Case Based Training Manual

Feb. 23, 2018

Manitoba Collaborative Data Portal

How to Use this Manual

The case based tutorials are designed to provide the end-user with a quick way of figuring out how to do what they need to do.

Each topic provides step by step instructions on how to accomplish a specific task. Worked examples are provided for the more complicated tasks.

If you are trying to think through how to accomplish a specific task, scan through the topics and find the task that most closely approximates what you are trying to do to get

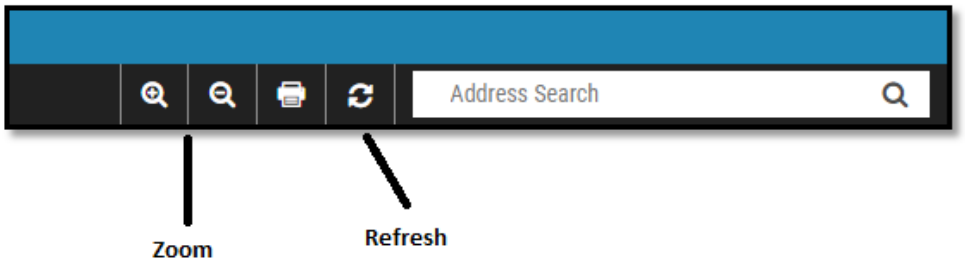
This manual comes in two flavors, a hard-copy version, as well as an on-line version on the MbCDP web-site.

Case Based Mapping Manual Topics

1. How do I navigate around the map (pan, zoom in and out)?
2. How can I find a location of interest (client address, facility location)) using postal code, street address, or facility name?
3. How can I turn the map layers on and off?
4. How can I identify the detailed characteristics of a feature such as a school or a neighborhood.
5. How can I measure the distance between features on the map?
6. How can I explore and visualize in detail what's on the ground using base maps and Google Streetview
7. How can I link to detailed Census, Youth Health Survey, and Community Health Assessment reports using the Smart Layers
8. How can I print my maps, or export them to use for reports I am developing in Powerpoint or Word
    a. Method 1: Mango Maps Print Tool
    b. Method 2: Snipping Tool (Microsoft Windows only)
9. How can I visualize more than one map layer at a time in order to compare trends.
10. How can I identify the characteristics of people (such as age, gender, income etc.) living within a custom area such as within 1 km of a school, community center, or a specific address?
11. How can I extract a list of schools and generate a summary report of student counts by grade in a custom defined area within 1 km of a specific address or location?
12. How can I extract a list of schools, and a summary report of student counts by grade with a predefined geographic area such as school division, electoral ward, or neighborhood.
13. How can I extract features within a custom area defined using the draw/trace tool?
14. How can I identify the characteristics of people living with a pre-defined geographic area such as electoral ward or neighborhood?
15. How can I access the underlying mapping shape files used in the web-based maps to undertake my own analyses in a GIS mapping program such as ArcGIS or QGIS?
16. How can I make my own maps in programs like Google Earth?
17. How can I get more detailed 2016 Census data for small geographic areas? I am frustrated that not all of the census data I am looking for is available.

Topic # 1

How do I Navigate around the Map?



Scenario: Once I have opened a map, how do I pan and zoom in and out to further investigate features?

Tools to Use: To Zoom:

- Magnifying Glasses (+ or -)
- Roller Ball on your Mouse

To Pan:

- Left Mouse Click

Instructions: To zoom in and out, you can use the zoom buttons located to the left of the search bar. The magnifying glass with the positive button is to zoom in, and the magnifying glass with the negative sign is to zoom out. In addition to these buttons, you can use the roller ball on your mouse to zoom in and out. To pan around the map, simply left click and drag the map until you see the feature you are interested in.

Interpreting the Results: N/A

Additional Comments: If you zoom too far in or out of the map, you can use the refresh button (Circular arrows to the immediate left of the Search Bar) to bring your back to the original extent of the map.

Video Tutorial: #2: Mango Maps Interface Overview

Topic # 2

How do I Find a Location of Interest?

Scenario: How to use one of the MbCDP maps to search for a street address, postal code, or commonplace names.

Tools to Use: The **search bar** located on the top right corner of the map frame.

Instructions: Type the address, postal code or common name into the search bar, and click on the correct suggestion that appears below the search box. If you are searching for a postal code, be sure to maintain a space between the first and last three characters.

Interpreting the Results: Once you select (click on) the correct address, postal code or commonplace suggestion that appears below the search bar, the map will place a pin marker and zoom to the location of the address you are searching for.

Suggestive Search:

Note: You can zoom in and out of the map and the pin marker will stay on the map, but if you use your mouse to pan the pin marker will be removed.

Additional Comments: The geocoding of addresses and postal codes in rural areas of Manitoba may not be as precise as addresses and postal codes within urban areas, such as Winnipeg.

Video Tutorial #4: Using the Search Bar to find clients, places of interest by postal code, street address or facility name

Topic #3

How can I Turn Map Layers On and Off?

Scenario: How to turn layers on and off when using a MbCDP map.

Tools to Use: The **Legend** is located on the window on the right side of the map frame. Beside the window, there is a tool bar, and within this menu is an icon for the legend. This icon must be selected in order to view the legend (this is the default).

Instructions: Ensure the legend icon is selected in the tool bar.
In the legend each layer will have a small check box to the right of it. If a layer is turned on, this box with have a check  mark in it. If the layer is turned off, the box will be empty and legend item will be shaded out. In order to change the status of a layer, click in the check box or anywhere in the legend.

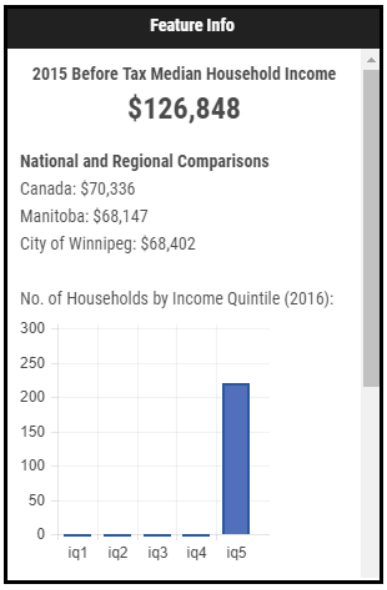
Interpreting the Results: N/A

Additional Comments: It is important to remember that polygon layers (full coverages) are stacked on top of each other in the order they are represented in the legend. If you are trying to turn on a polygon layer and another polygon layer above it in the legend is already turned on, the top layer will cover the layer below. You must turn off the top layer before the bottom layer can be viewed.

