Land Use and Development Web Application
User Workshop

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Manitoba

Community and Regional Planning - Who we are

- The Community and Regional Planning branch helps communities to establish their vision for the future use of land, resources and natural features, and outlines the steps required to achieve that vision.

What we do

Community and Regional Planning creates and maintains spatial data which represent the division and organization of land in Manitoba:

- Municipal boundaries, Northern Affairs Community Boundaries, Local Urban District boundaries,

- Zoning Bylaw boundaries, Development Plan boundaries

- Assessment Parcels

In our offices we use this data for administration, statutory requirement mapping, mapping in support of municipalities and other provincial agencies, and land use and planning analysis.
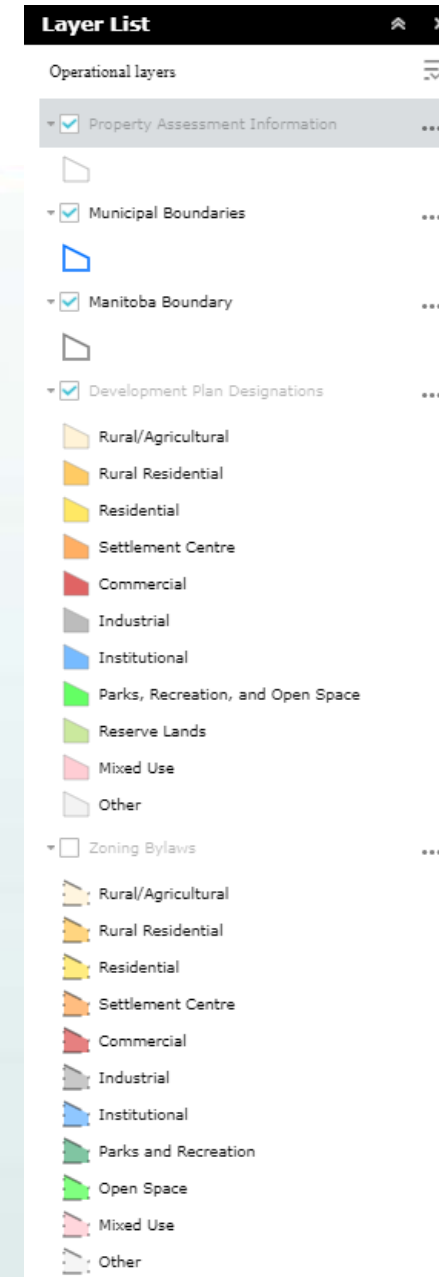
Why we are here and What to expect

We've made a tool with you in mind

Over the next hour you will:

- Become familiar with the data behind the Land Use Web App

- Learn the tools

- Create maps

- Perform Basic analysis of the data

- Learn how to access the data outside the app

The Data

- Featuring data from Municipal Relations:
  - Assessment Parcels
  - Municipal Boundaries
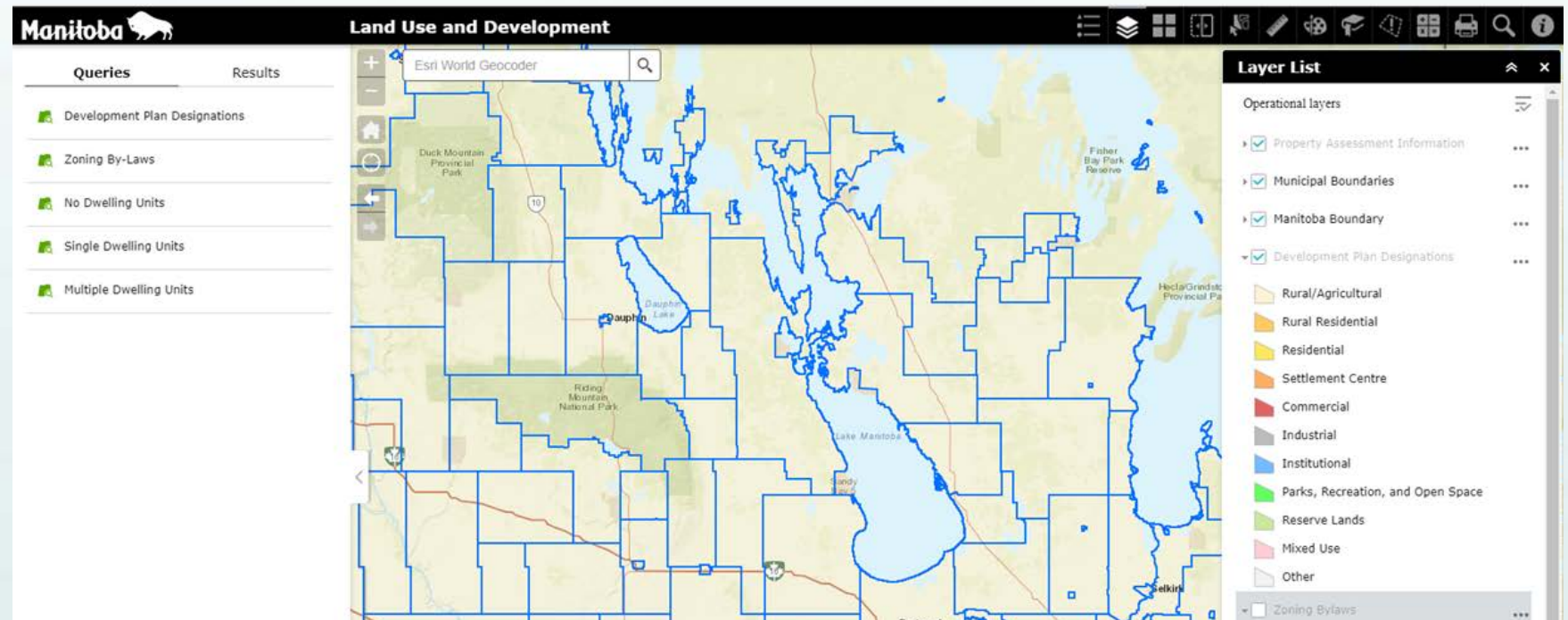 - Development Plan Designations
  - Zoning Bylaw Zones

The App

- Land Use and Development Web App

- Community and Regional Planning Web App:
http://www.gov.mb.ca/mr/land_use_dev/index.html
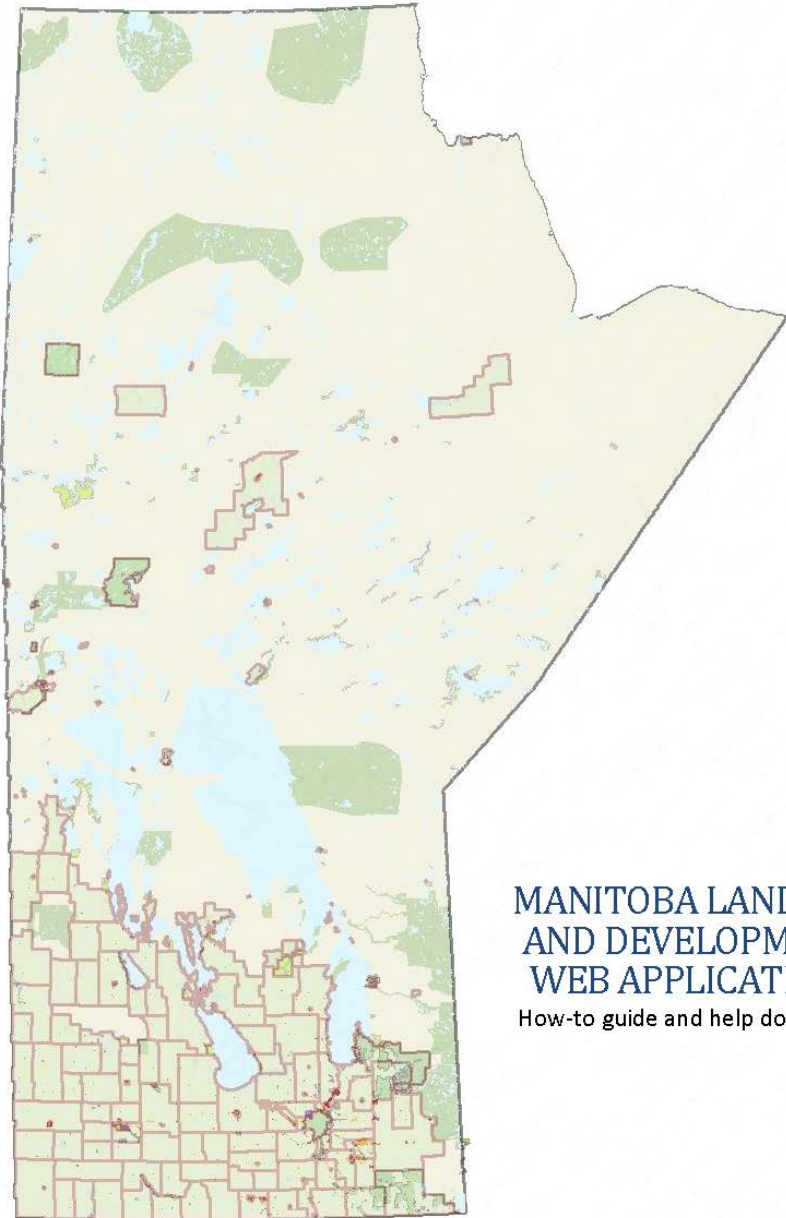
MANITOBA LAND USE
AND DEVELOPMENT
WEB APPLICATION:
How-to guide and help document

