



Keeyask Generation Project

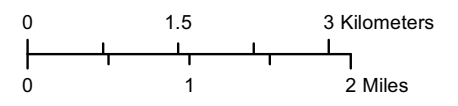
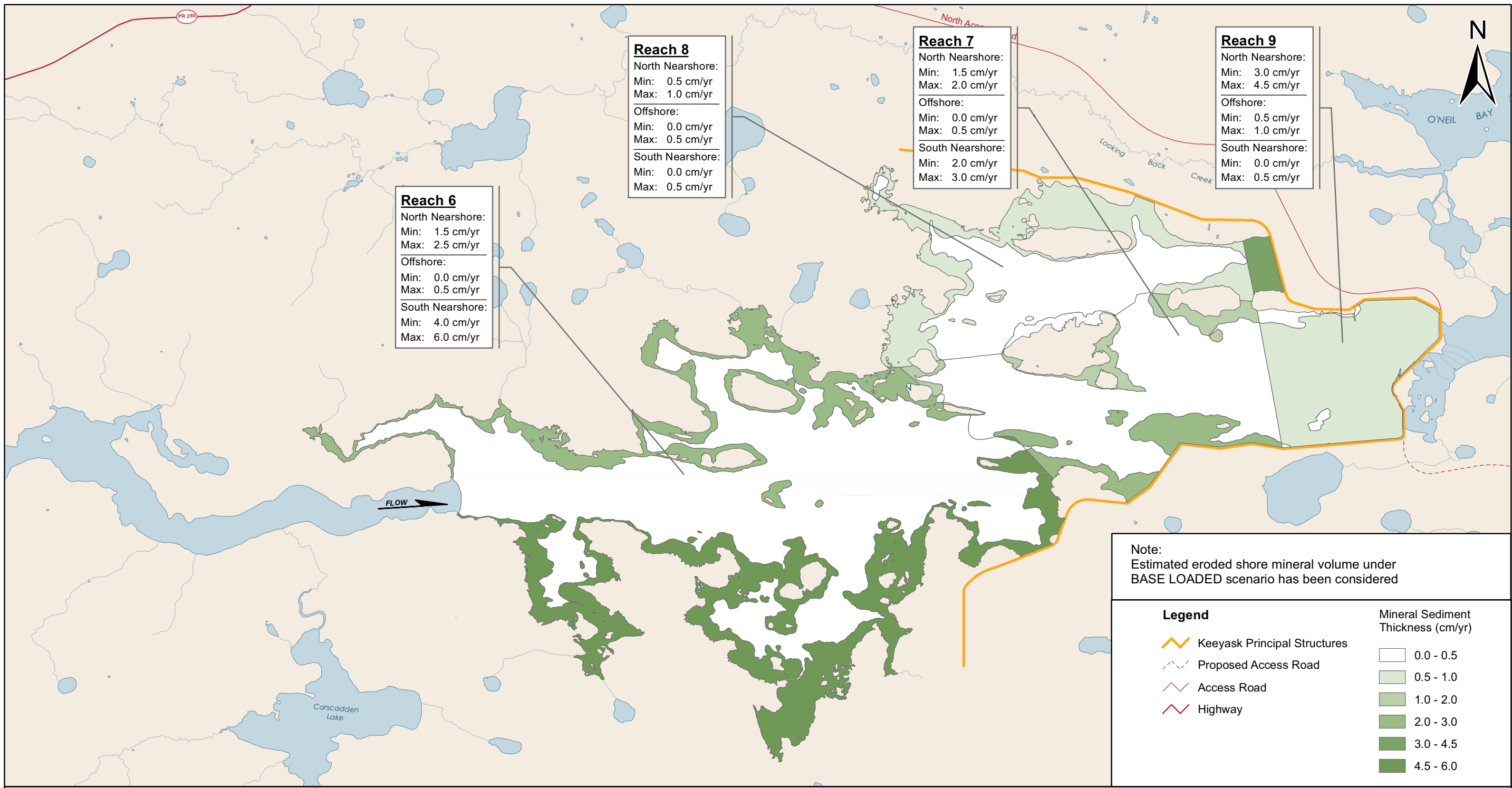
Environmental Impact Statement