Video Tutorial: #3: Using the Legend to Turn Layers on and off

Topic #4

How can I Identify the Detailed Characteristics of Features such as a School or a Neighborhood?



Scenario: How to identify features on a Mango Map and obtain additional information about that feature.

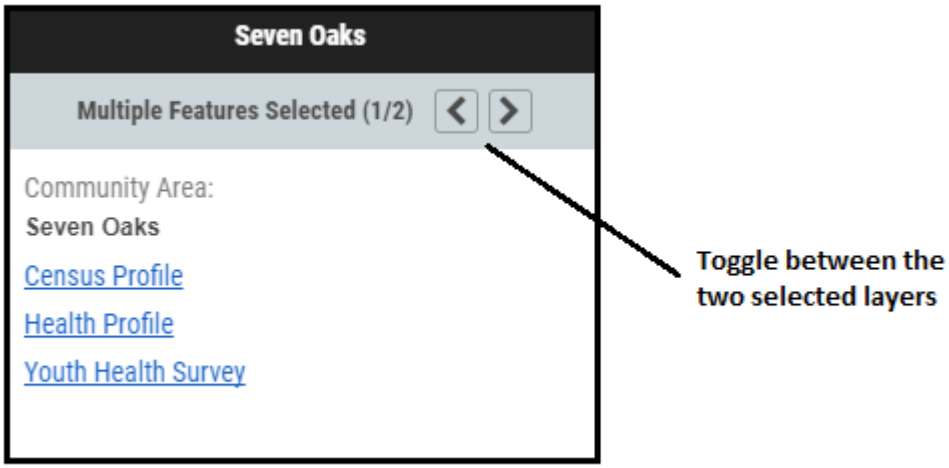
Tools to Use: Once a layer is turned on in the map, your cursor will act as the identifying tool.

Instruction: Use your mouse to click on the feature that requires identification, or if you are looking for additional information about that feature.

Interpreting the Results: Once you have selected a feature on the map, a small pop-up will appear in the lower left corner of the map. The header of this pop-up will tell you the name of the feature that you have identified, and the pop-up window will provide you with all of the additional information about this feature (if available).

Note: Many administrative boundary layers will not have additional information available as they are used for visualization purposes.

Additional Comments: If you are attempting to identify a feature that is in the same place, or very close to another feature, both features might get selected when clicking on the feature. If this happens, there will be two arrows on the top of the pop-up window that you can use to toggle between the features.



Variations of this Exercise: Use the identify features tool to identify any polygon or point layer. Often boundary layers do not have additional information associated with them.

Video Tutorials: #5: Identifying features and linking to external documents through Smart Layers

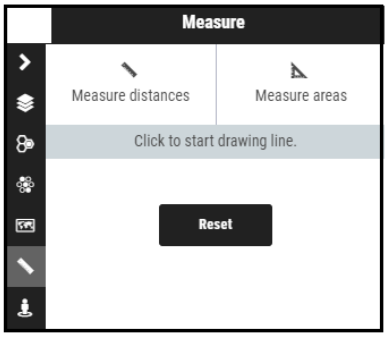
Topic #5

How can I Measure the Distance Between Features on the Map?

Scenario: How to measure between two points on the map, or the area of a custom polygon

Tools to Use: The **Measure** tool located on the tool bar on the right of the map frame.

Instructions: Click on the Measure Tool icon in the toolbar on the right of the map frame to launch the tool. Once the tool is launce, click on “Measure Distances” or “Measure Area” depending on what you are measuring.



After you have selected your measurement type, use your cursor to click and trace the path of the distance you want to measure, or the perimeter of the area you want to measure. If you are measuring a distance, double click to stop measuring. If you are measuring an area, you must click on the first point to complete the polygon.

Interpreting the Results: Once you complete tracing the path you wish to measure, or the perimeter of the area you are measuring, the Measure Tool will display the distance (in Kilometers), or the area (in Hectares). Click Reset to start again.

Additional Comments: If you measure more than one distance or area without clicking on the "Reset" button, the paths and areas will remain on the map but the distance displayed will only be for the most recent measurement.

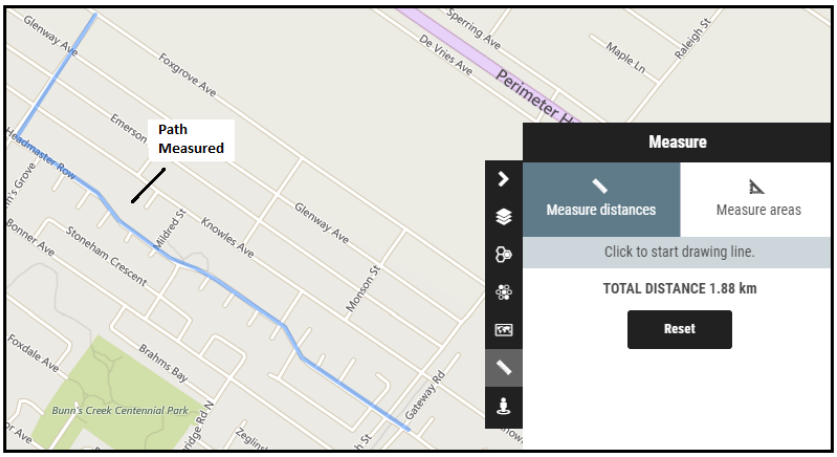
Variations of this Exercise: You can measure many things in any MbCDP Map:

- Feature to Feature
- A Client Address to a WRHA Facility
- Your Address to a Clients Address
- Area of a Neighborhood

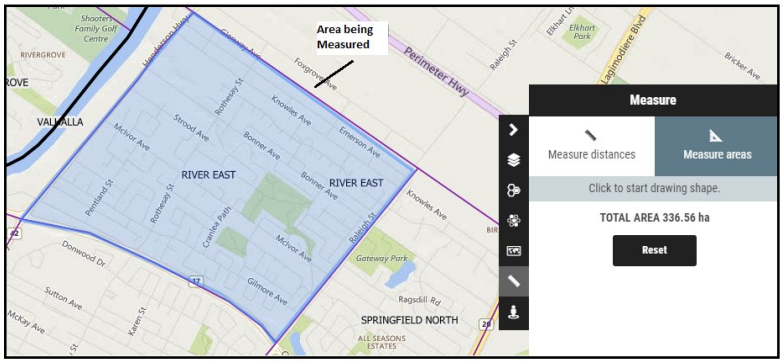
Video Tutorial: #7 Measuring Distance and Area

Examples:

Measuring a Distance:



Measuring an Area:



Topic #6

How can I Explore and Visualize in Detail What is on the Ground using Base Maps and Google Streetview?

