

# Getting Started Guide

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## Module 1: Navigating the Map

In this module:

- Launching iMapBC
- Navigation Tools
- Searching for a Location
- Zoom to UTM
- Changing Basemaps
- Exercise 1

## Launching iMapBC

iMapBC is a web application. To open it, visit <u>iMapBC - Province of British Columbia</u> (or Google *imapbc*). On the right hand side, you will see links to the application.

## Applications

- Launch iMapBC
- Launch iMapBC (Username required)

The first link, <u>Launch iMapBC</u>, is the public version of the application. Click there to get started.

The second link, <u>Launch iMapBC (Username</u> <u>required</u>), is the secured version and requires IDIR or BCeID login. It provides access to restricted data and will be explored in <u>Module 4</u>.

### **Navigation Tools**

The Navigation tools let you move around the map window.

ΤοοΙ	Usage
Pan	Click, hold, and drag to move the map canvas. This is the default tool and is reverted to after many other tools are used.
Zoom In	Click, then drag to draw an area of interest on the map. The map will zoom to that location.
Zoom Out	Like Zoom In, click and drag to zoom out while keeping the map centered on your drawn area

Mouse wheel	<ul> <li>You can also zoom in and out at any time by:</li> <li>Rolling your mouse wheel forward/backward</li> <li>Using the zoom buttons</li> <li>Double clicking anywhere in the map window to zoom in</li> </ul>
Keyboard	Zoom in/out by pressing + (plus) or – (minus) keys
Full Extent	Zooms to the extent of the province of B.C.
Back Forward	Move between recent map extents.

### Searching for a Location

You can zoom straight to where you want to go by using the **Search bar** Search. Q found in the top right. You can search anything from cities and towns, to businesses, and geographic features. After searching it will give you a list of results based on either the address, or by the name.



Once you've chosen a list, the map will highlight the location of each result.

When you click an item in the results list, the map will zoom there.

## Zoom to UTM

	Zoom To UTM ×
UTM Position	:
Easting:	607550.2
Northing:	5597261.7
Zone	10N
Extent width:	10 kilometers
	Go to Coordinates

Æ

**Zoom to UTM** provides a quick way to find a location which may not have a place name associated with it.

Input Easting and Northing coordinates, UTM zone, then click **Go to Coordinates**.

### Bookmarks

The **Bookmarks** tool lets you save a specific area of the map to return to later.

Bookmarks	×
Bookmarked Locations	
😢 Victoria	
Staging Area	
😒 Study Area	
Bookmark Current Extent	

To create a new bookmark:

|--|

- 1. Click **Bookmarks**. The Bookmarked Locations window will open.
- 2. Click Bookmark Current Extent.
- 3. Enter a name for the bookmark, and then click **OK**.
- 4. The bookmark will appear in Bookmarked Locations. Click the bookmark name to return to this area at any time.

### **Changing Basemaps**



The default map shown in iMapBC is BC Roads, but there are many other basemaps that you can display including imagery and topography.

Open the basemap picker by clicking the **BC Roads** button (the current basemap) in the bottom left of the map canvas.

### Exercise 1

Each module is followed by a short practice exercise. In this first exercise we will practice navigating to different locations in iMapBC.

### Welcome to iMapBC

1. **Open iMapBC:** Head to the iMapBC launch page by searching *imapbc* on Google and opening the first result. Open the **Launch iMapBC** link.



2. The loading screen with the British Columbia logo will display. Allow up to 30 seconds for the app to load.

Welcome to iMapBC! Take a moment to get familiar with the interface.



Up top is the **Toolbar**, full of nifty tools.

To the left is the **Info panel**. This includes the Layers panel we will use in Module 2.



The **map window** fills the bottom right corner of the screen. This area can be expanded by hiding the toolbar and info panel.



- 3. Try panning and zooming the map by dragging and clicking inside the map window.
- 4. Click **Full Extent** in the toolbar to return to the view of the full province.

5. Click **Zoom In** to activate the tool. Draw a rectangle over Vancouver Island to zoom to that area.



6. Use the **Back** tool to return to the previous map area (full province) and then **Forward** to return to Vancouver Island.