Supporting Volume

Physical Environment

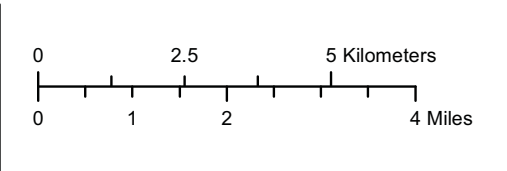
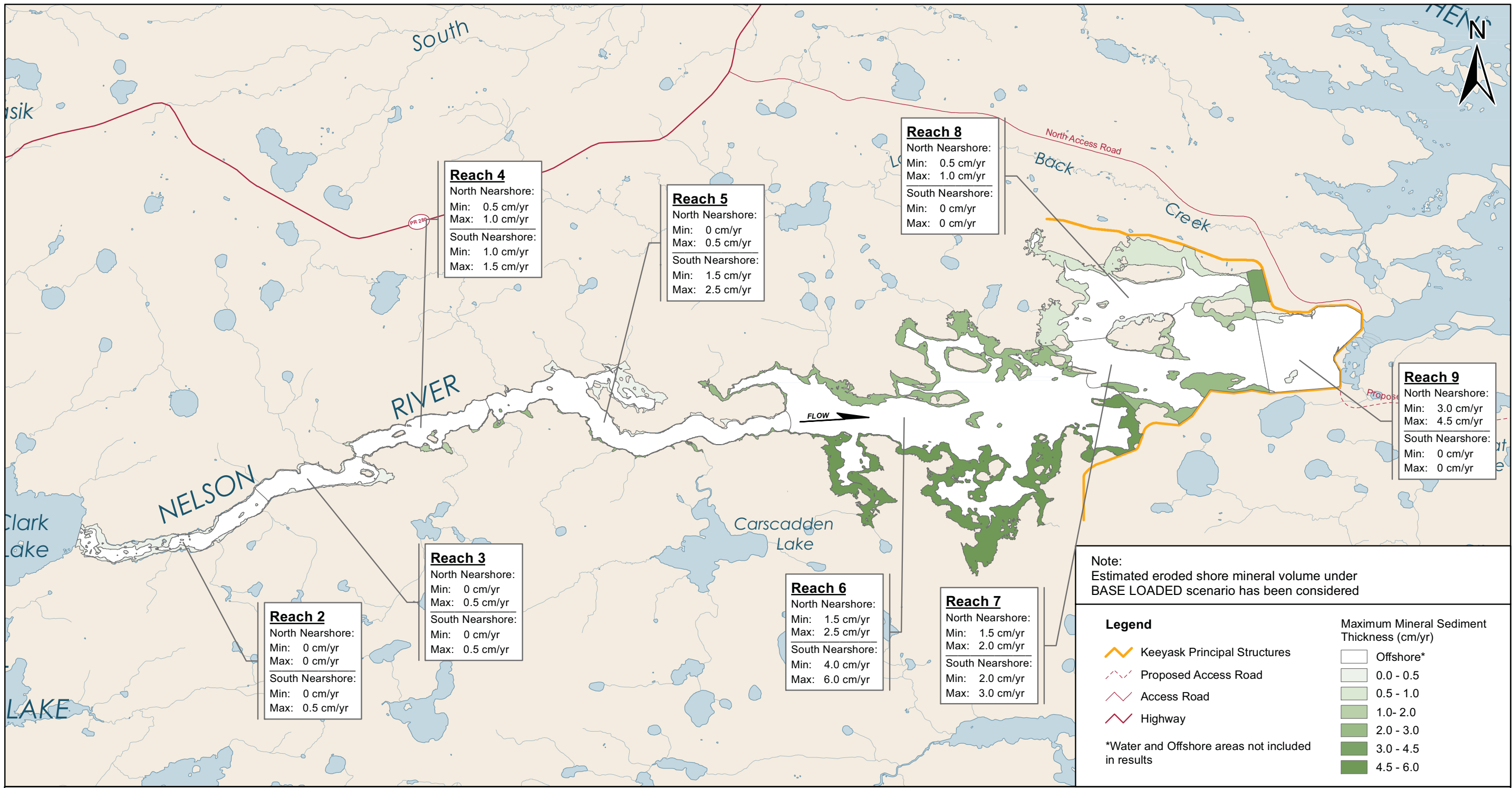


