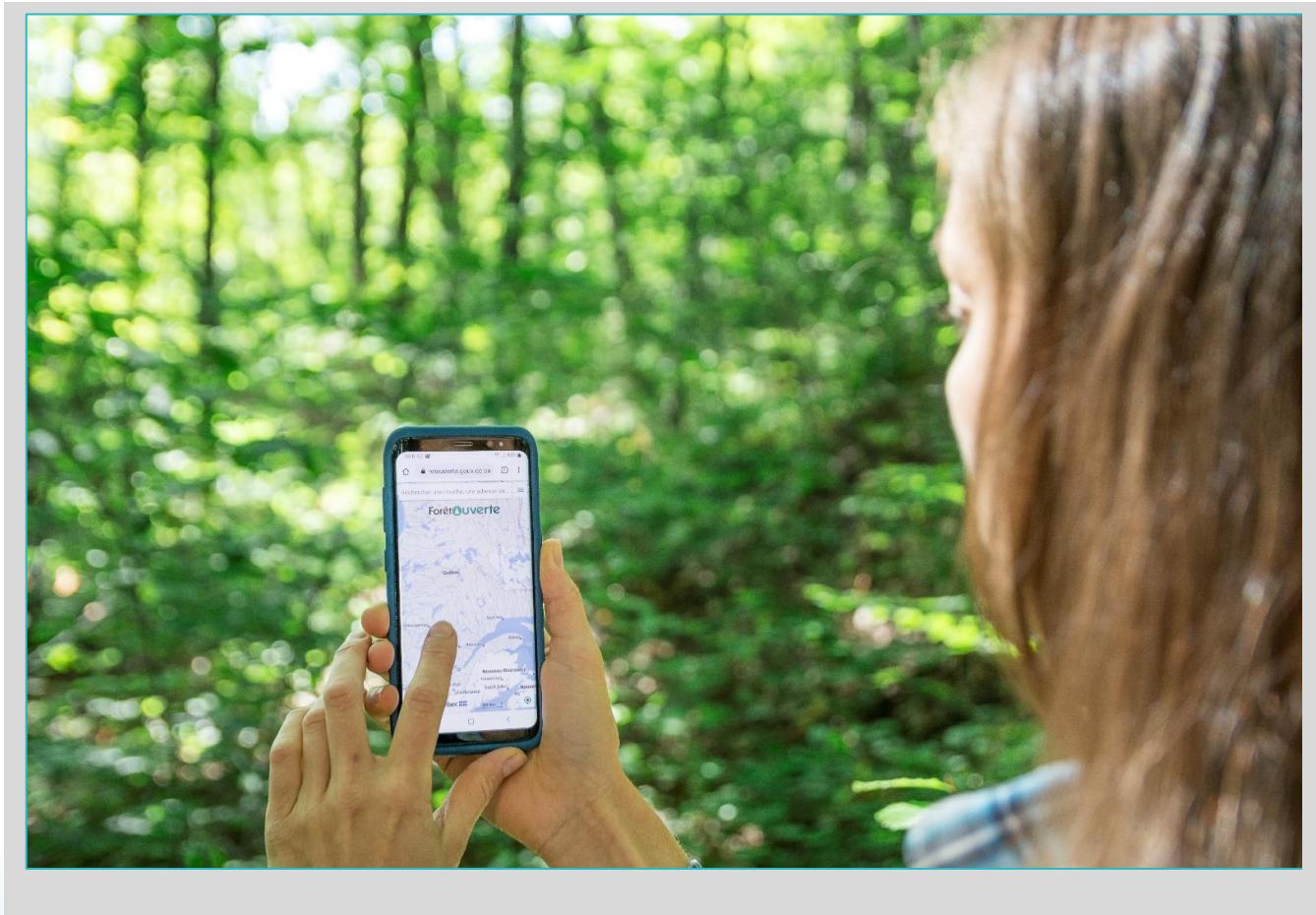


# Forêt Ouverte User Guide

December 2024

MINISTÈRE DES RESSOURCES NATURELLES ET DES FORÊTS



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## Introduction

In 2017, the Ministry committed to providing free and up-to-date data to its external clients. This open data initiative is part of Québec's commitment to be an open government, with the objective of promoting transparency and accessibility to data. The interactive Web map of ecoforest data of the Direction des inventaires forestiers (DIF) facilitates access to free data and makes it possible to explore this data without having to use specialized geomatics software.

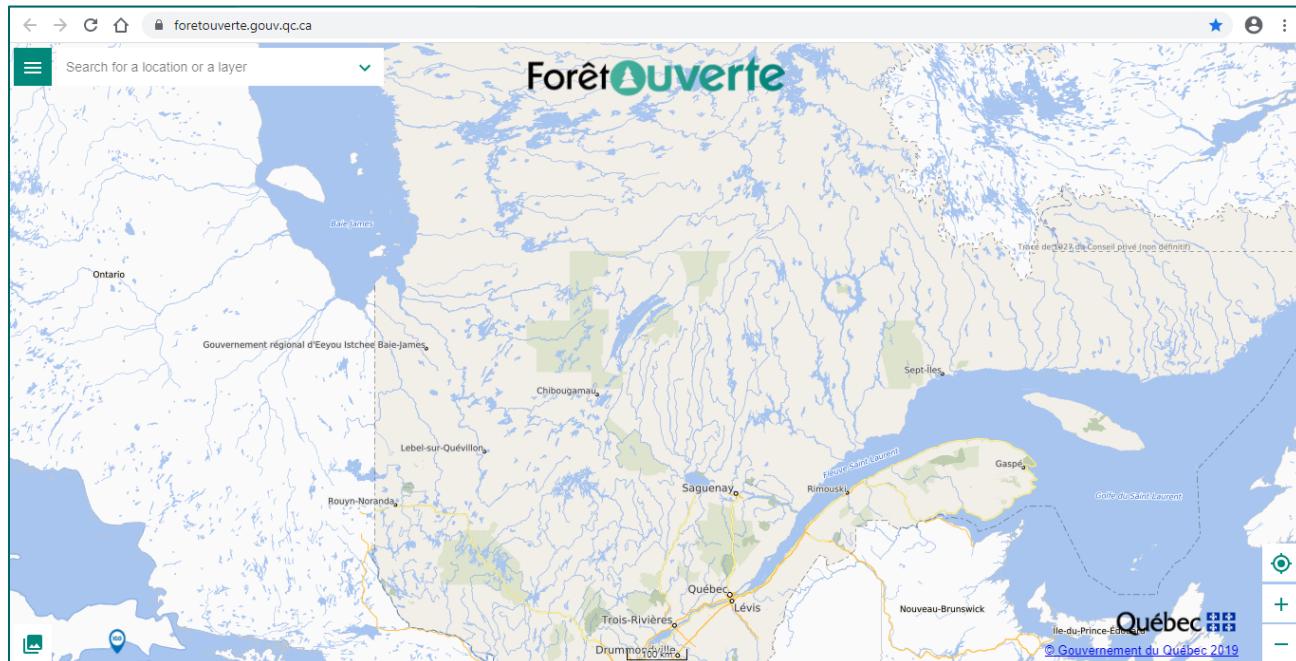
In April 2019, the interactive Web map of ecoforest data produced by the DIF became *Forêt ouverte*. This new name better represents the interactive map's content.

In April 2020, the Web map service of the “Subdivisions territoriales forestières (STF)” was added to *Forêt ouverte* following a partnership with the Direction de la gestion intégrée de l'information et des orientations (DGIO). In July 2021, wildlife data were added to *Forêt ouverte* following a distribution agreement with the fauna sector of the MFFP.

*Forêt ouverte* is supported by version 2.0 of the [Open GIS infrastructure](#) (IGO2), an open geomatics Web solution which respects open geomatics international standards. IGO2 was recognized as the first open Web solution of Québec's public administration. Based on collaborative development, IGO2 is constantly improved for the benefit of its users. A new version already exists as of December 2019, allowing for an improved visual experience, and new functions have been added regularly.

To access *Forêt ouverte*: <https://www.foretoouverte.gouv.qc.ca>

Click on the image below to watch a short [tutorial](#), which will help you understand the basics of the interactive map and greatly improve your first use of *Forêt ouverte*.



# Interactive Tours

An interactive tour of *Forêt ouverte* is available to quickly discover the different features of the interactive map.

Access the interactive tour via: (1) the home page, (2) the “Help” tab or (3) the shortcut button in the main menu.

**Forêt ouverte**

Do not show again

**Welcome to *Forêt ouverte***

Interactive map of ecoforest data... and much more!

To start your navigation:

- ☰ Open the Menu
- ★ Select a Map theme
- ⌚ Display layers
- ❓ Refer to the Help tab if needed

Contact us:  
[foret.ouverte@mrnf.gouv.qc.ca](mailto:foret.ouverte@mrnf.gouv.qc.ca)

Survey:  
[Help us to improve Forêt ouverte](#) (French only)

Stay tuned:  
[Newsletter subscription](#) (French only)

Tutorial:  
[First use](#)

Use Google Chrome for an optimal performance

**Discover Forêt ouverte**

**Close**

Search for a location or a layer

Help

**Discover Forêt ouverte**

**Forêt Ouverte**

Interactive map of ecoforest data... and much more!

The interactive map *Forêt ouverte* allows you to view, query and download a wide range of forest, territorial and wildlife data, without the need for specialized geomatics software.

**First use:**

- Interactive tour: click on the [Discover Forêt ouverte](#) button above
- [Features overview](#)
- [Tutorial: First use](#)
- [Tutorial: Map display options](#) (French only)
- [Tutorial: Search options](#) (French only)
- [User's guide](#)

Search for a location or a layer

**Forêt ouverte**

Help

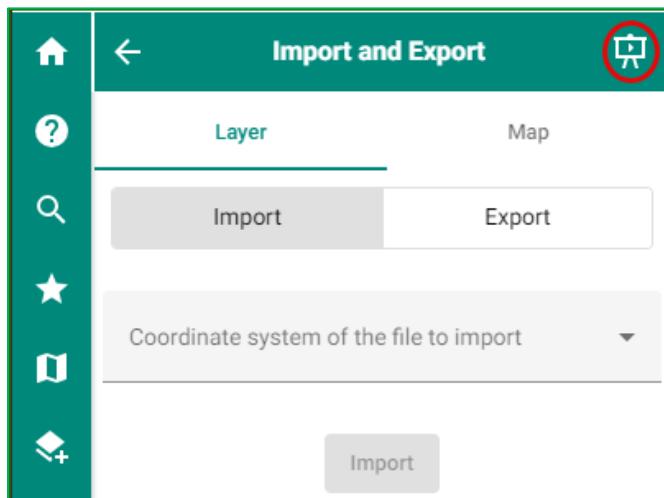
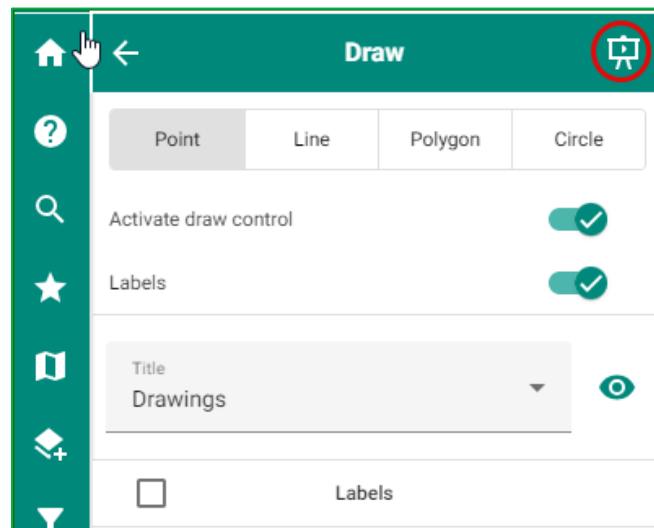
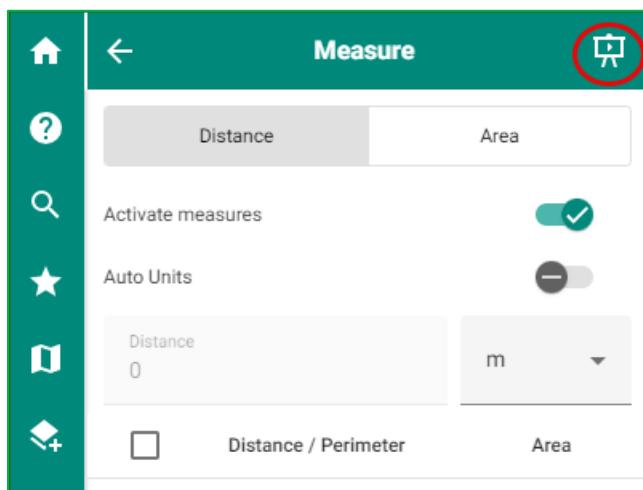
Search Results

Map Themes

Map

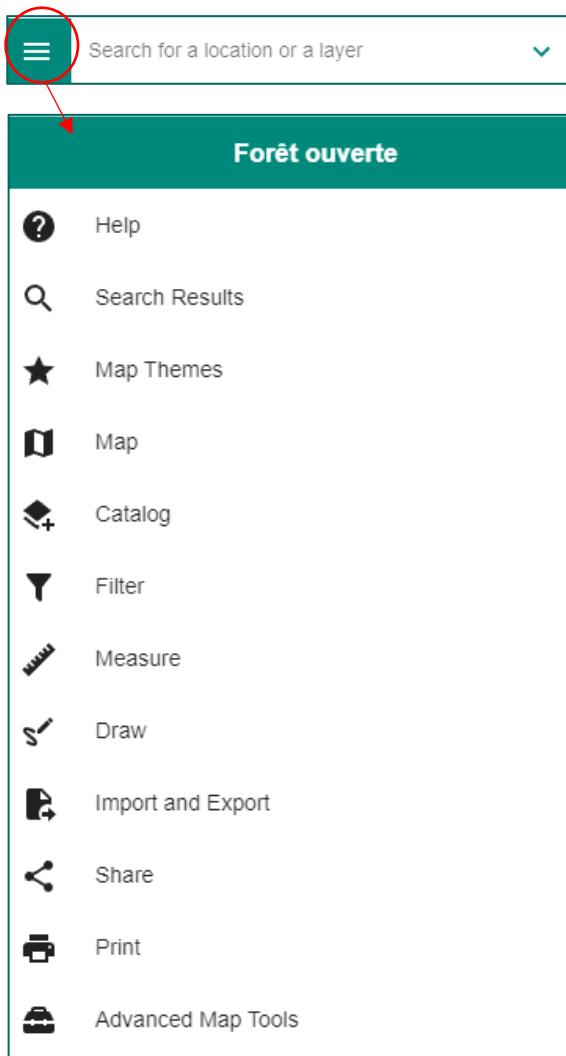
Catalog

Specific interactive tours are also available for the “Measure”, “Draw”, and “Import and Export” features.



# Main Menu Features

Click on the Main Menu icon in the upper left corner of the interactive map to access all menu features.



## ② Help

A brief description of all the features of the interactive map is found in the “Help” section, as well as a list of the different resources available to facilitate the use of *Forêt ouverte*.

For example, you will find:

- 1) A section with the most useful links for new users, notably the interactive tour, several [tutorials](#) and the [user guide](#);
- 2) A section with the [email address](#) to contact the *Forêt ouverte* team for any questions, comments or technical issues, a link to a [survey](#) to help us improve *Forêt ouverte*, as well as the link to [subscribe to the newsletter](#);
- 3) A section on how to download data, including a [tutorial](#) and a [guide](#);
- 4) A section on web map services (WMS) and a list of web map services URLs available in *Forêt ouverte*, as well as including a [tutorial](#) and [guide](#) on how to use these services.

---

### First use:

- Interactive tour: click on the **Discover Forêt ouverte** button above
  - [Features overview](#)
  - [Tutorial: First use](#)
  - [Tutorial: Map display options](#) (French only)
  - [Tutorial: Search options](#) (French only)
  - [User's guide](#)
- 

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### Informations, comments or technical issues:

Contact us:  
[foret.ouverte@mnrnf.gouv.qc.ca](mailto:foret.ouverte@mnrnf.gouv.qc.ca)

Survey:  
[Help us to improve Forêt ouverte](#) (French only)

Stay tuned:  
[Newsletter subscription](#) (French only)

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### Data download:

- [Tutorial: Data download](#) (French only)
- [Download guide](#) (French only)

Choose the “Téléchargement” Map theme. Display the download layer of the desired product by clicking on the eye (it should be green). Click directly on the map to display the available products for a given territory (map sheet or other). Click on the “ACCÉDER” button to launch the download.

To download several files at once, use an FTP client (FileZilla, Cyberduck, etc.) to access the following server (copy the URL):

<ftp://transfert.mffp.gouv.qc.ca/>

---

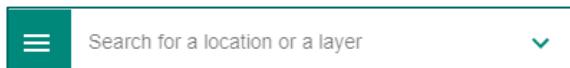
### Web Map Services:

A web map service can be used to visualize and even query a map dataset in a geographic information system (GIS) without having to download the data.

- [Tutorial: Use a Web Map Service in QGIS and ArcMap](#) (French only)
  - [Web Map Service Procedure](#) (French only)
  - [Web Map Services URLs](#)
-

# Search Results and Positioning

In the top left corner of the interface, the “Search” bar allows you to search for an address, a location, a lot number, GPS coordinates or a map sheet. This tool can also be used to search for a layer.



## SEARCH FOR A LOCATION

First, type the location in the “Search” bar, for example, “Québec”. The search results are displayed underneath. Different icons are used to distinguish the type of search results (e.g., a city, a lake, a mountain), found via the “iCherche” search engine. Click on “Display more results” if you do not see what you are looking for.

To cancel a search, click on the x at the right of the search bar. This also removes the turquoise selection that appears when clicking on one of the “iCherche” search results.

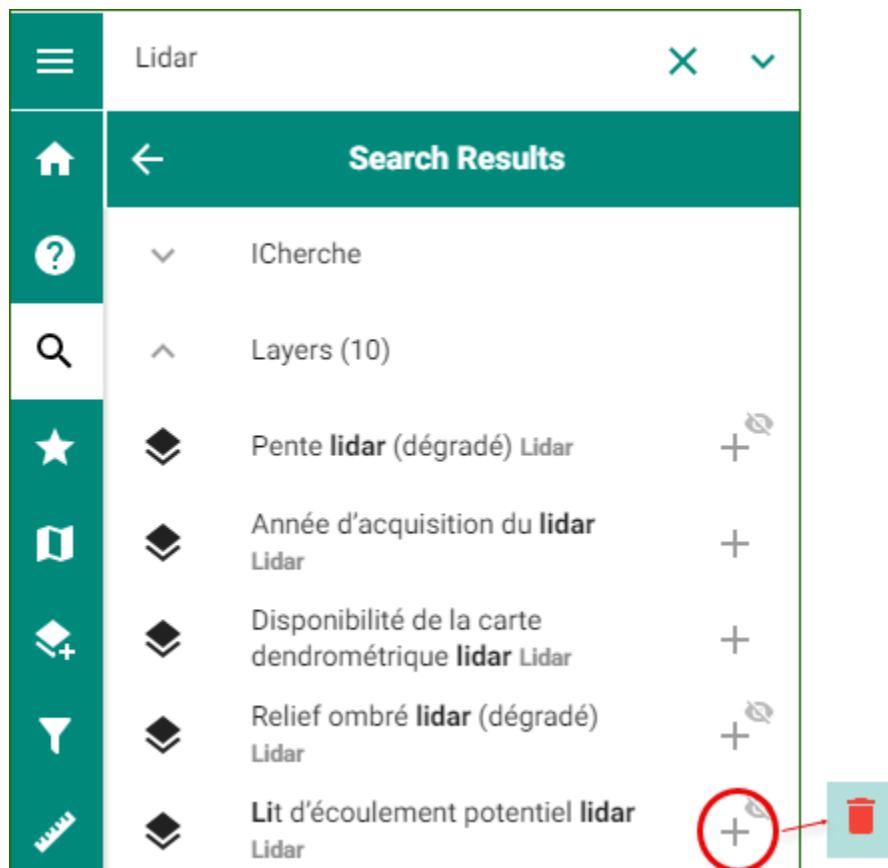
A screenshot of the Forêt ouverte interface. On the left is a sidebar with various icons: a menu, a house, a question mark, a magnifying glass, a star, a flag, a diamond, a pencil, and a location pin. The search bar at the top contains the text "Québec". Below the search bar is a green header bar with the text "Search Results". Underneath is a list of search results from "iCherche" (5). The first result, "Québec Capitale-Nationale Ville", is highlighted with a teal background and has a teal border around its text. Other results include "Venise-en-Québec Montérégie Municipalité", "Vieux-Québec–Basse-Ville Québec Quartier", "Vieux-Québec–Basse-Ville Québec Quartier", and "Québec MRC". At the bottom of the sidebar is a blue link "Display more results". To the right is a map of the Québec area, showing roads like 175, 369, 573, 138, 540, 40, 440, and 275, and locations like Stoneham-et-Tewkesbury, Sainte-Brigitte-de-Laval, Lac-Beaupré, Lac-Saint-Charles, Boischatel, L'A, Château, and Levis. Red arrows point from the text "Display more results" and the "x" icon in the search bar towards their respective counterparts in the screenshot.

## SEARCH FOR A LAYER

Type the name of a layer or a keyword in the “Search” bar, for example “Lidar”. The layer search results are displayed in the “Layers” section. You can mask a search result category, for example “iCherche”, by clicking on the arrow to the left of this category.

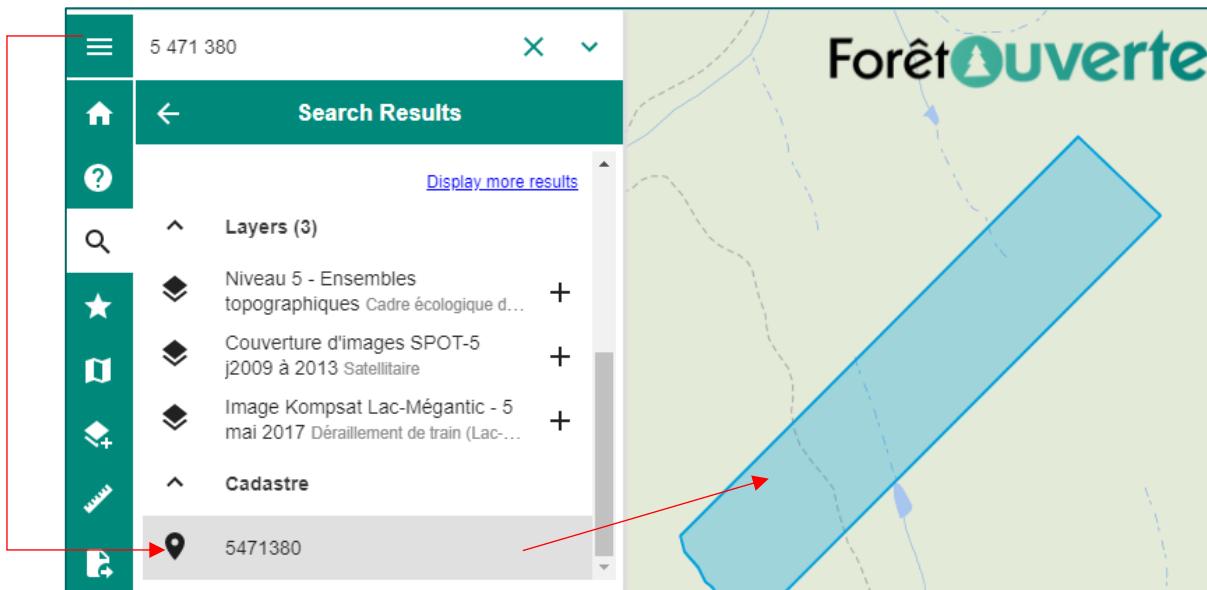
To add a layer from the search results, click the “+” beside the layer name. The icon changes into a red garbage bin to show that the layer has been added to “Map”.

