

Notes:

The CWA Technical Rules define "total impervious surface area" as the surface area of all highways and other impervious land surfaces used for vehicular traffic and parking, and all pedestrian paths. Landcover from Southern Ontario Land Resources Inventory System, used under license with the Ontario Ministry of Natural Resources. Hydrology courtesy of Niagara Peninsula Conservation Authority. Copyright © 2009 by Stantec Consulting Ltd. **Projection:** UTM Zone 17N, NAD 1983



Project

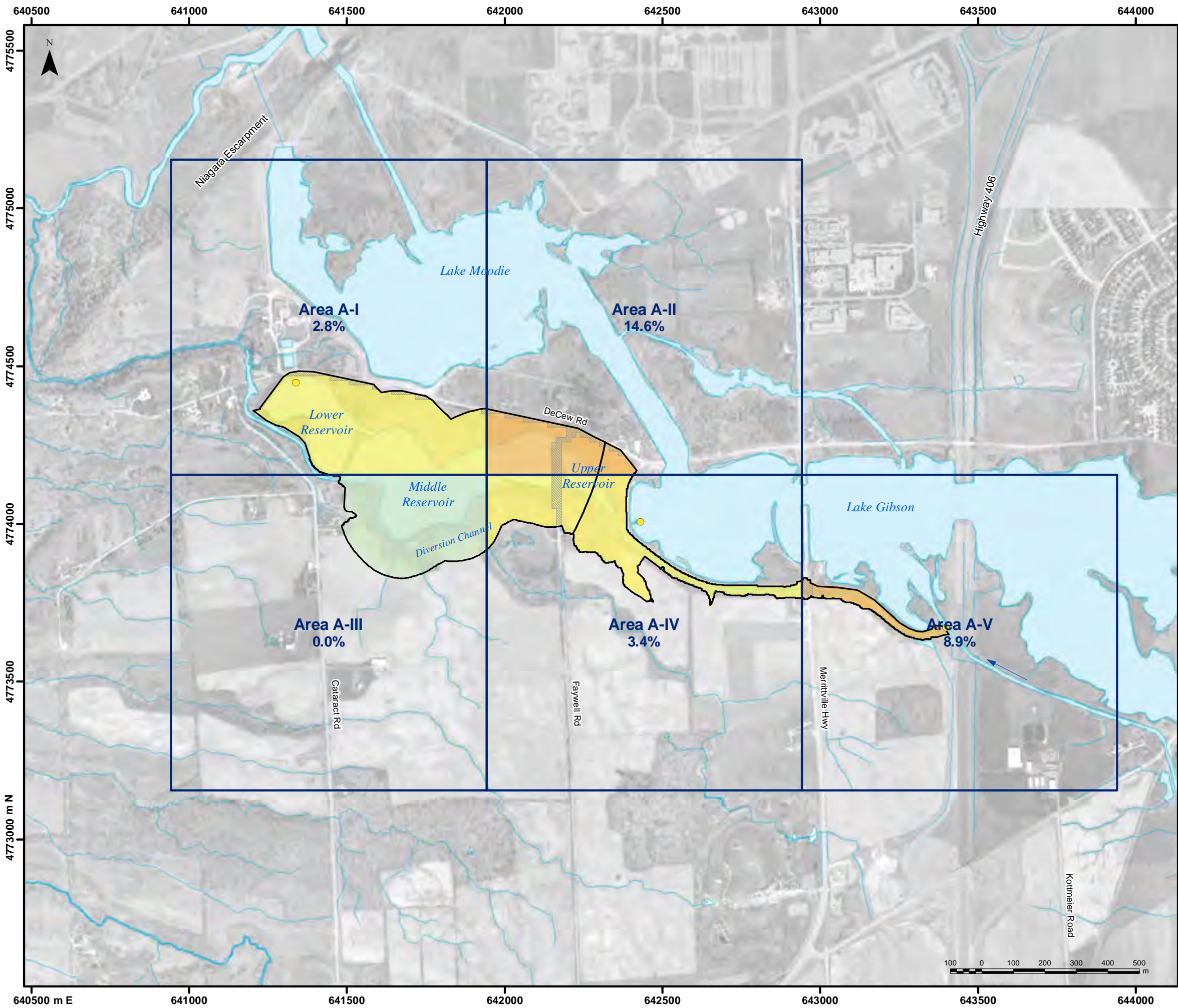
Niagara Peninsula Source Protection Area Assessment Report

Figure No.	Revision No.	Date
2.20	1	July 14, 2011

Title

Total Impervious Area Within Each Square Kilometre of Vulnerable Areas - Welland





Legend

- Intake
- ~ Watercourse
- Vulnerable Zone
- Impervious Surface Area
- 1 km Grid Square

