



# Keeyask Generation Project Environmental Impact Statement

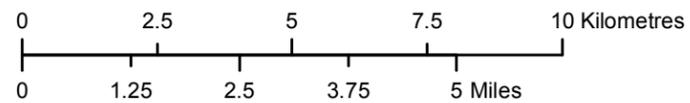
## Supporting Volume Aquatic Environment



June 2012

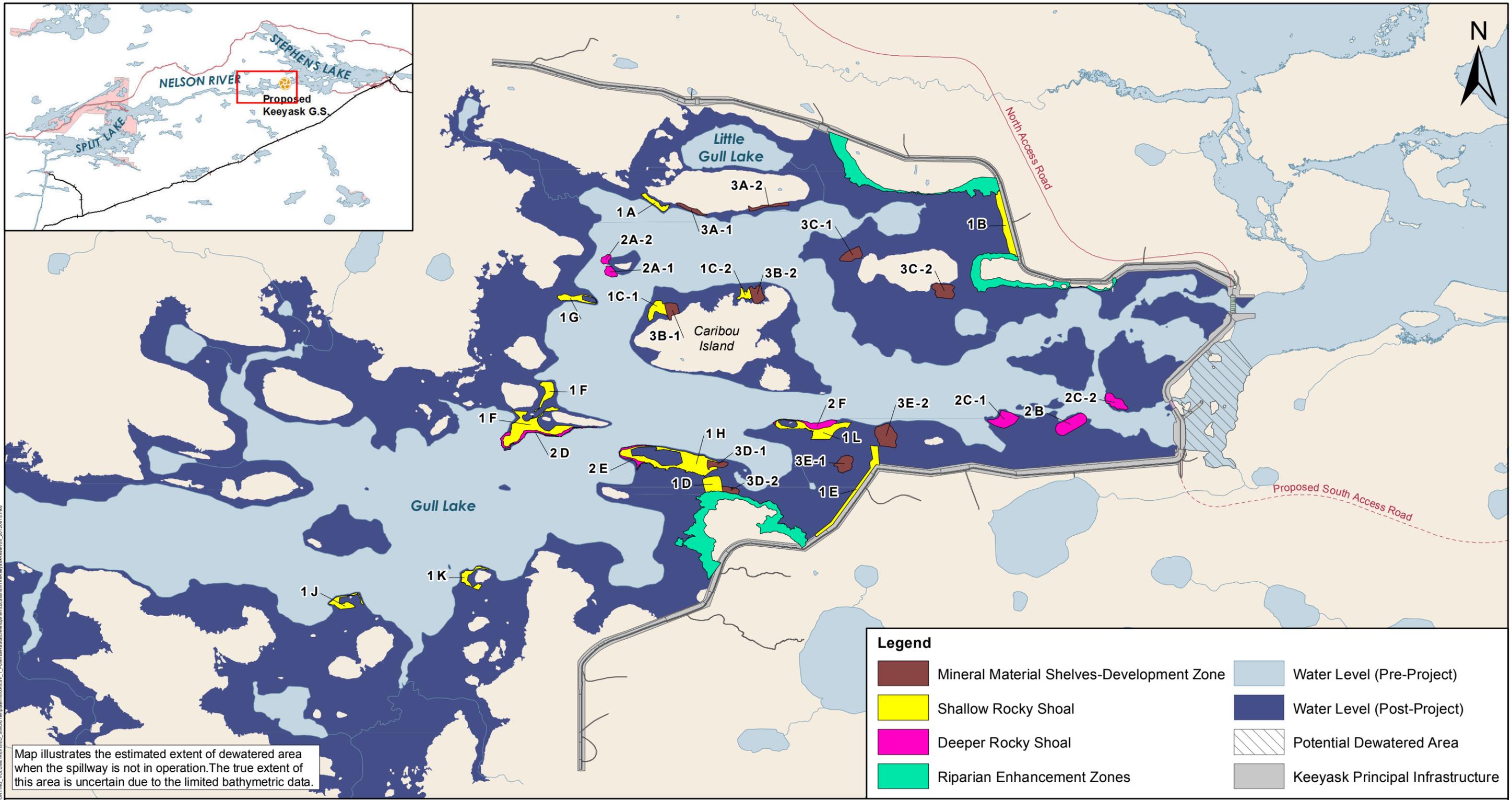


File Location: G:\EE\Keeyask\Subarea\_Maps\SUPPORTING\_VOLUME\REVISED\_SUPPORTING\_INFORMATION\ESV\_1\_ClarkeLake\08StephensLake\_EE\_20120812.mxd