### Searching for a Location

Now that we know how to move the map around, let's go somewhere. How about the coastal village of Tahsis?

- BRITISH i MapBC tassis Data Sources Export Sketch Find Tool Labels Home Help District Lot ~ 50 2.9 J 4 0 Full Extent Lat / Long Find Data Search Results: tassis (39) ≣ × < \* (10) Locations by Address > Tools (29) Location by Place Name Search BC Road Rearch Res. \*
- 1. Type *tassis* in the **Search** bar and hit ENTER.

2. The info panel displays the search results. Click the first option **Locations by Address** to view the results.

	Search Results: tassis (39)	$\equiv$ ×
	(10) Locations by Address	>   …
2	(29) Location by Place Name Search	>
1	Home 📚 Layers 🔍 Search Res	

3. The search results are displayed in the info panel and highlighted on the map. Note how the search tool looks for similar spellings and found the community of Tahsis.

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Home	Data S	ources	Export	Sketch	Find	Help										Tool Label	s X
<b>M</b> Home	Pan	Zoom In	_ Zoom Out	Full Extent	€ Back	Forward	Route Planner	Identify	Print	Print in Albers	Albers	Lat / Long	Щ, utm	District Lot	Plot Coordinates	Bookma	rks
Home				Navigation				Find Data		Export		Zoo	m To		Coordinates	8ookma	rks
<b>Tahsis, BC</b> Address: Tai	Locatio	ons by A	ddress (10	») ≡ >  ···	< +	I wan	t to	>				1		3	調	AL AL	<b>X</b> Tools
Oasis, BC Address: Oa	asis, BC			>			La X		19_	1	~	24			自由	din.	
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4. Click **Tahsis**, **BC**. Then zoom out by scrolling backwards or using the – button on the screen.



5. Is there a community here? Let's change the **basemap** to take a look. Click the **BC Roads** button in the bottom left of the map window, then choose **SPOT Imagery**.

	BR	ITISH JUMBIA	,   iN	ЛарВ	С									tassis		Q	٩
Home	Data	Sources	Export	Sketch	Find	Help										Tool Labels	×
Home	Pan	Zoom In	E Zoom Out	Full Extent	e Back	(* Forward	Route Planner	Identify	Print	Print in Albers	Albers	Lat / Long	UTM	District Lot	Plot Coordinates	Bookmarke	5
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Congratulations, you've learnt to navigate in iMapBC. Next, we'll start adding data.

## Module 2: Viewing Data, Part 1

In this module:

- Adding Provincial Date Layers
- Layers Panel
- Zooming to View Layers
- Identify Tool
- Exercise 2

## Adding Provincial Data Layers





There are hundreds of provincial data layers available for viewing in iMapBC.

They can be added with the **Add Provincial Layers** tool:

- Open the I want to... menu and click Add Provincial Layers. The Add/Remove Map Information window will open.
- Find the layer you are looking for by typing in the search box.
   Suggested options will appear or hit ENTER to see all results.

Alternatively, browse the available layers by browsing the categories. Clicking a category will expand it to show subcategories and layers to add to your map.

 Click a layer to select it, adding a check mark next to it. Click **OK** to add the layers to the iMapBC Layers list.

### Layers Panel



The **Layers** panel lists all the layers in the project and helps you manage their visibility. To show the panel, click the tab in the bottom left of the window.



Initially, the Layers list is empty, but after adding a layer, it will be shown in the Layer panel.

The checkbox **(1)** can be used to turn layers on and off.

The Panel Actions button (2) provides access to the 🗮 Show Legend option, to display the symbology for visible layers.

### Zooming to View Layers

After adding a layer, you may notice it does not display right away. Many layers are restricted to only display at specific scale (zoom) ranges. If a layer is outside the visible range, it will be shown in grey italics like *Groundwater Wells – Class* in the image above.

To make the layer visible the layer, zoom in until the layer name shows in black without italics. Alternatively click the Layer Actions arrow **(3)** and then select **Zoom to visible scale** to zoom directly to the minimum scale.

### **Identify Tool**



**Identify** is useful for finding out more about a feature by viewing feature details (also known as *attributes* or *columns*).