Total Impervious Surface Area

By 1 km Square

- > 80 %
- 8 - 80 %
- 1 - 8 %
- < 1 %

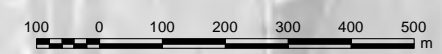
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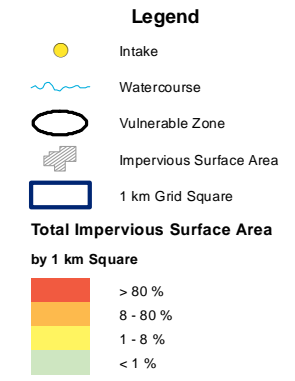
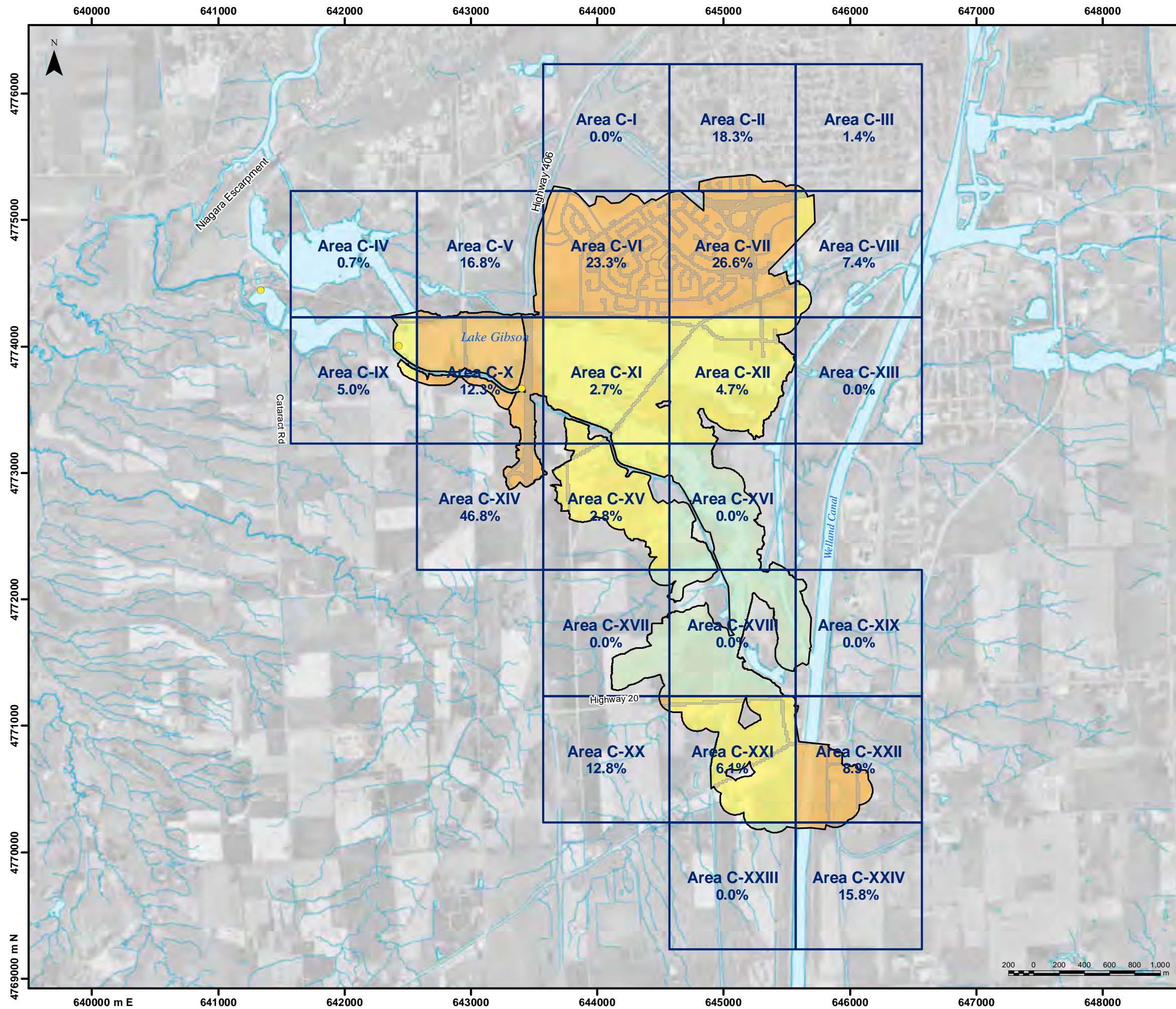
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**Niagara Peninsula
 Source Protection Area
 Assessment Report**

Figure No.	Revision No.	Date
2.21	2	July 14, 2011

Title
**Total Impervious Area Within Each
 Square Kilometre of Vulnerable
 Areas - Main Intake DeCew**