A small grey eye above the red garbage bin indicates that the current display scale is too small to see the layer. Simply zoom in and the layer will appear when the eye becomes green. Click on the Map feature to see the display options or refer to the [Zoom and Layer Display Scales](#) section of this guide.



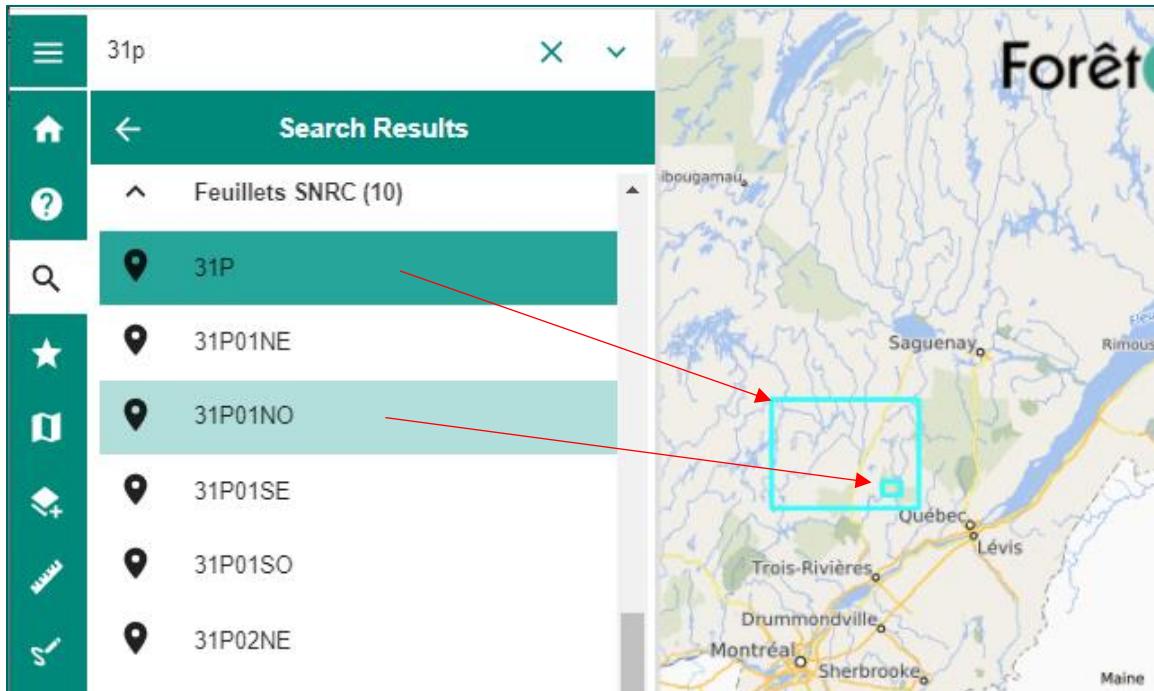
## SEARCH BY LOT NUMBER

Type the lot number in the “Search” bar, for example “5 471 380”. Click on the result found under “Cadastre”.



## FIND AN NTS MAP SHEET

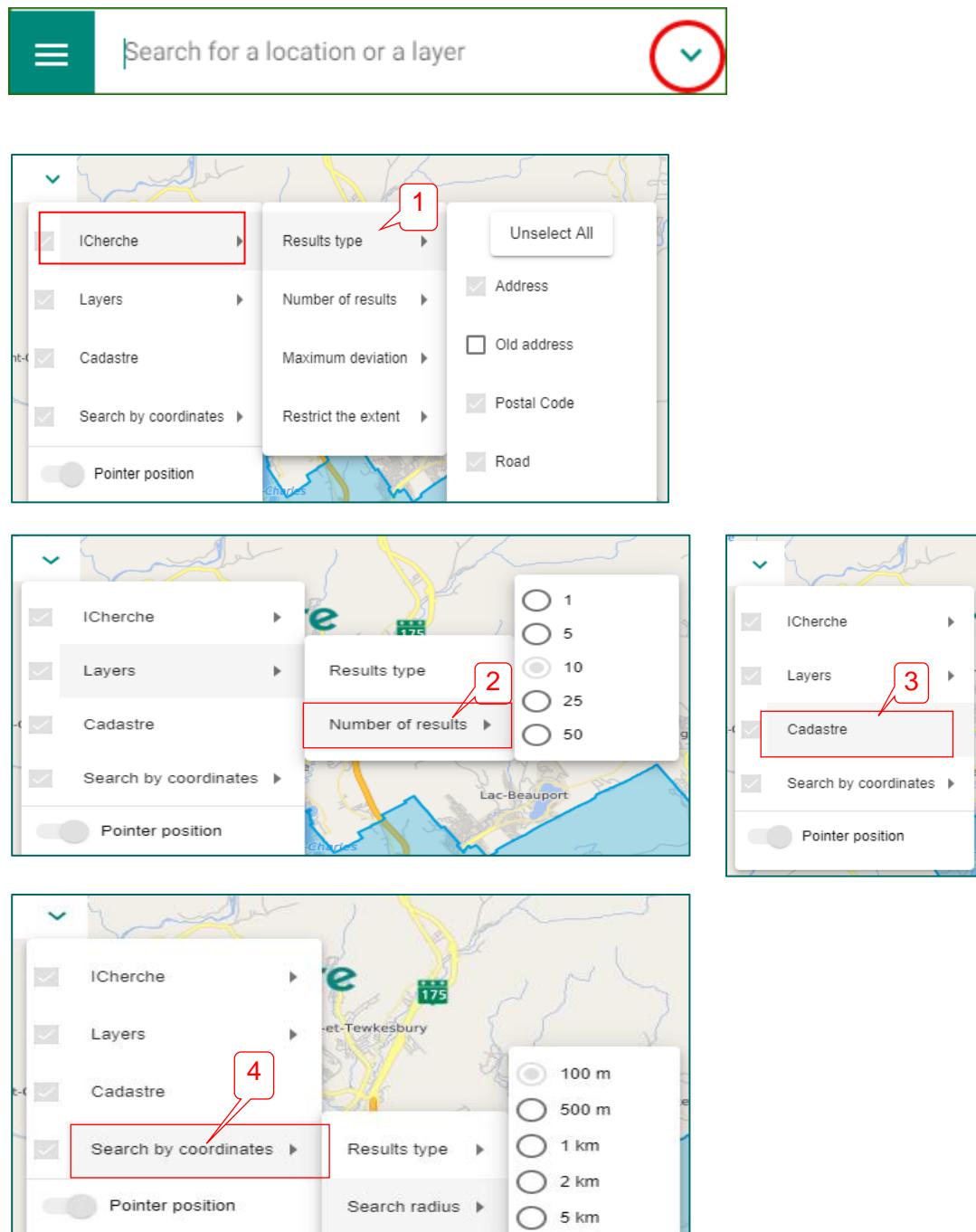
You can search for a specific 1:250,000 or 1:20,000 NTS map sheet.



## PERSONALIZE SEARCH RESULTS

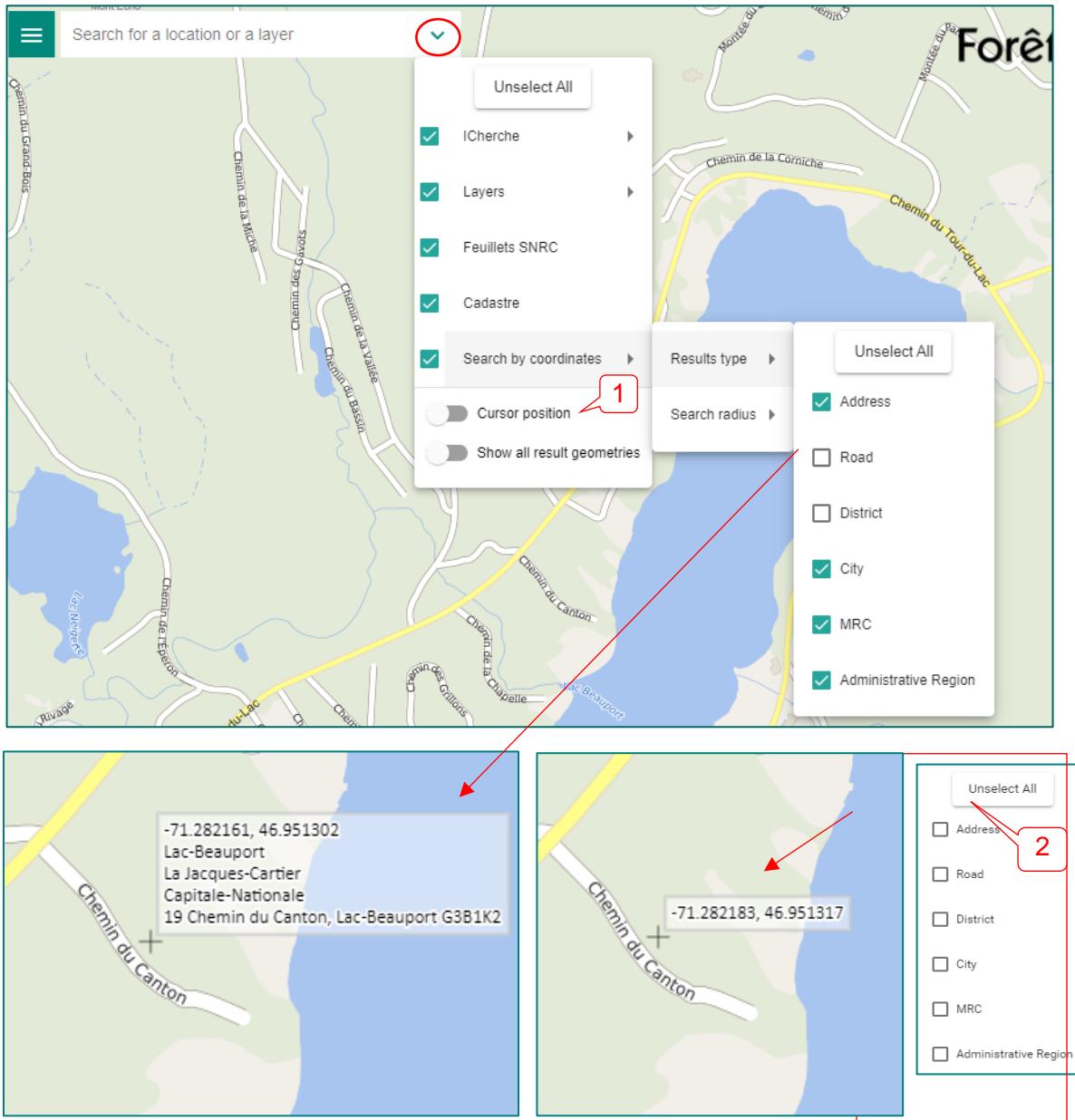
You can personalize your search results by clicking on the arrow to the right of the Search bar and selecting the desired type and quantity of results.

For example, you can: (1) select the type of results you want from the “iCherche” search engine; (2) select the number of results shown for the layers; (3) deselect the lot number (cadastre) or map sheet search option (not illustrated); (4) select the search radius for the search by coordinates.



## CURSOR POSITION OPTION

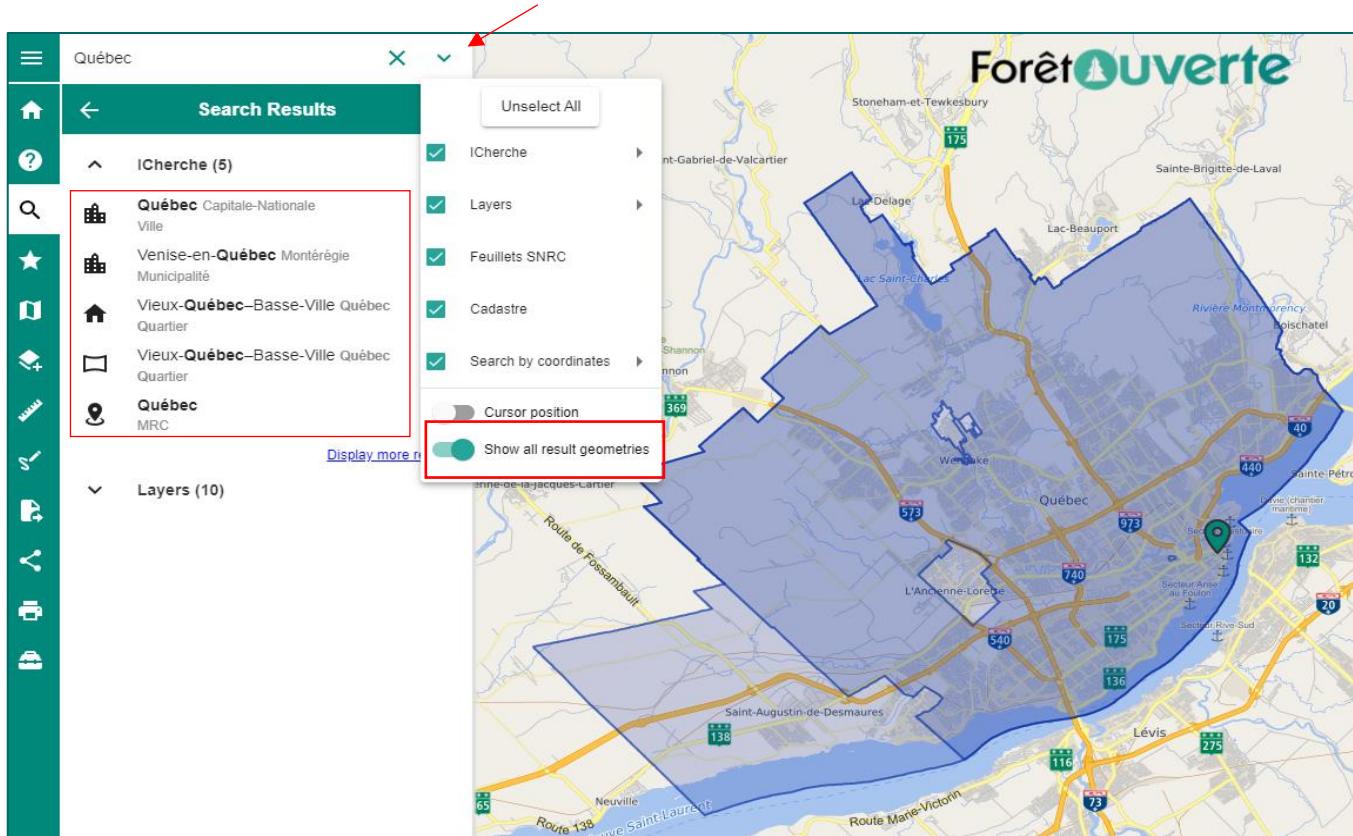
By clicking on the arrow to the right of the search box, you can also activate an option that displays the coordinates and information related to the selected search result types near the mouse pointer during a coordinate search. Simply slide the button for this option to the right to activate it.



**Tip:** Use the **F2** key to activate/deactivate the cursor position option.

## OPTION TO DISPLAY SEARCH RESULT GEOMETRIES

An option allows to display the geometries of all the search results of the “iCherche” search engine. This option is disabled by default. Simply click on the arrow to the right of the search bar to access the search options and slide the button to the right to activate it (“Show all result geometries”).



## SEARCH BY COORDINATES

A search by GPS coordinates can be done using various formats, for example in a decimal degree format, in WGS84 projection format (EPSG: 4326) (e.g., 47.001835, -71.317186), or a degrees, minutes, seconds format (e.g., 47°00'06.6"N 71°19'01.9"W).

The screenshot shows the search interface for coordinates 47.001835, -71.317186. The search results list shows the coordinates themselves as the top result. The map on the right displays a location near Lac Bonnet and Lac Bleu.

Search Results

- Coordinates
- 71.317186, 47.001835
- Search by coordinates (3)
- Lac-Beauport City
- La Jacques-Cartier MRC
- Capitale-Nationale Administrative Region

Map showing Lac Bonnet and Lac Bleu.

The screenshot shows the search interface for coordinates 47°00'06.6"N 71°19'01.9"W. The search results list shows the coordinates themselves as the top result. The map on the right displays a location near Lac Bonnet and Lac Bleu.

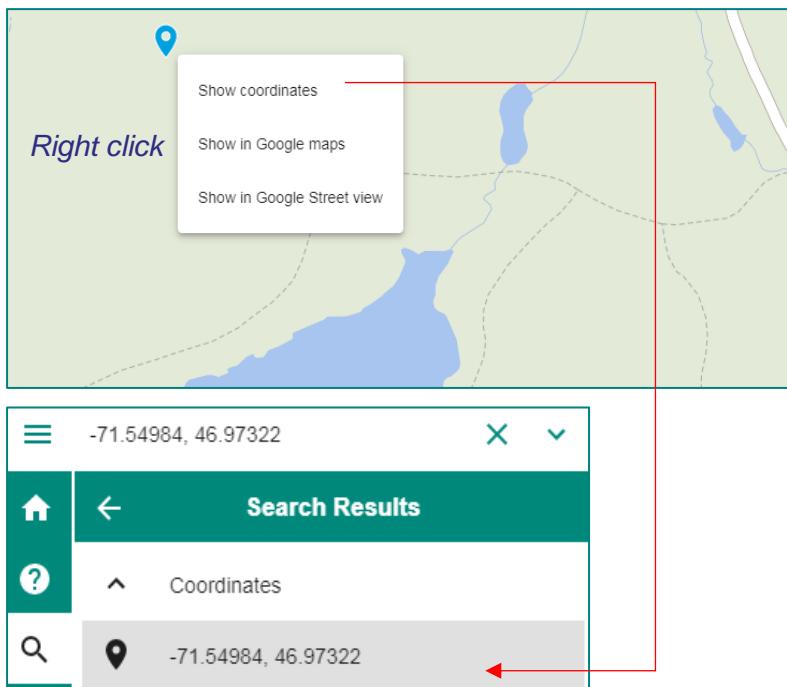
Search Results

- Coordinates
- 71.317194, 47.001833
- Search by coordinates (3)
- Lac-Beauport City
- La Jacques-Cartier MRC
- Capitale-Nationale Administrative Region

Map showing Lac Bonnet and Lac Bleu.

## IDENTIFY THE COORDINATES OF A MAP POINT

In order to identify the coordinates of a desired point on the map, right-click on the desired point and select “Show coordinates”, which will appear in the search results window. The selected point can also be displayed in Google Maps or Google Street View. When using a mobile device, simply touch and hold the screen to access this option.



**Tip:** Copy the coordinates of a point for later use with the [Search by Coordinates](#) option. You can also save the display scale when sharing the map. Refer to the [Share](#) section to learn more.

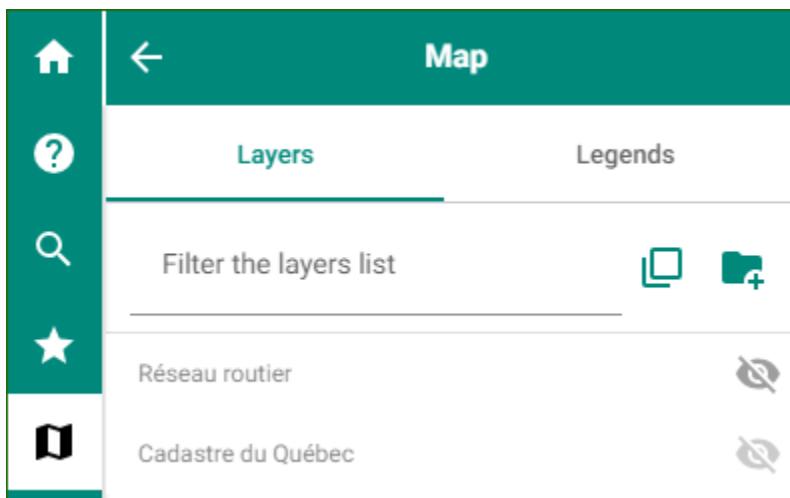
## GEOLOCATION

You can find your current location using the geolocation tool found at the bottom right of the screen. This option allows you to center the map on your current location. Click a second time on the tool to deactivate the geolocation. See the [Geolocation Tool](#) section for more information.

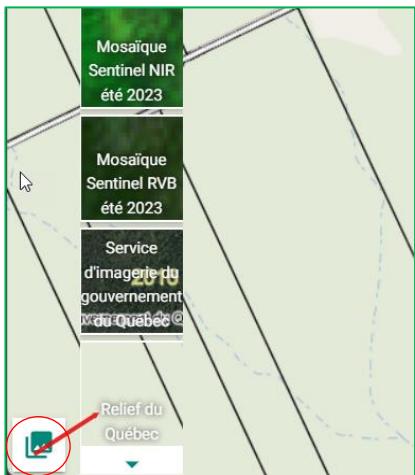


## Map

The “Map” feature is the heart of *Forêt ouverte*. It allows you to add, delete or query layers as well as to download data. Layers can be added using “Catalog”, the “Search” bar, or by choosing a theme in the “Map themes” feature.



A shortcut at the bottom left of the screen allows you to quickly switch between the basemaps available in the selected map theme.



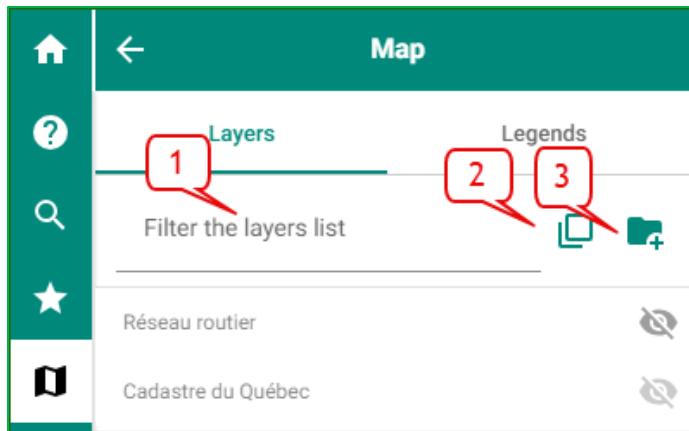
## OPTIONS FOR MULTIPLE LAYERS

1. Search for layers within the “Map”.

2. Activate the multiple selection mode.

The multiple selection mode can be used to apply layer options to multiple layers at once: change the order, modify the visibility of layers, or delete multiple layers.

3. Create a layer group.



## LAYER OPTIONS

1. Layer name.
2. Display or hide the legend by clicking on the name of the layer. The legend appears by default when the layer is visible (green eye).
3. Display or hide the layer. The layer is visible when the eye is green.
4. Additional options for the layer

When you click on “...”, a new window appears below the list of layers in “Map”, showing the options available for this layer.