To use it, click the button to activate the tool, then click a location on the map (or drag a rectangle) to view what's there. The overlapping features will be highlighted and shown in a results list. Click the arrow next to the feature name to view the feature details.



### Exercise 2

In this exercise we will learn how to add datasets and use the identify tool to find more about the features on the map.

#### Adding Layers Through Browsing and Keyword Searching

- 1. Open iMapBC.
- 2. Click I want to... then Add Provincial Layers to open the Layer Catalogue.



 From here we want to add Regional Districts – ABMS – Outlined to our map. Click on Administrative Boundaries, to expand the group, then click ABMS – Regional Districts. The layer we want is there, tick the box beside Regional Districts – ABMS – Outlined.



4. Now we're going to find a specific layer using the search bar. Type *groundwater* and wait, a short list will be shown to you, click on **Groundwater Wells – All** and tick the box by the layer, click **OK** to add both layers.

Add/Remove Map Information.				×
groundwater	8	Q	Show Selecte	ed
Background Groundwater Concentration Areas				
Background Groundwater Sample Sites				
Groundwater Supply Wells - Intended Water Use				
Groundwater Well Capture Zones - All				
Groundwater Well Capture Zones - Time of Travel				
Groundwater Wells - All				
Groundwater Wells - Class				
Groundwater Wells - Licence Status				
Groundwater Wells - Lithology				
Water - Groundwater Points				
Water - Groundwater Points (Restrict Access)				
Census Boundaries				
Census Data - Lower Mainland Region				•
	ОК		Cancel	

5. You will notice that Regional Districts are visible on the map but the Groundwater Wells are not (and the layer name is shown in grey italics).



We will need to zoom into the map to view this layer.

#### Learn More About a Feature - Identify

1. Use the **Zoom In** tool and draw a small square over **Smithers** to zoom in. If the Groundwater Well points are still not visible, you may need to zoom in slightly more.



2. When you can see the well points near **Smithers**, click **Identify** then draw a box around a few points on the map. When you let go of left click those points will be identified.

BI CO	RITISH LUMBIA   iMa	рВС								Se	arch		Q	6
Home Data	Sources Export Sk	etch Find He	elp										Tool Lal	bels 🗙
Home Open	Pan Zoom In Zoom	Out Full Extent Ba	ck Forward Route Planner	Hentify Enable Buffering	Enable Add Results	Enable Subtract Results	Rentifiable Layers	Print.	Print in Albers	Albers	Lat / Long	ШМ	District Lot	
Home		Navigation			Find Data				Export		Zoor	n To		
Plot Coordinates Coordinates	Bookmarks Bookmarks													
Gro	undwater Wells - All	× <			Click or	tap a location on th	e map to learn wh	nat's there.	×					
Zoom to full Zoom the ma	extent ap to the full extent of the layer	+	want to		22		Vriftwood reck	<i>z</i> .	X					
Zoom to visi Zoom the ma visible.	ble scale ap to a scale where the layer is	K	10		Smither	egional District of E	Sulkley-Nechako		~.					
Search Turn on/off I Create and vi such as heat	ayer visualizations iew custom layer visualizations maps, clustering, and layer style	5.				A CE			,~~					
Remove laye	r Groundwater Wells - All	▼ Kanada	2 ISH - 2 - 4	likm		J. J. J. J.	dky Gover	nment of Bri	tish Columbia. D	ataBC. GeoF	IC I DataBC.	Province of	British Colum	bia

3. The info panel displays the **Identify Results**, which includes the wells we were looking at, as well as the regional district in the background.

Let's find out more about the wells – click **Groundwater Wells – All** to open the results for that layer.



We can see a list of all identified points inside our search area. These points are also highlighted on the map.



4. Click on the arrow next to the **first result**. The map will zoom to this well and details about the well will be shown in the info panel.



## Module 3: Viewing Data, Part 2

In this module:

- Accessing Layer Metadata
- Finding Datasets in the BC Data Catalogue
- Saving and Loading Projects
- Exercise 3

### Accessing Layer Metadata



You can learn more about any layer in iMapBC by clicking the **Layer Actions arrow** beside the layer name, then clicking **Metadata URL**.