June 2012



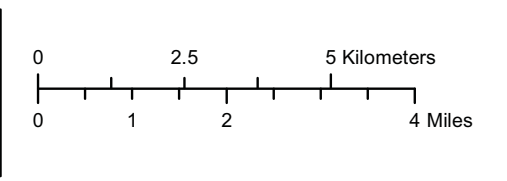
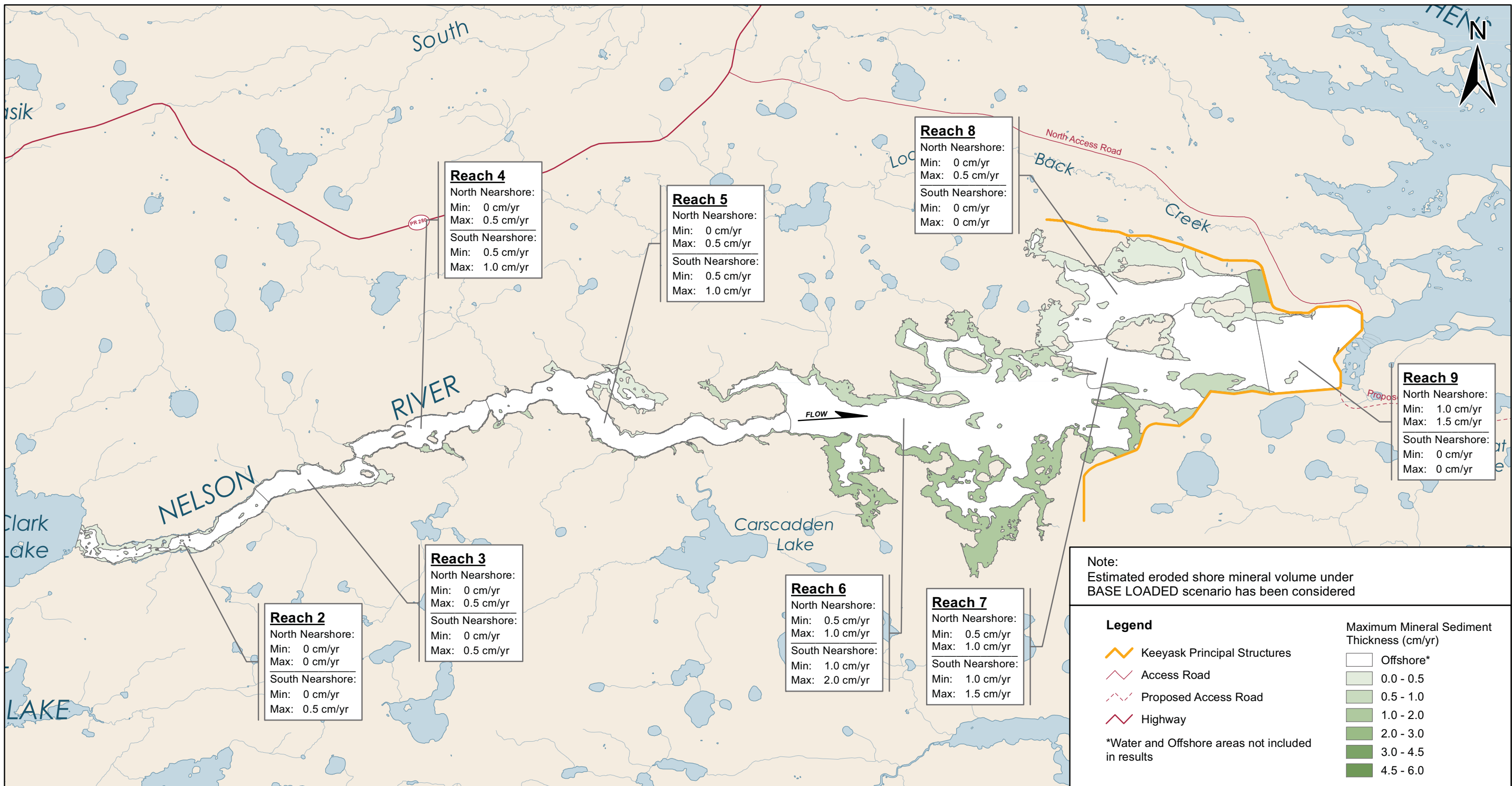
Projection: Universal Transverse Mercator Zone 15N, NAD 83
 Data Source:
 1. Lakes and Rivers Provided by Geogratis, 2004

Mineral Sediment Deposition Year 1 after Impoundment (Base Loaded)