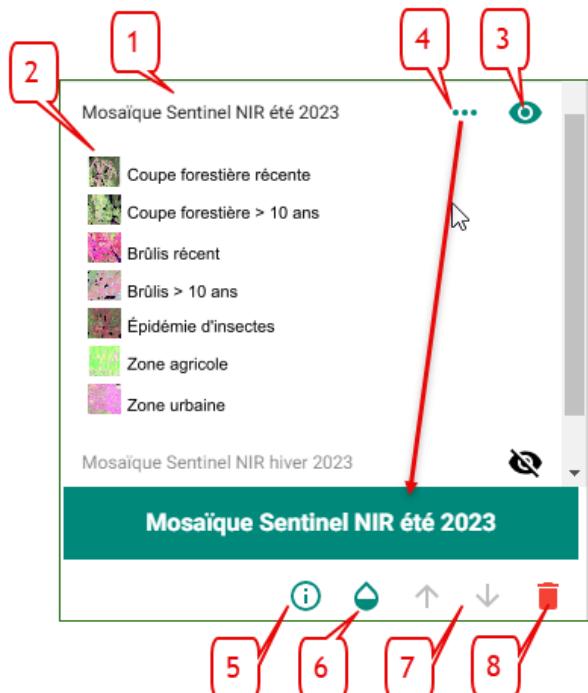
5. Consult the Données Québec data factsheet.
6. Change the transparency of the layer.
7. Change the order of the layers.

**Note 1:** you cannot move layers defined as a basemap layer.

**Note 2:** the drag-and-drop function is available. This feature allows you to select a layer and move it to another location in the list using your mouse.

8. Remove the layer from the “Map”.

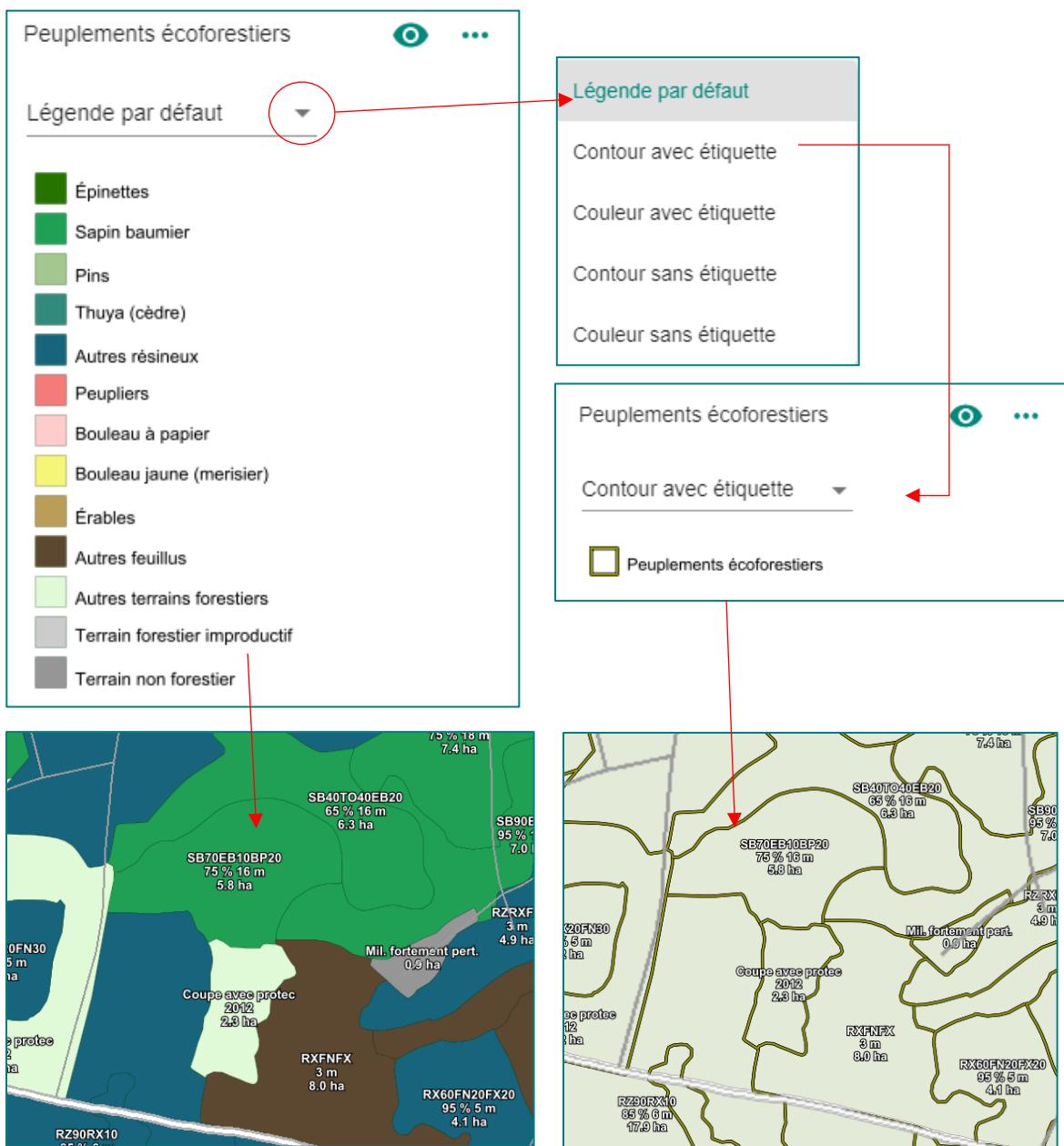
**Note:** you cannot remove layers defined as basemap layer.



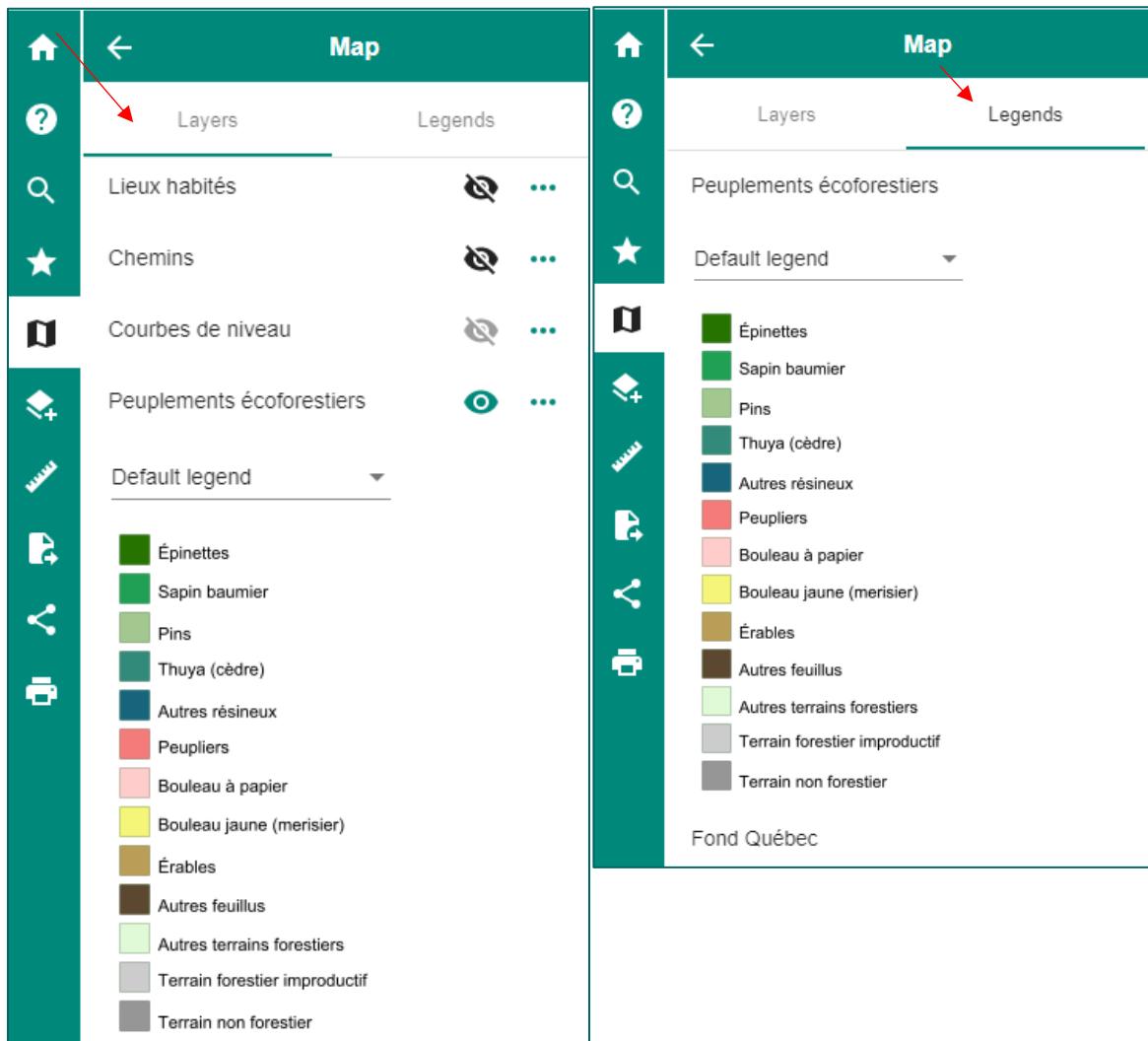
## LEGEND OPTIONS

By default, the legend appears when the layer is active (green eye). Click on the name of the layer to display its legend if it is hidden. Click on the name of the layer once again to hide the legend if needed.

Certain layers have several legend options. You can choose the legend option that best suits your needs. Click on the arrow to the right of the legend to access the drop-down menu with the layer's available legend options.



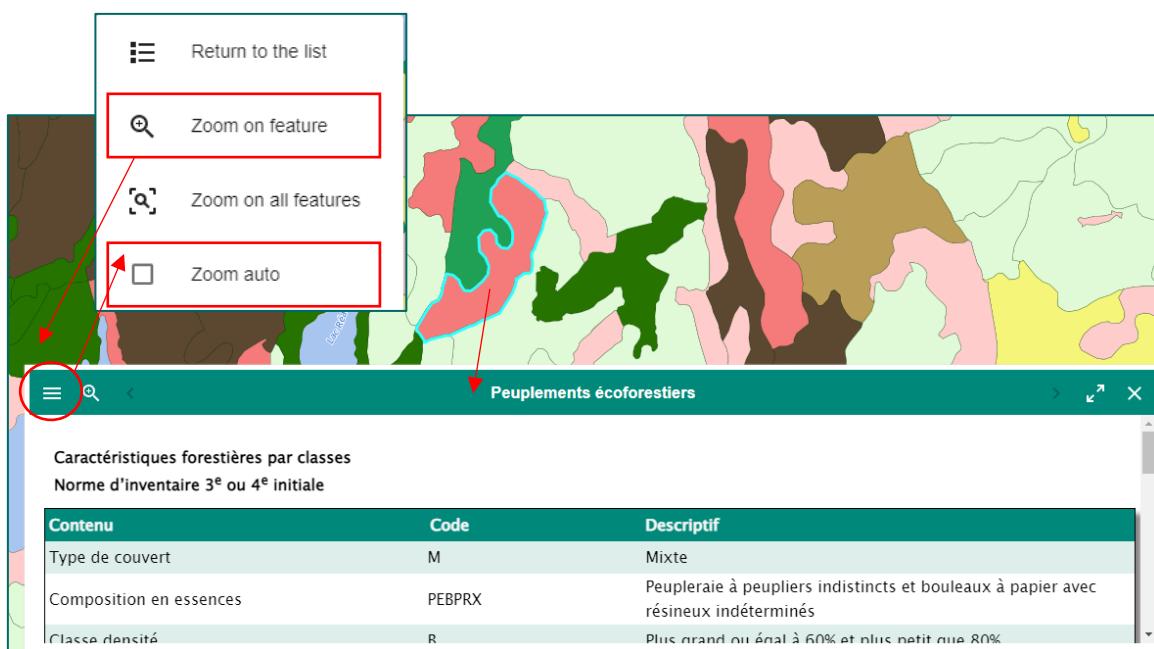
You can choose between the “Layers” and “Legends” tabs above the list of layers in the “Map” feature. The “Layers” tab is where you can see all layer options, whereas the “Legends” tab shows only the legends of active layers (green eye).



## QUERY A LAYER: DESCRIPTIVE WINDOW OF A LAYER'S FEATURES

When viewing a layer, you can obtain additional information on a layer's features if this information is available. Simply click on the desired feature of a layer to open its descriptive window. For example, if you are viewing the “Peuplements écoforestiers” layer and you click on a forest stand, a new window will appear presenting a detailed description of that stand.

The  icon at the top left of the window allows you to select different zoom options for the selected feature. The “Zoom on feature” function allows to adjust the map scale to the selected feature. A shortcut to this option is available in the window’s header, to the right of the  icon. Activating the “Zoom auto” function will automatically zoom on features as soon as they are selected.



## ENLARGE, REDUCE, HIDE OR CLOSE THE DESCRIPTIVE WINDOW OF A LAYER'S FEATURES

An arrow icon to the right of the window title allows you to enlarge or reduce it for easier consultation. The window is completely minimized when you click on the title directly. Just click on the title again to enlarge it. The “x” icon closes the window.



## QUERY OVERLAPPING LAYERS

When several layers overlap, select the icon next to the layer you wish to query—in this case the “Peuplements écoforestiers” layer—to open the descriptive window associated to the selected stand. You can consult the attributes of the other overlapping layers by using (1) the arrows to the left and right of the window title, or (2) by returning to the list of selected layers by clicking on the icon at the top left of the window and then on “Return to the list”. The “Zoom on all features” function adjusts the map's scale to show all the selected features (3).

**Entities found on the map**

- Peuplements écoforestiers
- Peuplements écoforestiers
- Pentes LiDAR (dégradé)
- Pentes LiDAR (dégradé)

**Peuplements écoforestiers**

| Contenu                 | Code   | Descriptif  |
|-------------------------|--------|---|
| Type de couvert         | M      | Mixte   |
| Composition en essences | BPPBSB | Bouleau à papier, bouleau à papier et sapin baumier |
| Classe densité          | B      | Plus grand ou égal à 60% et plus petit que 80%      |

Return to the list

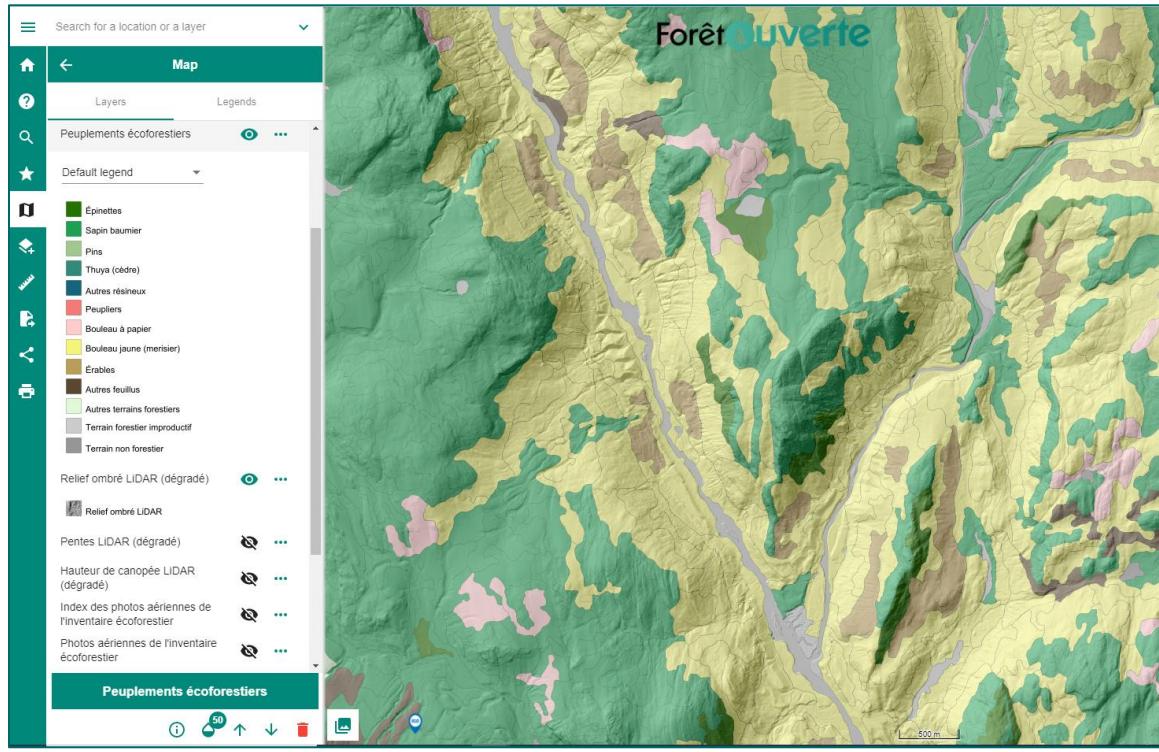
Zoom on feature

Zoom on all features

Zoom auto

## MAP PROJECT EXAMPLE

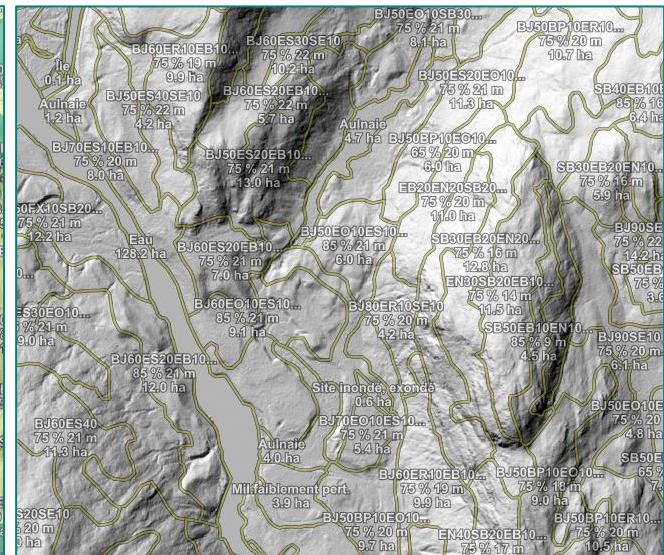
The “Peuplement écoforestier” layer with 50% transparency overlapping the “Relief ombré lidar” layer.



Legend: “Colour with labels”



Legend: “Contour with labels”



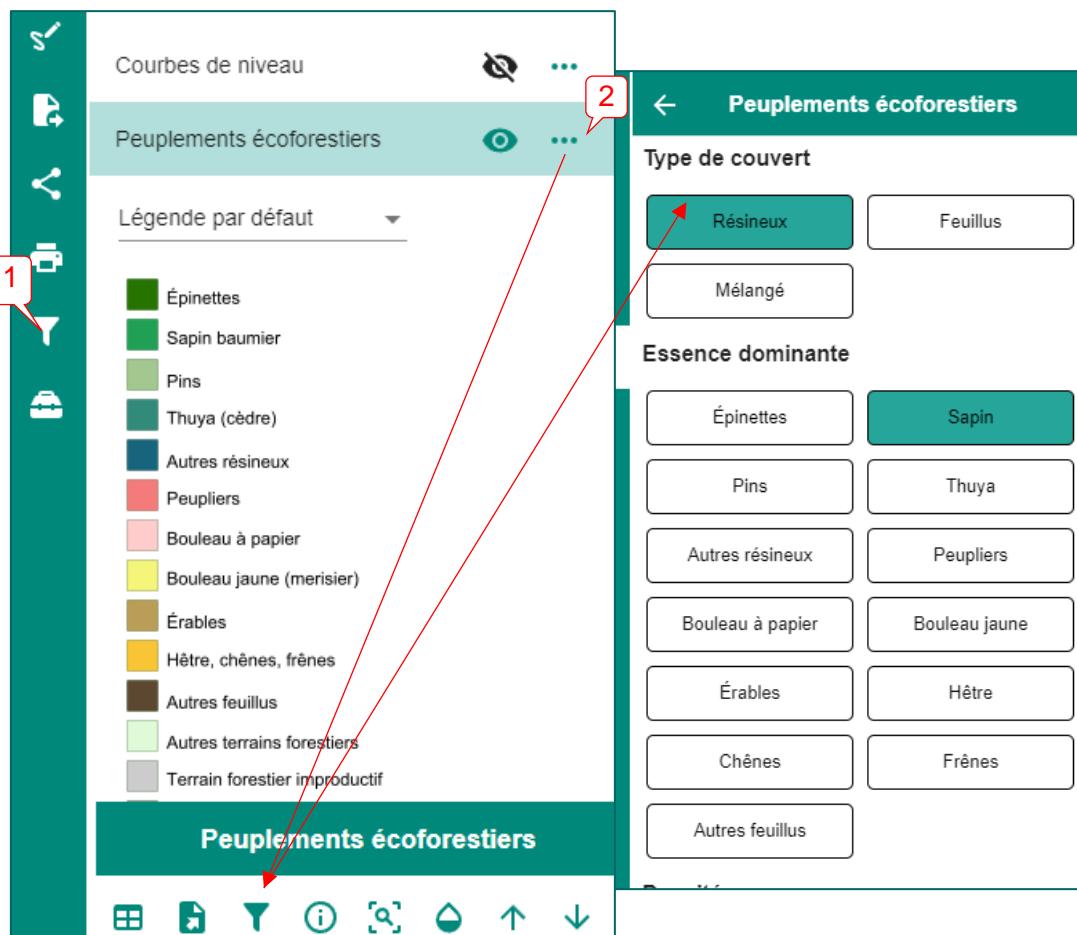
## Filter

The time filter is integrated to the attribute filter. The filter function allows you to select, using buttons or dates, the elements to be displayed in a layer based on certain attributes. The filter is only available for certain layers, such as “Peuplements écoforestiers”, “Perturbations naturelles et anthropiques”, “Pentes numériques”, “Dépôts de surfaces de la carte écoforestière” and some other layers of the “Classification écologique” group.

There are two ways to access the filter:

- 1) In the main menu, click on the “Filter” tab. This option makes it possible to view all the layers that can be filtered within the selected map theme. However, some layers may not be filterable, depending on the selected map theme.
- 2) Click on “...” to the right of the layer name to open the layer options window, then click on the filter icon.

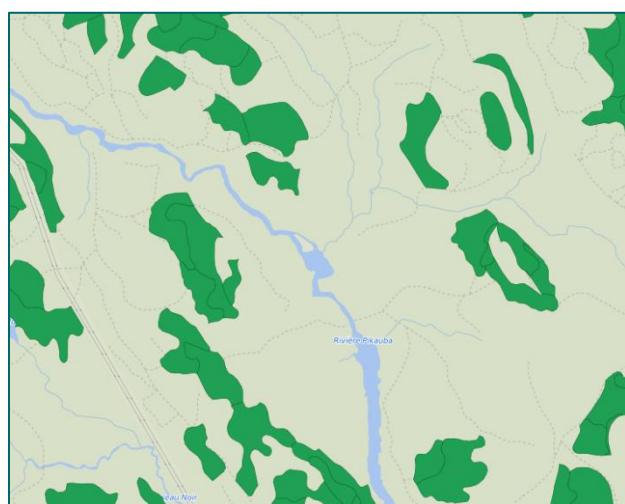
Click on the different buttons to filter the layer. In the example below, the layer will only show **conifer (résineux)** stands that are dominated by **fir (sapin)**.



Map without filter



Map with filter



**Warning:** the filter is only available for certain layers that are already in a map theme. If the layer is added using the catalog or search bar, the filter may not be available.

When accessing the filter from the main menu, the layers' legends can be viewed simply by clicking on the name of a layer, without going back to the "Map" tab. The crossed-out eye indicates that the layer is not visible in the "Map".