Scenario: These maps are useful to display spatial patterns, and see from a bird's eye view, but can I explore and visualize what is on the ground?

Tools to Use: Google Street View [Built in to MangoMaps]

Instructions:

Google Streetview

When looking at a particular area of interest, you can launch Google Street View from the MangoMaps tool bar to investigate closely what is happening on the ground. To do this, select the StreetView button from the toolbar on the right side of the map frame.

Once the tool is open, a yellow bullseye will appear on your screen:

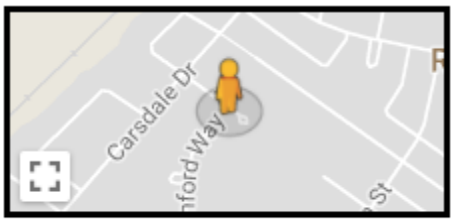
Position the area you would like to investigate on the ground, in the middle of the yellow bullseye. Once you have centered it, click the "Launch StreetView" button. Google StreetView will open in a new window. Use your mouse and keyboard to investigate the area.

Basemap Options

You can also turn different base-maps on and off using the base-maps tool in the toolbar. If want to see, for example, an aerial view of an area of interest, turn on Bings Hybrid which will show both aerial photography overlaid by major streets. Similarly, if you want to see detailed streets and local features, turn on the Open Street Maps (OSM) base map. To clearly see the underlying base-map, you may have to turn off some of the map layers that may be covering the base-layer.

Interpreting the Results:

Once you are in Google StreetView, you can move around using the arrow keys on your keyboard, but you can also re-position yourself using the small map in the lower left-hand corner of the browser. Click on the map to reposition the "Peg Man" which represents where you are on the map.



Use this map to re-position once in StreetView

Additional Comments:

It is important to be as zoomed in as possible when launching the StreetView tool. This will increase the accuracy of where the 'Peg Man' is positioned once StreetView is launched.

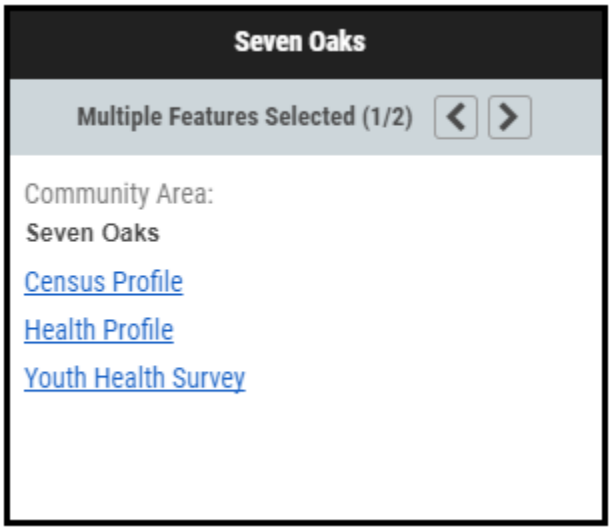
Variations of this Exercise:

- Search an address you are familiar with and launch Google StreetView to test your accuracy

Video Tutorial: #6: Using Base Maps and Google Streetview to Groundtruth

Topic #7

How can I link to detailed Census, Youth Health Survey, and Community Health Assessment reports using Smart Layers



Scenario: How to identify Census, Youth Health Survey, and Community Health Assessment Reports using Smart Layers.

Best Map to Use: Community Data Map: Winnipeg Health Region

Tools to Use: Smart Layers are located in the legend and are available at the Community Area, Neighborhood Cluster and Neighborhood geographies.

Instructions: Navigate to the legend and turn on the Smart Layer Geography (Community Area, Neighborhood Cluster, or Neighborhood) that you are interested in. Once you turn the layer on, a star will appear in the middle of each geography. Click on this star to access the links to the documents corresponding specifically to that geography. Click on each of the links in the pop-up window to access the Census, Youth Health Survey, or Community Heath Assessment Documents.

Interpreting the Results: When you select the links from the pop-up window, the selected document will open in a new web-browser and your map will remain open.

Additional Comments: Not all of these documents are available at each geography. The following outlines what documents are available at which geography.

Community Area:

- Census Profile
- Health Profile
- Youth Health Survey

Neighborhood Cluster:

- Census Profile

Neighborhood:

- Census Profile

Video Tutorial: #5: Identifying features and linking to external documents through Smart Layers

Topic #8a

How can I print my maps or export them to use for reports I am developing in in Powerpoint or Word?

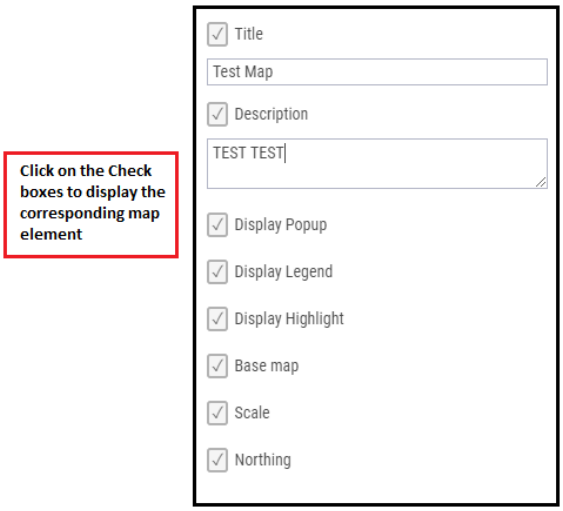
Method 1: MangoMaps Print Tool

Scenario: How can I print a copy of the map that I have developed on one of the MbCDP Maps?

Tools to Use: There are two methods to print a map from a MbCDP map:

- **Method 1: Using the Print Tool**
- Method 2: The Snipping Tool (see Next CBT)

Instructions: Once you have created a custom map using the layers in a MbCDP map, click on the Print button on the top ribbon (left of search bar). This will open a new page that will allow you to customize the Map you are printing. You have the option to add a title, map description, legend, pop-up, map scale, and a north arrow. Click on the check box beside these options if you would like them to be included on your map.