Projection: Universal Transverse Mercator Zone 15N, NAD 83
 Data Source:
 1. Lakes and Rivers Provided by Geogratix, 2004

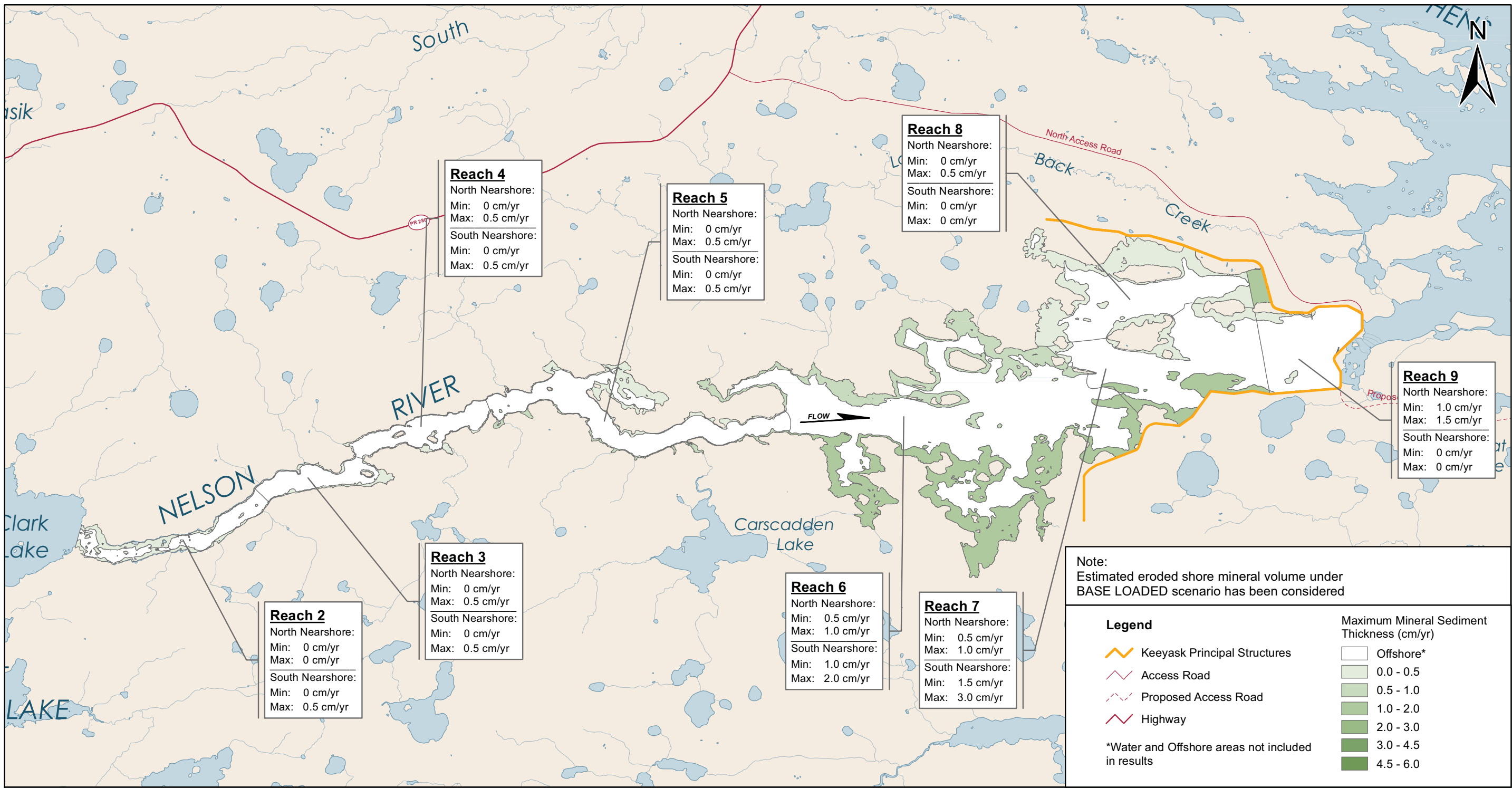
Nearshore Mineral Sediment Deposition Year 1 after Impoundment (Base Loaded)



Projection: Universal Transverse Mercator Zone 15N, NAD 83
 Data Source:
 1. Lakes and Rivers Provided by Geogratix, 2004