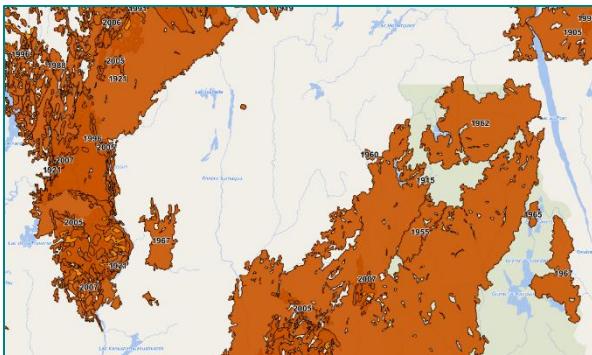
| Layer  | Status              |
|--|---------------------|
| Contrainte de solidité du sol                        | Visible (green eye) |
| Contrainte de rugosité                               | Visible (green eye) |
| Contrainte d'orniérage                               | Visible (green eye) |
| Contrainte d'érosion du sol                          | Visible (green eye) |
| Contrainte d'appauvrissement des sols par la récolte | Visible (green eye) |
| Pentes numériques                                    | Visible (green eye) |
| Peuplements écoforestiers                            | Visible (green eye) |
| Dépôts de surface de la carte écoforestière          | Visible (green eye) |

The filter can also be used to define a time lapse on the layer you wish to display. This feature is only available for the "perturbations naturelles et anthropiques" layers, available in the "Perturbations de la forêt" map theme. The "Chasse et piégeage" map theme also contains a layer that can be filtered by year.

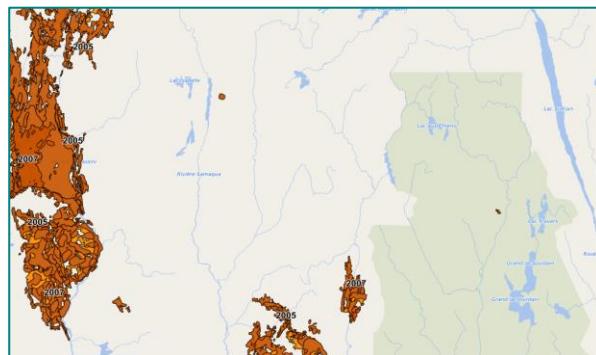
First, choose the desired time lapse (1), such as the forest fires that occurred between 2000 and 2017. The circular arrow icon (2) can be used to reset the filter to default values. The filter can also be deactivated or reactivated using the slider (3), which can be useful to visually compare results in the map. (4) A red number in the layer options window indicates that a filter is applied to the layer.



Map without filter



Map with filter



**Tip:** To visualize different types of disturbances in non-consecutive years, annual layers are available in the “Données écoforestières” catalog. Refer to the [Catalog](#) section for more information.

| Layer Type   | Description | Action |
|--|-------------|--------|
| Perturbations naturelles et anthropiques             |             | +      |
| Récolte et autres interventions sylvicoles annuelles |             | +      |
| Feux de forêt annuels                                |             | +      |
| Feux de forêt (empreinte)                            | (i) +       |        |
| Feux de forêt (échelle rapprochée)                   | (i) +       |        |
| Feux de forêt anciens (avant 1976)                   | (i) +       |        |
| Feux de forêt 1976                                   | (i) +       |        |
| Feux de forêt 1977                                   | (i) +       |        |
| Feux de forêt 1978                                   | (i) +       |        |
| Feux de forêt 1979                                   | (i) +       |        |

## ZOOM AND LAYER DISPLAY SCALES

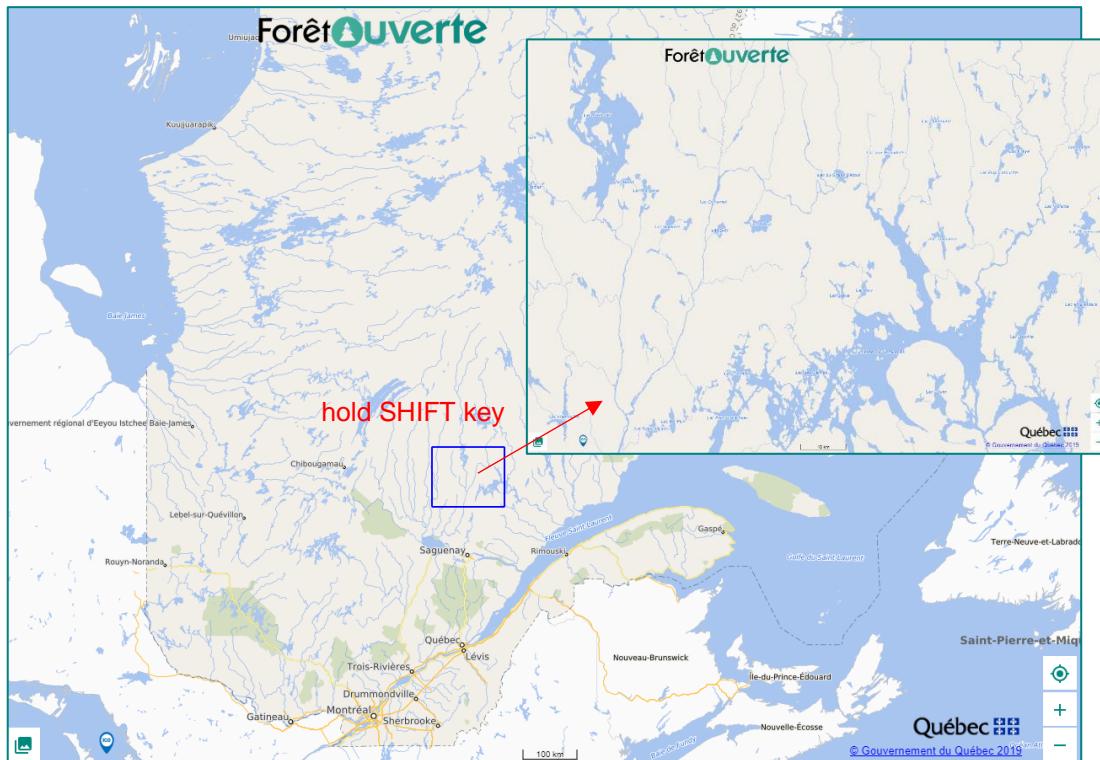
Certain layers, such as the “Peuplements écoforestiers” layer, are too heavy to display on a provincial scale. To remedy this situation, display scales are set for certain layers. The display parameters for these layers can be found in [Appendix 1](#).

A grey eye  next to a layer indicates that the latter cannot be viewed in the active scale (the value of the active scale is found at the bottom of the map).



To view the layer's information, simply **zoom** in or out. To zoom in or out, use the buttons at the bottom right of the screen or scroll using the mouse (in the case of a desktop computer). For mobile devices, use two fingers on the screen to zoom in or out.

**Tip:** A keyboard shortcut exists to zoom in or out using a square selection. Hold the Shift key and the left mouse button to draw a rectangle over the desired area.



## DATA IMPRINTS

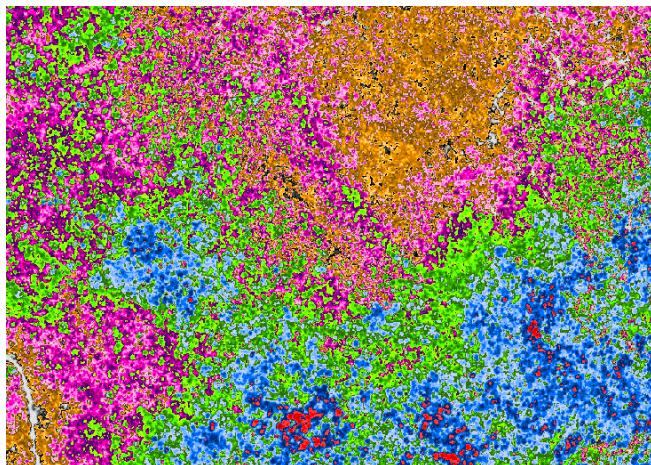
For certain layers, a salmon-coloured imprint appears to show the areas where data is available. Simply zoom in to the active view scale to view the detailed content of the layer.



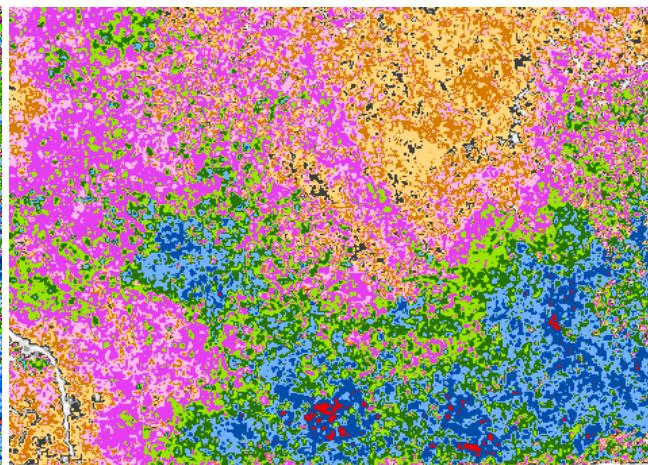
## DOWNSCALED RESOLUTIONS OF LIDAR PRODUCTS

In order to optimize the display of LiDAR-derived layers (“MNT” [DTM], “Relief ombré” [Shaded Relief], “Hauteur de canopé” [Canopy height], “Pentes” [Slopes] and “Indice d’humidité topographique” [Topographic wetness index]), the resolution of these layers has been slightly downscaled. To view these layers at full resolution, download them (view the [Download](#) section of this guide) and add them to a GIS (e.g., ArcGIS Pro or QGIS).

Canopy height – Full resolution



Canopy height – Downscaled resolution

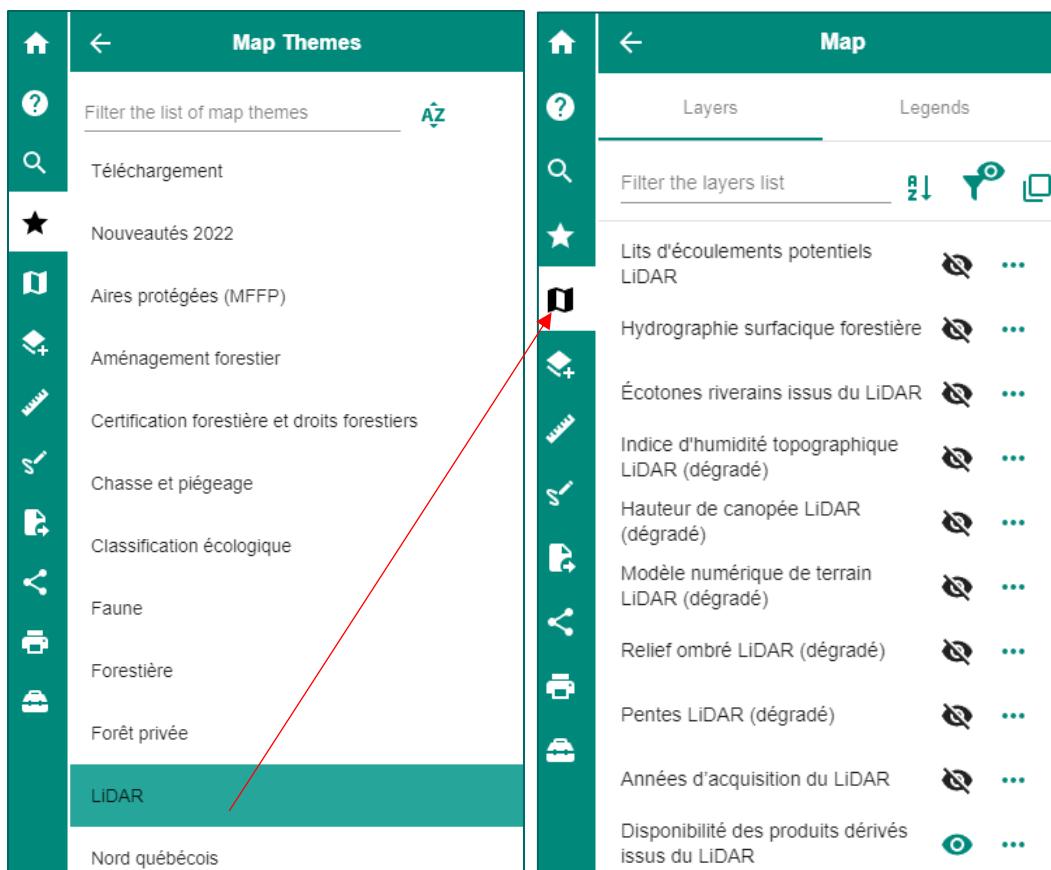


## ★ Map Themes

The “Map themes” feature allows for the quick display of layers grouped under different themes. This key concept is central to the effective use of *Forêt ouverte*.

When you select a map theme, all layers associated to this theme are added to the “Map”. The layers found by default in the “Map” are those found under the “À construire” theme. Depending on your interests, you may begin a project using the default map theme or select another one. You can then add layers to your map by using the Catalog or the Search bar.

For example, if you choose the “Lidar” map theme, it includes all layers of LiDAR-derived products, as well as maps for the disseminated planning of lidar-derived products, lidar data acquisition years, and the planned dissemination of Lidar dendrometric maps.



**Warning:** When you choose another map theme, all layers found in the “Map” feature will be replaced by those of the new theme. Therefore, you will lose all the layers previously added through the “Catalog” or the “Search” bar.

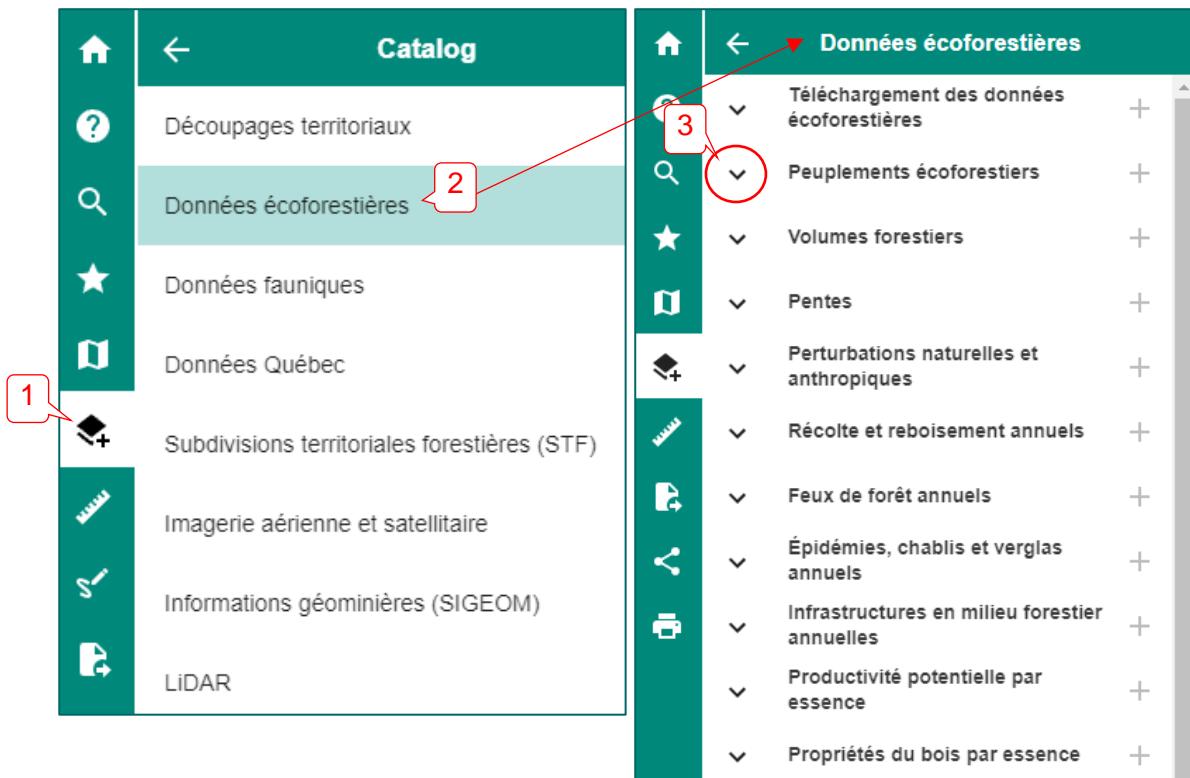
**Tip:** Before changing your map theme, be sure to [share](#) your map!

## Catalog

The “Catalog” contains all the layers that can be added to the “Map” feature. Click on “+” to the right of the layer to add the latter to the “Map”. The “+” then becomes a red garbage can, which allows you to remove the layer if needed. You can also add an entire group of layers using the “+” next to the group name.

For example, to add the “Peuplements écoforestiers” layer to the “Map”:

- 1) Click on “Catalog”.
- 2) Select the “Données écoforestières” catalog.
- 3) Then click the arrow next to “Peuplements écoforestiers” to see all layers within this group.



Click on “+” to the right of the “Peuplements écoforestiers” layer. The “+” becomes a red garbage can and the layer is now available in the “Map” feature.

**Données écoforestières**

- Téléchargement des données écoforestières +
- Peuplements écoforestiers + (highlighted)
- Volumes forestiers +
- Pentes +
- Perturbations naturelles et anthropiques +
- Récolte et reboisement annuels +
- Feux de forêt annuels +
- Épidémies, chablis et verglas +

**Map**

Layers Legends

Peuplements écoforestiers ...

Default legend

- Épinettes
- Sapin baumier
- Pins
- Thuya (cèdre)
- Autres résineux
- Peupliers
- Bouleau à papier
- Bouleau jaune (merisier)

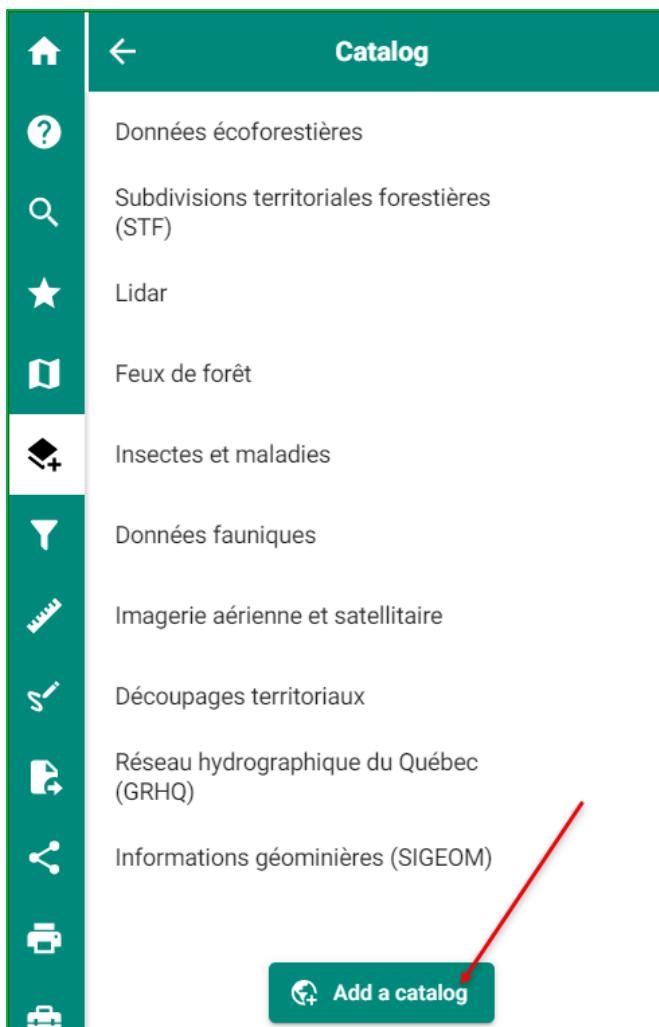
You can preview the layer on the map by hovering the mouse cursor over the “+” without clicking on it. However, if a grey crossed-out eye appears over the “+”, the map’s display scale does not allow the preview to be visible.

**Lidar**

- Index et téléchargement +
- Téléchargement - Lidar (pleine résolution) -
- Téléchargement - Carte dendrométrique lidar + (highlighted)
- Année d'acquisition du lidar +
- Disponibilité des produits dérivés issus du lidar +
- Disponibilité de la carte dendrométrique lidar +
- Téléchargement - Produits dérivés hydrographiques... +
- Produits dérivés issus du lidar +
- Hauteur de canopée lidar (dégradé) -
- Modèle numérique de terrain lidar (dégradé) +

## ADD A CATALOG USING A WEB MAP SERVICE

A personalized “Catalog” can be added using the URL of a Web map service. In the “Catalog” tab, click on “Add a catalog”.



Paste your Web map service URL in the new window, add a title and choose the right type (or format) for your Web map service, then click on “Add this catalog to the list”.

The screenshot shows a modal dialog box titled "Adding a catalog". It contains the following fields:

- Title**: MELCC
- URL**: [https://www.servicesgeo.enviroweb.gouv.qc.ca/donnees/services/Public/Themes\\_publics/MapServer/WI](https://www.servicesgeo.enviroweb.gouv.qc.ca/donnees/services/Public/Themes_publics/MapServer/WI)
- Type**: wms

At the bottom of the dialog, there are two buttons: "Cancel" and a green "Add this catalog to the list" button. A red arrow points from the text above to this button.

The new catalog is added to the list. It can be removed by clicking on the red garbage can.