Projection: UTM Zone 15, NAD 83  
 Data Source: NTS base 1:50 000  
 Stephens Lake Shoreline - Quickbird@Digitalglobe, 2006  
 Nelson River Shoreline modelled by Manitoba Hydro  
 Shows 95<sup>th</sup> percentile inflow.

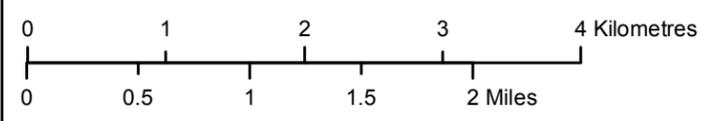
## Clark Lake to Stephens Lake Existing Environment



Map illustrates the estimated extent of dewatered area when the spillway is not in operation. The true extent of this area is uncertain due to the limited bathymetric data.

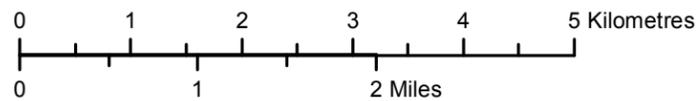
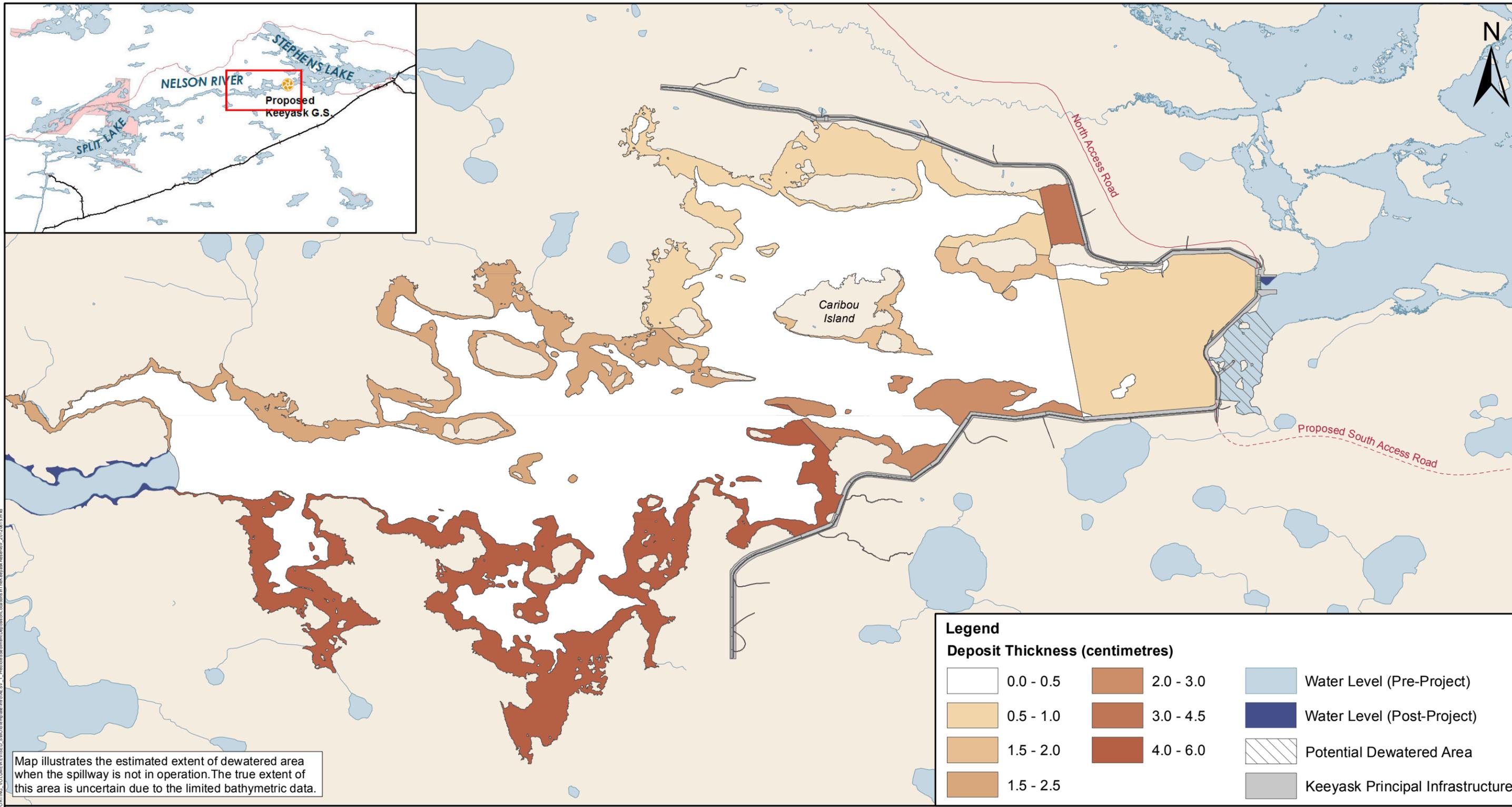
**Legend**