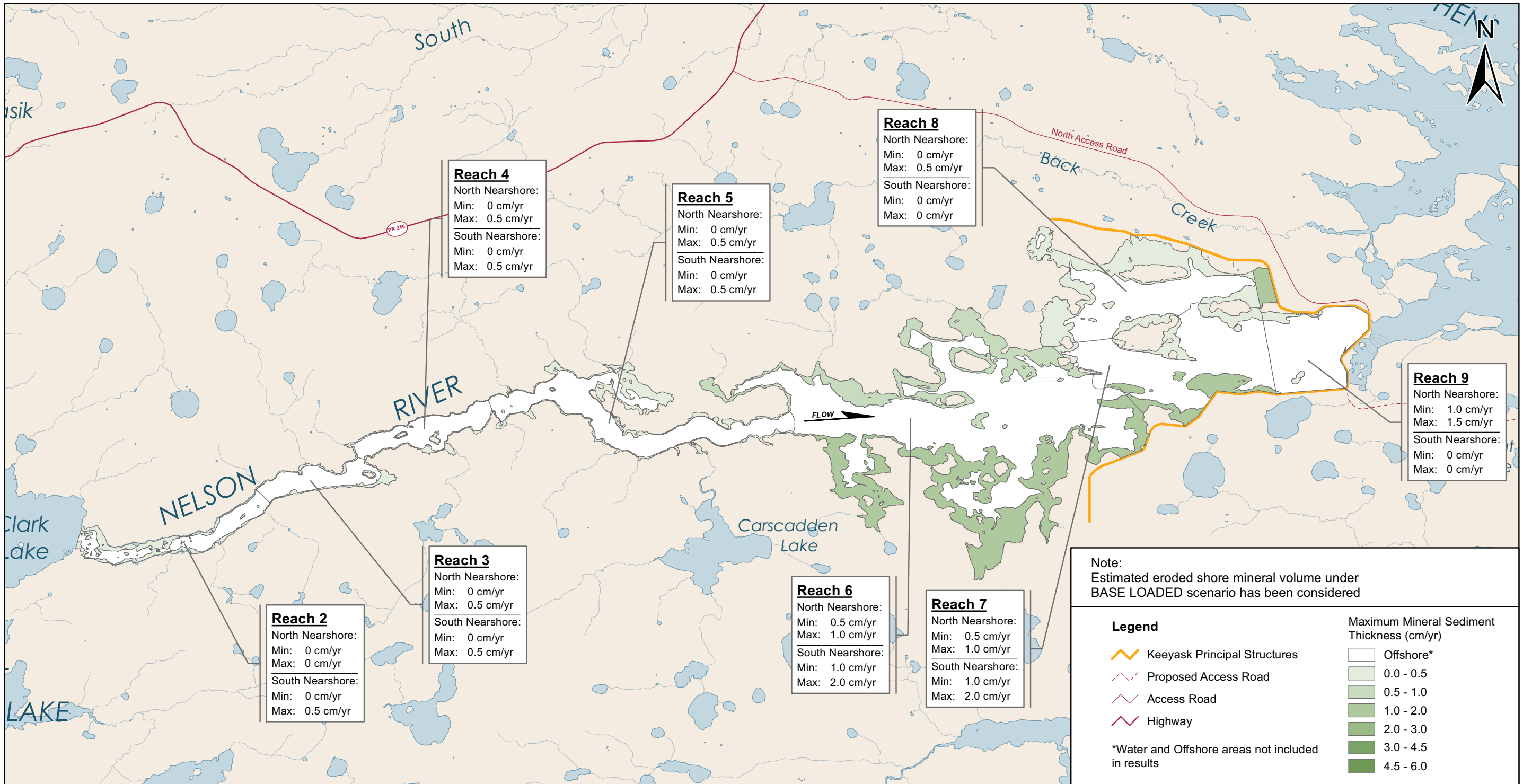
Nearshore Mineral Sediment Deposition

Year 5 after Impoundment (Base Loaded)



Projection: Universal Transverse Mercator Zone 15N, NAD 83
 Data Source:
 1. Lakes and Rivers Provided by Geogratis, 2004

Nearshore Mineral Sediment Deposition Year 15 after Impoundment (Base Loaded)



Reach 4
 North Nearshore:
 Min: 0 cm/yr
 Max: 0.5 cm/yr
 South Nearshore:
 Min: 0 cm/yr
 Max: 0.5 cm/yr