The screenshot shows two side-by-side catalog interfaces. The left interface is titled 'Catalog' and lists various forest-related datasets. The right interface is titled 'MELCCFP' and lists environmental categories. A red arrow points from the 'Add a catalog' button in the left interface to the 'MELCCFP' catalog in the right interface. A red box highlights the 'MELCCFP' entry in the right catalog, and a red trash can icon is visible next to it, indicating it can be deleted.

| Left Catalog (Données)                       | Right Catalog (MELCCFP)   |
|--|---|
| Données écoforestières                       | Milieu terrestre / Utilisation du territoire                      |
| Subdivisions territoriales forestières (STF) | Milieu terrestre / GTC - Répertoire des terrains...               |
| Lidar  | Milieu naturel et biodiversité                                    |
| Feux de forêt                                | Milieu naturel et biodiversité / Territoires d'intérêt pour la... |
| Insectes et maladies                         | Milieu naturel et biodiversité / Cadre écologique de référence    |
| Données fauniques                            | Milieu naturel et biodiversité / Aires protégées                  |
| Imagerie aérienne et satellitaire            | Milieu municipal / Article 269                                    |
| Découpages territoriaux                      | Milieu atmosphérique / Registre des émissions de ga...            |
| Réseau hydrographique du Québec (GRHQ)       | Milieu atmosphérique / Registre des émissions de...               |
| Informations géominières (SIGEOM)            | Milieu aquatique / Suivi des pesticides                           |
| <b>MELCCFP</b>                               | Eau   |
|  | Eau / Réseau hydrologique GRHQ                                    |
|  | Eau / Bassins hydrographiques                                     |

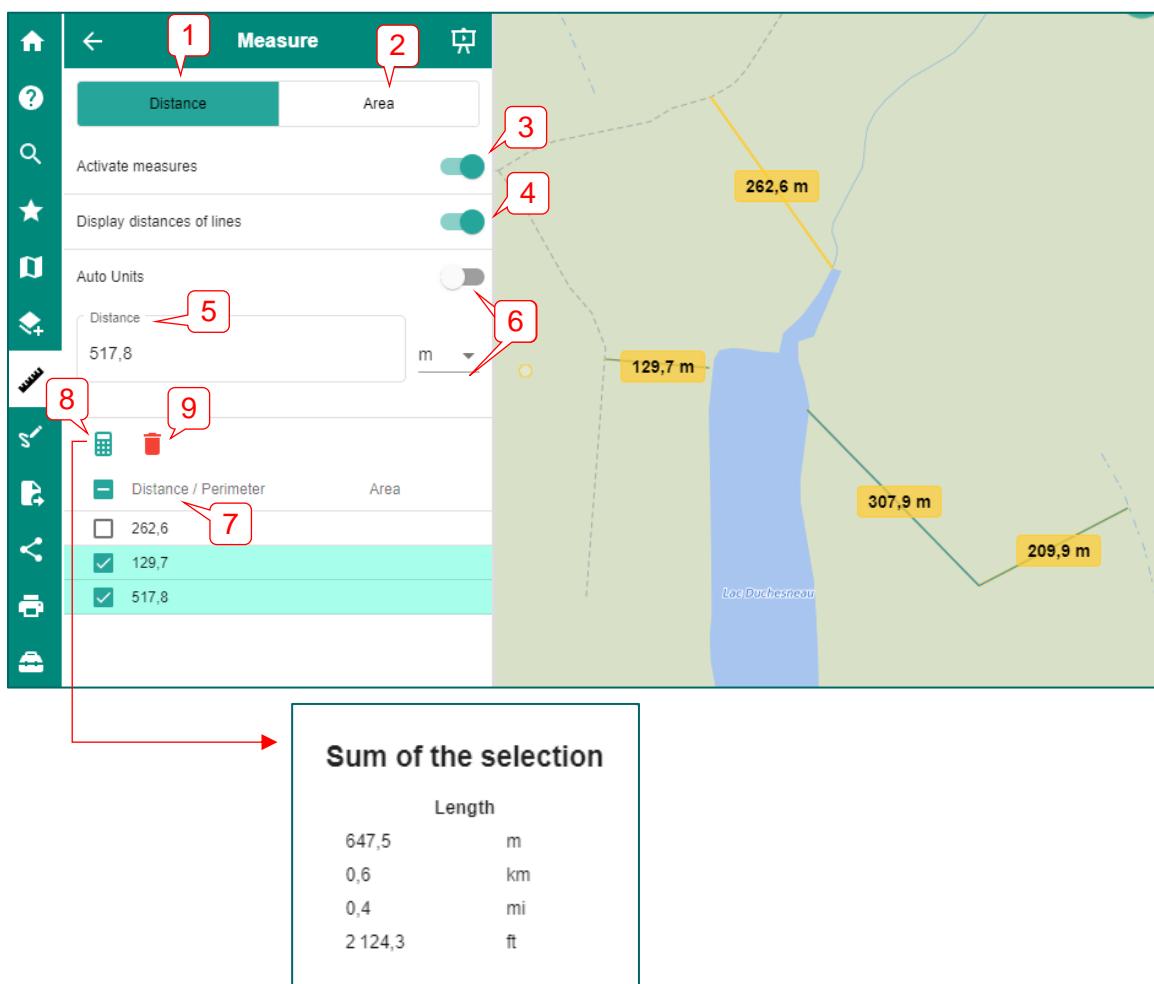
**Warning:** Some URLs may be blocked for security reasons. If you get the following error message, email the *Forêt ouverte* team to request authorization to use a specific URL ([foret.ouverte@mfp.gouv.qc.ca](mailto:foret.ouverte@mfp.gouv.qc.ca)).

The catalog '[http://cartes.geogratis.gc.ca/wms/nts\\_grid\\_fr](http://cartes.geogratis.gc.ca/wms/nts_grid_fr)' is unavailable at the moment or you don't have the required permissions.

## Measure

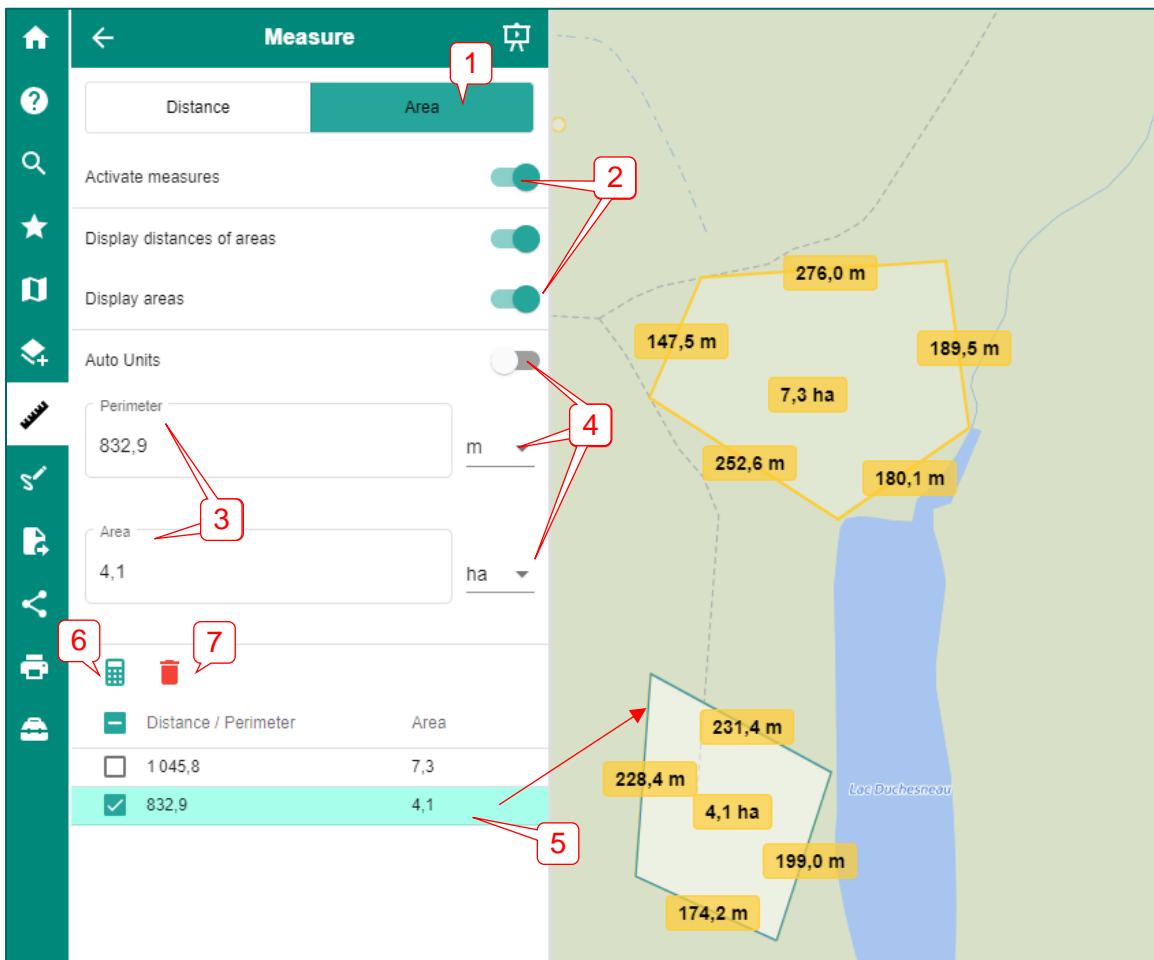
You can measure different distances (1) and areas (2) on your map using the “Measure” tool. Once the measure tool is activated (activated by default), (3) simply click on the map to measure a distance. You can also measure several segments, the distances of which are added until you double click the map. Each segment has a distance label if this option is activated (4) and the total distance is displayed in the “Distance” bar (5). The units can be changed by clicking on the drop-down menu or by activating the Auto Units option, which adjusts the units to the map’s scale (6).

Previously measured distances are found at the bottom of the window (7). Simply click the box to the left of a distance to select it (the line becomes green in the map). You can calculate the total selected distances using the calculator (8) or delete them by clicking on the garbage can (9).

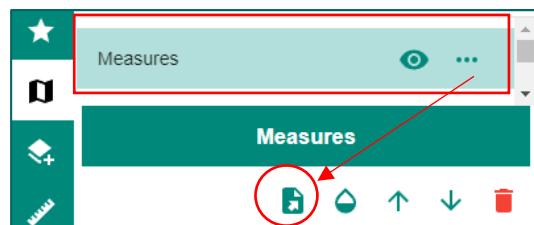


To measure an area, select the area option (1) and draw a polygon in the map, double clicking to close the shape. The area and perimeter labels appear in the map if these options are activated (2), as well as in the measure window (3). It is possible to change the units for both area and perimeter measures by (4) clicking on the drop-down menu or by activating the Auto Units option which adjusts the units to the map's scale.

Previously measured areas and perimeters are found at the bottom of the measure window (5). Simply click the box to the left of a measure to select it. The selected measures become green in the map. You can calculate the total selected measures using the calculator (6) or delete them by clicking on the garbage can (7).



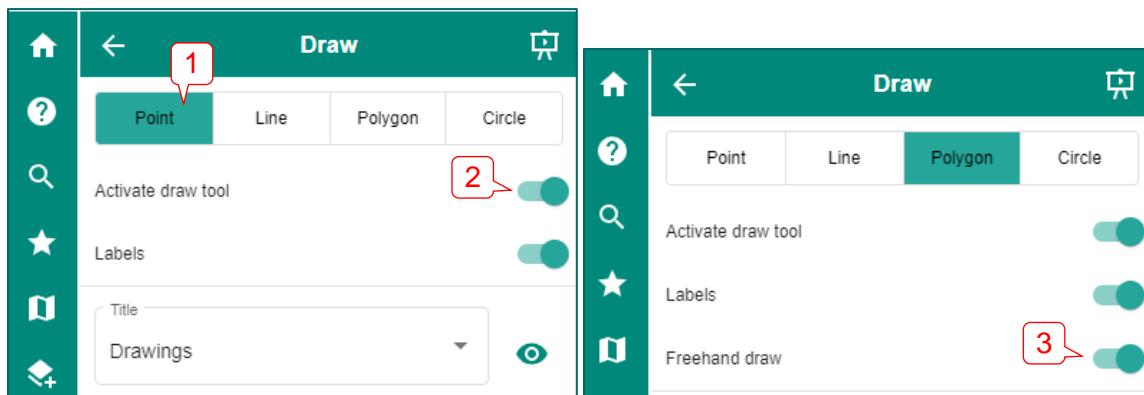
When creating a measure, a “Measures” layer is added to the list of layers in the “Map”. This layer can be printed using the “Print” tab or exported using the “Import and Export” tab. A shortcut to the export feature is also available in the layer’s options.



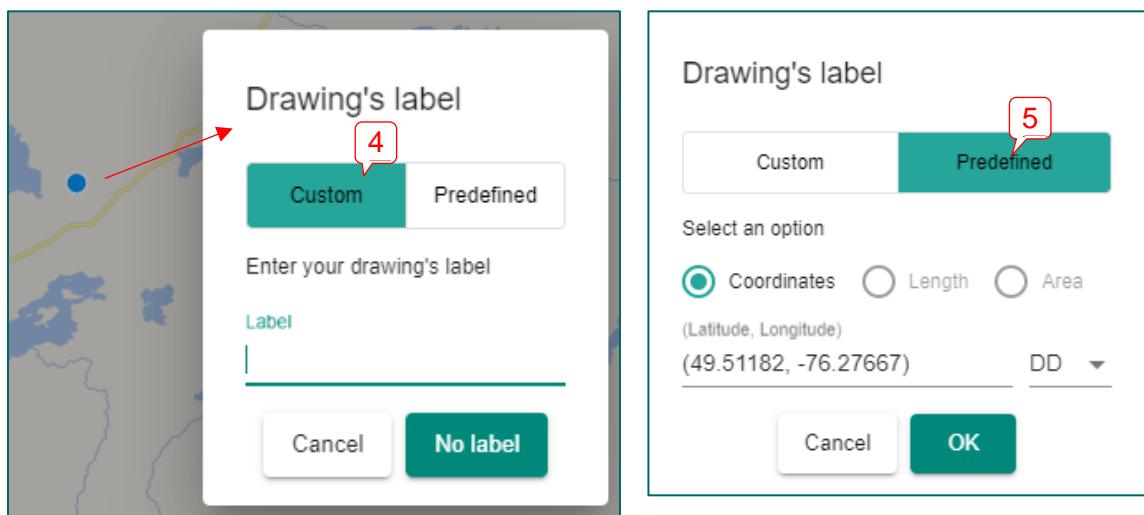
## Draw

The “Draw” tool allows you to add (1) points, lines, polygons and circles to the map, depending on the selected tab. Simply click on the “Map” when the drawing tool is activated (activated by default) (2).

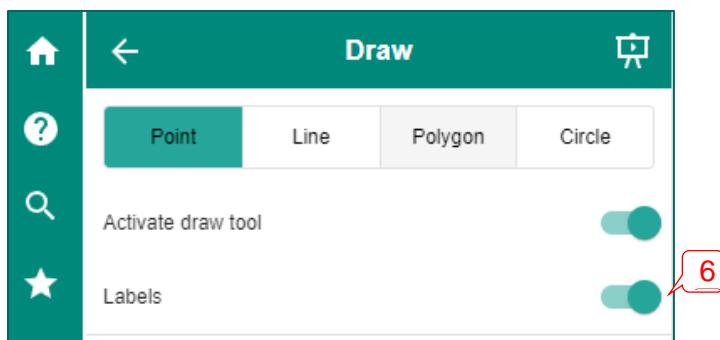
When the “Line”, “Polygon” or “Circle” option is selected, you can also do a freehand drawing by sliding the button to the right for that option (3).



When creating a new entity, the tool proposes assigning a custom (4) or predefined label to it (5).

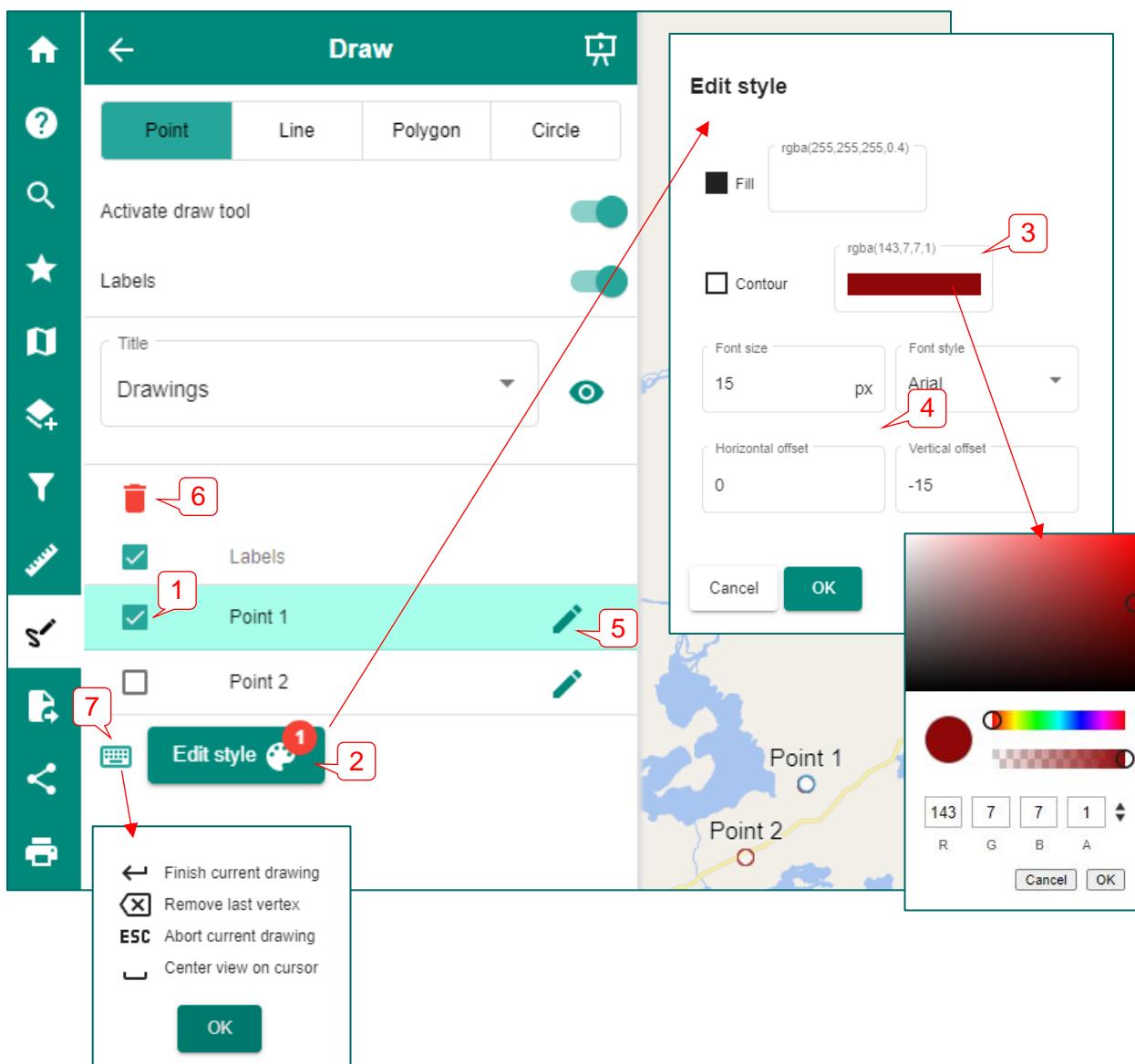


You can then hide the labels in the map (6) by sliding the button to the left.

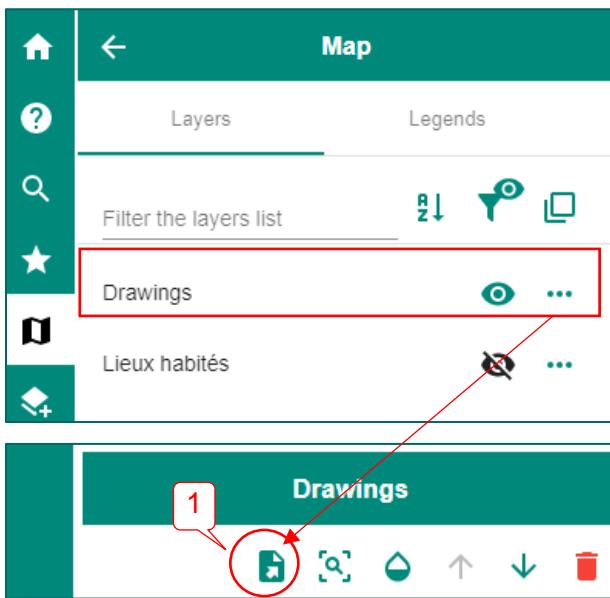


To change the parameters of a drawing, (1) check the box to the right of the drawing to select it (the selected drawing appears in blue on the map), (2) then click the “Edit style” button. In the new window that appears, you can change the fill or contour colours of the selected drawing using (3) the colour selectors. You can also change the label size and font and move it relative to the entity using the horizontal and vertical offset options (4). You can modify multiple drawings at a time by selecting them before clicking on the “Edit style” option.

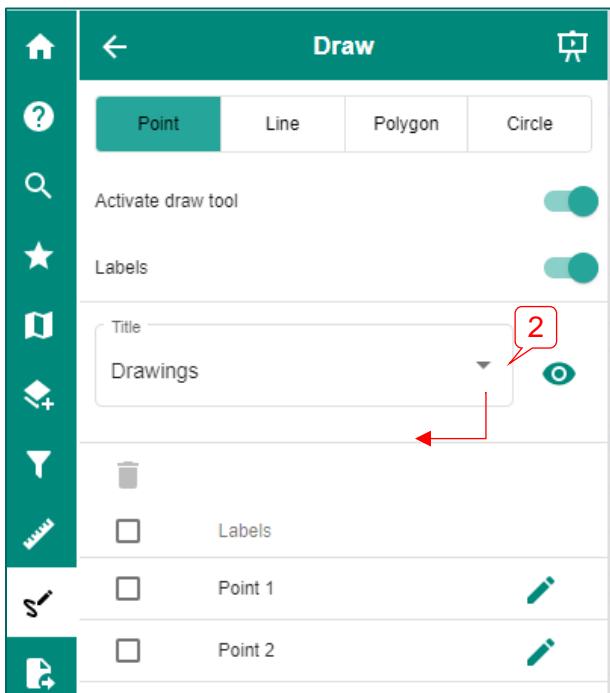
The label text can be modified by clicking on the pencil icon (5). Selected drawings can be deleted by clicking on the red garbage can (6). An icon at the bottom of the window indicates keyboard shortcut keys (7).



When you create a drawing, a “Drawings” layer is added in the list of layers in the “Map”. The layer can be printed using the [Print](#) feature or exported using the “[Import and Export](#)” feature. A shortcut to the export feature (1) is also available in the layer’s options.



Various “Drawings” layers can be created by clicking on the drop-down menu to the right of the layer name (2). When editing, the selected layer is the only one visible in the map. However, all drawing layers are visible when in the “Map” tab.



## Import and Export

The “Import and Export” feature applies to a layer or a personalized map.

### IMPORT OR EXPORT LAYERS, MEASURES OR DRAWINGS

To import a layer, select (1) the “Layer” tab, (2) the “Import” tab, (3) the coordinate system of the file you wish to import and (4) click on the “Import” button.

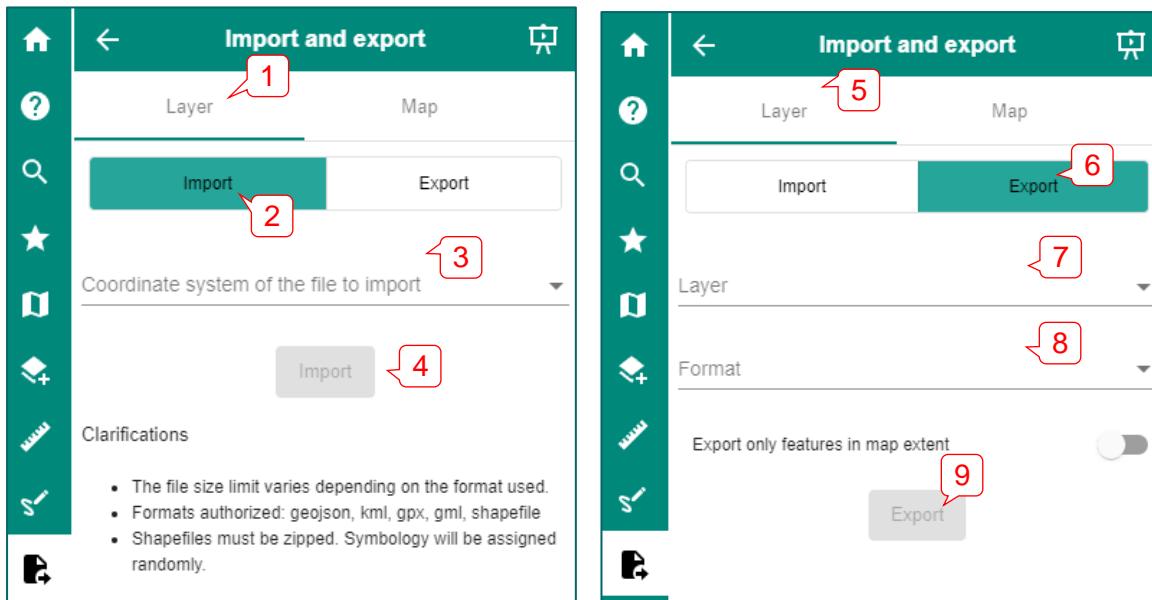
**Note:**

The size limit for importing a file varies depending on the format (GeoJSON, GML, GPX, KML, Shapefile). For larger files, use the GeoJSON format.

