

Centre of Geographic Sciences  
COGS | nscc

Base Map Data Source:  
Province of Nova Scotia.  
Nova Scotia Topographic Database (NSTDB) [digital data].  
Scale: 1:50,000  
<https://gsi.novascotia.ca/NSTDBSelfServe>  
Retrieved November 2018.

Roads Network Data Source:  
Province of Nova Scotia.  
Nova Scotia Civic Address File Addressed Roads [digital data].  
<https://gis8.ngc.gov.ns.ca/NSCAFselfServe>  
Retrieved November 2018.

Key Map Data Source:  
Nova Scotia Geomatics Centre (NSGC).  
Service Nova Scotia and Municipal Relations.  
Nova Scotia Species Maps Custom Theme Layers. [digital data].  
Scale: 1:500,000  
160 Willow Street  
Amherst, N.S.

## Route Analysis

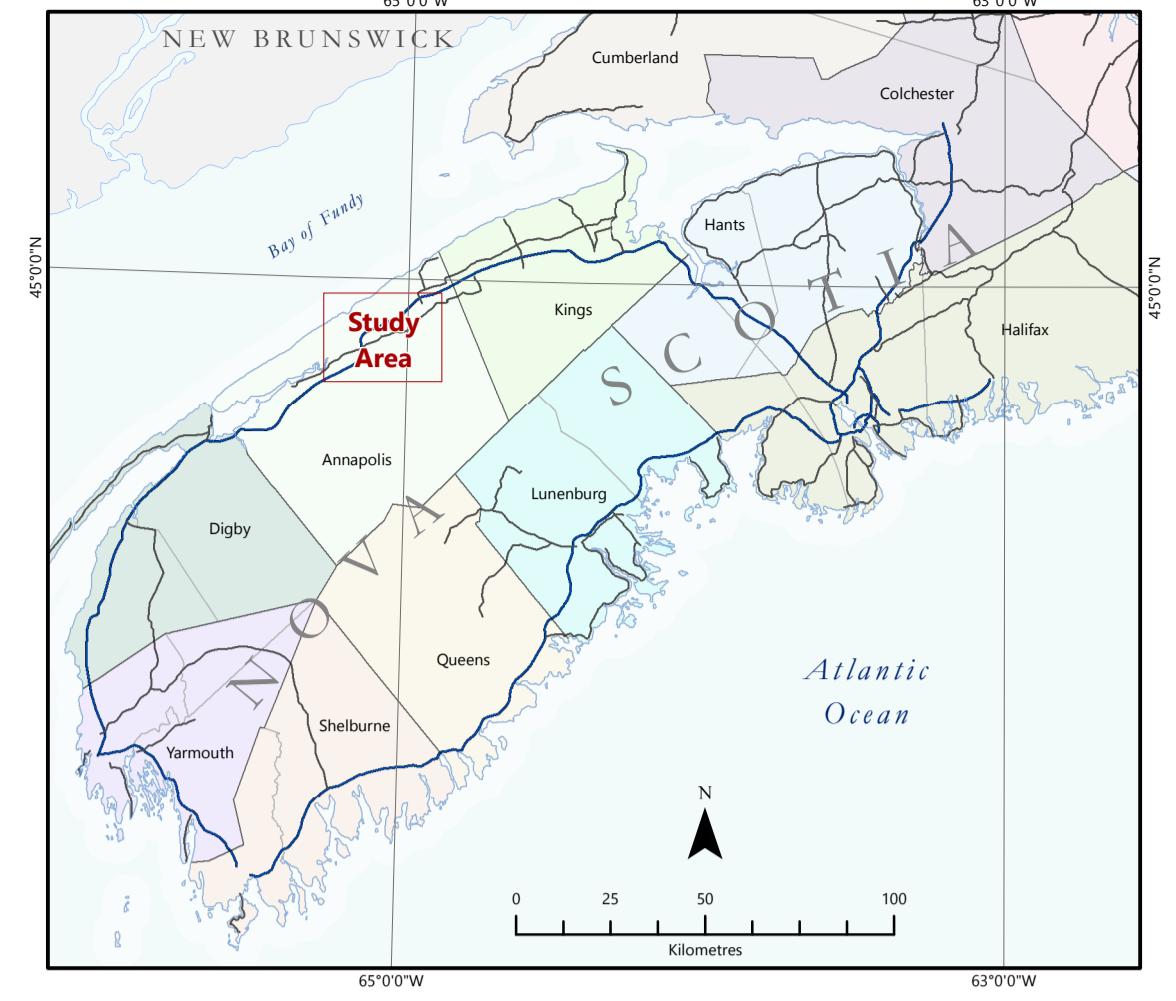
### Bridgetown, Lawrencetown, Middleton

&  
Surrounding Areas

Annapolis County  
Nova Scotia

Scale: 1:50,000

Projection: Universal Transverse Mercator, Zone 20 North  
Datum: North American Datum 1983 (NAD83)  
Correction: Canadian Spatial Reference System 1998 (CSRS98)



This map demonstrates the use of ArcGIS for Desktop 10.6's **Network Analyst** tools for **Route Analysis**. In this study, efficient routes were identified between specified stops, using a portion of Annapolis County, Nova Scotia, as a study area.

To perform the analysis, a new Route was created within ArcGIS using the Network Analyst tools. Stops were added interactively using a custom **Address Locator** created for this purpose. The best route was then automatically generated by the software.

A cartographic layout was created in ArcGIS to display the results of analysis. This was accomplished using 1:10,000 vector layers obtained from the Nova Scotia Topographic Database (NSTDB). These layers were imported into the geodatabase, clipped to the study area, and merged, in batch operations automated by a custom **ArcGIS Script Tool** created with **Python**.

Text labels for relevant geographic features were derived from existing attribute data or the Nova Scotia Geonames database. These were then converted to **annotation feature classes** to further refine label placement. A hierarchical approach consistent with cartographic standards was used for all text, producing a readable and intuitive design.

Finally, the layers were symbolized, legend and surround information was added, and the final product suitable for print was created.

#### Point Features

| Roads                              |
|------------------------------------|
| Arterial Highway (100 Series)      |
| Collector Highway (200-300 Series) |
| Trunk Highway (1-99 Series)        |
| Local Road                         |
| Local Unpaved                      |
| Swamp                              |
| Seasonal Dry Weather Road          |
| Cart Track                         |
| Trail                              |
| Windmill                           |
| Abandoned Railroad                 |

#### Area Features

|                          |
|--------------------------|
| Cliff                    |
| River, Stream, Coastline |
| Contour                  |
| Campground               |
| Cemetery                 |
| Cut or Fill              |
| Dump                     |
| Recreation Area          |
| Hydrography              |
| Gravel Pit               |
| Power Transmission Line  |
| Swamp                    |
| Vegetation               |