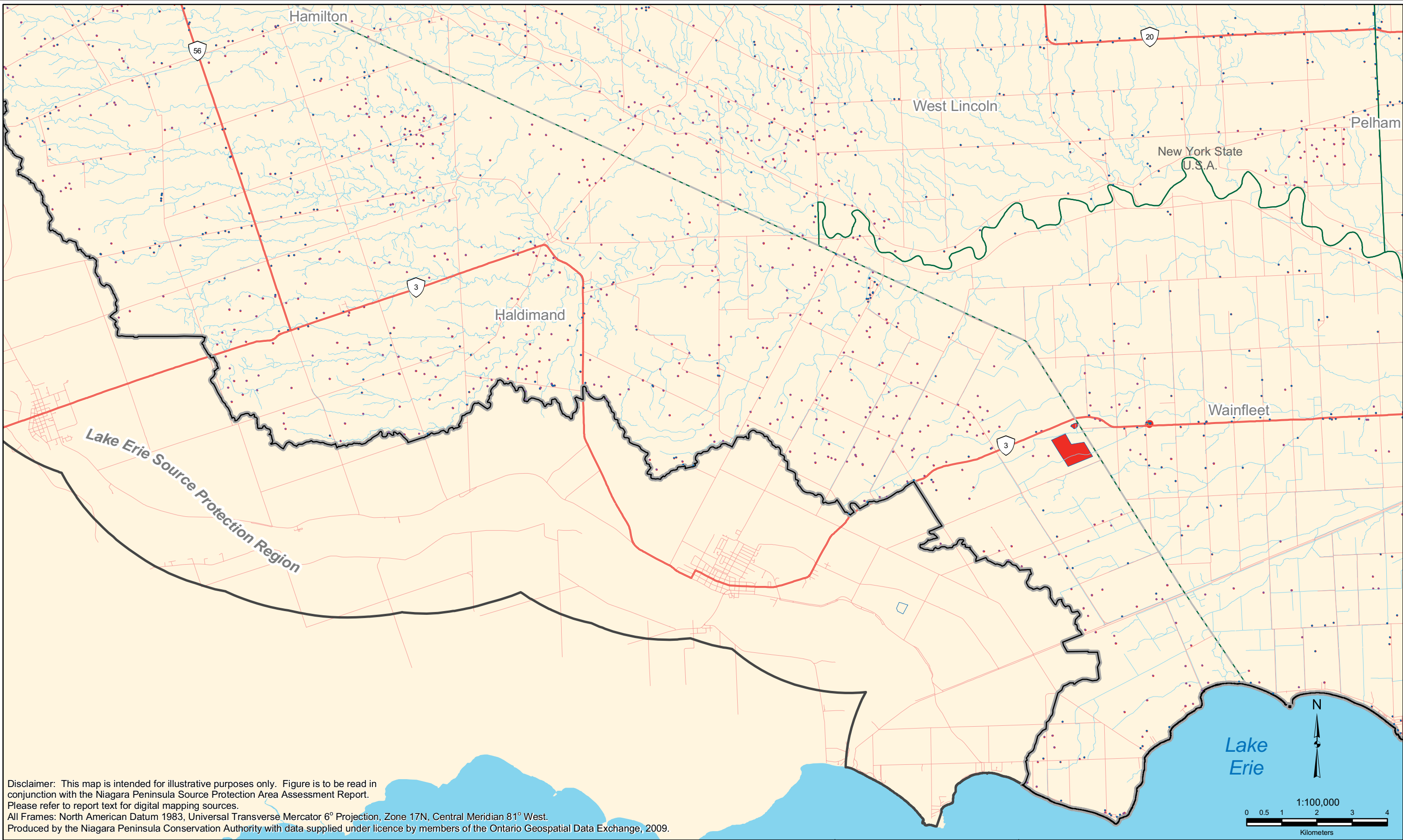


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Legend <div> <div> <div>--- International Boundary</div> <div>Major Highways</div> <div>Highways</div> <div>Watercourse</div> </div> <div> <div>Ponds, Reservoirs, Lakes</div> <div>Extended Context Area</div> <div>Source Water Protection Area</div> <div>Welland Canal on Bedrock</div> </div> <div> <div>Lower Tier Municipality</div> <div>Upper Tier Municipality</div> <div>Municipally Served Water Areas</div> <div>Aggregate Operations</div> </div> </div>			<div> <div>Municipally Served Areas WWIS Wells</div> <div>Unknown Status Oil and Gas Wells</div> <div>MOE WWIS Pre-2000</div> <div>Cluster Wells (>= 6 Wells in 100m Radius)</div> <div>Groundwater Vulnerability (High)</div> </div>			<div>  <div> <div>DRINKING WATER SOURCE PROTECTION</div> <div>ACT FOR CLEAN WATER</div> </div> </div>		<div>NPSPA Assessment Report</div>	
<div>Figure 4.6: Transport Pathways - Southeast Quadrant</div>					<div>  <div>Thursday, July 14, 2011</div> <div>  </div> </div>				