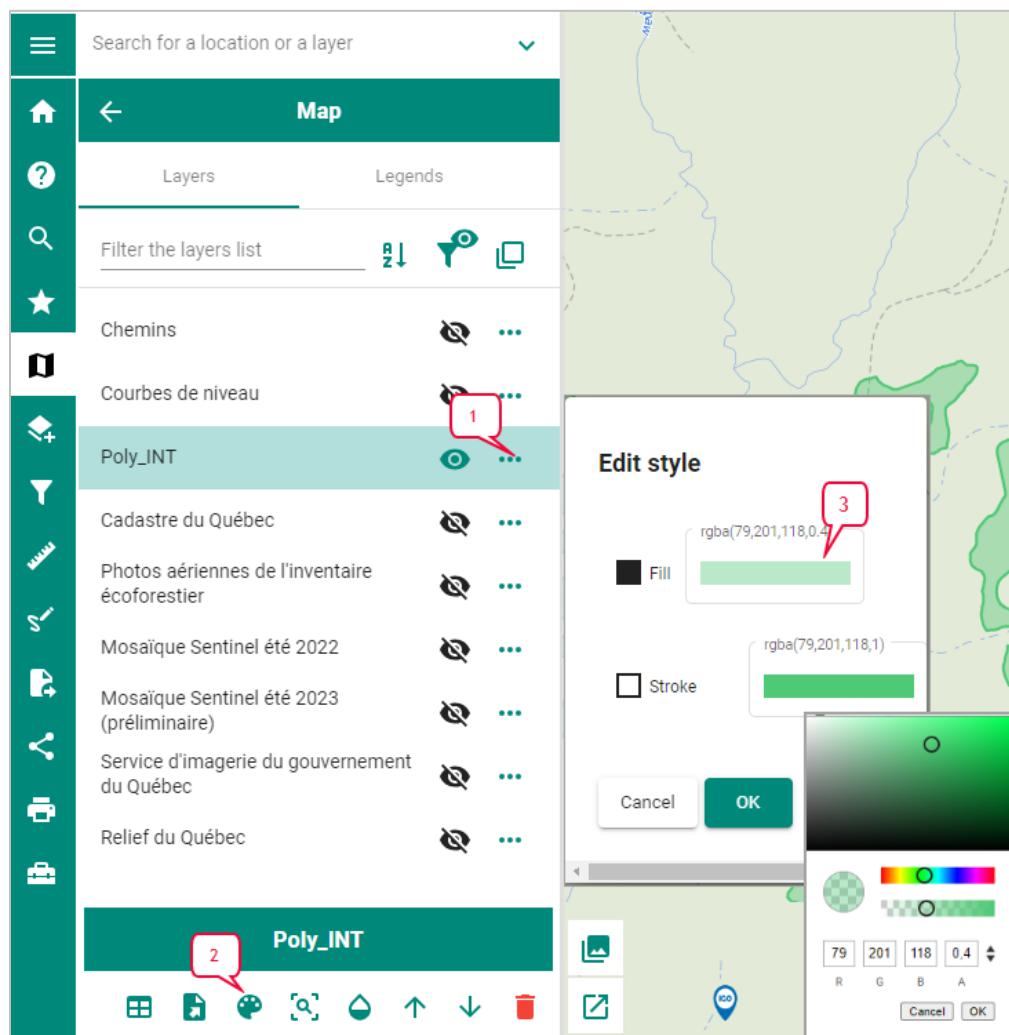
Shapefiles must be zipped. If needed, refer to the .PRJ file (text file) of your shapefile to know what coordinate system your shapefile is in.

The export layer feature is possible only for Web Feature Service (WFS) layers. As the majority of *Forêt ouverte*'s layers are in WMS format, very few layers can be exported. However, the “Measures” and “Drawings” layers can be exported. First, (5) select the “Layer” tab, then (6) the “Export” tab. Next, (7) select the layer you wish to export, (8) choose a file format from the drop-down menu (GeoJSON, GML, GPX, KML, Shapefile, CSV (comma delimited) or CSV (semicolon delimited)) and (9) click on “Export”. A new file will be created in your computer’s “Downloads” folder.

**Note:** The exported layer's coordinate system is WGS84 (EPSG: 4326). This is the coordinate system you must choose if you wish to import the layer back into your map.



When a layer is imported, you can modify its style by; clicking on the ellipsis to the left of the layer (1); using the paint palette icon on the bottom bar (2); in the new window that appears, changing the fill and outline colour (3).

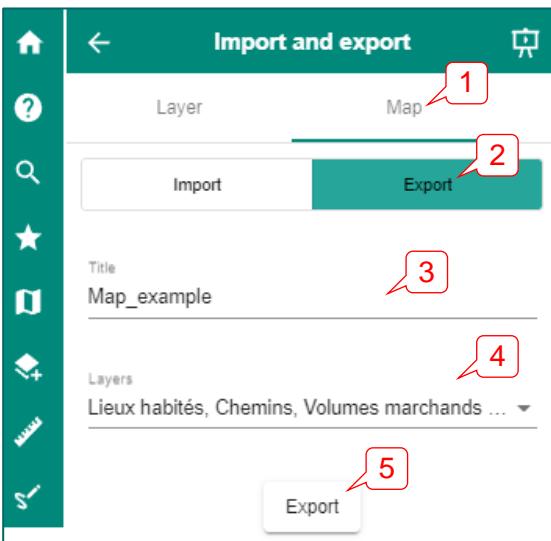


## IMPORT AND EXPORT A PERSONALIZED MAP

You can also export a personalized map, e.g., a map theme to which layers have been added. To export a map, (1) select the “Map” tab, (2) then select the “Export” tab, (3) choose a title for the map, (4) select the layers you wish to add to the exported map and (5) click on the “Export” button. The export tool will create a .JSON file in your computer’s “Downloads” folder.

This feature, as opposed to the Share feature, does not maintain the zoom of the exported map, but does save the list of layers for future use.

**Warning:** You cannot export your map if you have “Measures” or “Drawings” layers. You must therefore delete these layers before exporting your map. You can export these layers individually before deleting them.



To import a map, (6) select the “Map” tab, (7) then the “Import” tab and (8) click on “Import”. Select a .JSON file that you have previously exported. Your map will be added to the list of map themes (9) and its layers will appear in the “Map” feature.

**Warning:** You cannot share a map that you have imported, since the map is saved locally on your computer. However, you can send the .JSON file to another party by email.

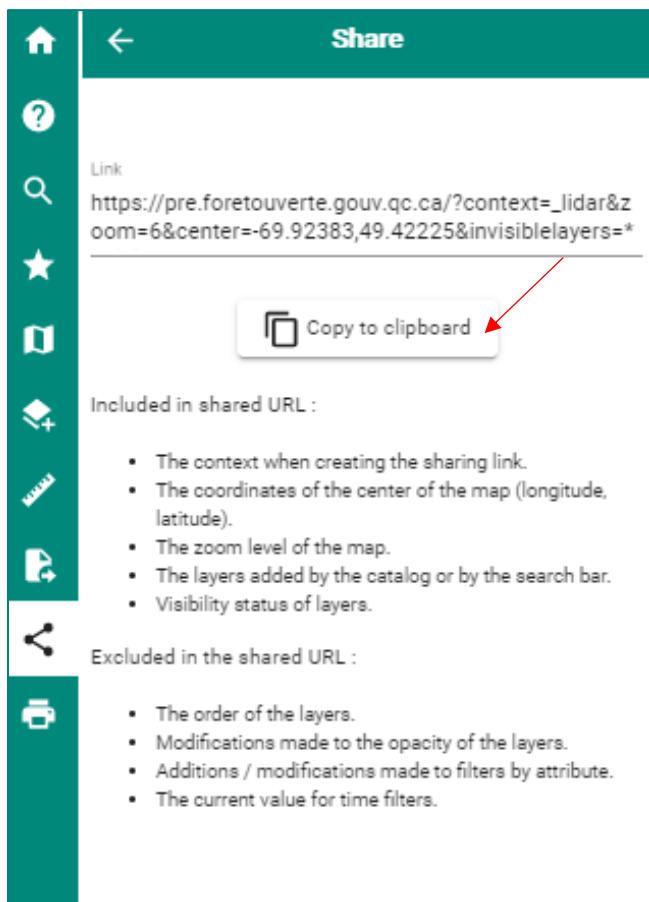
The first screenshot shows the 'Import and export' screen with the 'Map' tab selected (red box, label '6'), the 'Import' tab selected (red box, label '7'), and the 'Import' button clicked (red box, label '8'). A note at the bottom states: '• The file size limit varies depending on the format used.'

The second screenshot shows the 'Map Themes' screen. It has a green header bar with a back arrow and the title 'Map Themes'. Below the header is a search bar with 'Filter the list of map themes' and an 'AZ' button. A list of map themes is shown, with 'Map\_example' highlighted (red box, label '9') and 'Téléchargement' below it.

## Share

The “Share” function creates a hyperlink (URL) of your map that redirects you to an exact representation of what you see on your screen. This link can be shared or saved in a document to “save” your map for future reference.

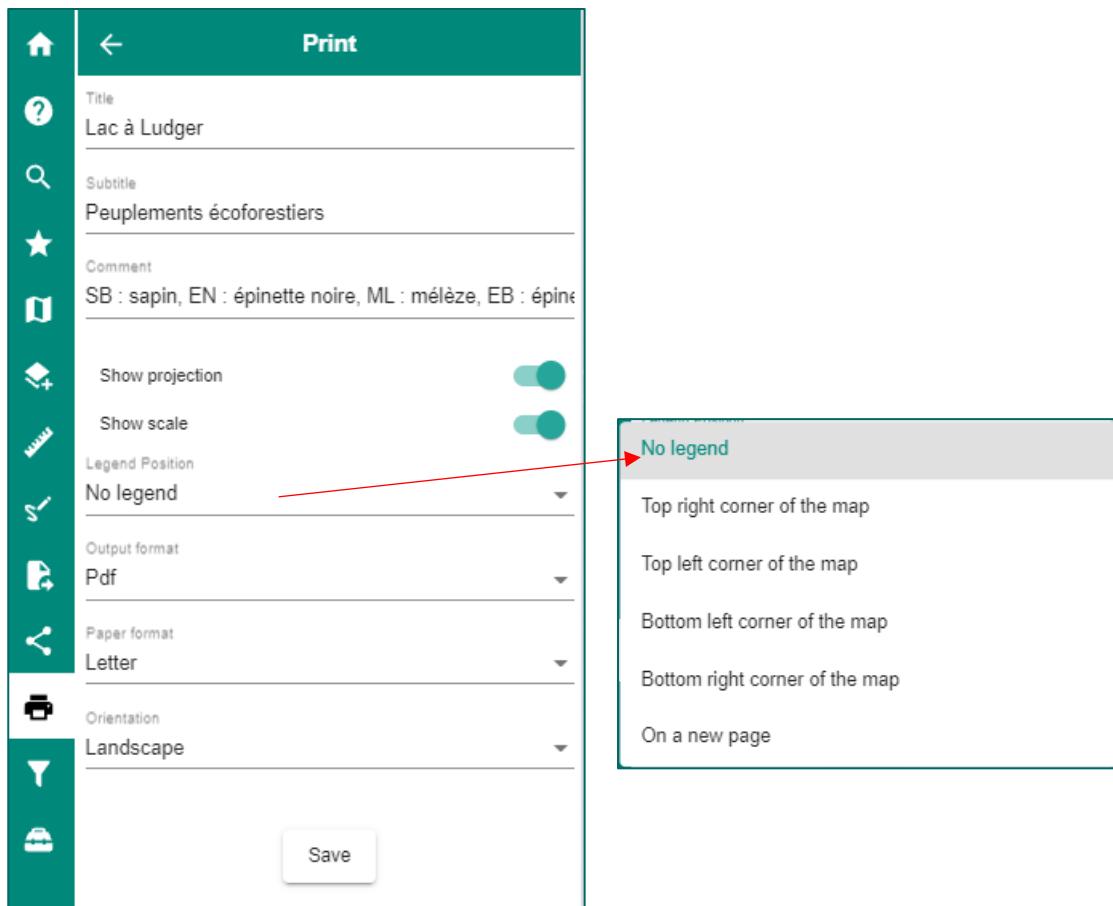
**Warning:** The “Measures” and “Drawings” layers will not be included in a shared map. However, these layers can be [printed](#) with the map, in a PDF or image format.



## Print

You can print the map viewed on screen using the “Print” option. Add a title and a short description of the map, choose the output format (PDF or image [PNG, BMP, GIF or TIFF]), the page size (A0 through A5, letter or legal) and the desired layout (landscape or portrait).

You can always display the projection, the scale and the legend of the map in the printed document. The legend can be positioned in different areas of the printed map. The options are presented in the drop-down menu.



Title  
Lac à Ludger

Subtitle  
Peuplements écoforestiers

Comment  
SB : sapin, EN : épinette noire, ML : mélèze, EB : épinette blanche

Show projection

Show scale

Legend Position  
No legend

Output format  
Pdf

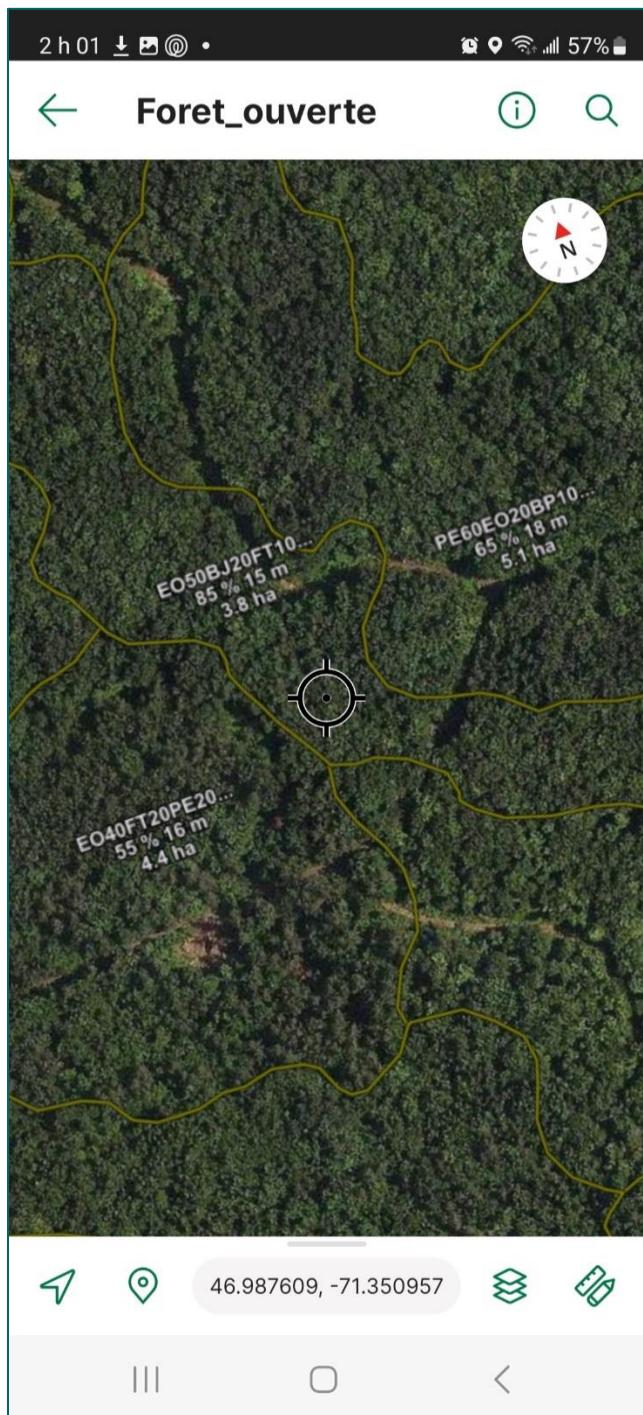
Paper format  
Letter

Orientation  
Landscape

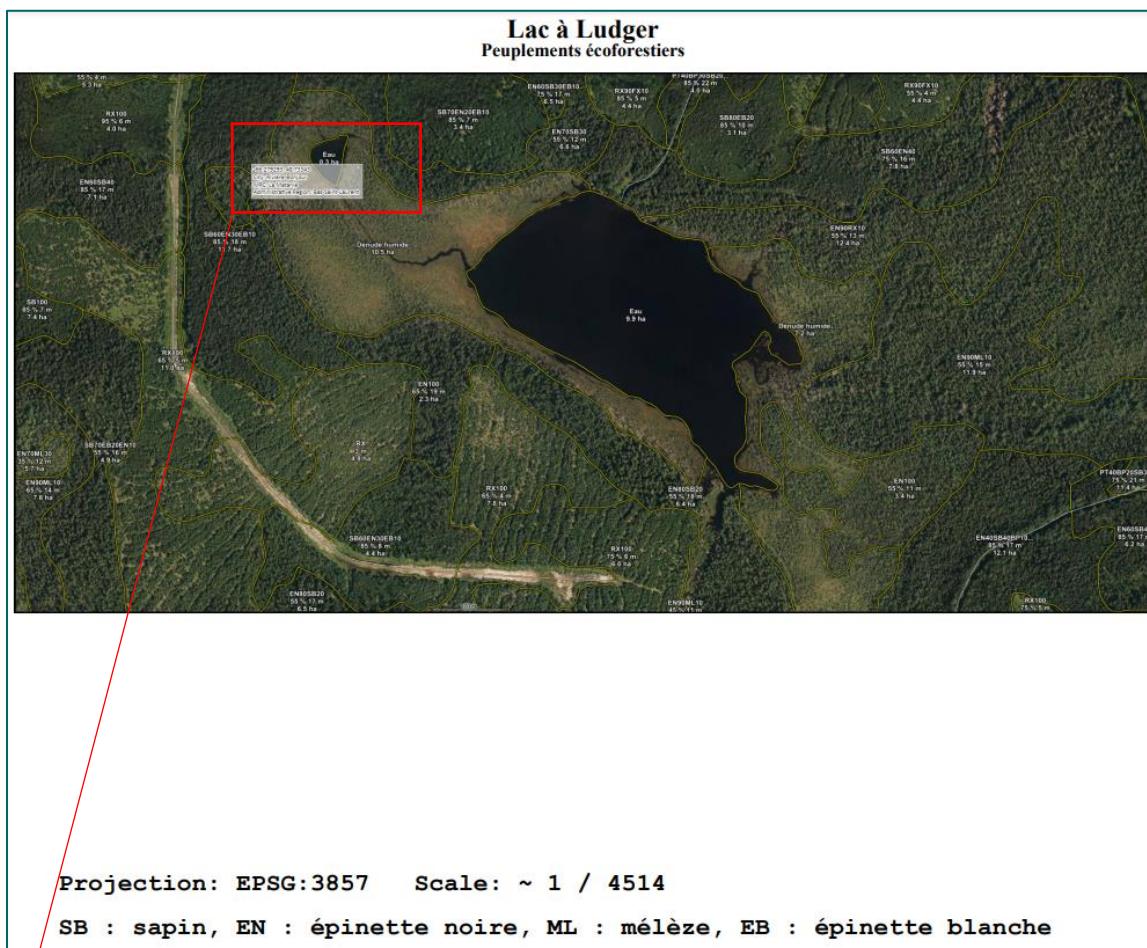
No legend

- Top right corner of the map
- Top left corner of the map
- Bottom left corner of the map
- Bottom right corner of the map
- On a new page

**Note:** Maps printed in PDF format from *Forêt ouverte* are georeferenced. They can therefore be used to navigate on a mobile device in offline mode, for example with Avenza Maps.



## Example of a printed PDF map



**Tip:** To avoid printing the cursor position, deactivate this option by pressing the F2 key before printing or see the [Cursor position](#) section of this guide.

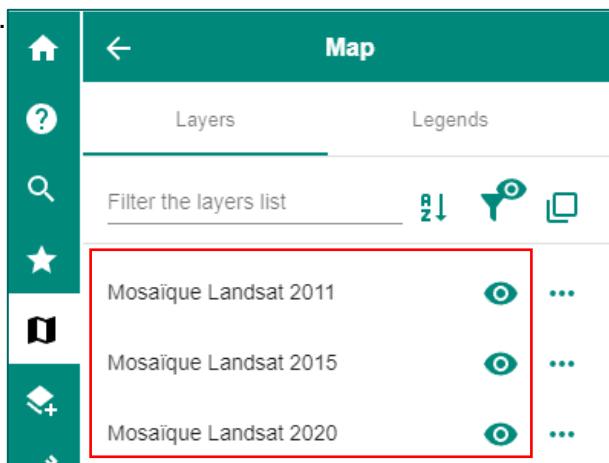
## Advanced tools

The advanced toolbox includes a tool for comparing layers and another for identifying the coordinates of the map's center based on different coordinate systems.

### SWIPE TOOL

The swipe tool allows you to vertically split the map in two and swipe this division from left to right. This tool can be very useful for comparing opaque layers such as aerial photos or satellite images from different years. For example, the tool can be used to quickly observe the evolution of disturbances over time, such as regeneration following a forest fire.

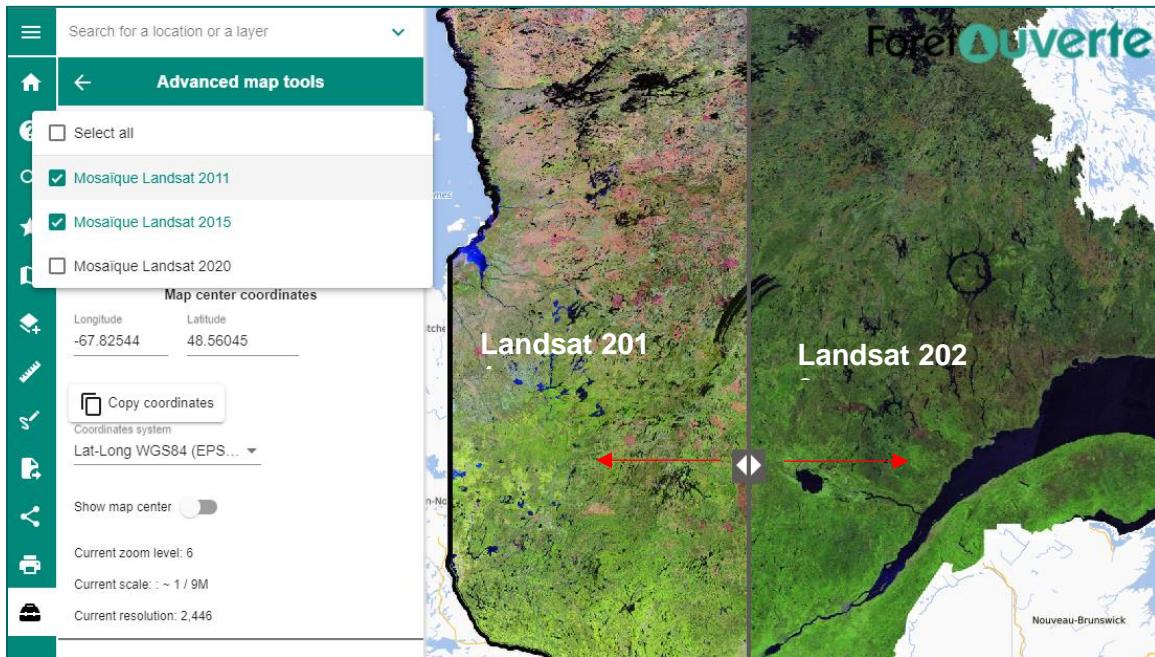
First, make sure the layers to compare are visible in the “Map” feature. The layers’ order is also important to note, as the top layers can be compared to those underneath. In the example below, Landsat mosaic data from 2011, 2015 and 2020 are visible (green eye) and are in ascending chronological order.