	Mineral Material Shelves-Development Zone		Water Level (Pre-Project)
	Shallow Rocky Shoal		Water Level (Post-Project)
	Deeper Rocky Shoal		Potential Dewatered Area
	Riparian Enhancement Zones		Keeyask Principal Infrastructure



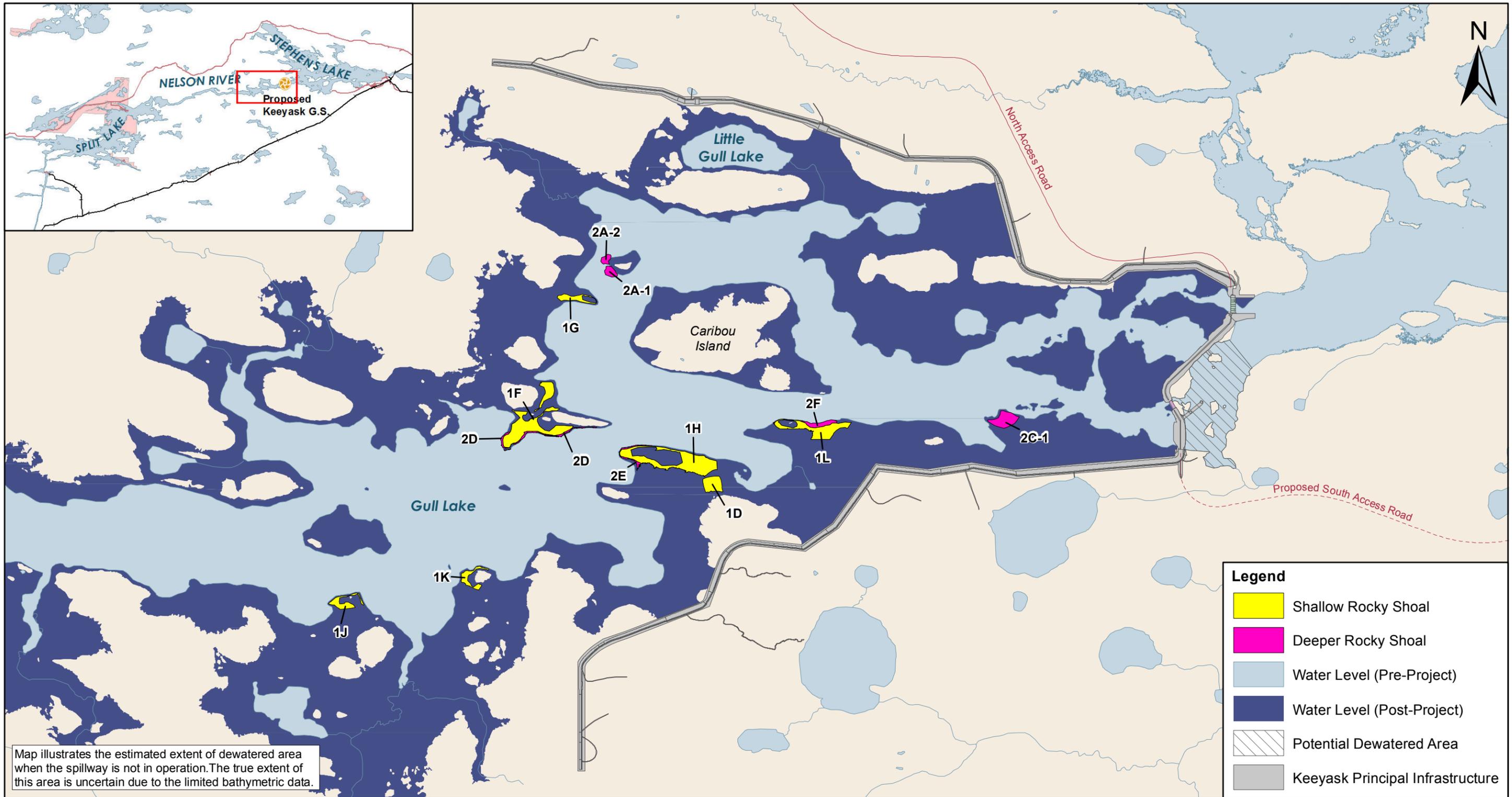
Projection: UTM Zone 15, NAD 83  
 Data Source: NTS base 1:50 000  
 Stephens Lake Shoreline - Quickbird@Digitalglobe, 2006  
 Nelson River Shoreline modelled by Manitoba Hydro  
 Extents of dewatered area are estimated based on the existing environment 95<sup>th</sup> percentile flow.