A new window will open showing the layer's entry in the <u>BC Data Catalogue</u> with information about the data (*metadata*) including:

- Data publisher and contacts
- Description and purpose
- Catalogue record creation date
- License
- Who can view the data
- Links to download the data



## Finding Datasets in the BC Data Catalogue

Users may want to use the BC Data Catalogue (BCDC) to explore available datasets and view metadata.

Accessible in the top right of any page on the BCDC, the search tool **Q** provides search with result filtering and ordering options. After finding a dataset of interest, the BCDC also provides a link back to iMapBC to view the layer.

D	ata and Resou	rces							
в	C Geographic	Warehou	se Custor	m Download					
m	ultiple		Access/Download View						
w	/MS getCapabi ms	lities req	luest	Access/Download View					
D	ownload KML ml	Ground (	Overlay fi	le Access/Download View					
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Frequency of I	Resource Update	Not Plan	ined						
Resource Stor	age Format	multiple							
Resource Stor	age Location	BC Geog	Iraphic Wareh	ouse					
Spatial Dataty	pe	SDO_GE	OMETRY						
Object Name		WHSE_B	ASEMAPPING	.DBM_BC_7H_MIL_PARK_POLY					
Object Short N	Name	DBMBC7	7HMLP						
Object Table C Parks for only t	<b>Comments</b> the extent of British (	This spat Columbia. Thi	tial layer deta is is not a mul	ils polygon features that represent National tipart feature.					
Details									
[] Expand									
Column Name	Short Name	Data Type	Data Precision	Column Comments					
ENGLISH_NAME	NGLSHNM	VARCHAR2	50	The English name of the national park					
FRENCH_NAME	FRNCHNM	VARCHAR2	50	The French name of the national park					
YEAR_ESTABLISHED	RSTBLSHD	NUMBER	5	The year in which the park was established.					
REGION_CODE	RGNCD	NUMBER	5	rrownce or senitory in Wilcin park is located - Statistics Canada province code (first 2 digits of the Standard Geographical Classification (SGC)/defines province/territorial extent					
AREA_KILOMETERS_	SQUARED RKLMTRSSQR	NUMBER	12	The Park area in square kilometres					
			Rows	per page: 5 💌 1-5 of 10 < >					

Datasets which are visible in iMapBC will show a **BC Geographic Warehouse (BCGW) Custom Download** link in the **Data and Resources** panel on the right. Click **View** under this item.

The BCGW resource page includes more interesting details about the dataset, including when the data itself was last updated, and descriptions of the columns.

To view the data in iMapBC, click

**Preview** near the top of the page.

The preview map gives an initial look at the dataset. In the top right the **View in iMapBC** button opens a new window with the layer pre-loaded into iMapBC at a visible scale.

### Saving and Loading Projects



Projects can be saved and loaded for later use. Project files include your current map view, layers, uploaded data, and more.

Save		×
Name		
Smithers-Wells		
Description		
Groundwater wells in Smithers.		
	Save	Cancel

To save a project:

Click **I want to...** then **Save** at the top of the menu. Provide a name and description (optional) and then click **Save**. An iMapBC project file (.ghvp) will be downloaded to your computer.

To load a project:

Open	×
Select an iMapBC project file (.gvhp)	
Choose File Smithers-Wells.imap4m.gvhp	
Name Smithers-Wells	
Description	
Groundwater wells in Smithers.	
Preview	
Open	Cancel

Click **I want to...** then **Open**, then **Choose File** and select the .gvhp file on your computer. After you select the .ghvp file, the name and description are shown, along with a preview map.

▲ Note: iMapBC currently has a bug where updates will not be saved if you use the **Save** function repeatedly. If you expect you may want to save again, please refresh the page after saving, **Load** your project file, and then continue working.

## Exercise 3

In this exercise we will be checking to see if we are using the right layer by checking its record in the BC Data Catalogue (metadata URL). We will also practice saving a project to return to later.

In this example, we'd like to confirm that a potential home development site is not subject to historic / heritage restrictions.