Once your map is created how you like, click on the “Print” button, and you can send the map directly to a printer, or print to PDF which can then be saved to the location of your choosing on your computer.

Interpreting the Results: N/A

Additional Comments: You have the option to zoom in and out of the map, as well as pan within the Print environment.

All maps should include: A title, a scale, a north arrow, and a legend. These map components are required to ensure that the map can be interpreted accurately when shared.

Variations of this Exercise:

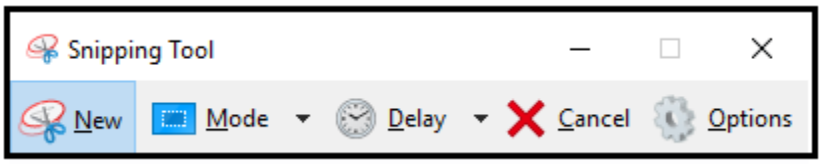
- Print a map of the entire Winnipeg Health Region
- Print a map of a specific Community Area
- Zoom in to a Winnipeg Neighborhood and view detailed Dissemination Area information

Video Tutorial: #8: Printing and Exporting Maps

Topic #8b

How can I print my maps or export them to use for reports I am developing in in Powerpoint or Word?

Method 2: Snipping Tool (Microsoft Windows only)



Scenario: How can I print a copy of the map that I have developed on one of the MbCDP Maps?

Tools to Use: There are two methods to print a map from a MbCDP map:

- Method 1: Using the Print Tool (See Previous CBT)
- **Method 2: The Snipping Tool**

Instructions: If you are on a Microsoft computer, launch the" Snipping Tool" from the windows menu. Once it is launched, click "New", and use your mouse to capture a screenshot of the map frame that you would like to share. Once you have snipped the image of the map, you can paste it in to any type of document (e-mail, Word document, PowerPoint Presentation etc).

Interpreting the Results: N/A

Additional Comments: When using the "Snipping Tool" method of sharing a map, ensure that all important mapping components are included: Legend, Title, Scale, and North Arrow. This may require several 'snips'.

Variations of this Exercise: Use the snipping tool to capture more than just map images. You can also use the Snip tool to export:

- Tables or reports created using the Query Tool
- Tables or reports created using the Proximity Tool
- Graphs or Charts from the Identify Features pop-up

Video Tutorial: #8: Printing and Exporting Maps

Topic #9

How can I visualize more than one map layer at a time in order to compare trends?

Scenario: I have two map layers that I want to compare, but am unable to do this directly in Mango Maps. For example, I may want to compare trends in median household income to the location of recent immigrants.

Tools to Use: The Snipping tool to extract the map image into Powerpoint or Word

Instructions: Using the Snipping Tool, copy and paste the layers you are interested in comparing into Powerpoint or Word, placing them side by side for comparison.

Interpreting the Results: N/A

Additional Comments: When using the "Snipping Tool" method of sharing a map, ensure that all important mapping components are included: Legend, Title, Scale, and North Arrow. This may require several 'snips'.

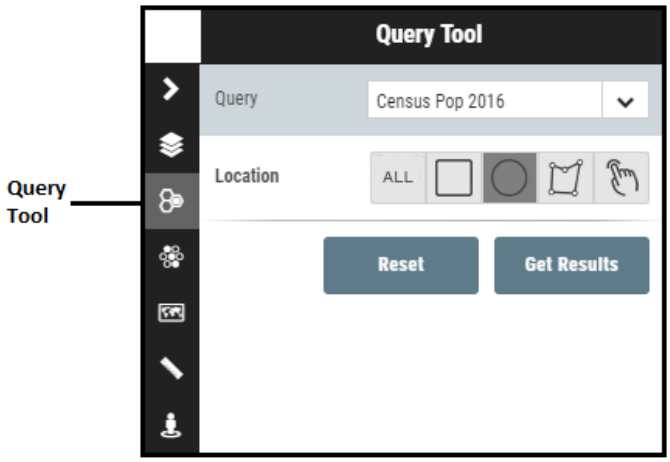
Variations of this Exercise: Use the snipping tool to capture more than just map images. You can also use the Snip tool to export:

- Tables or reports created using the Query Tool
- Tables or reports created using the Proximity Tool
- Graphs or Charts from the Identify Features pop-up

Video Tutorial: #8: Printing and Exporting Maps

Topic #10

How can I identify the characteristics of people (age, gender, income etc.) living within a custom area such as within 1 km of a school, community center or specific address?



Scenario: How to extract population characteristics of people living within a custom area. Example: Find the population living within 1 km of Immanuel Christian School.

Tools to Use: Query Tool

Instructions: Turn on the school layer and and zoom into a school you want to buffer around in order to identify nearby population characteristics.

Launch the Query tool from the Toolbar on the right-hand side of the map frame.

The first step in setting it up, is to select the layer that you are interested in from the drop-down list. In this example we are selecting the population layer from the 2016 Census (Census Pop 2016).

Next, select the method in which you would like to define your area of interest. For this example, we want to find the population within a 1 km radius of a specific school. When finding features within a radius, you must select the Circle method to define your Area of Interest.

Once you have selected the circle tool to define your area of interest, use your cursor to define the area. Left click your cursor at the center of your

point of interest (the school of interest) and drag away. As you drag your cursor away from the point of interest, a distance will appear. Use this to define the radius when establishing your area of interest.

When the circle is the correct size/distance, click on GET RESULTS to select the data points that will be used in the population calculation. This may take a couple of seconds, and the selected points will appear highlighted (in yellow). Click on Generate Report to launch the population report .. this may take up to 30 seconds.

Interpreting the Results:

You can view the results of this query as a report, where you will see a summary of all of the people living within 1 kilometer of Immanuel Christian School. This summary will tell you the total number of people living in the area you defined, as well as the age break-down of these individuals.

Additional Comments:

When drawing the radius, it is easiest to be zoomed in as close as possible. After running an analysis, click on RESET to before undertaking another analysis.