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 | Ponds, Reservoirs, Lakes | Lower Tier Municipality | Municipally Served Areas WWIS Wells |
| Major Highways | Extended Context Area | Upper Tier Municipality | Unknown Status Oil and Gas Wells |
| Highways | Source Water Protection Area | Municipally Served Water Areas | MOE WWIS Pre-2000 |
| Watercourse | Welland Canal on Bedrock | Aggregate Operations | Cluster Wells (>= 6 Wells in 100m Radius) |
| | | | Groundwater Vulnerability (High) |

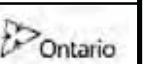


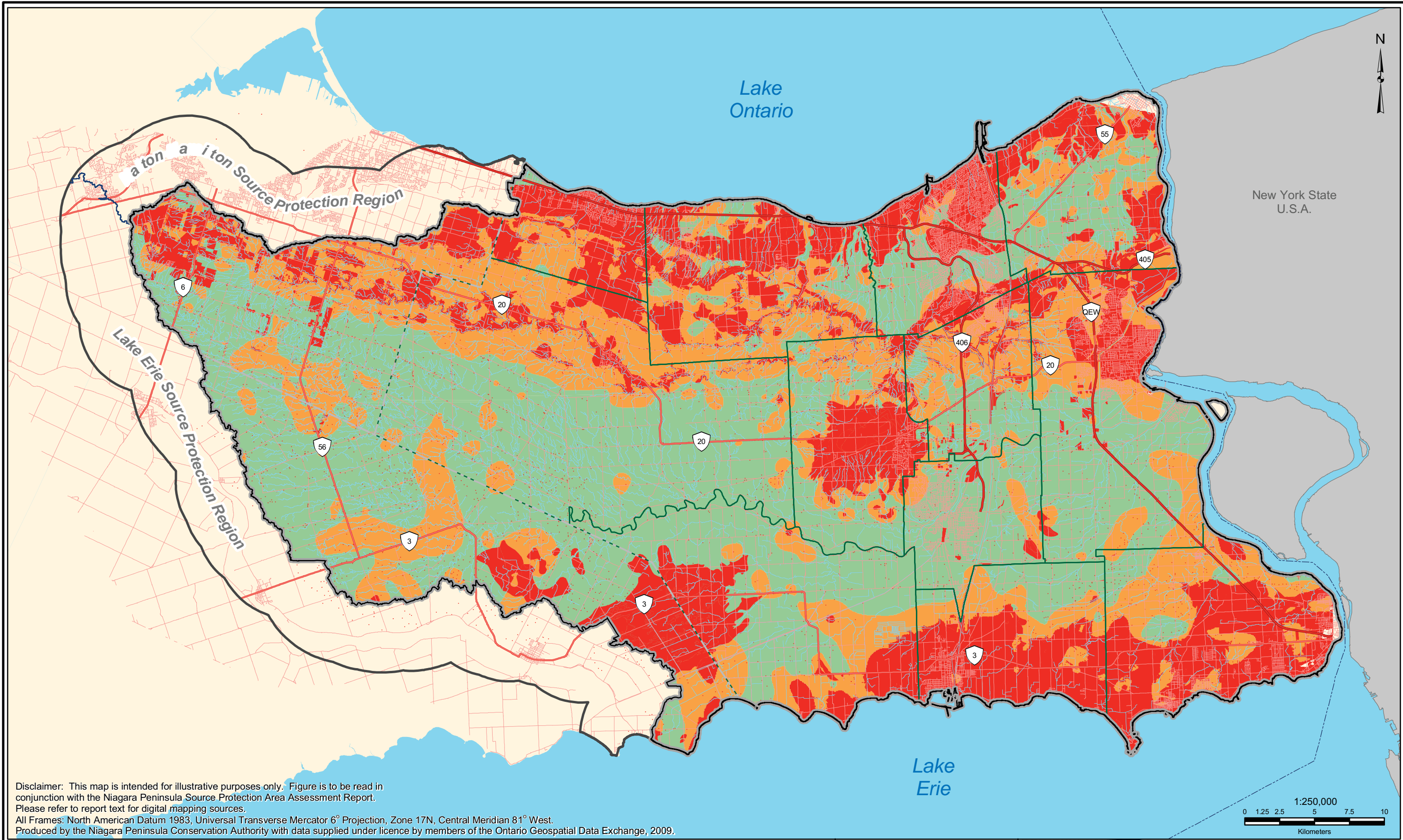
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Figure 4.7: Transport Pathways - Southwest Quadrant