Reach 5
 North Nearshore:
 Min: 0 cm/yr
 Max: 0.5 cm/yr
 South Nearshore:
 Min: 0 cm/yr
 Max: 0.5 cm/yr

Reach 8
 North Nearshore:
 Min: 0 cm/yr
 Max: 0.5 cm/yr
 South Nearshore:
 Min: 0 cm/yr
 Max: 0 cm/yr

Reach 9
 North Nearshore:
 Min: 1.0 cm/yr
 Max: 1.5 cm/yr
 South Nearshore:
 Min: 0 cm/yr
 Max: 0 cm/yr

Reach 2
 North Nearshore:
 Min: 0 cm/yr
 Max: 0 cm/yr
 South Nearshore:
 Min: 0 cm/yr
 Max: 0.5 cm/yr

Reach 3
 North Nearshore:
 Min: 0 cm/yr
 Max: 0.5 cm/yr
 South Nearshore:
 Min: 0 cm/yr
 Max: 0.5 cm/yr

Reach 6
 North Nearshore:
 Min: 0.5 cm/yr
 Max: 1.0 cm/yr
 South Nearshore:
 Min: 1.0 cm/yr
 Max: 2.0 cm/yr

Reach 7
 North Nearshore:
 Min: 0.5 cm/yr
 Max: 1.0 cm/yr
 South Nearshore:
 Min: 1.0 cm/yr
 Max: 2.0 cm/yr

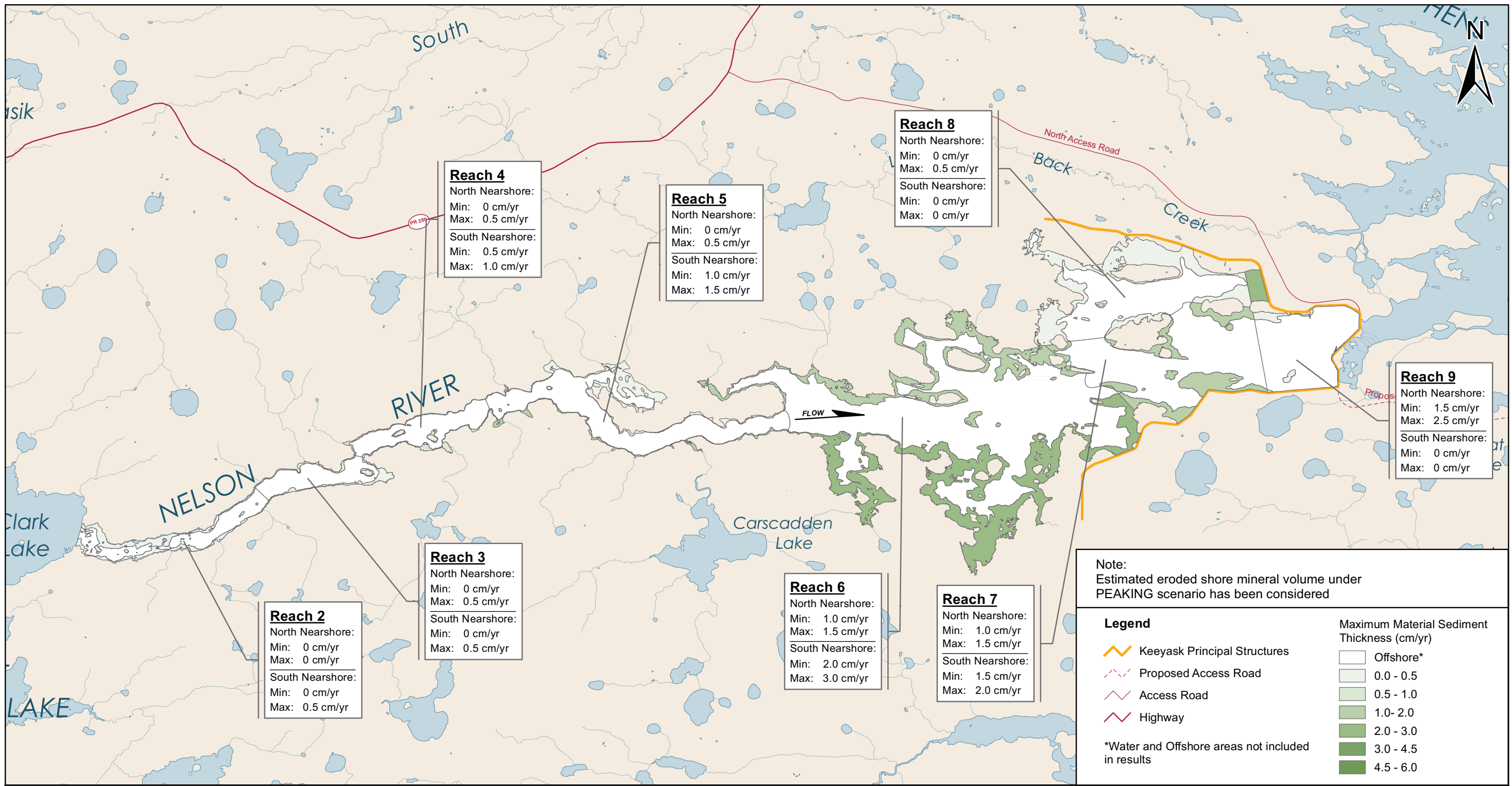
Note:
 Estimated eroded shore mineral volume under
 BASE LOADED scenario has been considered