Variations of this Exercise:

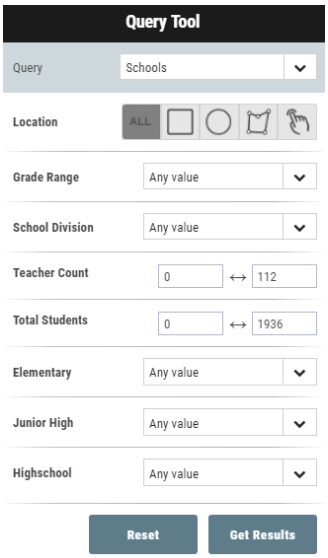
- You can generate reports based on other demographic layers include 2016 Census Income, 2016 Census Housing, etc.
- Data for custom geographies can be extracted by using the draw tool to trace the outlines of the area of interest. The draw tool is the tool to the right of the circle tool used in the exercise above.

Video Tutorial:

#9 Using the Query Tool to Generate Population and Income reports

Topic #11

How can I extract a list of schools, and a generate a summary report of student counts by grade in a custom defined area within 1 km of a specific address or location

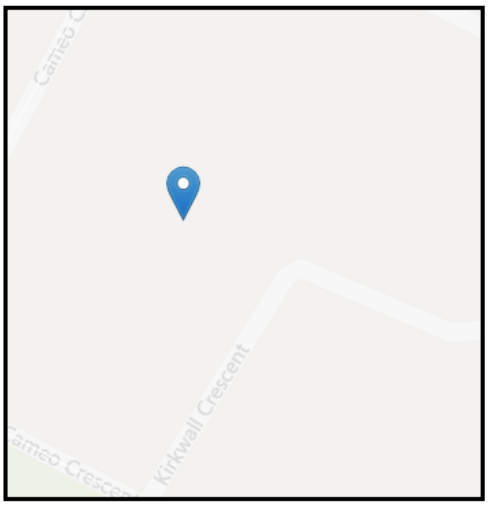


Scenario: How to extract a list of features or facilities within a custom area. Example: Find all of the schools within a 2-kilometer radius of a client's address.

Tools to Use: The Search Tool, and the Query Tool

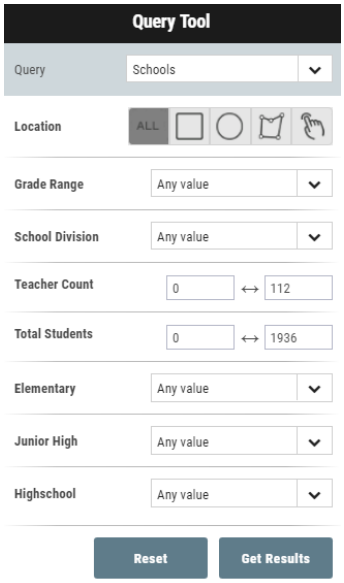
Instructions: The first step is to this query is to identify on the map, the clients address that you are interested in. To do this, use the search bar on the top right corner of the map frame. Remember – this is a suggestive search bar and you must click on the correct address that appears below the search bar.

Once you have entered the address into the search bar and click on the suggested search result, the map will locate that address and mark it with a pin point.



This pin point will act as the center of your radius when using the query tool.

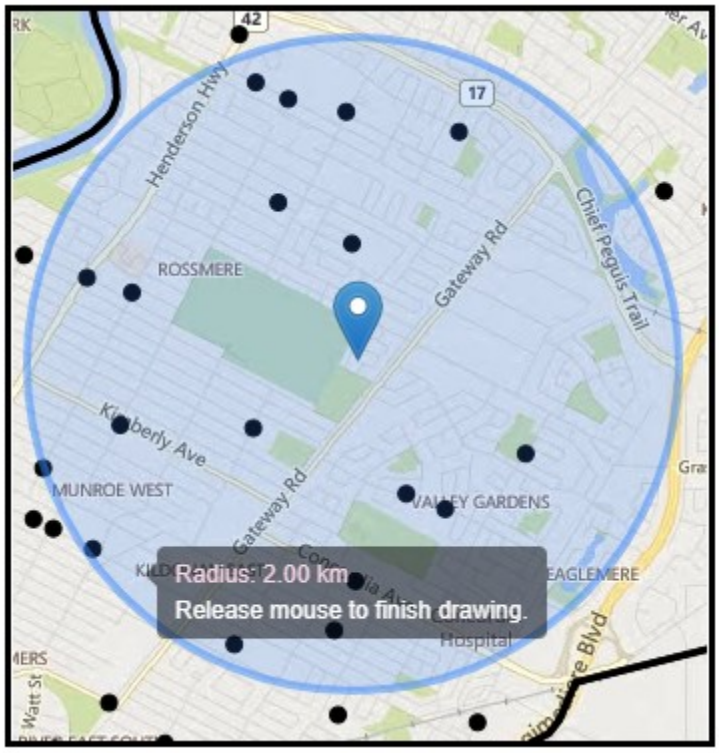
The second step in this query is setting up the query tool. The Query tool is located on the toolbar on the right-hand side of the map frame. Click on the tool icon to launch it.



Complete the query tool by selecting the features that you are looking to identify within a radius of the client's address. For this example, select "Schools".

Next, select the method in which you would like to define your area of interest. For this example, we want to find the schools within a 2 km radius of a the clients address defined in the first step of this problem. When finding features within a radius, you must select the Circle method to define your Area of Interest. For this problem, use the Address Point that was put on the map, as the center of our radius.

Once you have selected the circle tool to define your area of interest, use your cursor to define the area. Click your cursor at the pin point added on the address searched in the first step, and drag it outward. As you drag your cursor away from the point of interest, a distance will appear. Use this to define the radius when establishing your area of interest.



In the query tool, you are given the option to filter the schools within the defined radius by school type [elementary, junior high, or high school], or by the size of the school (# of Students). To filter the results, use the drop downs and select "Yes" if you would like to restrict your search results to a certain type of school.

For this example, we are going to select all schools and will not be filtering the results.

Once the query tool is completely set up, click on the "Get Results" Button in the query tool window.

Interpreting the Results:

You can view the results of this query in three ways:

1. As a report – This will tell you the total number of students and teachers in all of the schools selected.
2. A Table – This will give you a list of each individual school within the defined area. It will provide you the number of students and teachers in the schools, as well as the number of students that are in each grade.
3. Download – This will download the table previously described as a CSV which can be opened in excel and shared via e-mail, or printed.

Additional Comments:

When drawing the radius, it is easiest to be zoomed in as close as possible.