Click the map to open the app

Click here for the
help document

Hyperlinks in document

- Click to move to section
- Click back to index

Index

Hyperlinks in document

- Click to move to section
- Click back to index

Slightly Different view on mobile

- App opens with panels blocking view

- Once closed things look a little more familiar

- Note the sandwich
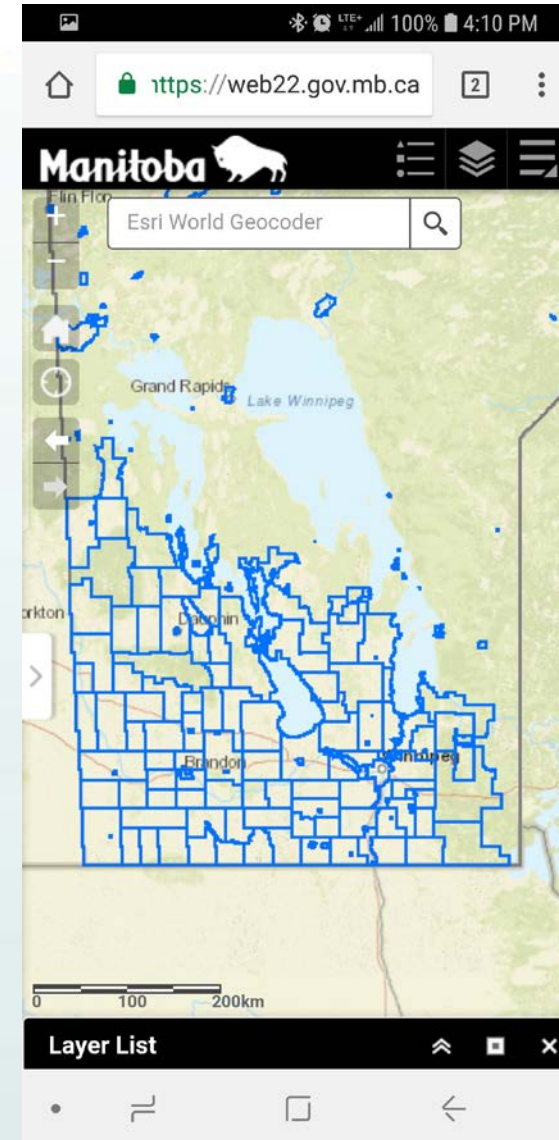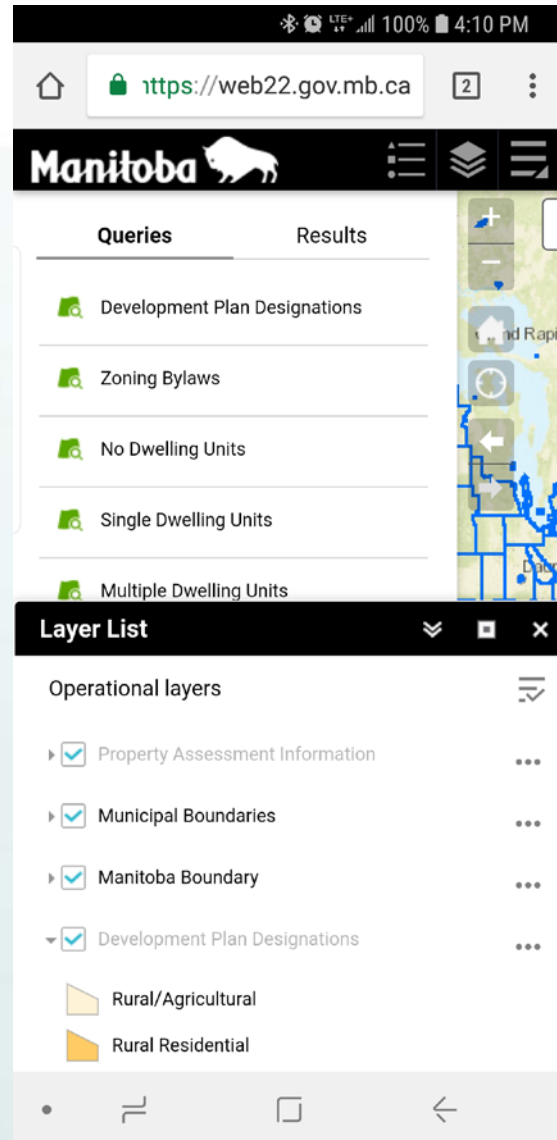
Application Toolbar