Legend		Maximum Mineral Sediment Thickness (cm/yr)
	Keeyask Principal Structures	Offshore*
	Proposed Access Road	0.0 - 0.5
	Access Road	0.5 - 1.0
	Highway	1.0 - 2.0
*Water and Offshore areas not included in results		2.0 - 3.0
		3.0 - 4.5
		4.5 - 6.0



Projection: Universal Transverse Mercator Zone 15N, NAD 83
 Data Source:
 1. Lakes and Rivers Provided by Geogratix, 2004

Nearshore Mineral Sediment Deposition Year 30 after Impoundment (Base Loaded)



Reach 4
 North Nearshore:
 Min: 0 cm/yr
 Max: 0.5 cm/yr
 South Nearshore:
 Min: 0.5 cm/yr
 Max: 1.0 cm/yr

Reach 5
 North Nearshore:
 Min: 0 cm/yr
 Max: 0.5 cm/yr
 South Nearshore:
 Min: 1.0 cm/yr
 Max: 1.5 cm/yr

Reach 8
 North Nearshore:
 Min: 0 cm/yr
 Max: 0.5 cm/yr
 South Nearshore:
 Min: 0 cm/yr
 Max: 0 cm/yr

Reach 9
 North Nearshore:
 Min: 1.5 cm/yr
 Max: 2.5 cm/yr
 South Nearshore:
 Min: 0 cm/yr
 Max: 0 cm/yr

Reach 3
 North Nearshore:
 Min: 0 cm/yr
 Max: 0.5 cm/yr
 South Nearshore:
 Min: 0 cm/yr
 Max: 0.5 cm/yr

Reach 2
 North Nearshore:
 Min: 0 cm/yr
 Max: 0 cm/yr
 South Nearshore:
 Min: 0 cm/yr
 Max: 0.5 cm/yr

Reach 6
 North Nearshore:
 Min: 1.0 cm/yr
 Max: 1.5 cm/yr
 South Nearshore:
 Min: 2.0 cm/yr
 Max: 3.0 cm/yr

Reach 7
 North Nearshore:
 Min: 1.0 cm/yr
 Max: 1.5 cm/yr
 South Nearshore:
 Min: 1.5 cm/yr
 Max: 2.0 cm/yr

Note:
 Estimated eroded shore mineral volume under
 PEAKING scenario has been considered