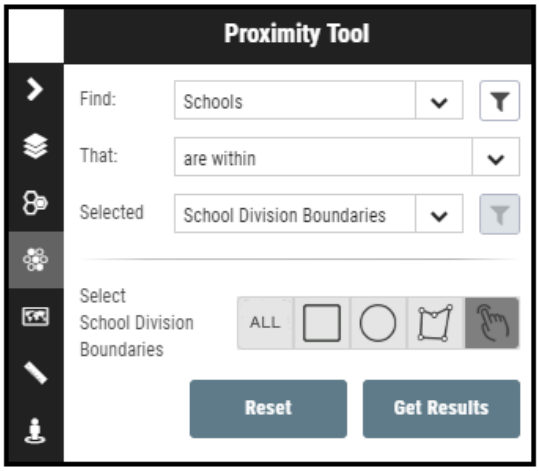
Variations of this Exercise:

- Use the Trace tool to define a custom extraction area instead of the circle tool

Video Tutorial: [#10: Using the Query Tool to Produce a Custom School Report]

Topic #12

How can I extract a list of schools, and a summary report of student counts by grade within a predefined geographic area such as School Division, City Ward, or Neighborhood



Scenario: How can I extract a list of all schools within a specific school division or City Ward, along with the number of students in each grade?

Tools to Use: The Proximity Tool 

Instructions: Zoom out and add School Division Boundaries in the Winnipeg Community Map.

Launch the Proximity tool from the toolbar on the right-hand side of the screen.

Once the proximity tool is launched, set up the tool by selecting the two layers that have will have a relationship together.

As illustrated above, in the Find box, choose the layer you want to extract (in this case Schools). In the Selected box, choose the layer you want use to extract schools by (in this case, School Division Boundaries, but one could use City Electoral Ward or Neighborhood Boundaries instead).

The Proximity tool automatically sets the relationship of “are within” …. So it will find Schools that fall within selected School Divisions.

Once the relationship is set up, you must select the specific school division that you are interested in. For this example, we are wanting to find schools that are within the River East Transcona School division.

Use the finger pointer to select the River East Transcona School division. Once you click on the school division it will be highlighted in red on the map. You can click on more than one school division at a time.

Click on Get Results and select schools will be highlighted.

Interpreting the Results:

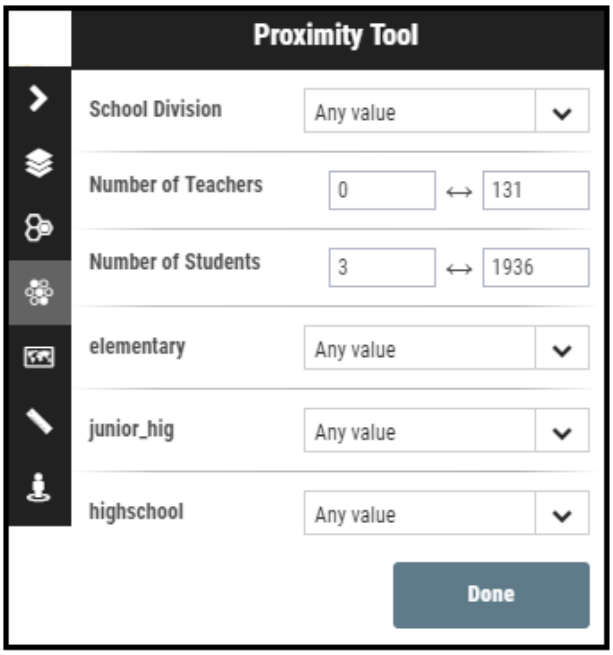
You can view the results of this query in two different ways: as a summary report (student count by grade), or as a table. The report will give you the total number of schools, students and teachers located in the school division that you have selected. The table will give you a list of each school located in the selected school division as well as the number of students (by grade) and teachers in each school. You will be given the option to download this table in excel format (click on download CSV).

Additional Comments:

When setting up the proximity tool, you can select the filter button to the right of the 'Find' drop down to filter the type of school that will be returned as a result of the query.

Filter Button: 

When you click on the filter button, you will be brought to a new screen which will give you an option to select schools based on the grade ranges (Elementary, Junior High, High School), or by the number of teachers or students that belong to the school. Use the drop downs, or the text boxes to apply these filters.

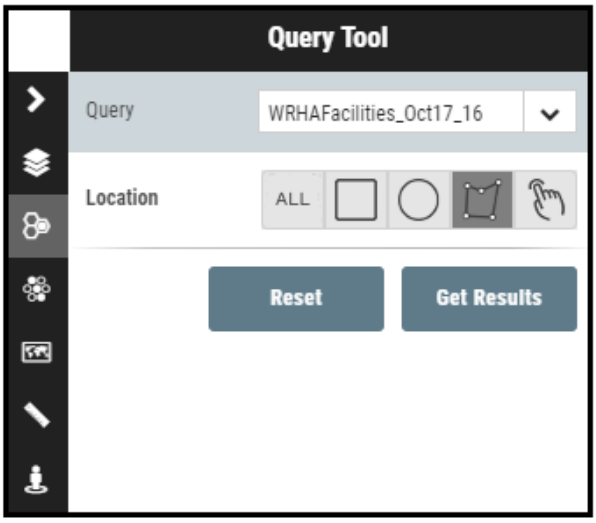


Once you have applied the filters (not mandatory) click the “Done” button to on the bottom of the window and continue to set up the proximity tool as normal.

Video Tutorial: [#11: Using the more advanced Proximity Tool to more flexibly Generate Custom Analyses and Reports]

Topic #13

How Can I Extract Features within a custom boundary defined using the Draw/Trace Tool



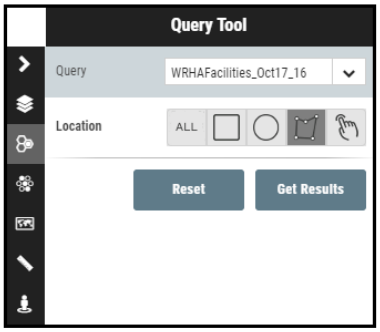
Scenario: How to extract a list of features within a custom boundary using the draw/trace tool. For example, all of the WRHA facilities within a 2-neighborhood area.