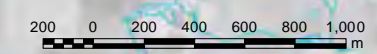
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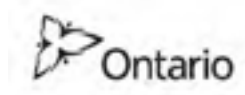
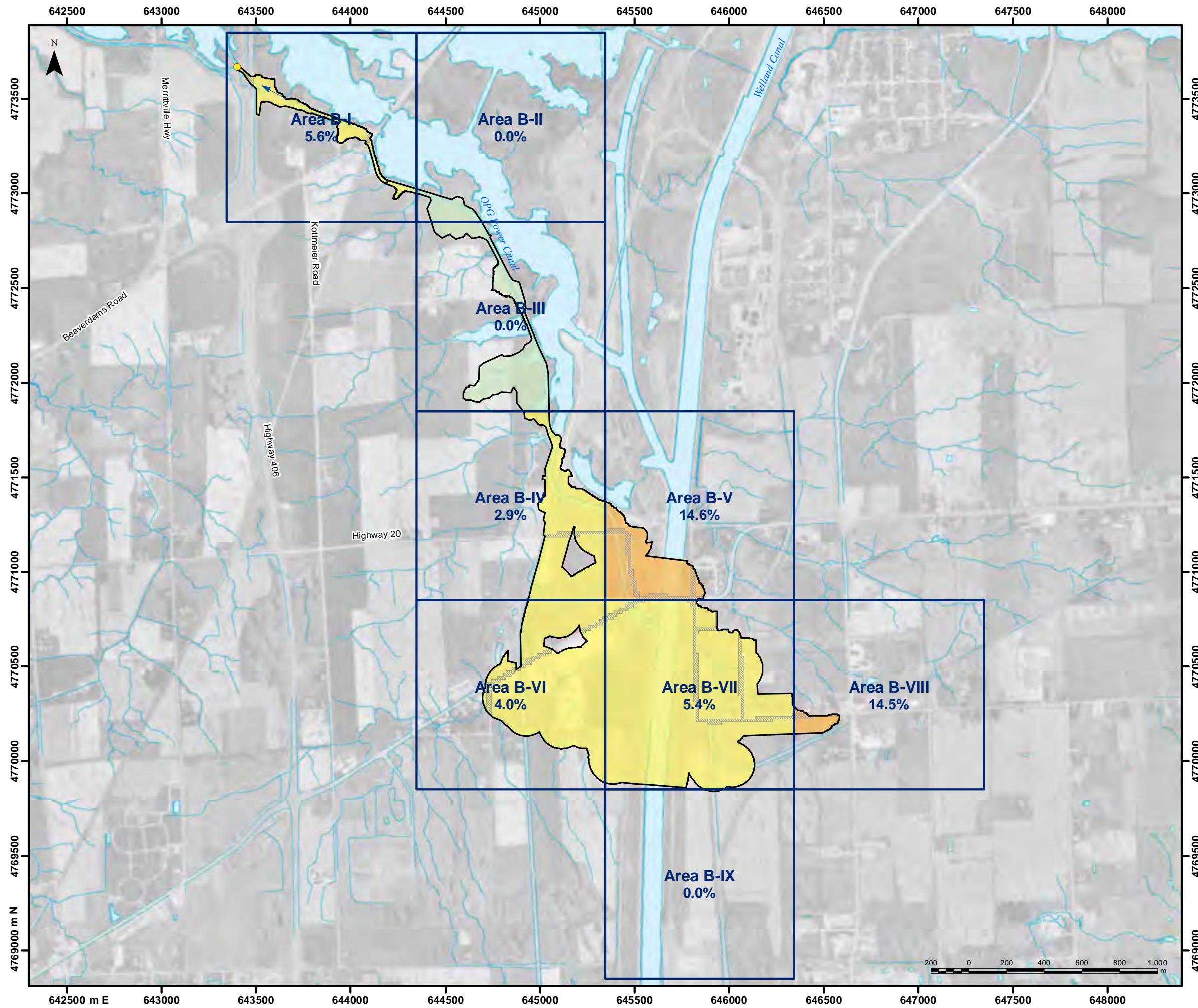
The CWA Technical Rules define "total impervious surface area" as the surface area of all highways and other impervious land surfaces used for vehicular traffic and parking, and all pedestrian paths. Landcover from Southern Ontario Land Resources Inventory System, used under license with the Ontario Ministry of Natural Resources. Imagery © Niagara Region and Google Earth. Hydrology courtesy of Niagara Peninsula Conservation Authority. Copyright © 2011 Stantec Consulting Ltd. **Projection:** UTM Zone 17N, NAD 1983

Project
Niagara Peninsula Source Protection Area Assessment Report

Figure No.	Revision No.	Date
2.22	2	July 14, 2011

Title
Total Impervious Area Within Each Square Kilometre of Vulnerable Areas - Alternate Intake DeCew





Legend

- Intake
- ~ Watercourse
- Vulnerable Zone
- Impervious Surface Area
- 1 km Grid Square