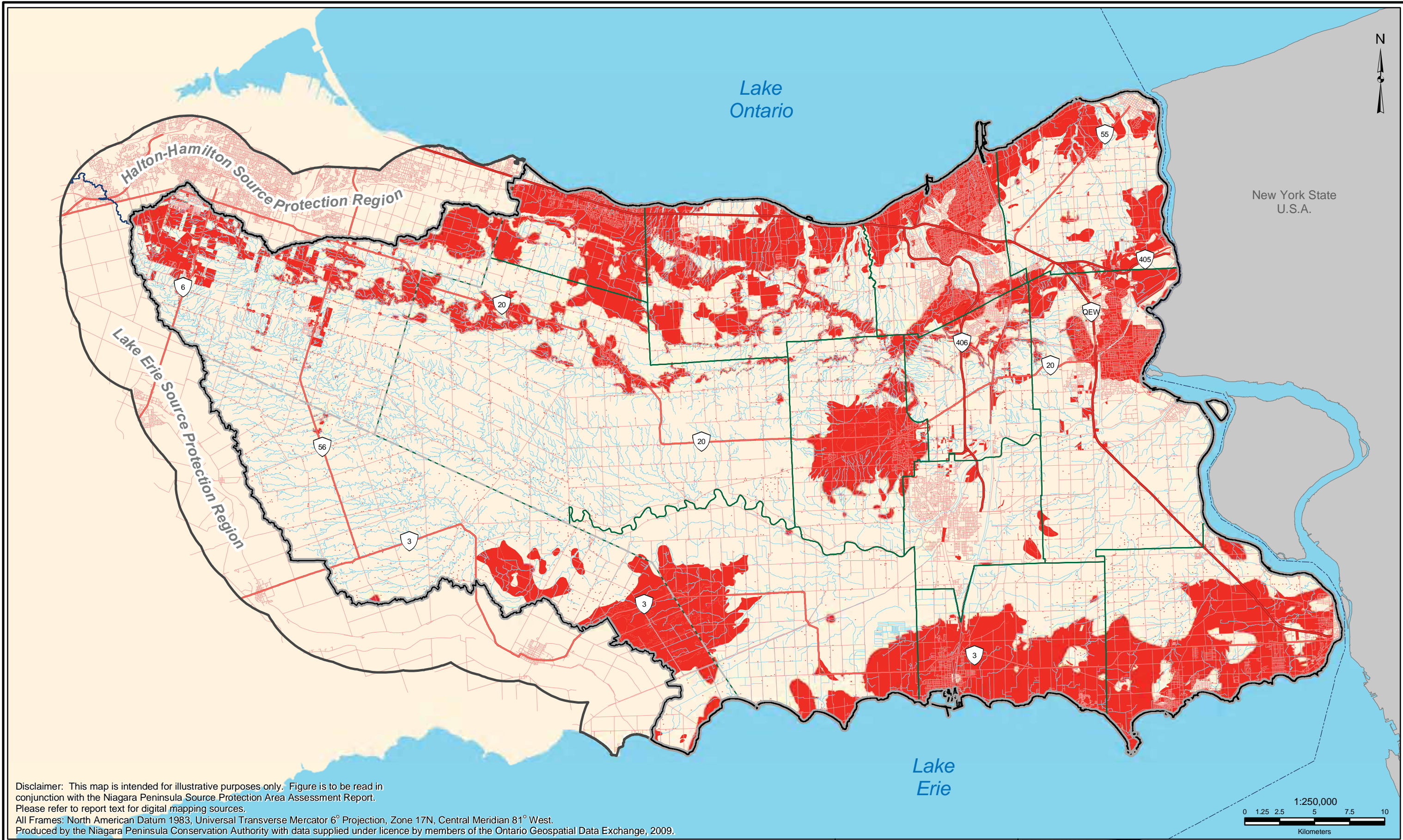