## Potential Habitat Development Locations in the Keeyask Reservoir



Projection: UTM Zone 15, NAD 83  
 Data Source: NTS base 1:50 000  
 Stephens Lake Shoreline - Quickbird@Digitalglobe, 2006  
 Nelson River Shoreline modelled by Manitoba Hydro  
 Extents of dewaterd area are estimated based on the existing environment 95<sup>th</sup> percentile flow.

## Predicted Sediment Deposition Locations in the Keeyask Reservoir Year 1 Post-Impoundment

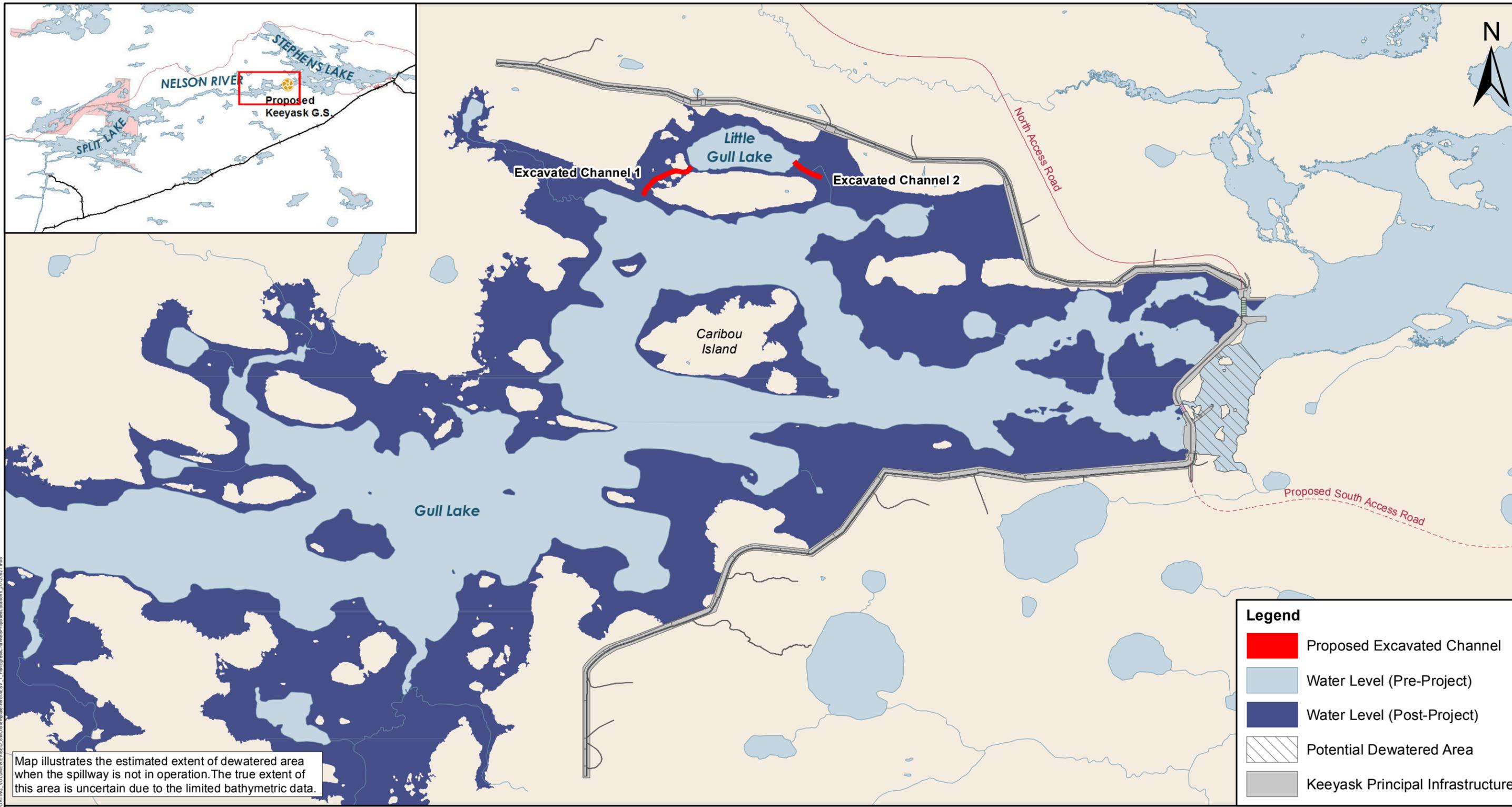


Map illustrates the estimated extent of dewatered area when the spillway is not in operation. The true extent of this area is uncertain due to the limited bathymetric data.



Projection: UTM Zone 15, NAD 83  
 Data Source: NTS base 1:50 000  
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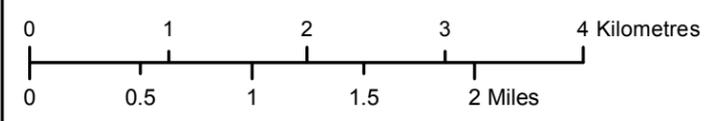
## Preferred Habitat Development Locations in the Keeyask Reservoir



Map illustrates the estimated extent of dewatered area when the spillway is not in operation. The true extent of this area is uncertain due to the limited bathymetric data.