Total Impervious Surface Area by 1 km Square

- > 80 %
- 8 - 80 %
- 1 - 8 %
- < 1 %

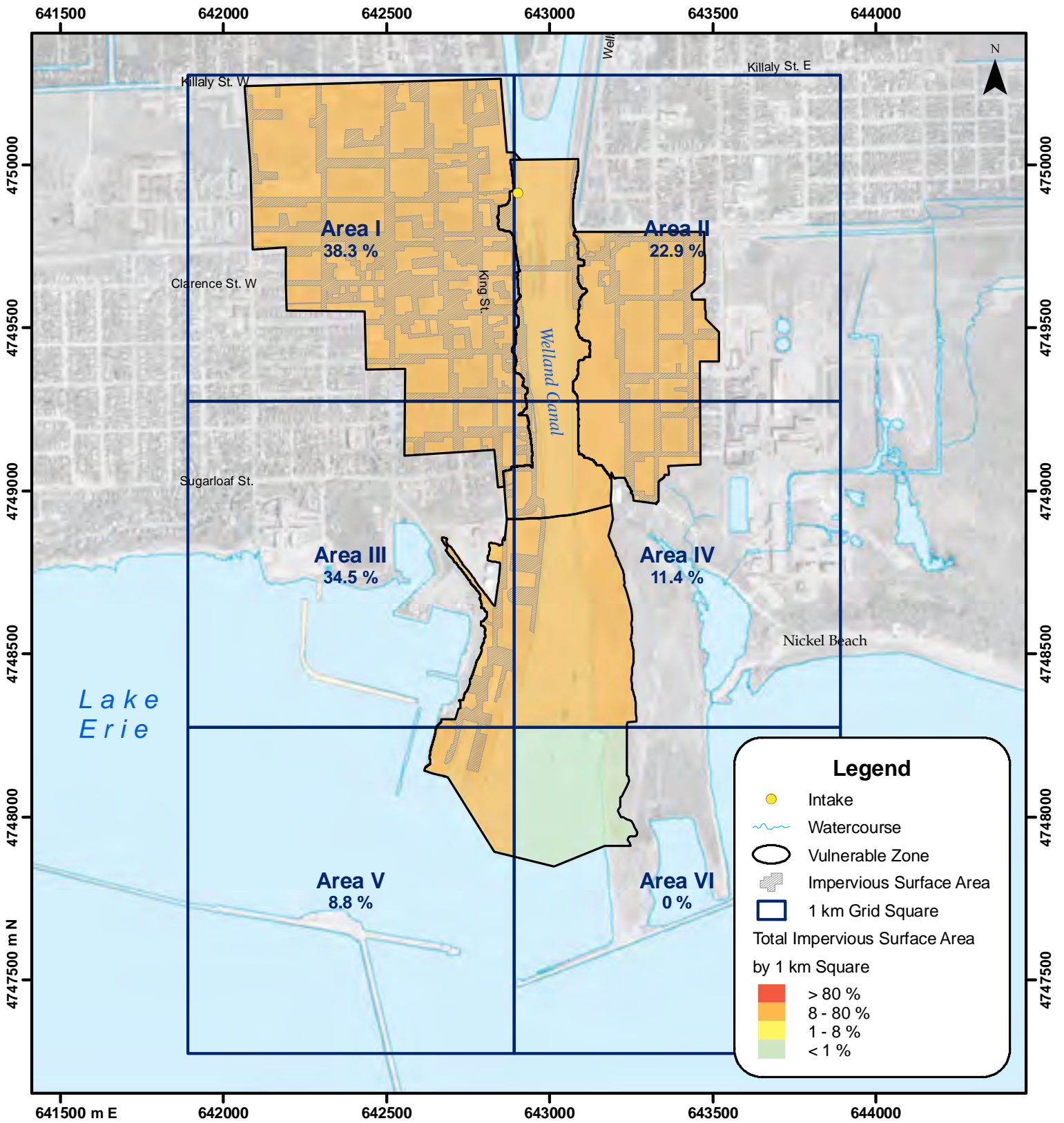
Notes:

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Niagara Peninsula Source Protection Area Assessment Report

Figure No.	Revision No.	Date
2.23	2	July 14, 2011

Title
Total Impervious Area Within Each Square Kilometre of Vulnerable Areas - Hwy 406 Control Structure DeCew



641500 m E

642000

642500

643000

643500

644000

4747500 m N

4748000

4748500

4749000

4749500

4750000

4747500

4748000

4748500

4749000

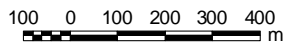
4749500

4750000



Notes:

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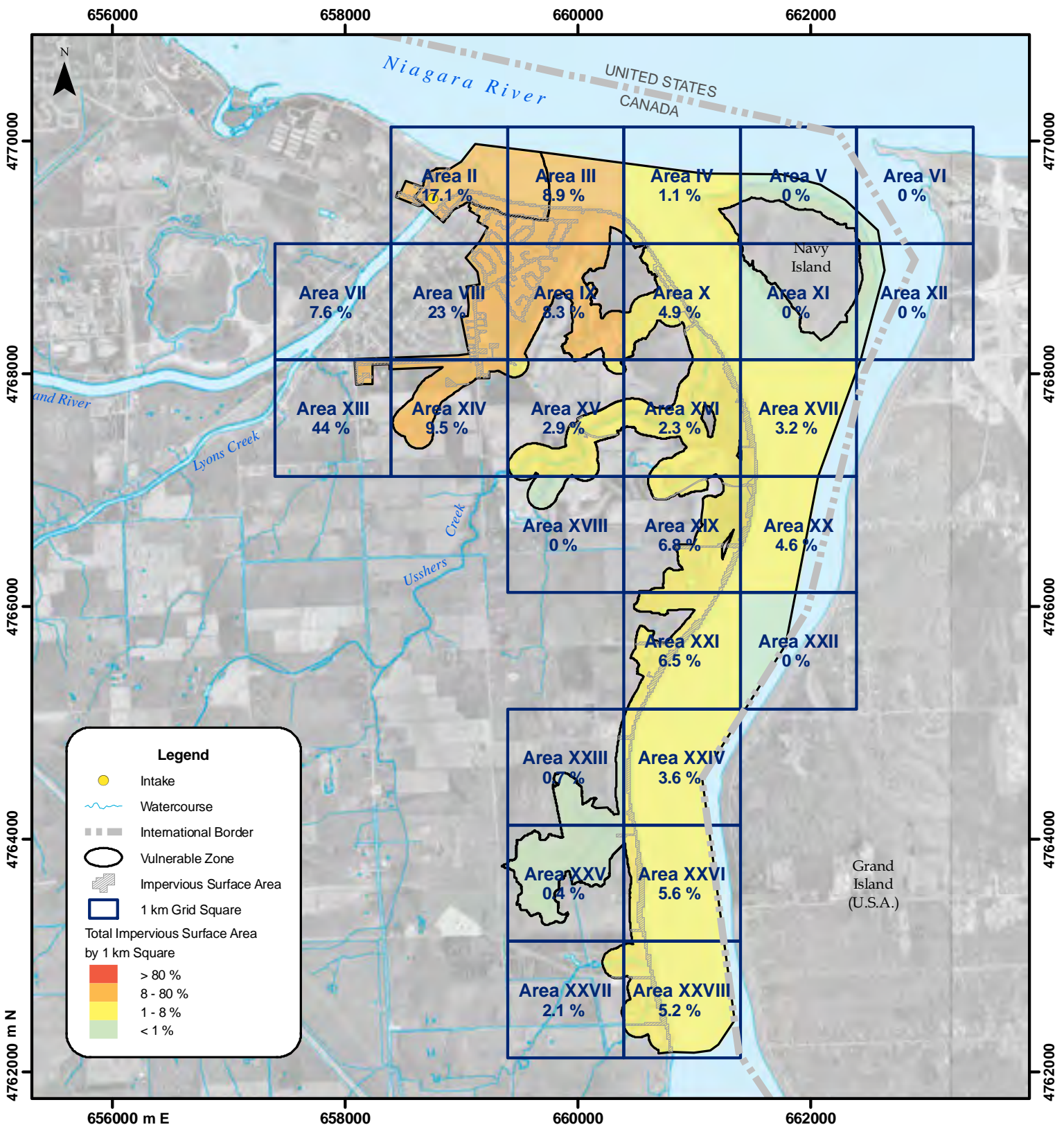
**Niagara Peninsula
 Source Protection Area
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Figure No.	Revision No.	Date
2.24	2	July 14, 2011

Title

**Total Impervious Area Within
 Each Square Kilometre of
 Vulnerable Areas - Port Colborne**





Legend

- Intake
- Watercourse
- International Border
- Vulnerable Zone
- Impervious Surface Area
- 1 km Grid Square

Total Impervious Surface Area by 1 km Square

- > 80 %
- 8 - 80 %
- 1 - 8 %
- < 1 %

Notes:

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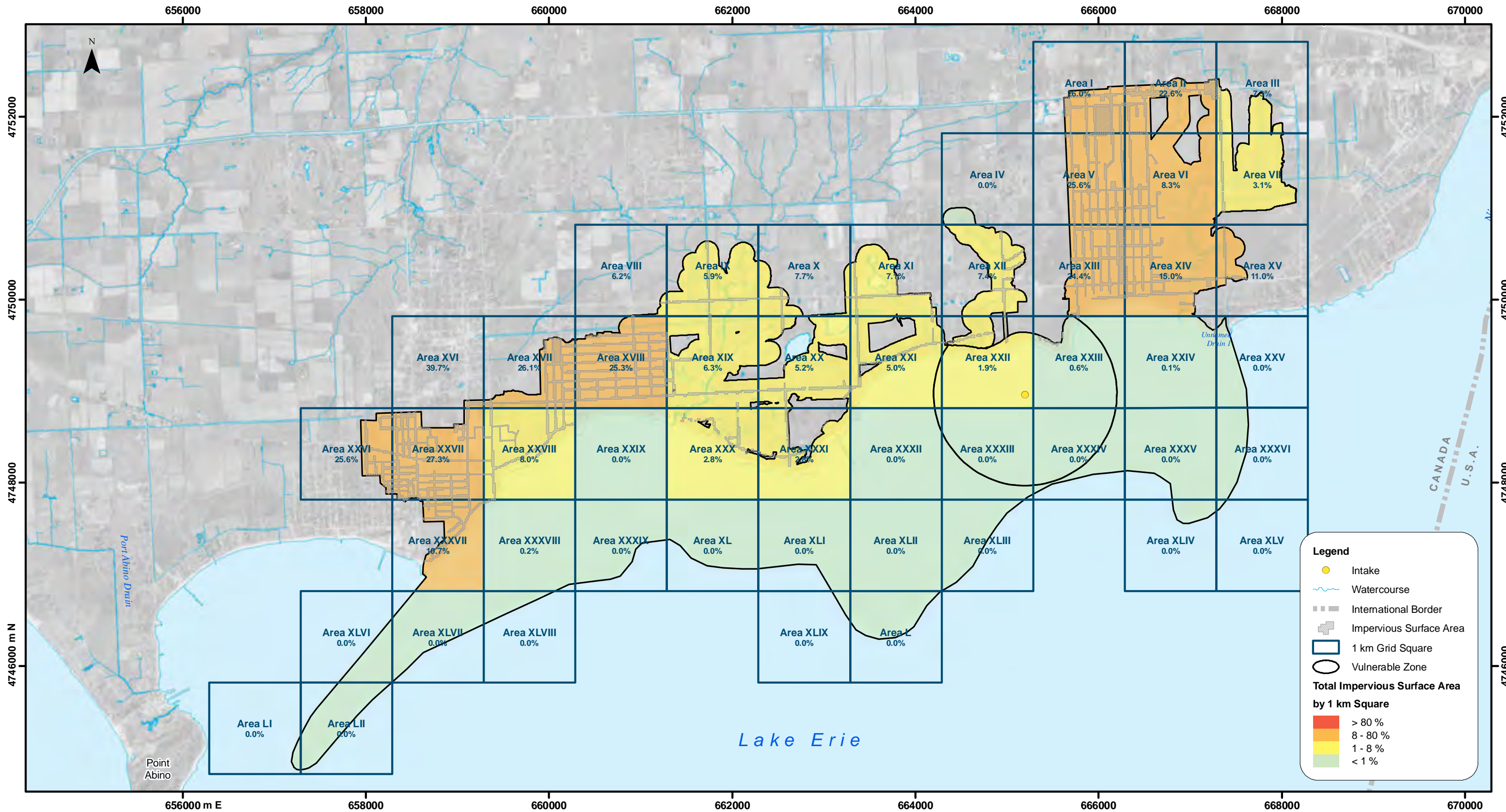
Niagara Peninsula Source Protection Area Assessment Report