Legend

The Legend button displays labels and symbols for layers in the map. It is set to automatically update when the visibility of a layer or sublayer changes. When no operational layers are rendered in the map, the Legend tool is blank.

Basemaps are not shown in the Legend. The order in which layers appear in the Legend corresponds to the layer order in the map.

Layer List

The Layer List tool provides a list of operational layers and their symbols, and allows you to turn individual layers on and off. Each layer in the list has a check box that allows you to easily control its visibility. Layers having expansion arrows indicate that they contain sublayers or subtypes.

The order in which layers appear in this tool corresponds to the layer order in the map. This tool provides functionality allowing you to change the order of layers in the map.

Layers can be accessed by clicking on the **Layer List** tab from the **Application Toolbar**.

The Layer List defaults upon opening the application to having all layers except the Zoning Bylaw layer to be checked on.

Some layers are scale dependant, meaning they won't show until you zoom in closer. This is to reduce load time and clutter on the map.

Layer symbology can be hidden or exposed by clicking the arrow beside the check mark for each item.

The Layer List can be hidden by clicking the arrows, or can be closed by clicking the **X**.
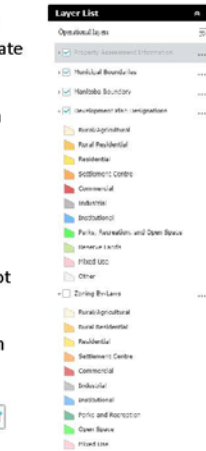
Layer Properties

Each layer has a properties menu that can be opened by clicking the three dots to the right of the layer name.

Zoom to – Will change the extent of the map to include the **entire layer**.

Transparency – Opens a sub-menu that allows the user to adjust the visible transparency of the layer. This is temporary and will not affect any other users experience of the map.
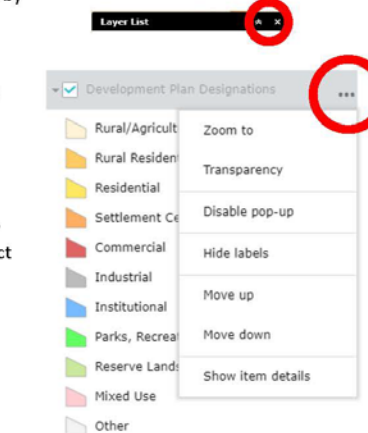
Disable/Enable Pop-Up – Makes the layer clickable. Enabling this for a layer will provide information in the map when a feature of the layer is clicked. Disabling this feature is temporary and will return to its default next time you visit the site/application.

Hide/Show labels – Activates pre-defined labels for each layer. Most of the layer labels are scale-dependant, so they will show once you've zoomed in enough. They will hide when zoomed out.

Basemaps

Changing the Basemap

The default base map in this app is the **Streets** map. To change the view, click on the icon for the Basemap Gallery.

Select the basemap you would like to view. There are several to select depending on your needs: topographic, terrain, imagery, OpenStreetMap and canvas.