Example: WRHA Facilities within West Alexander and Centennial Neighborhoods

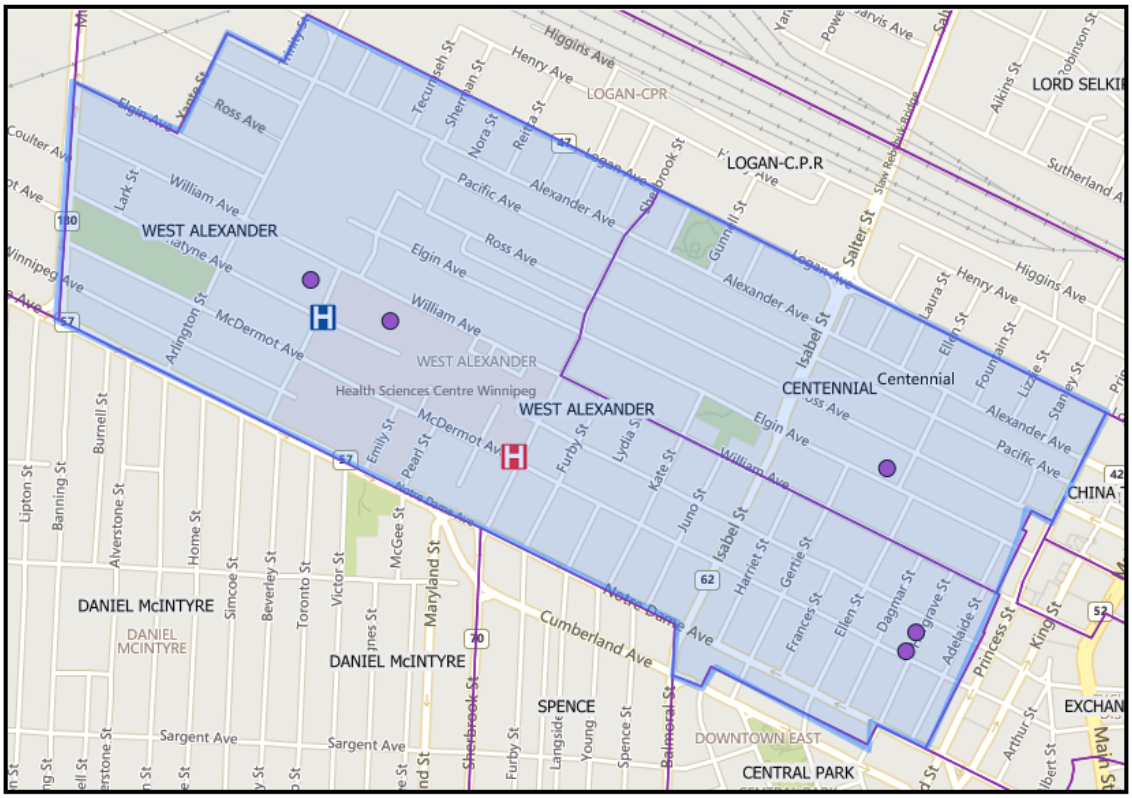
Tools to Use: Query Tool 

Instructions: Launch the Query tool from the toolbar on the right-hand side of the map frame.

The first step is to select the layer you are interested in extracting. For this example, we are looking to find WRHA facilities. Select the layer from the drop-down



The second step is to define the area where we want to find these WRHA facilities. To define our area of interest, we are going to use the query tool to trace the perimeter of the two neighborhoods we are interested in (West Alexander and Centennial Neighborhoods). To do this, select the draw tool and use your cursor to trace the area you are interested in. Click once to start, and move your mouse to the next point you would like to make – click to establish a point and change the direction of the line. Once you are complete, click on the first point to complete the drawing.



Now that you have defined your area of interest, click on the "Get Results" button.

Interpreting the Results: When you click on the "Get Results" button you will be re-directed to a page that gives you options in how to view your results.

You can view this query as a table that will provide a list of all of the WRHA facilities that were located in the area that you defined. You will also be given the option to download this table as a CSV file which can be saved to your computer and opened in excel.

Additional Comments: When drawing the custom geography, it is easiest to be zoomed in as close as possible.

Variations of this Exercise:

Features to extract within a custom geography:

- Schools
- WRHA Facilities

Video Tutorial:

#10: Using the Query Tool to Produce a Custom School Report

Topic 14:

How can I quickly identify the characteristics of people living within a pre-defined geographic area such as an Electoral Ward or Neighborhood?

Scenario: How can I generate a population report or an income report from the 2016 Census for a specific neighborhood or electoral ward, or a combination of these?

Tools to Use: The Proximity Tool

Instructions: Load the Winnipeg Community map and add the City Electoral Ward boundary.

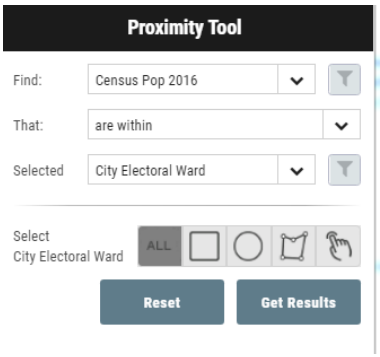
Launch the proximity tool, and set it up as illustrated above. Using the select tool (little hand), click on the Daniel McInytre Ward in downtown Winnipeg, which will then highlight in red.

Click Get Results. When the data points have been selected (highlighted in yellow), click on Generate Report in order produce an 2016 Census Income report for that ward.

To run a new report, remember to click on RESET before proceeding.

Variations on this Exercise:

- You can use the proximity tool to run a population report based on the 2016 Census. It would be set up as follows:



- Multiple geographies can be selected instead of one. So, for example, you could have used the select tool to select both the Daniel McIntyre wards and the St. Boniface wards, and the output report would combine results from both wards.
- Any geographic boundary can be used to select census data, including neighborhood, school division, provincial or federal electoral boundaries, community area etc.

Additional Comments:

Census data extracted using the Query or Proximity tools are an approximation and may be slightly different than the actual census data for a geographic area. This is because the census data loaded into the maps are based upon dissemination area boundaries which do not always line up reliably against our administrative boundaries of interest such as neighborhoods or electoral boundaries. However, as an area of custom extraction increases in size, the smaller the potential discrepancy between report outputs and the actual Census data .