Figure No.	Revision No.	Date
2.25	3	July 14, 2011

Title

Total Impervious Area Within Each Square Kilometre of Vulnerable Areas - Niagara Falls





Notes:

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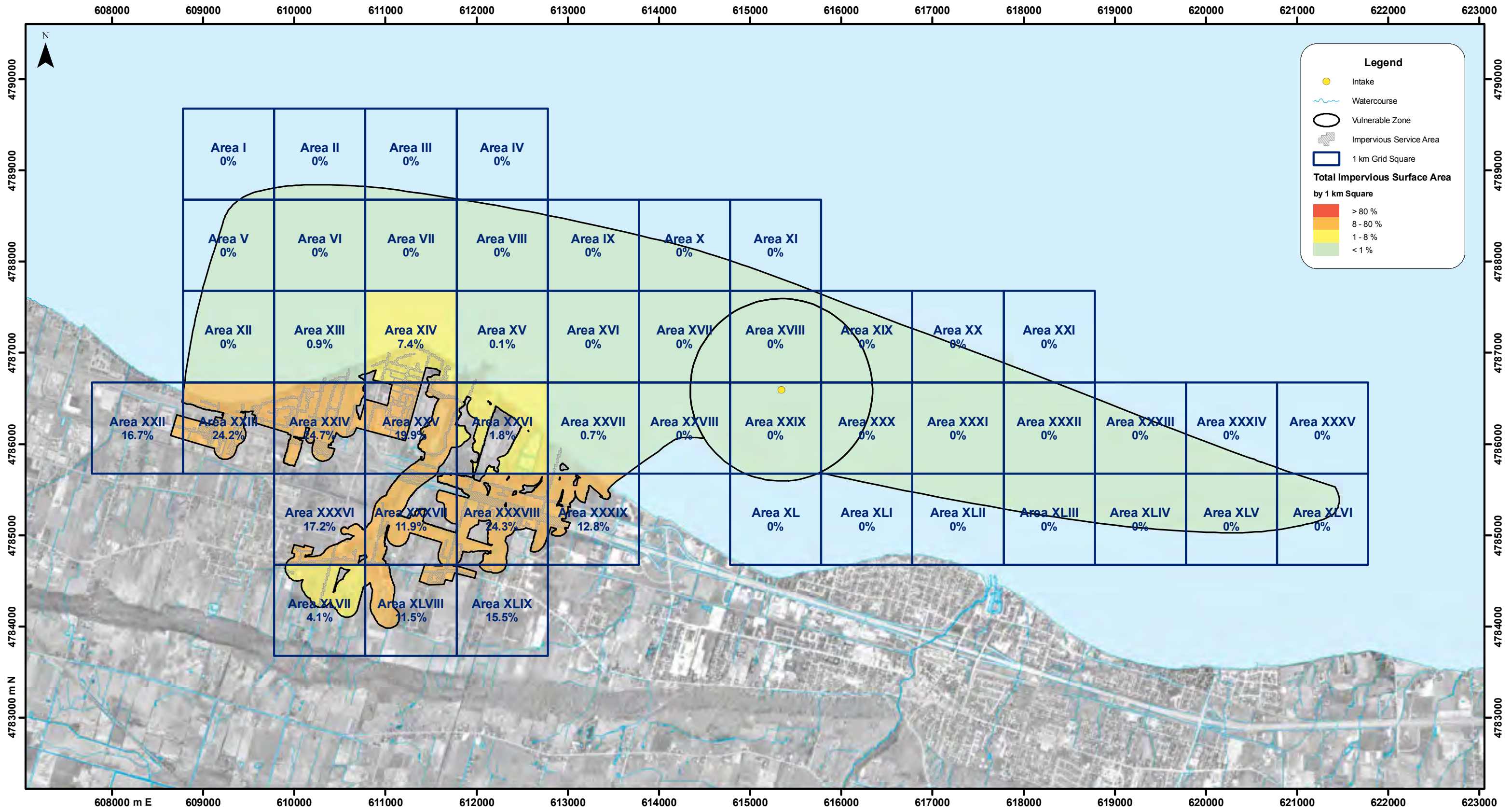
Niagara Peninsula Source Protection Area Assessment Report