Note that if you do not have a good Internet connection, some of these features could slow down your experience of the application (the canvas basemaps require the least bandwidth to load).
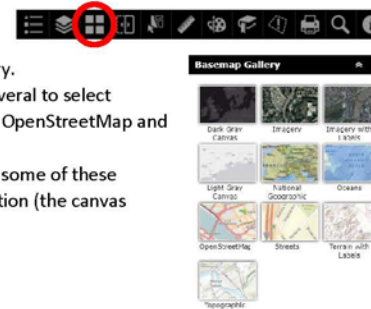
Tools

Swipe

 The Swipe tool enables you to easily compare the content of different layers in the app. You can slide the swipe tool to reveal the content of another layer. For example, you may want to use it to compare designations to zones for a particular area.

Select

 The Select tool enables you to interactively select features on the map and take actions on the selected features. The selection actions include the following:

- **Zoom to**—Centres the map on your selection.

- **Pan to**— Pan the map to selected features.

- **Flash**— Make selected features flash.

- **Export to CSV file**—Export selected features, including a single feature to a CSV file.

- **Export to Feature Collection**—Export selected features, including a single feature to a features.json file.

- **Export to GeoJSON**—Export selected features, including a single feature to a features.geojson file.

- **Statistics**—Summarizes the field with numeric type. You must select multiple features.

- **Create Layer**—Not available for a single feature.

- **Save to My Content**—Save selected features including a single feature as Feature Collection items. They will appear in your ArcGIS Online content. To utilize this, you must have an ArcGIS online account.

- **View in Attribute Table**—Shows the selected features in the attribute table.

- **Clear selection**—Clear the selection set.

Selection actions

- Zoom to
- Pan to
- Flash
- Export to CSV file
- Export to feature collection
- Export to GeoJSON
- Statistics...
- Create layer
- Save to My Content
- View in Attribute Table
- Clear selection

Measurement

The Measurement tool allows you to measure the area of a polygon, length of a line, or find the co-ordinates of a point.

- Point measurements

Click the Point measurement button, then click a point on the map. The Measurement tool will then display the co-ordinates for the point in degrees (decimal). To change the co-ordinate, display format to degrees/minutes/seconds, change the selection in the drop-down menu to DMS (degrees).

- Polyline measurements

Click the Polyline measurement and draw a polyline on the map by clicking two or more points. Double-click to finish drawing the polyline. The Measurement tool will then display the total length of the polyline using the defined default length unit. To change the length unit, select the applicable unit of measure from the drop-down menu (feet).

- Polygon measurements

Click the Polygon measurement button, then draw a polygon on the map by left-clicking three or more points. Double-click to finish drawing the polygon. The Measurement tool will then display the total area of the polygon in acres. To change the area unit, select the applicable unit of measure from the drop-down menu (acres).

Sketch

The Sketch tool allows you to create graphics that display on the map. It can optionally add line distance or polygon area to the feature as text.

The Draw tool enables you to draw simple graphics and text on the map. It provides basic sketching and redlining functionality. It also displays some measurements for drawn features, such as length for lines, and area and perimeter for polygons. When the tool initially opens, a dialog box appears that contains 11 feature creation tools. From left to right, they are as follows:

Point	Line	Polyline	Freehand Line	Triangle	Rectangle
Circle	Ellipse	Polygon	Freehand Polygon	Text	

Completed features can be manipulated in the **Layer** and **Selection** tools. Please note that features are **not saved in the map**, so if you refresh or close your browser your features will need to be redrawn.

Bookmark

The Bookmark tool stores a collection of map view extents (saved locations) displayed in the app.

To Use the Bookmark tool:

1. Click the Bookmark tool to display previously saved bookmarks.
2. Click one of the bookmark thumbnails to set the map extent to the bookmark area.
3. Add additional bookmarks by zooming to your desired location and clicking the Add button.
4. Hover over the new bookmark, click the blue text to give it a meaningful name, and click the edit button Edit to upload a thumbnail locally.
5. Repeat steps 4 and 5 to add more bookmarks.
6. Hover over a new bookmark to remove or reorder it.
7. Click the close button in the window to close the tool.
8. Bookmarks can be deleted by selecting them and then choosing the delete button on the bottom right of the tool.

Caution: Your Bookmarks **will** be saved for your next visit to the app, but only on the computer/device that you made them. If you routinely clear your browsers cookies, then your bookmarks will be lost as well.

Buffer Property

The Buffer Property tool allows you to specify a location on the map and analyze information from the Property Assessment Information layer within an area specified by you.