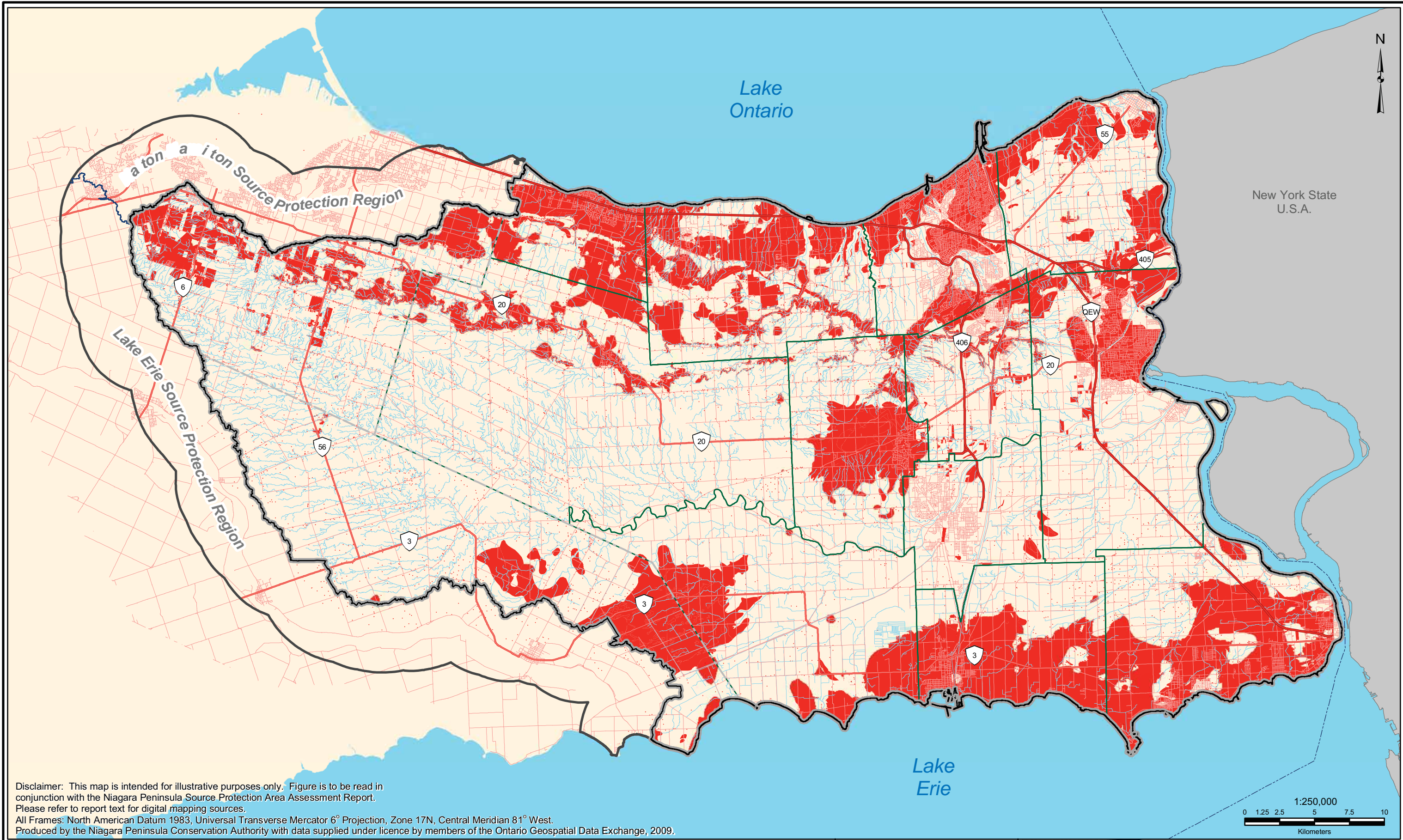
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