Figure No. Revision No. Date

2.26 2 July 14, 2011

Title

Total Impervious Area Within Each Square Kilometre of Vulnerable Areas - Rosehill



Notes:

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Projection: UTM Zone 17N, NAD 1983J



Project

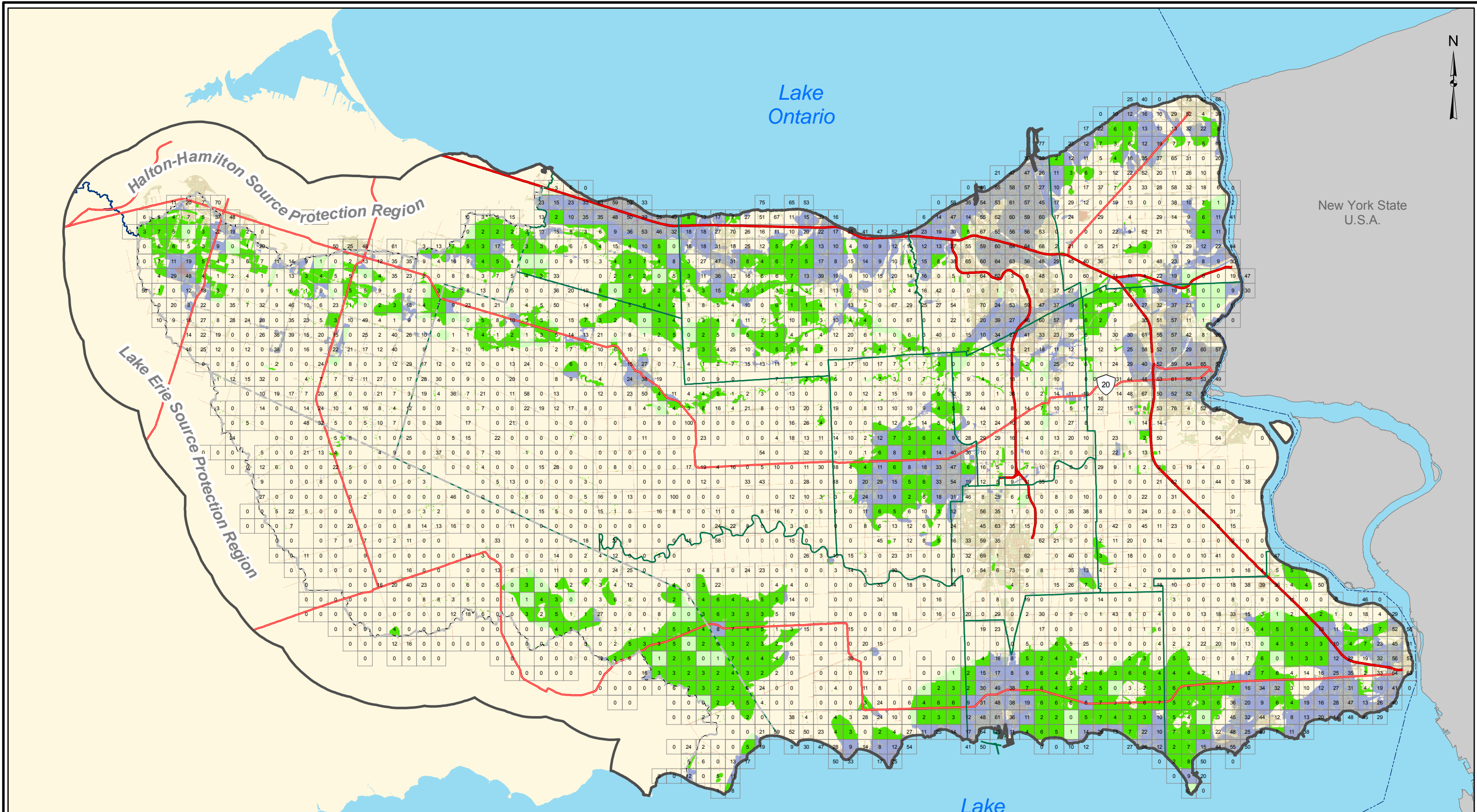
Niagara Peninsula Source Protection Area Assessment Report

Figure No.	Revision No.	Date
2.27	1	July 14, 2011

Title

Total Impervious Area Within Each Square Kilometre of Vulnerable Areas - Grimsby





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 All Frames: North American Datum 1983, Universal Transverse Mercator 6° Projection, Zone 17N, Central Meridian 81° West.
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1:250,000
 0 1.25 2.5 5 7.5 10
 Kilometers/Tu

Legend

- International Boundary
- Watercourse
- Major Highways
- Ponds, Reservoirs, Lakes
- Highways
- Extended Context Area
- Roads
- Niagara Peninsula Source Water Protection Area