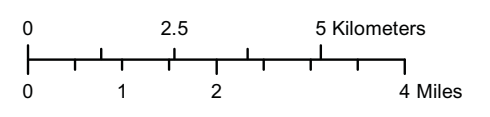
Legend

- Keyask Principal Structures
- Proposed Access Road
- Access Road
- Highway

*Water and Offshore areas not included in results

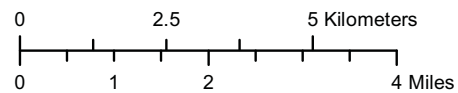
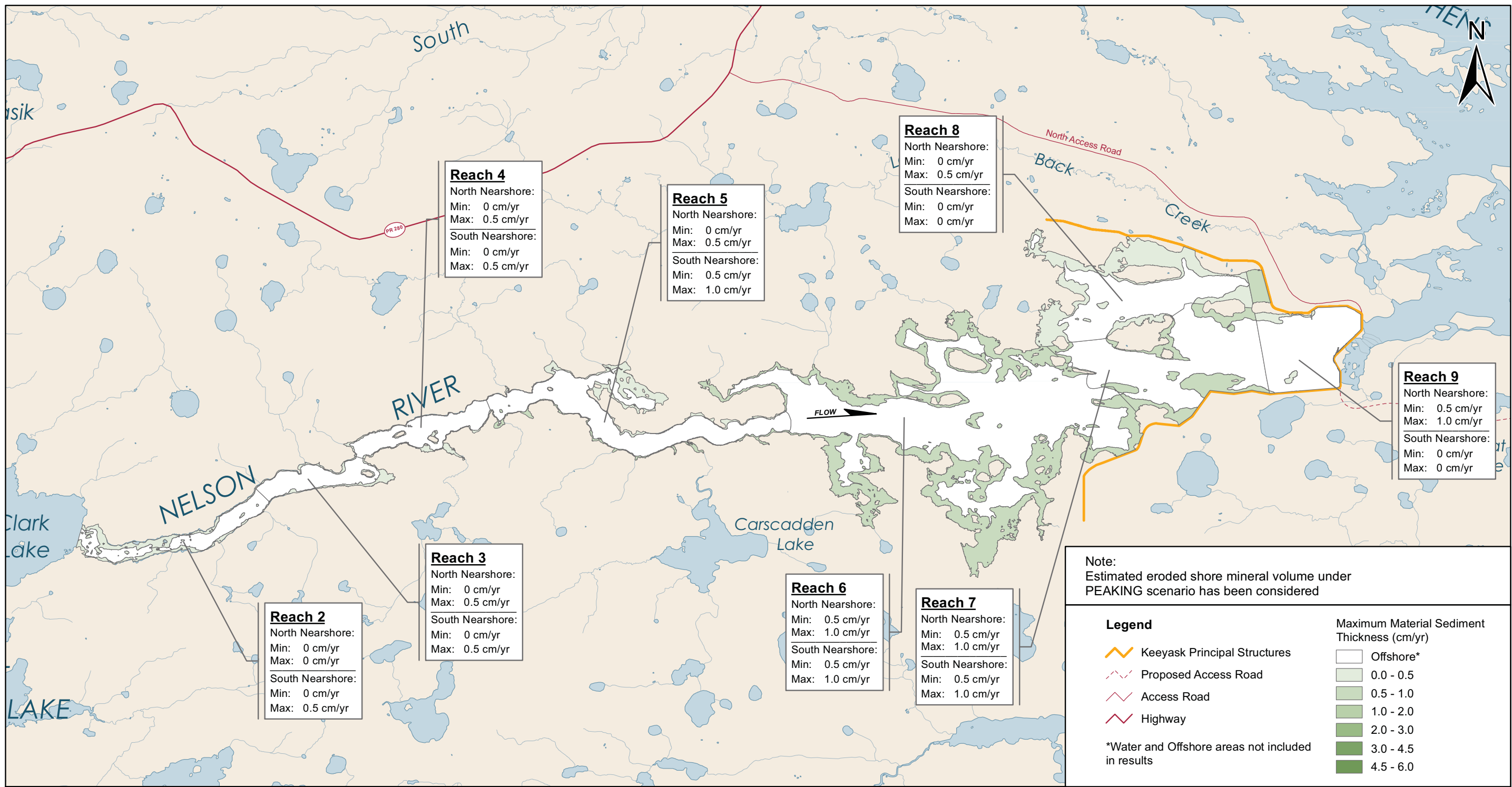
Maximum Material Sediment Thickness (cm/yr)

- Offshore*
- 0.0 - 0.5
- 0.5 - 1.0
- 1.0 - 2.0
- 2.0 - 3.0
- 3.0 - 4.5
- 4.5 - 6.0



Projection: Universal Transverse Mercator Zone 15N, NAD 83
 Data Source:
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Nearshore Mineral Sediment Deposition Year 1 after Impoundment (Peaking)



Projection: Universal Transverse Mercator Zone 15N, NAD 83

Data Source:
 1. Lakes and Rivers Provided by Geogratix, 2004

Nearshore Mineral Sediment Deposition Year 5 after Impoundment (Peaking)