1. Click the **Buffer Property** button to open it. The tool displays at the bottom of the map.

When the tool opens, visibility is turned off for all map layers that have been configured as source layers for the tool. In this case it is the Property Assessment Information. The layers are made visible when used by the tool. When the tool is turned off, layer visibility is returned to its original state.
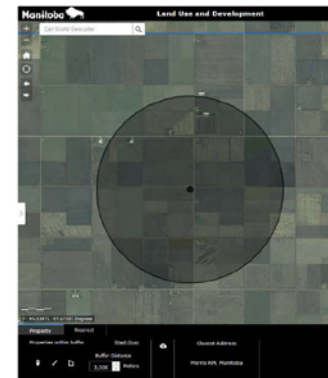
2. Define a location in one of the following ways:

Click an existing feature and choose **Set Location** in the feature's pop-up window.

OR

Use the drawing tools on the tool's **Property** tab to create a new location to analyze.

As an option, specify a buffer distance to the location.

3. Click the individual **Layer** tabs to view the analyzed information for specified layers. You can scroll the tool panel horizontally to view additional results.

As an option click **Download** ☁ to download analyzed data as a CSV (e.g., Microsoft Excel) file.

To clear the active location, click the **Start Over** option.

To close the tool, click the close button in the upper right corner of the tool.
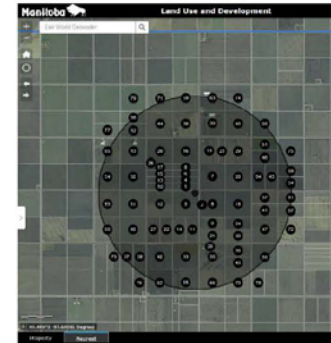
Export PDF

The Export PDF tool connects the web app with a printing service to allow the current map to be exported.

1. Click the print icon to open the Export PDF tool.

2. Type a title for the map in the **Map Title** text box.

3. Select the applicable **Layout** and **Format** for the exported map.

| A3	297 x 420 mm	11.7 x 16.5 in
A4	210 x 297 mm	8.3 x 11.7 in
ANSI A	216 × 279 mm	8.5 × 11 in
ANSI B	279 × 432 mm	11 × 17 in
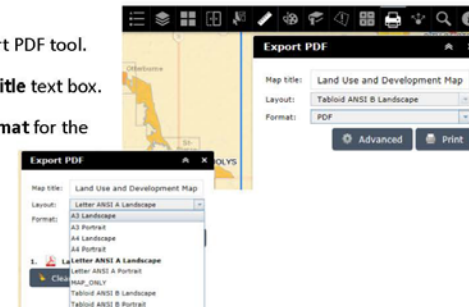
Note: The **MAP_ONLY** format prints only the map, omitting any marginal information from the output.

4. Click **Advanced** to open a menu with advanced print options.

The **Map scale/extent** section defines the method that the print service will use to calculate the printed extent of the map. Preserving **map scale** causes the printed map to maintain its scale while recalculating the extent around the existing centre point. Preserving **map extent** causes the scale to adjust to fit the current map extent onto the printed map. You can also force a specific scale by checking the **Force scale** option and providing a scale. Click **current** to populate the value with the present scale of the map.

The **Layout metadata** section allows you to override the default values set by the configuration. Enter values for the **Author** and **Copyright** properties to provide current information to the print service. Check the **Include legend** check box to display the legend on the printed map.
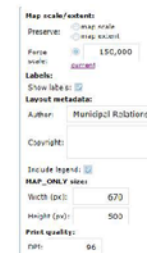
Location Tools

The location tools allow you to quickly switch between locations on the map.

- **Zoom In and Out** – Although you can use your mouse wheel (on a computer) or two fingers to pinch (on a mobile device), these buttons will zoom the map extent in and out.
- **Default Extent** – Pressing this button will zoom the map to the entire Southern Manitoba.
- **My Location** – Based on GPS (mobile) or HTML geolocation (computer) the app will detect your location, and centre the map on your position.
- **Previous/Next Extent** – Pressing these buttons will re-centre the map to locations that you previously visited in the current instance. If you zoom and pan around the map, you can go back to previous locations.

Note: The information clears itself if you reload the app.