- Lower Tier Municipality
- Upper Tier Municipality
- 1 km² Grid
- Impervious Areas
- 50 % (Residential Areas)
- 100 % (Roads, Parking Lots)

- % Impervious by 1 km²
- 99 (No Data)
- 0.00 - 1.00
- 1.01 - 8.00
- 8.01 - 100.00



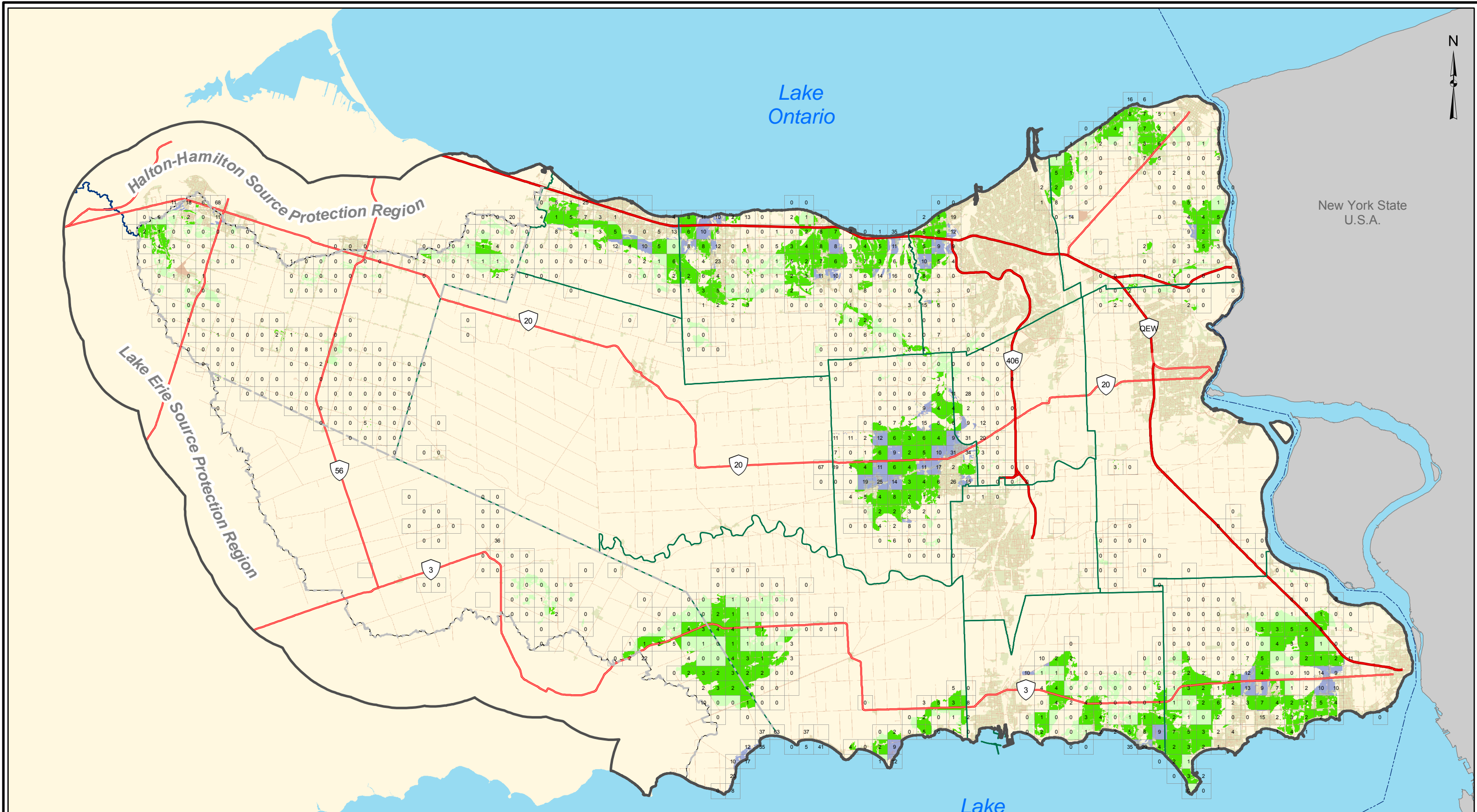
NPSPA Assessment Report

Figure 2.28: Impervious Areas - Highly Vulnerable Aquifers

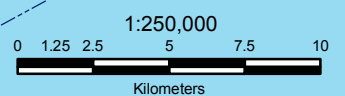


Thursday, July 14, 2011





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 All Frames: North American Datum 1983, Universal Transverse Mercator 6° Projection, Zone 17N, Central Meridian 81° West.
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Legend --- International Boundary --- Major Highways --- Highways --- Roads ~~~~~ Watercourse Ponds, Reservoirs, Lakes Extended Context Area Niagara Peninsula Source Water Protection Area	Lower Tier Municipality Upper Tier Municipality 1 km ² Grid Impervious Areas 50 % (Residential Areas) 100 % (Roads, Parking Lots)	% Impervious by 1 km ² 0.00 - 1.00 1.01 - 8.00 8.01 - 100.00		 NPSA Assessment Report Figure 2.29: Impervious Areas Significant Groundwater Recharge Areas Thursday, July 14, 2011
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