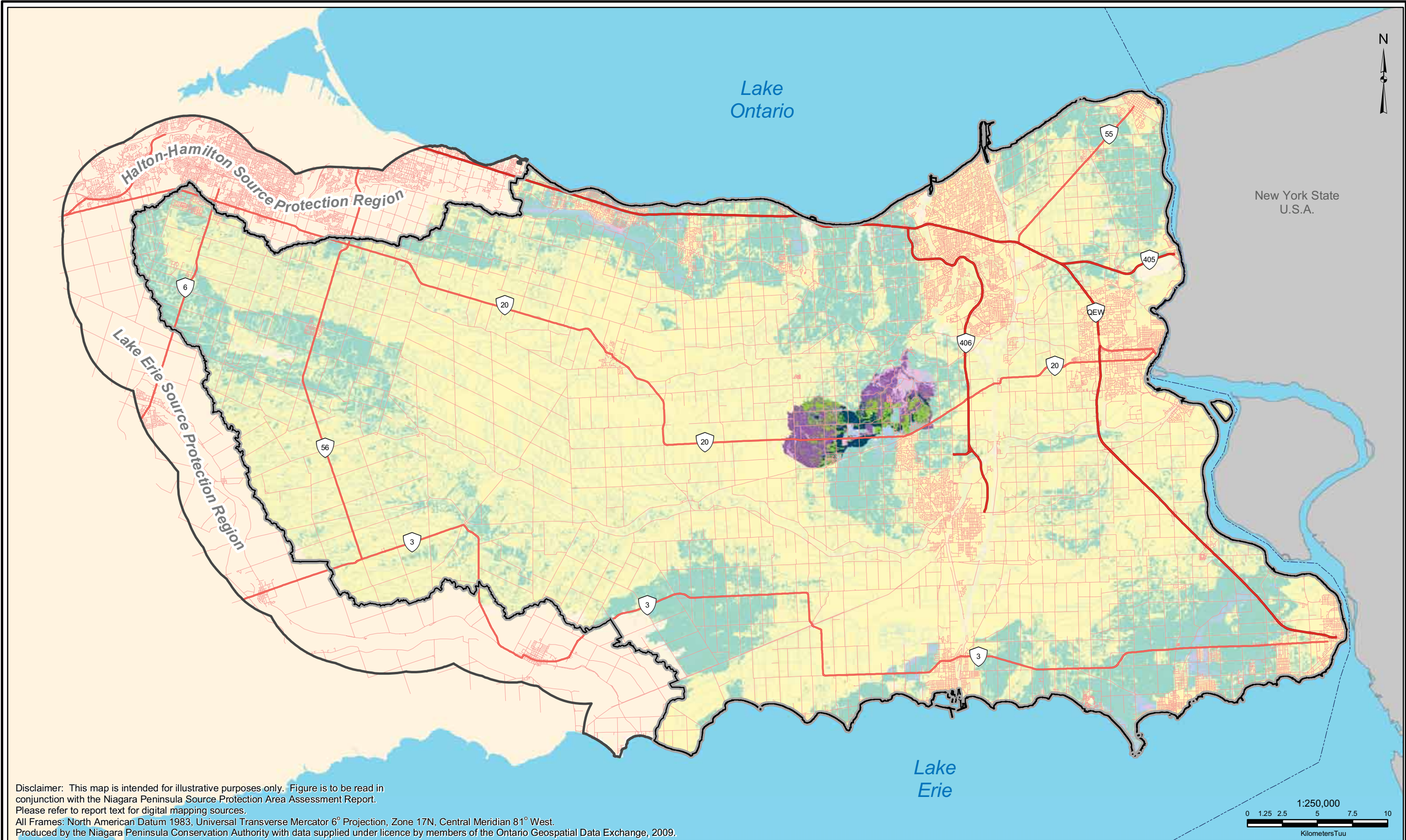