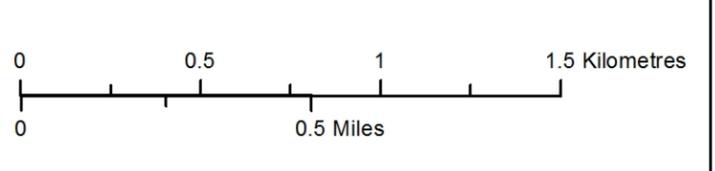
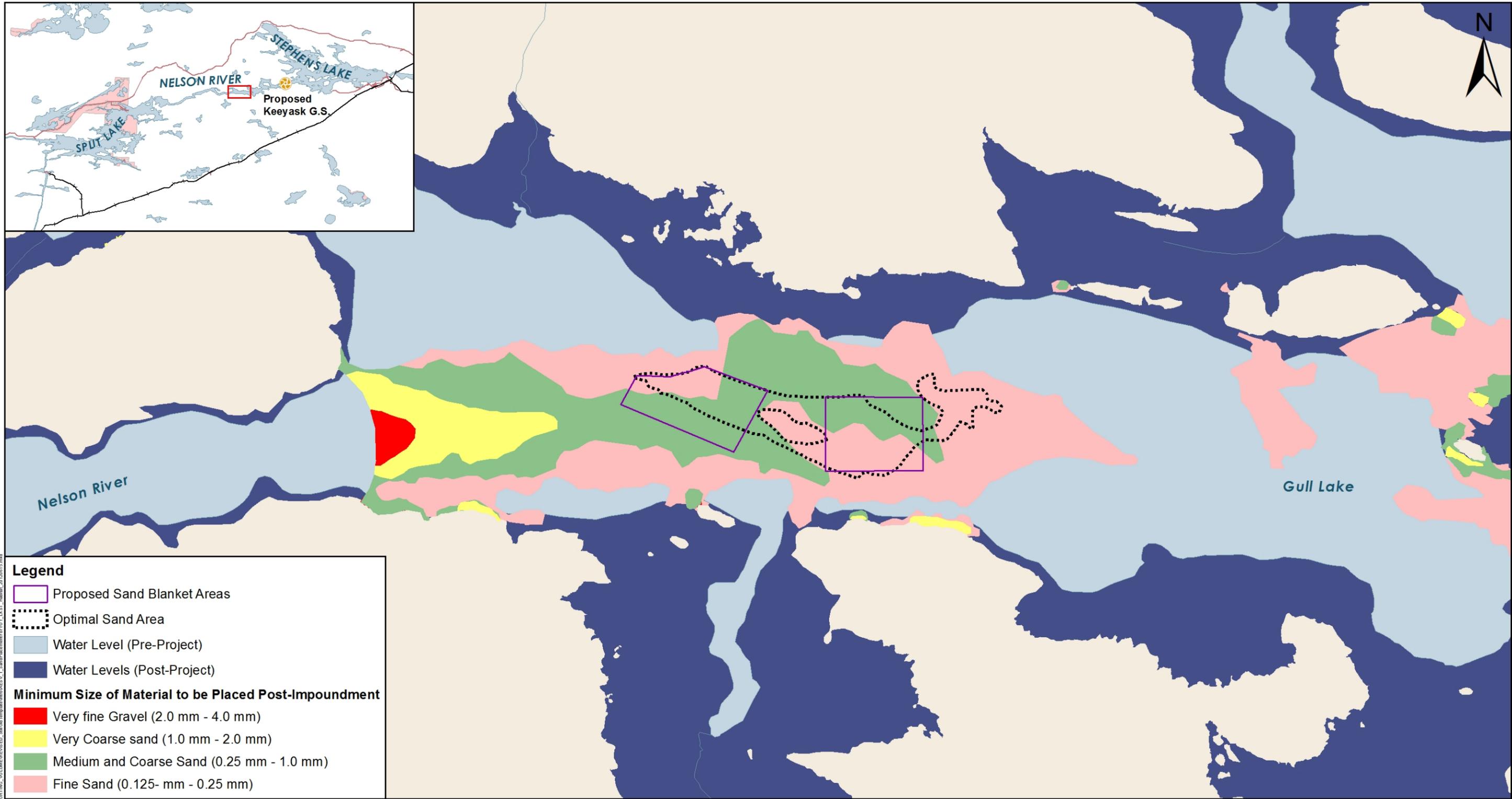
**Legend**

- Proposed Excavated Channel
- Water Level (Pre-Project)
- Water Level (Post-Project)
- Potential Dewatered Area
- Keeyask Principal Infrastructure



Projection: UTM Zone 15, NAD 83  
 Data Source: NTS base 1:50 000  
 Stephens Lake Shoreline - Quickbird@Digitalglobe, 2006  
 Nelson River Shoreline modelled by Manitoba Hydro  
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## Fish Egress Channels - Proposed Locations



Projection: UTM Zone 15, NAD 83  
 Data Source: NTS base 1:50 000  
 Stephens Lake Shoreline - Quickbird@Digitalglobe, 2006  
 Nelson River Shoreline modelled by Manitoba Hydro

## Sand Placement Locations for Young-of-the-Year Lake Sturgeon Habitat