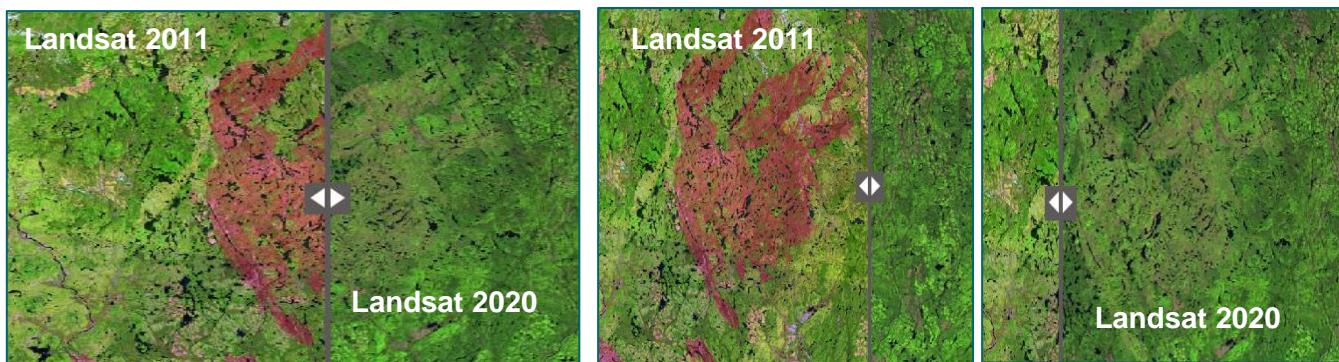
Next, select the “Advanced map tools” feature and click in the box to “select the layers for swiping”.



When you select a layer in the drop-down menu, the layer is moved to the right of the map divide. You will therefore see the next visible layer, beneath the last selected layer. In the example below, we see the Landsat 2011 mosaic on the left and the Landsat 2020 mosaic on the right. The 2011 and 2015 mosaics have been moved to the right of the map divide since they are both selected in the drop-down menu. You can then swipe the divide arrows to compare the two layers.



Below, the swipe tool is used to compare a fire which occurred in 2010, on the 2011 mosaic to the left and the 2020 mosaic to the right.



## MAP CENTER COORDINATES TOOL

This tool allows (1) to identify the center of the map with a black plus sign and (2) to identify the map's center coordinates. It also allows (3) to copy these coordinates, (4) modify the coordinate system in which they are displayed and (5) to know the current zoom level and map scale.

**Advanced map tools**

Swipe-Tool  
No layer is currently active on this map.  
Customize it by adding layers using the:

- Search bar
- Catalog
- Map themes

**Map center coordinates**

|           |          |
|-----------|----------|
| Longitude | Latitude |
| -74.41723 | 49.52540 |

Copy coordinates      3

Coordinates system      4

Lat-Long WGS84 (EPS... ▾)

Show map center      5

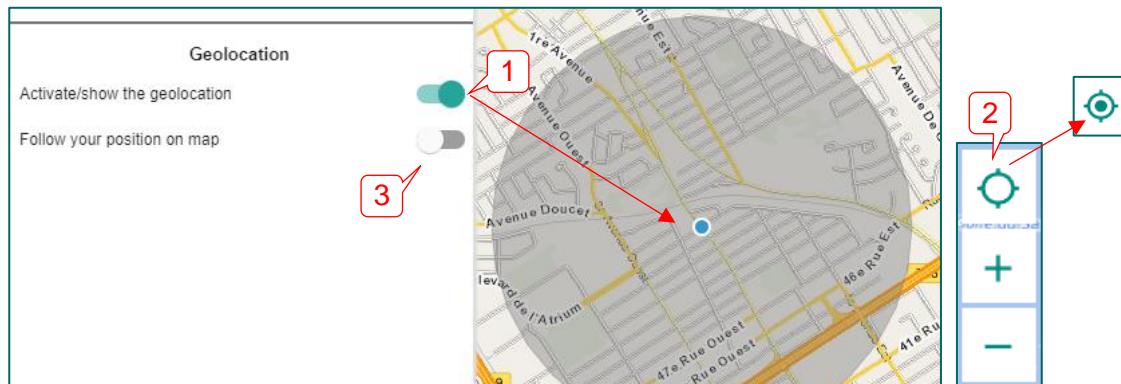
Current zoom level: 6

Current scale: ~ 1 / 9M

Current resolution: 2,446

## GEOLOCATION TOOL

The geolocation tool shows your geographic position on the map (blue dot) and centres the map on your actual position. The tool can be activated (1) by using the slider or (2) by clicking on the geolocation icon located at the bottom right of the map.



You can also activate position tracking on the map (3). The map will stay centred on your position while you move, for example in a vehicle.

# Download

The *Forêt ouverte* interface offers a few ways to download the data for free.

## DOWNLOAD LAYERS

The first way consists of choosing the “Téléchargement” map theme. You will then find in “Map” several download layers, e.g., “Téléchargement - Données écoforestières”, “Téléchargement - LiDAR (pleine résolution)”, and “Téléchargement - Cartes écoforestières PDF”. Note that these layers can also be added to another map theme using the “Catalog” or “Search” bar to avoid “losing” your map project when changing map themes.

Downloading using these layers is performed with a cartographic index, at a scale of 1:20,000 for PDF maps and LiDAR products, and 1:250,000 for ecoforestry data. It is carried out by “unité d’aménagement (UA)”, by “agence de mise en valeur des forêts privées” or by “territoire forestier résiduel (TFR)” for the LiDAR dendrometric map; by “region administrative” for riparian ecotone from LiDAR and by “unité de drainage hydrique (UDH)” for potential flow bed from LiDAR.

| Téléchargement - Données écoforestières | LIMITES DES FEUILLETS |
|---|-----------------------|
| <input type="checkbox"/>                | Limite des feuillets  |

| Téléchargement - LiDAR (pleine résolution) | MNT, MHC, RELIEF OMBRÉ, PENTES ET TWI |
|--|---------------------------------------|
| <input type="checkbox"/>                   | MNT, MHC, relief ombré, pentes et TWI |
| <input type="checkbox"/>                   | MNT, MHC, relief ombré et pentes      |

| Téléchargement - Carte dendrométrique LiDAR | UA, AGENCE, TFR |
|---|-----------------|
| <input type="checkbox"/>                    | UA              |
| <input type="checkbox"/>                    | Agence          |
| <input type="checkbox"/>                    | TFR             |

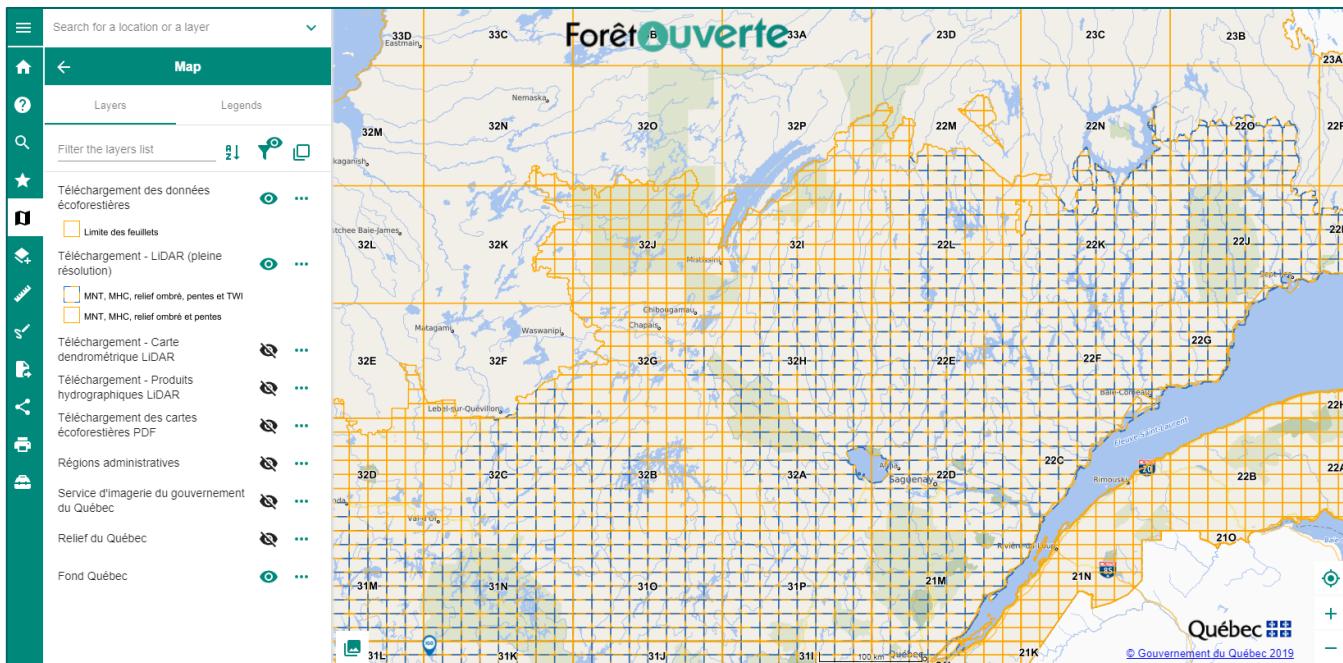
| Téléchargement - Lits d'écoulements potentiels LiDAR | UNITÉ DE DRAINAGE HYDRIQUE  |
|--|-----------------------------|
| <input type="checkbox"/>                             | Unité de drainage hydrique  |
| <input type="checkbox"/>                             | Disponible en visualisation |
| <input type="checkbox"/>                             | Téléchargement seulement    |

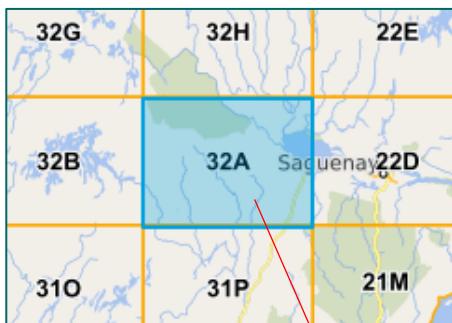
| Téléchargement - Écotones riverains LiDAR | RÉGION ADMINISTRATIVE |
|---|-----------------------|
| <input type="checkbox"/>                  | Région administrative |

| Téléchargement - Cartes écoforestières PDF | LIMITES DES FEUILLETS |
|--|-----------------------|
| <input type="checkbox"/>                   | Limite des feuillets  |



When you click on a map sheet or area associated to the layer of the desired data, for example the 1:250 000 - 32A map sheet of the “Téléchargement des données écoforestières” index layer, a window will appear with a list of available products to download for this map sheet.



**Téléchargement - Données écoforestières**

Feuillet 1/250 000 - 32A

| Données disponibles   | Répertoire données |
|---|--------------------|
| <a href="#">Carte écoforestière originale et résultats d'inventaire</a> | <b>ACCÉDER</b>     |
| <a href="#">Carte écoforestière à jour</a>                              | <b>ACCÉDER</b>     |
| <a href="#">Régime de feux</a>  | <b>ACCÉDER</b>     |
| <a href="#">Feux de forêt</a>   | <b>ACCÉDER</b>     |
| <a href="#">Récolte et autres interventions sylvicoles</a>              | <b>ACCÉDER</b>     |

Click on the **ACCÉDER** button to download the product of your choice. You will then be redirected to an https site where you can download the desired folder.

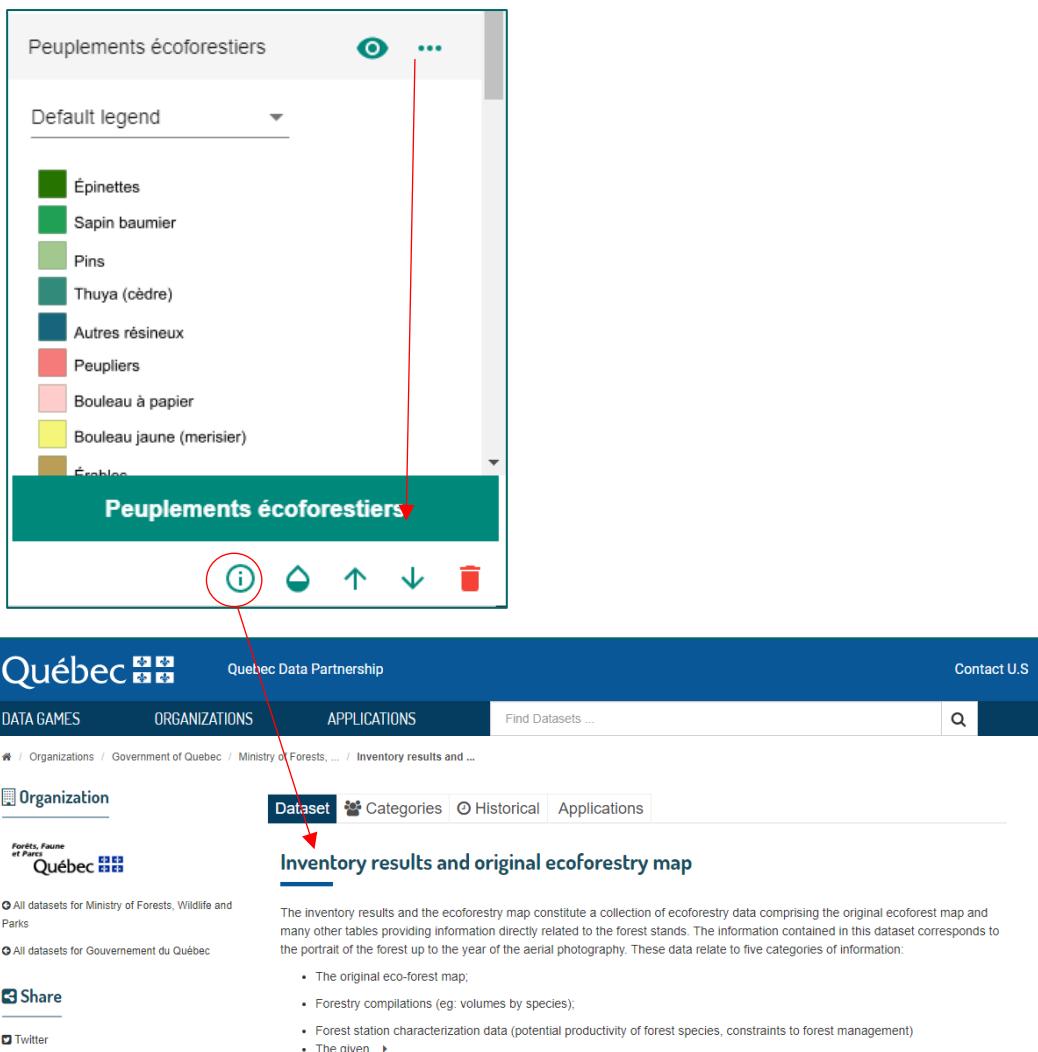
diffusion.mffp.gouv.qc.ca - /Diffusion/DonneeGratuite/Foret/DONNEES\_FOR\_ECO\_SUD/Resultats

[To Parent Directory]

2024-06-25 14:53 763867549 PRODUITS\_TEOM\_32A\_10.zip  
2024-06-25 15:07 1118678543 PRODUITS\_TEOM\_32A\_GPKG.zip

## DONNÉES QUÉBEC

The second way to download data is to click on the  icon of the desired layer in the “Map”. This button acts as a link to Données Québec’s data factsheet, where you can access different types of downloadable data (.shp, .csv, .gdb, .gpkg, .jp2, .ecw, etc.) as well as complementary documents (metadata, normative files, planning indexes, etc.).



**Peuplements écoforestiers**

Default legend

- Épinettes
- Sapin baumier
- Pins
- Thuya (cèdre)
- Autres résineux
- Peupliers
- Bouleau à papier
- Bouleau jaune (merisier)
- Érables

**Peuplements écoforestiers**

**Québec**  Québec Data Partnership Contact U.S.

DATA GAMES ORGANIZATIONS APPLICATIONS Find Datasets ...

/ Organizations / Government of Quebec / Ministry of Forests, ... / Inventory results and ...

  Categories Historical Applications

**Inventory results and original ecoforestry map**

The inventory results and the ecoforestry map constitute a collection of ecoforestry data comprising the original ecoforest map and many other tables providing information directly related to the forest stands. The information contained in this dataset corresponds to the portrait of the forest up to the year of the aerial photography. These data relate to five categories of information:

- The original eco-forest map;
- Forestry compilations (eg. volumes by species);
- Forest station characterization data (potential productivity of forest species, constraints to forest management)
- The given ...

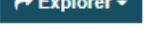
CSV and SHP files are available to see the download links of individual map sheets, corresponding to the download layer in *Forêt ouverte*. Click the arrow on the “Explorer” button to download a file.



**Données**

**CSV** Liens de téléchargement par feuillet 1 : 250 000  

Dernière modification : 2021-06-29  
Index - Versions ArcGIS 9.3 et 10

**SHP** Liens de téléchargement par feuillet 1 : 250 000  

Dernière modification : 2021-06-29  
Index - Versions ArcGIS 9.3 et 10

## ACCESS THE DATA DIRECTORY

You can access all available data by clicking on “Access the data directory” in the “Further information” section of a Données Québec data factsheet. The data is generally presented by map sheet, therefore, you must know in which map sheet you wish to find your data.

| Dataset description sheet |  |
|---------------------------|--|
| Organization              | Ministry of Forests, Wildlife and Parks  |
| Categories                | Environment, natural resources and energy  |
| Labels                    | Agency<br>Wood characterization<br>Ecological classification<br>Forest compilation<br>DIF Forest<br>inventory department<br>Forest<br>Ecoforest inventory<br>Integrated product Inventory<br>result<br>Forest station<br>UA<br>Volume  |
| Licence                   |  Attribution (CC-BY 4.0)  |
| Responsible               | Forestry Sector-Direction of Forest Inventories (DIF)  |
| E-mail                    | services.clientele@mffp.gouv.qc.ca   |
| Update frequency          | Annual   |
| Geographic coverage       | Other  |
| Temporal coverage         | 1998-01-01/2016-01-01  |
| Further information       | <p>Since 2014, all work processes supporting the production of this dataset have been certified according to ISO 9001:2015.</p> <p><b>Metadata:</b></p> <p>Geodetic reference system: NAD 1983 Quebec Lambert<br/>Map projection: Lambert conformal conic - EPSG: 32198</p> <p style="text-align: center;"><a href="#">Access the data directory</a></p> |
| Source (URL)              | <a href="http://mffp.gouv.qc.ca/les-forêts/inventory-ecoforestier/">http://mffp.gouv.qc.ca/les-forêts/inventory-ecoforestier/</a>  |



diffusion.mffp.gouv.qc.ca - /Diffusion/DonneeGratuite/Foret/DONNEES\_FOR\_ECO\_SUD/Resultats\_inventaire\_et\_carte\_ecofor/

[To Parent Directory]

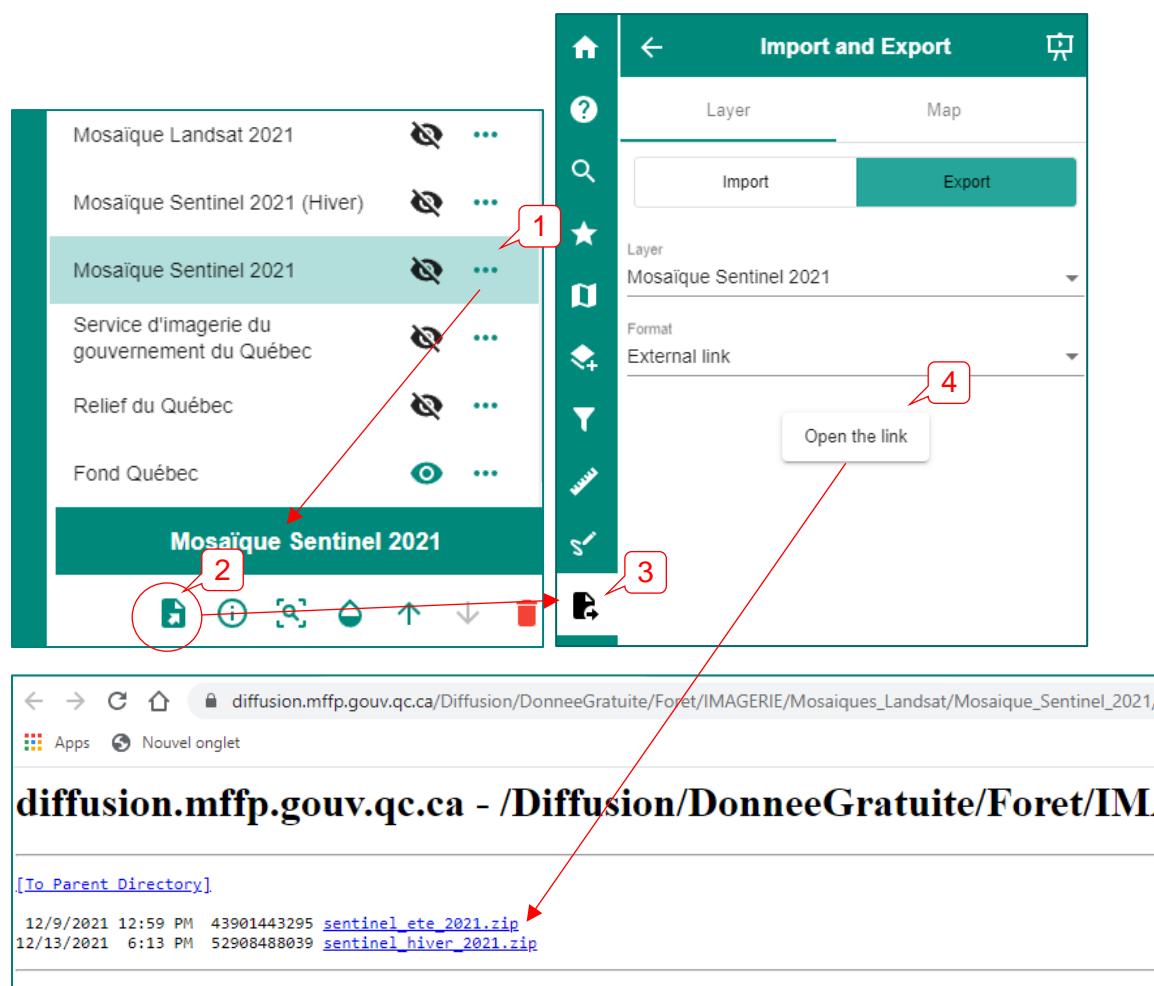
```
9/23/2021 6:09 AM <dir> 1 Documentation
6/28/2021 7:00 AM <dir> 1A
6/28/2021 7:00 AM <dir> 1B
6/28/2021 7:00 AM <dir> 1C
6/28/2021 7:00 AM <dir> 1D
6/28/2021 7:00 AM <dir> 1E
6/28/2021 7:00 AM <dir> 1F
6/28/2021 7:00 AM <dir> 1G
6/28/2021 7:01 AM <dir> 1H
```

To download more than one database at a time, for example several map sheets, use an FTP client such as FileZilla to access the FTPS server (<https://transfert.mffp.gouv.qc.ca/Diffusion/Foret/>). Consult the following document to learn more: [Téléchargement de données – méthode rapide de téléchargement](#) (French only).