Video Tutorials:

#11: Using the more advanced Proximity Tool to more flexibly Generate Custom Analyses and Reports

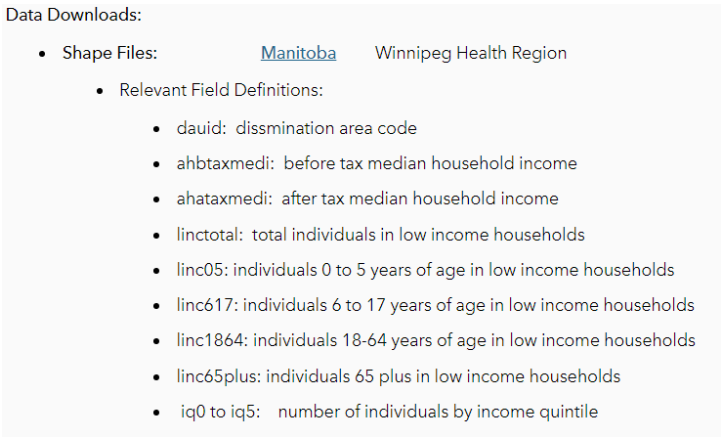
Topic 15:

How can I access the underlying mapping shape files used in the web-based maps to undertake my own analyses in a GIS mapping program such as ArcGIS or QGIS?

Scenario: Need to access the underlying shape files used to populate the web-based mapping applications in order to build custom maps and undertake more advanced spatial analyses in a 3rd party GIS mapping program such as ArcGIS or QGIS.

Tools to Use: The Data Dictionary

Instructions: Go to the Data Dictionary on the MBCDP web-site and navigate to the map layer of interest. At the bottom of the data documentation tab is a link to download the shape file of interest. Field definitions for the shape file are included in the data documentation. See example below



Data Downloads:

- Shape Files: Manitoba Winnipeg Health Region
  - Relevant Field Definitions:
    - dauid: dissmination area code
    - ahbtaxmedi: before tax median household income
    - ahataxmedi: after tax median household income
    - linctotal: total individuals in low income households
    - linc05: individuals 0 to 5 years of age in low income households
    - linc617: individuals 6 to 17 years of age in low income households
    - linc1864: individuals 18-64 years of age in low income households
    - linc65plus: individuals 65 plus in low income households
    - iq0 to iq5: number of individuals by income quintile

Variations on this Exercise:

- You can also download most map layers in KMZ format as well. These are formatted with symbology and attribute pop-ups so they can be used directly in Google Earth.

Topic 16:

How Can I Make My Own Maps in Google Earth

Scenario: The web-based maps do not allow the flexibility to build custom maps. It would be nice to be able to add individual map layers to a program like Google Earth

Tools to Use: The Data Dictionary, Google Earth

Instructions: Go to the Data Dictionary on the MBCDP web-site and navigate to the map layer of interest. At the bottom of the data documentation tab is a link to download KMZ versions of each map layer. These are formatted with symbology and attribute pop-ups so they can be used directly in Google Earth.

For instructions on how to use Google Earth with the KMZ files available through the MBCDP web-site, go the Mapping with Google Earth web-page.

Variations on this Exercise:

- KMZ map files can be used in a variety of freemapping programs besides Google Earth. They can be loaded into
  - Google Maps (My Maps)
  - ArcGIS Earth
  - QGIS

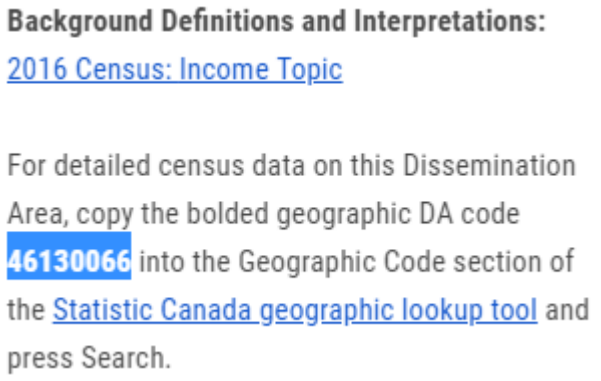
Topic 17:

How can I get more detailed 2016 Census data for small geographic areas. I am frustrated that not all the census data I am looking for is available.

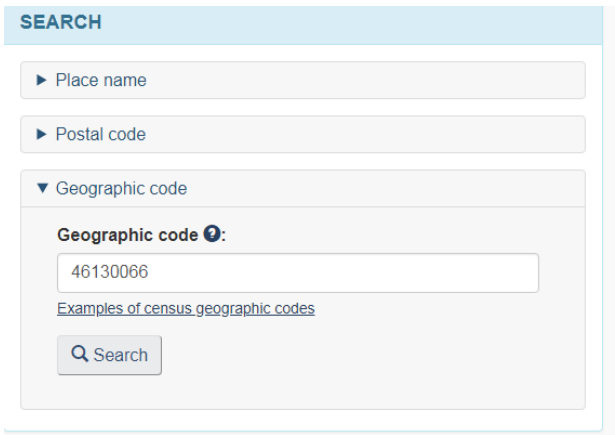
Scenario: More detailed data from the 2016 Census is required than is available in the map layers loaded in the web-based maps.

Tools to Use: Statistics Canada Geographic Lookup Tool; Median Household Income Layer

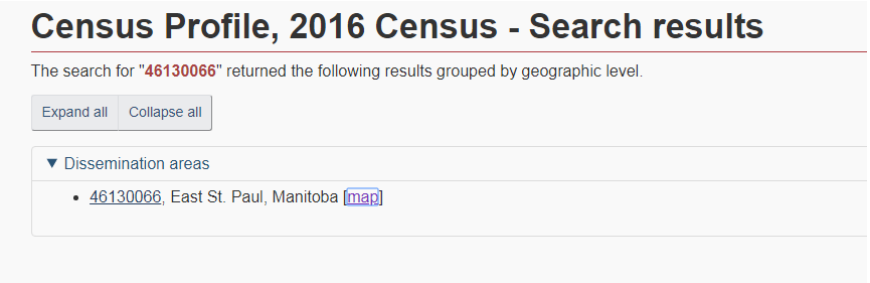
Instructions: Load the Median Household Income layer and click on a geographic area for which you want detailed census data to generate the attribute pop-up.



In the attribute popup, copy the bolded Dissemination Area (DA) code, and then click on the hyperlink for the Statistics Canada geographic lookup tool. When this tool opens in a separate window, click on the Geographic code tab and paste the DA code into the box and click on Search.



This will bring up a Dissemination areas list. You can click on either the DA code itself to generate detailed census data, or on the map link to generate a confirmatory of the DA of interest.



Variations on this Exercise:

If you know the postal code of an area you are interested in, then enter this into the Stats Canada search box (Postal code box). This will then provide you with options to generate detailed census profiles for all standard Statistics Canada geographies that contain that postal code, including dissemination area, census tract, federal electoral district, forward sortation area (1st 3 digits of postal code) etc.