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Search

There are a variety of ways to search:

- Roll number search
- Address or location name using ESRI search
- Bylaw Number search
- Zoom and pan

Roll Number Search

The Roll Number Search tool allows you to search for a specific assessment roll number in the map.

Click the Roll Number Search tool icon to open it. Enter a roll number, and select from which locality your roll is from.

In the example on the right, we chose roll 15000 from Glenella-Lansdowne. Using the mouse or the up/down arrows on your key pad, click or press enter to zoom to your selection. Press the Roll Number Search tool icon once more to hide the tool
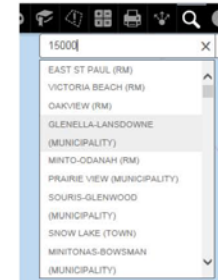
Location Search

The Location Search tool allows you to search for a location using the Esri World Geocoder. Searching within this tool is similar to searching in Google Earth. You can search by Address, Place name, Municipality name or even by Specific Place name such as Manitoba Legislative Building or Clear Lake Golf Course.

Bylaw Number

See below under the **Query Section**.

Zoom and Pan

If you don't want to search for a particular address, you can simply Zoom in and Pan around, using your mouse. The map will refresh the view automatically.

Query

The Query tools included in the app allow the user to ask specific questions of the data. The results of these questions become features in the map that can be exported for further analysis or recoloured for an exported PDF map.
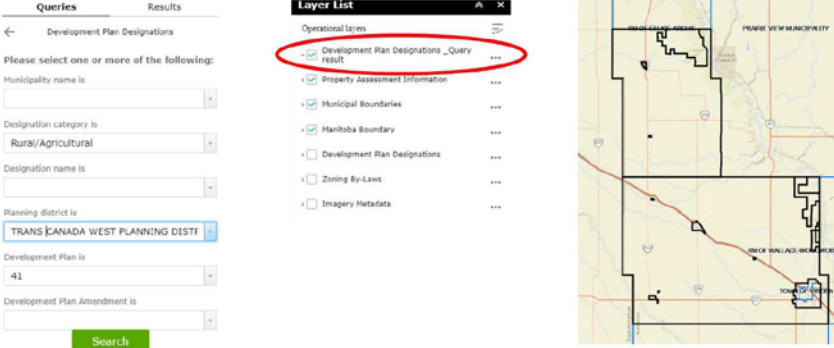
Once a query is performed, it becomes part of the map for the duration of your visit to the App page. The query will be erased once you leave the page or reload your browser.

Each of the five types of query have sub menus that allow you to ask simple or very complex questions. Here a few examples of the types of questions you can ask:

A) **Designation/Zone Category Query** - See all of the Rural/Agricultural Designations for an entire Planning District (e.g., Trans Canada West Planning District).
The result of the query will be shown in a thick black outline, and is visible in the legend for easy turning on and off.
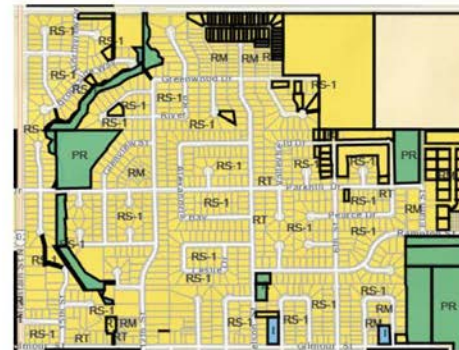
B) **Specific Zone Query** – See all of the Residential Single-family zones in a community (e.g., the City of Steinbach):
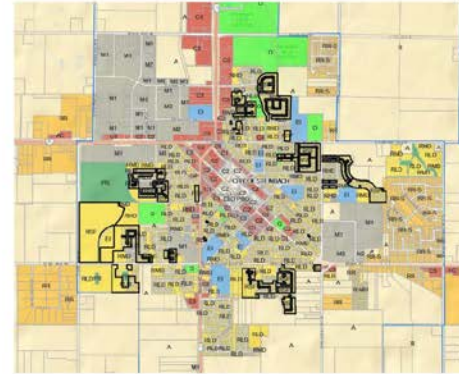
C) **Vacancy (residential land supply - no dwellings)** – See all of the properties that do not have a dwelling (e.g. in the City of Morden). Any properties that fall within the yellow Residential category can be inferred to vacant.

Help

For further information, please visit *http://www.gov.mb.ca/mr/land_use_dev*

or email *landuse@gov.mb.ca*.

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