## DOWNLOAD ICON

Another way to download data is to use the  icon in the desired layer options in the “Map”. This method is useful for layers with a provincial scale, for example satellite image mosaics, “classification écologique” layers, “subdivisions territoriales forestières” layers as well as any other undivided map dataset.

First, (1) click on “...” of a layer to access layer options and (2) click on the download data icon. (3) The button redirects to the “Import and Export” tool, where you can (4) open the link to download the data directly. The link either downloads a .zip file or opens an https data directory when several data formats are available.



# Appendix 1: List of Catalog Layers

|  |
|--|
| <b>Catalogues, groupes et couches</b>  |
| <b>Données écoforestières</b>  |
| <b>Index et téléchargement</b>   |
| <ul style="list-style-type: none"> <li>• Téléchargement - Carte écoforestière PDF</li> <li>• Téléchargement - Données écoforestières</li> <li>• Disponibilité de la carte écoforestière du 5<sup>e</sup> inventaire</li> </ul>           |
| <b>Peuplement écoforestier</b>   |
| <ul style="list-style-type: none"> <li>• Peuplement écoforestier</li> </ul>  |
| <b>Volume forestier</b>  |
| <ul style="list-style-type: none"> <li>• Volume marchand brut (7 m et +)</li> </ul>  |
| <b>Biomasse et carbone forestiers</b>  |
| <ul style="list-style-type: none"> <li>• Biomasse des arbres vivants</li> <li>• Carbone des arbres vivants</li> </ul>  |
| <b>Dépôt de surface</b>  |
| <ul style="list-style-type: none"> <li>• Dépôt de surface de la carte écoforestière</li> </ul>   |
| <b>Pente</b>   |
| <ul style="list-style-type: none"> <li>• Classe de pente polygonale issue du lidar</li> </ul>  |
| <b>Perturbations naturelles et anthropiques</b>  |
| <ul style="list-style-type: none"> <li>• Régime de feux</li> <li>• Feux de forêt</li> <li>• Infrastructures en milieu forestier</li> <li>• Récolte et autres interventions sylvicoles</li> <li>• Épidémie, chablis et verglas</li> </ul> |
| <b>Récolte et autres interventions sylvicoles annuelles</b>  |
| <ul style="list-style-type: none"> <li>• Récolte et autres interventions sylvicoles anciennes (avant 1976)</li> <li>• Récolte et autres interventions sylvicoles récentes (après 1999)</li> <li>• ... 1977 à 2022</li> </ul>             |
| <b>Feux de forêt annuels</b>   |
| <ul style="list-style-type: none"> <li>• Feux de forêt anciens (avant 1976)</li> <li>• Feux de forêt 1976</li> <li>• ... 1977 à 2021</li> <li>• Feux de forêt 2023</li> </ul>  |
| <b>Épidémies, chablis et verglas annuels</b>   |
| <ul style="list-style-type: none"> <li>• Épidémie, chablis et verglas anciens (avant 1976)</li> <li>• Épidémie, chablis et verglas 1976</li> <li>• ... 1977 à 2021</li> <li>• Épidémie, chablis et verglas 2023</li> </ul>               |

|   |
|---|
| <b>Infrastructures en milieu forestier annuelles</b>                                |
| • Infrastructures en milieu forestier 2003  |
| • ... 2004 à 2021   |
| • Infrastructures en milieu forestier 2023  |
| <b>Productivité potentielle par essence</b>   |
| • Hauteur potentielle à 50 ans (m) :<br>EPN, EPB, EPR, SAB, PIB, PIG, BOP, PET, THO |
| • Accroissement potentiel ( $\text{cm}^2/\text{ti/an}$ ) :<br>ERS, BOJ, ERR         |
| <b>Propriétés du bois par essence</b>   |
| • EPN, densité ( $\text{kg}/\text{m}^3$ )   |
| • SAB, densité ( $\text{kg}/\text{m}^3$ )   |
| • EPN, rigidité (GPa)   |
| • SAB, rigidité (GPa)   |
| <b>Contraintes à l'aménagement forestier</b>  |
| • Contrainte de sol mince   |
| • Contrainte de solidité du sol   |
| • Contrainte de rugosité  |
| • Contrainte d'orniérage  |
| • Contrainte d'érosion du sol   |
| • Contrainte d'appauvrissement des sols par la récolte                              |
| <b>Classification écologique du territoire québécois</b>                            |
| • Végétation potentielle de la carte écoforestière                                  |
| • Étage de végétation   |
| • District écologique   |
| • Unité de paysage régional   |
| • Sous-région écologique  |
| • Région écologique   |
| • Sous-domaine bioclimatique  |
| • Domaine bioclimatique   |
| • Sous-zone de végétation   |
| • Zone de végétation  |
| <b>Hydrographie forestière</b>  |
| • Hydrographie surfacique forestière  |
| <b>Couches écoforestières du Nord québécois</b>                                     |
| • Végétation du Nord québécois  |
| • Dépôt de surface du Nord québécois  |
| • Photographies obliques  |
| • Distribution du pergélisol  |
| • Susceptibilité aux affaissements du sol liés au dégel du pergélisol               |
| • Végétation de l'inventaire écoforestier nordique (PIEN)                           |

- Dépôt de surface de l'inventaire écoforestier nordique (PIEN)

### Sondage terrestre

- Placette temporaire 2<sup>e</sup> inventaire
- Placette temporaire 3<sup>e</sup> inventaire
- Placette temporaire 4<sup>e</sup> inventaire
- Unité de sondage 4e inventaire
- Placette temporaire 5<sup>e</sup> inventaire
- Unité de sondage 5<sup>e</sup> inventaire
- Point d'observation écologique

### Subdivisions territoriales forestières (STF)

#### Aires protégées

- Écosystème forestier exceptionnel - Point
- Écosystème forestier exceptionnel classé
- Projet de refuge biologique
- Refuge biologique - Point
- Refuge biologique désigné

### Limites et territoires forestiers du domaine public

- Aire intensification de la production ligneuse
- Bureau unité de gestion - UG
- Certification forestière
- Forêt enseignement et recherche
- Forêt enseignement et recherche – Point
- Forêt expérimentation
- Forêt expérimentation – Point
- Limite territoriale des forêts attribuables
- Région de garantie approvisionnement 1/1 000 000
- Région de garantie approvisionnement 1/20 000
- Unité aménagement 1/1 000 000
- Unité aménagement 1/20 000
- Unité de gestion 1/1 000 000
- Unité de gestion 1/20 000
- Zone de tarification

### Limites territoriales forestières du domaine privé

- Agence régionale de mise en valeur des forêts privées 1/1 000 000
- Agence régionale de mise en valeur des forêts privées 1/20 000
- Conseiller forestier indépendant accrédité 1/1 000 000
- Conseiller forestier indépendant accrédité 1/20 000
- Groupement forestier 1/1 000 000
- Groupement forestier 1/20 000
- Propriété privée

- Syndicat et office de producteurs forestiers 1/1 000 000
- Syndicat et office de producteurs forestiers 1/20 000

### **Subdivisions territoriales forestières amalgamées**

- Autres terrains publics
- Conservation de la biodiversité
- Forêt de proximité – FP
- Forêt enseignement et de recherche
- Forêt expérimentation – FE
- Lacs et rivières importantes
- Pépinière publique forestière – PPU
- Station forestière Duchesnay
- Terres privées
- Territoires autochtones
- Territoires forestiers résiduels – TFR
- Unité aménagement – UA

### **Terrain forestier par domanialité**

- Forêt privée 1/1 000 000
- Forêt privée 1/20 000
- Forêt publique fédérale 1/1 000 000
- Forêt publique fédérale 1/20 000
- Forêt publique provinciale 1/1 000 000
- Forêt publique provinciale 1/20 000

### **Territoires forestiers publics sous droits consentis**

- Convention de gestion territoriale - CGT
- Entente de délégation - ED
- Forêt enseignement et de recherche - FER
- Garantie approvisionnement – GA
- PRAU de bois marchand - PR
- PRBIO pour PRAU de biomasse forestière - PRBIO
- Station forestière
- Terres de catégorie 1 - TC1

### **Lidar**

#### **Index et téléchargement**

- Téléchargement - Lidar (pleine résolution)
- Téléchargement - Carte dendrométrique lidar
- Année d'acquisition du lidar
- Disponibilité des produits dérivés issus du lidar
- Disponibilité de la carte dendrométrique lidar
- Téléchargement – Produits dérivés hydrographiques lidar

|   |
|---|
| <b>Produits dérivés du lidar</b>  |
| <ul style="list-style-type: none"> <li>• Hauteur de canopée lidar (dégradé)</li> <li>• Modèle numérique de terrain lidar (dégradé)</li> <li>• Relief ombré lidar (dégradé)</li> <li>• Pente lidar (dégradé)</li> <li>• Courbe de niveau à intervalle de 1m</li> </ul>   |
| <b>Produits dérivés hydrographiques issus du lidar</b>  |
| <ul style="list-style-type: none"> <li>• Écotone riverain issu du lidar</li> <li>• Lit d'écoulement potentiel lidar</li> <li>• Indice d'humidité topographie lidar (dégradé)</li> </ul>   |
| <b>Feux de forêt</b>  |
| <b>Historique de feux</b>   |
| <ul style="list-style-type: none"> <li>• Feux de forêt</li> <li>• Feux de forêt 2023</li> </ul>   |
| <b>Situation des feux de forêt</b>  |
| <ul style="list-style-type: none"> <li>• Contour de feux année en cours</li> <li>• Feux cumul année en cours</li> </ul>   |
| <b>Mesures préventives</b>  |
| <ul style="list-style-type: none"> <li>• Interdiction de circuler et d'accéder en forêt</li> <li>• Interdiction de circuler et d'accéder en forêt et fermeture de chemins</li> <li>• Interdiction de feux à ciel ouvert</li> </ul>  |
| <b>Potentiel d'intensité de propagation</b>   |
| <ul style="list-style-type: none"> <li>• Régime M 1030 ans</li> <li>• Régime M 1030 ans</li> <li>• Régime K 350 ans</li> <li>• Régime J 255 ans</li> <li>• Régime I 220 ans</li> <li>• Régime H 270 ans</li> <li>• Régime G 120 ans</li> <li>• Régime F 300 ans</li> <li>• Régime E 300 ans</li> <li>• Régime D 540 ans</li> <li>• Régime C 665 ans</li> <li>• Régime B 840 ans</li> <li>• Régime A 300 ans</li> <li>• Hors Régime</li> </ul> |
| <b>Insectes et maladies</b>   |
| <b>TBE - Défoliation annuelle</b>   |
| <ul style="list-style-type: none"> <li>• TBE_DefoliationAnnuelle_5M</li> <li>• TBE_DefoliationAnnuelle_1M</li> </ul>  |

|  |
|--|
| • TBE_Defoliation_Annuelle   |
| <b>TBE - Défoliation cumulative</b>                                  |
| • TBE_DefoCumulative_Grave_Tesselle_5M                               |
| • TBE_DefoCumulative_Grave_Tesselle                                  |
| • TBE_DefoCumulative_5M  |
| • TBE_DefoCumulative_Annuelle  |
| <b>TBE - Historique</b>  |
| • TBE_Historique_Freq_Romer  |
| <b>TBE - Prévision des populations</b>                               |
| • Prevision_population_TBE_L2_Annuelle                               |
| • Prevision_population_TBE_L2_Annee_Precedente                       |
| <b>TBE - Vulnérabilité des peuplements</b>                           |
| • TBE_Vulnerabilite_PROV_1M  |
| • TBE_Vulnerabilite_PROV_500k  |
| • TBE_Vulnerabilite_PROV_250k  |
| • TBE_Vulnerabilite_PROV   |
| <b>Données fauniques</b>   |
| <b>Gestion de la faune et des habitats</b>                           |
| • Chasse interdite   |
| • Habitats fauniques   |
| • Station de nettoyage des embarcations                              |
| • Territoires fauniques structurés                                   |
| • Unités de gestion des animaux à fourrure                           |
| • Zones et parties de zones de chasse                                |
| <b>Protection de la faune</b>  |
| • Bureaux de la Protection de la faune du Québec                     |
| • Districts de la Protection de la faune                             |
| <b>Imagerie aérienne et satellitaire</b>                             |
| <b>Téléchargement - mosaïques d'images satellites</b>                |
| • Téléchargement - Données écoforestières                            |
| <b>Mosaïques d'images satellites</b>                                 |
| • Mosaïque Landsat 1986  |
| • Mosaïque Landsat 2011 à 2021                                       |
| • Mosaïque Sentinel 2021 à 2023                                      |
| <b>Téléchargement - Imagerie aérienne de l'inventaire</b>            |
| • 2002 à 2023 - Téléchargement imagerie de l'inventaire écoforestier |
| <b>Imagerie aérienne de l'inventaire écoforestier en cours</b>       |
| • Index des photos aériennes de l'inventaire écoforestier            |
| • Inventaire écoforestier  |
| <b>Imagerie aérienne de l'inventaire écoforestier historique</b>     |

- Index Inventaire écoforestier historique
- 2002 à 2024 Inventaire écoforestier

### **Imagerie aérienne de planification, suivis et contrôles historiques**

- Index Planification Suivi Contrôle Historique
- 2004 à 2023\_Planif\_Suiv\_Cont

### **Imagerie aérienne partenariat**

- 2020 à 2023 Partenariat ...

### **Imagerie aérienne du gouvernement du Québec**

- Index\_Imagerie\_GQ
- Imagerie\_GQ

### **Découpages territoriaux**

#### **Découpages administratifs**

- Agglomération
- Communauté métropolitaine
- Arrondissement
- Municipalité
- Municipalité régionale de comté
- Région administrative

#### **Découpages cartographiques**

- Fuseau MTM
- Fuseau UTM
- Feuillet 1/20 000
- Feuillet 1/250 000

### **Réseau hydrographique du Québec (GRHQ)**

#### **Hydrographie linéaire**

Sens d'écoulement des cours d'eau

Cours d'eau intermittents (Rivières, ruisseaux, etc.)

Cours d'eau permanents (Fleuve, lacs, rivières, ruisseaux, etc.)

#### **Hydrographie surfacique**

Plans d'eau (Fleuve, lacs, rivières, réservoirs, etc.)

### **Informations géo minière (SIGEOM)**

*Catalogue non décrit*

### **Couches de base (non disponibles dans le catalogue)**

Lieux habités

Chemins

Courbes de niveau

Cadastre du Québec

Service d'imagerie du gouvernement du Québec

Relief du Québec

Fond Québec

## Appendix 2: Value of Grouped Fields in Legends of Certain Layers<sup>1</sup>

### PEUPLEMENTS ÉCOFORESTIERS - COULEURS

|  |                               |   |
|--|-------------------------------|---|
| <ul style="list-style-type: none"> <li><span style="color: black;">█</span> Épinettes</li> <li><span style="color: green;">█</span> Sapin baumier</li> <li><span style="color: lightgreen;">█</span> Pins</li> <li><span style="color: darkteal;">█</span> Thuya occidentalis (cèdre)</li> <li><span style="color: darkblue;">█</span> Autres résineux</li> <li><span style="color: red;">█</span> Peupliers</li> <li><span style="color: pink;">█</span> Bouleau à papier</li> <li><span style="color: yellow;">█</span> Bouleau jaune (merisier)</li> <li><span style="color: brown;">█</span> Érables</li> <li><span style="color: orange;">█</span> Hêtre à grandes feuilles, chênes, frênes</li> <li><span style="color: darkbrown;">█</span> Autres feuillus</li> <li><span style="color: lightgreen;">█</span> Autres terrains forestiers</li> <li><span style="color: lightgray;">█</span> Terrain forestier improductif</li> <li><span style="color: gray;">█</span> Terrain non forestier</li> </ul> | Épinettes                     | EB, EN, EP, EU, EV, RE, EE, EF, EM  |
|  | Sapin baumier                 | SB, SE, SC, SS, SF, SM, SP  |
|  | Pins                          | PB, PG, PI, PR, PS, PC  |
|  | Thuya (cèdre)                 | TO, CE  |
|  | Autres résineux               | ME, MH, MJ, ML, MR, PU, RB, RF, RM, RP, RS, RX, RZ,   |
|  | Peupliers                     | PA, PD, PE, PH, PO, PT  |
|  | Bouleau à papier              | BB, BG, BP  |
|  | Bouleau jaune                 | BJ  |
|  | Érables                       | EA, EI, EO, ER, ES  |
|  | Autres feuillus               | FH, FI, FN, FX, FZ, MF, FO, FP, FR FT, CC, NN, OA, OR, TA, FA, HG, CB, CH, CR   |
|  | Autres terrains forestiers    | PL, CPI_RL_F, CPPTM_U, CPHRS, CPPTM_DIS, CPRS_BA, BR, CBA, CBT, CDV, CEF, CHT, CPE, CPH, CPR, CPT, CRB, CRR, CRS, CT, DT, ENS, ETR, P, PLR, PRR, REA, RPS, VER, RIA, CPR_U-F, CPRS_U, RECUP_C-T                           |
|  | Terrain forestier improductif | AL, DH, DS, IMP   |
|  | Terrain non forestier         | A, AF, ANT, AEP, AER, AUT, BAS, BAT, BHE, CAM, CAR, CFO, CHE, CS, CU, DEF, DEM, DEP, ESG, FRI, GOL, GR, HAB, INC, INO, LTE, MI, MX, NF, NX, QUA, RO, TNP, TOE, US, VIL, VRG, RRG, ENR, DL, EPC_SYS, CP, EL, BRP, ENP, CHP |

<sup>1</sup> For the meaning of each code, refer to the following document: [Cartographie du cinquième inventaire écoforestier du Québec méridional \(French only\)](#).

## RÉCOLTE ET AUTRES INTERVENTIONS SYLVICOLES

|  |  |  |
|--|--|--|
|  Mode de régénération<br> Éclaircie et dégagement<br> Coupe partielle<br> Coupe avec protection de la régénération | Mode de régénération                     | CON, ENM, ENR, ENP, ENS, P, PLB, PLN, PLR, PRR, RIA, RR, RRG, RRN, RRP, RRR, REA, FR   |
|  | Éclaircie et dégagement                  | DEG, DRC, DRM, EPC, EPR  |
|  | Coupe partielle                          | CA, CAM, CB, CBT, CD, CDL, CE, CEA, CIP, CJ, CJP, CJT, CJG, CP, CPI, CPS, CPF, CPM, CPC, CTR, EC, ECE, ECL, ESI, PCP, PSP, PTA |
|  | Coupe avec protection de la régénération | CPE, CPH, CPR, CPT, CDV, CRS, CEF, CRB, CS, CBA, CIF, CT, DLD, ETR, CRR, RBV, RPS  |

## INFRASTRUCTURES EN MILIEU FORESTIER

|   |  |         |
|---|--|---------|
|  Aire d'empilement et d'ébranchage<br> Camp forestier<br> Dépotoir<br> Gravière<br> Ligne de transport d'énergie<br> Milieu perturbé par l'activité humaine<br> Terrain agricole<br> Emprise de chemin | Aire d'empilement et d'ébranchage      | AEP     |
|   | Camp forestier                         | CFO     |
|   | Dépotoir                               | DEP     |
|   | Gravière                               | GR      |
|   | Ligne de transport d'énergie           | LTE     |
|   | Milieu perturbé par l'activité humaine | NF, ANT |
|   | Terrain agricole                       | AF, A   |
|   | Emprise de chemin                      | RO      |

## VÉGÉTATIONS POTENTIELLES

|   |  |  |
|---|--|--|
| <p><b>VÉGÉTATIONS POTENTIELLES FEUILLUES</b></p> <ul style="list-style-type: none"> <li><span style="color: magenta;">■</span> Érablière à caryer cordiforme</li> <li><span style="color: olive;">■</span> Érablière à tilleul</li> <li><span style="color: yellow;">■</span> Érablière à bouleau jaune ou hêtre</li> <li><span style="color: orange;">■</span> Érablière à ostryer ou chêne rouge</li> <li><span style="color: darkgreen;">■</span> Autres végétations potentielles feuillues</li> </ul> <p><b>VÉGÉTATIONS POTENTIELLES MÉLANGÉES</b></p> <ul style="list-style-type: none"> <li><span style="color: lightgreen;">■</span> Bétulaie jaune à sapin ou sapinière à bouleau jaune</li> <li><span style="color: lightblue;">■</span> Sapinière à bouleau à papier</li> <li><span style="color: red;">■</span> Autres végétations potentielles mélangées</li> </ul> <p><b>VÉGÉTATIONS POTENTIELLES RÉSINEUSES</b></p> <ul style="list-style-type: none"> <li><span style="color: lightblue;">■</span> Sapinière à épinette noire</li> <li><span style="color: lightpurple;">■</span> Pessière noire à mousses ou à éricacées</li> <li><span style="color: purple;">■</span> Pessière noire à lichens</li> <li><span style="color: blue;">■</span> Végétations potentielles de milieu hydrique</li> <li><span style="color: darkblue;">■</span> Autres végétations potentielles</li> </ul> <p><span style="color: yellow;">■</span> TOURBIÈRE, MARAIS ou MARÉCAGE ARBUSTIF</p> <p><span style="color: darkred;">■</span> VÉGÉTATIONS POTENTIELLES D'ALTITUDE</p> <p><span style="color: darkgrey;">■</span> VÉGÉTATIONS POTENTIELLES MARITIMES</p> <p><span style="color: lightgrey;">■</span> AUTRES VÉGÉTATIONS POTENTIELLES</p> | <b>Érablière à caryer cordiforme</b>                       | FE1  |
|   | <b>Érablière à tilleul</b>                                 | FE2  |
|   | <b>Érablière à bouleau jaune ou hêtre</b>                  | FE3 ou FE4   |
|   | <b>Érablière à ostryer ou chêne rouge</b>                  | FE5 ou FE6   |
|   | <b>Autres végétations potentielles feuillues</b>           | FO1 ou FC1   |
|   | <b>Bétulaie jaune à sapin ou sapinière à bouleau jaune</b> | MJ1, MJ2 ou MS1  |
|   | <b>Sapinière à bouleau à papier</b>                        | MS2  |
|   | <b>Autres végétations potentielles mélangées</b>           | MF1, MS6, ME1 ou MS3   |
|   | <b>Sapinière à épinette noire</b>                          | RS2  |
|   | <b>Pessière noire à mousses ou à éricacées</b>             | RE2  |
|   | <b>Pessière noire à lichens</b>                            | RE1  |
|   | <b>Végétations potentielles de milieu hydrique</b>         | RS3, RE3 ou RC3  |
|   | <b>Autres végétations potentielles résineuses</b>          | RP1, RT1, RS1, RB1, RS5 ou RB5                               |
|   | <b>Tourbière, marais ou marécage arbustif</b>              | MA1, MA2, TOB, TOF, TO1 ou TOI                               |
|   | <b>Végétations potentielles d'altitude</b>                 | MS4, RS4, RE4, RB4, RB3, RE8, TA1, TA2, LL1, LL2, LL3 ou LL4 |
|   | <b>Végétations potentielles maritimes</b>                  | LM1, LM2, LM3, LM4, MS7, RE7, RS7 ou RB2                     |
|   | <b>Autres végétations potentielles</b>                     | LA1, LA2, LA3, LA4, LI1, RI1, SM1 ou SM2                     |

## Appendix 3: Bibliographic Reference of the Interactive Map

QUÉBEC. MINISTÈRE DES RESSOURCES NATURELLES ET DES FORÊTS. *Forêt ouverte*, [En ligne], 2019. [<https://www.foretoouverte.gouv.qc.ca>] (Consulté le jj mois aaaa).

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et Forêts*

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