Legend --- International Boundary Ponds, Reservoirs, Lakes Lower Tier Municipality --- Major Highways Extended Context Area Upper Tier Municipality --- Highways Source Water Protection Area --- Watercourse			Groundwater Vulnerability High Medium Low			NPSPA Assessment Report
Figure 4.8: Groundwater Vulnerability Rules 37,38,39 and 40						Thursday, July 14, 2011





Legend <div> <div> <div>--- International Boundary</div> <div>Major Highways</div> <div>Highways</div> <div>Watercourse</div> </div> <div> <div> Ponds, Reservoirs, Lakes</div> <div> Extended Context Area</div> <div> Source Water Protection Area</div> </div> <div> <div> Lower Tier Municipality</div> <div> Upper Tier Municipality</div> </div> <div> <div>Groundwater Vulnerability</div> <div> High - Vulnerability Score 6</div> </div> </div>					NPSPA Assessment Report
			Figure 4.9: Highly Vulnerable Aquifers		
	Thursday, July 14, 2011				



Legend

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

Annual groundwater recharge (mm/yr) 1991 - 2005

- < 53
- 53.0 - 100.0
- 100.1 - 125.0
- 125.1 - 150.0
- 150.1 - 200.0
- 200.1 - 250.0
- > 250



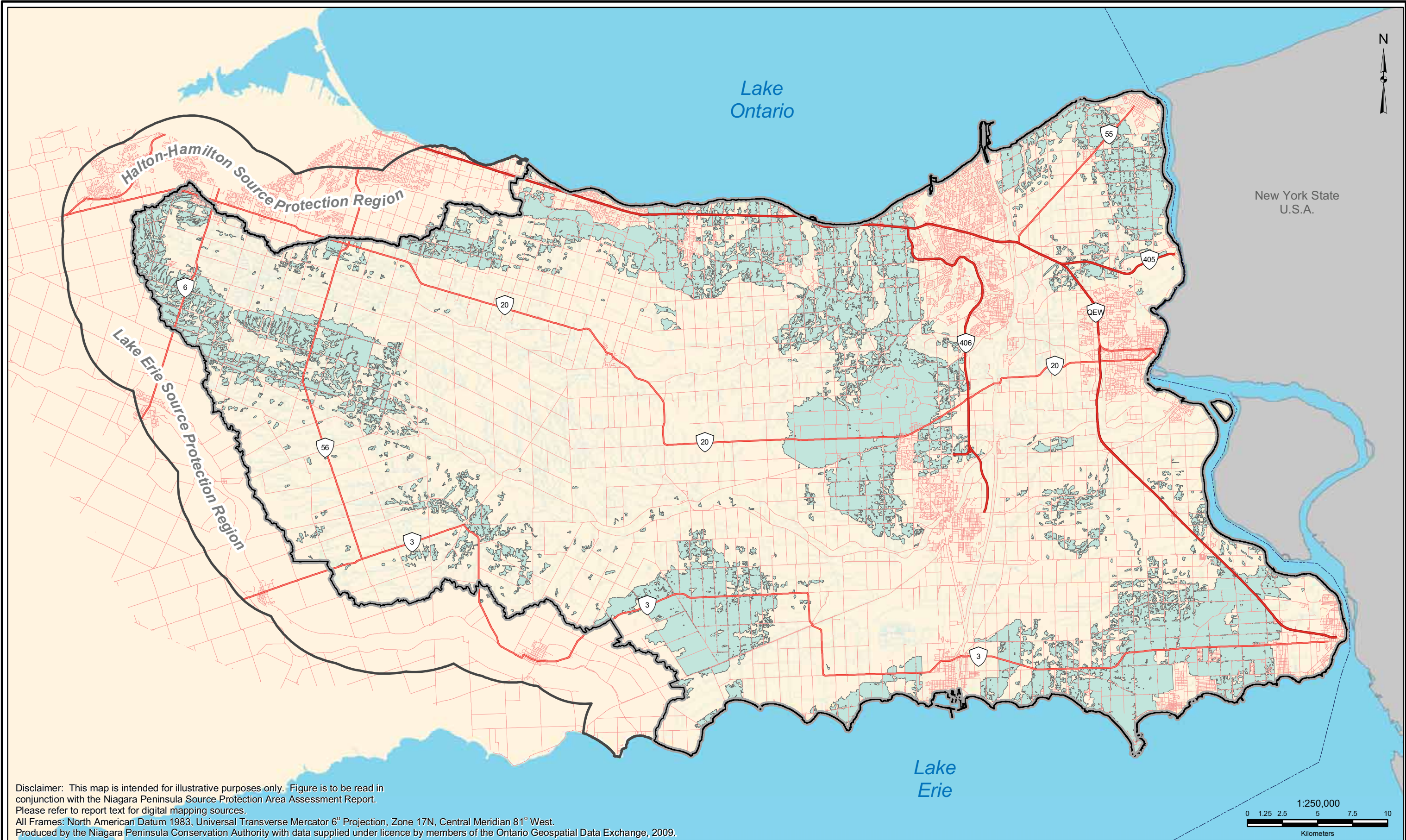
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Figure 4.10: Local Scale Groundwater Recharge Areas



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

Significant Groundwater Recharge Areas

- Rule 44(1)



NPSPA Assessment Report

Figure 4.11: Significant Groundwater Recharge Areas

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