#### Checking the Data Catalogue

#### 1. Open iMapBC.

2. Click **I want to...** then **Add Provincial Layers** to open the Layer Catalogue.



3. Next type *historic* into the search bar, then click the magnifying glass to search. Click on **Historic Places – Recognized**, then ok to add it to your map.

Add/Remove Map Information.			×
Historic	0	Q	Show Selected
<ul> <li>Archaeology and Culture (Some Selected)</li> </ul>			
Historic Environment (Some Selected)			
Historic Places - Recognized			
Historic Places - Not Recognized			
Historic Trails			
Historic Trail Features			
Historic Trails			
Historic Trail Areas			
Historic Trails - Internal			
Historic Trail Features - Internal			
Historic Trails - Internal			
Historic Trail Areas - Internal			
Base Maps			
Glaciers			
Historical Glaciers - circa 1985 - Outlined			•
	ОК		Cancel

4. Go to the Layers list and click the right arrow next to **Historic Places – Recognized**, then click **Metadata URL.** 



5. A new window will open with the Data Catalogue record for **Historic Places** – **Recognized**. Note that the dataset goes by a different name (Historic Environment Spatial Layer).

Reviewing the dataset **description**, it looks like this dataset will suit our purposes. When was this data last updated? Check the **BC Geographic Warehouse Custom Download** page. When you're done, close this window and return to iMapBC.

BRITISH COLUMBIA	Data Catalogue	Log In Q 🚍	
$\leftarrow$ Back to Datasets list $\perp$	L Scroll to Bottom 😵 Groups 🗹 Contact Data Expert < Share		
Historic Environm	nent Spatial Layer PUBLISHED	Data and Resources	
Published By		BC Geographic Warehouse Custom Download	
Heritage Branch		multiple Access/Download View	
<b>Description</b> The Historic Environment S	Spatial Layer contains polygons and related attributes representing post-1846	WMS getCapabilities request	
historic places in British Co any archaeological site info	olumbia that are recorded on the provincial heritage register. It does not include ormation.	wms Access/Download View	
,		Download KML Ground Overlay file	
Licence		kml Access/Download View	
Access Only			-
Contacts			
Name	Theresa McFarland@gov.bc.ca		
Email	Theresa.McFarland@gov.bc.ca		
Organization	<u>Heritage Branch</u>		

#### Saving a Project

1. Now that we know this is the layer we want to use, let's zoom to our development site, located at 1599 Angus Dr, Vancouver BC.

Enter *1599 angus drive* in the **Search**, and then open the Locations by Address results and click the matching result.



2. The map will zoom to our address and... phew! Our address is not a heritage site. We need to head out for a site visit but would like to return to our work in iMapBC later.

To save a project, click **I want to...** then **Save**. The save menu will open asking to give your map a name and description. For the name type *Exercise\_3* and in the description type *Historic places*. When you are done click **Save** and your project will be downloaded as a file called *Exercise\_3.imap4m.gvhp*.



3. ... back from a productive site visit and it's time to reopen our project. **Reload** the page in your browser (**press F5**). After reloading there will be nothing on the map.

Click **I want to...**, then **Load**. A pop up will warn you that any work you have will be overwritten, click **OK**.

4. Click **Choose File** and select your saved .gvhp project file. The saved project name and description you typed earlier is displayed along with a preview thumbnail. Click **Open**.



5. After loading, we are back at the exact location we left off, with the Historic Places layer added.



We can now add data in iMapBC, learn more about it from the BC Data Catalogue, and save our work. Next, we'll access government-only data by logging into secure iMapBC.

## Module 4: Accessing Secure Data

In this module:

- Opening the Secure Version of iMapBC
- Adding Restricted Data
- Exercise 4

## Opening the Secure Version of iMapBC

In the first module, we found the link to iMapBC on <u>iMapBC - Province of British Columbia</u>. Up to this point we've been working with the public version of the application.

## Applications

- Launch iMapBC
- Launch iMapBC (Username required)

The second link, <u>Launch iMapBC (Username</u> <u>required</u>), is the secured version and requires IDIR or BCeID login. It provides access to restricted data that the public can't view.

Secure iMapBC contains all the same functionality as public iMapBC, as well as the Spatial Overlay Engine (SOE) tool.

## Adding Restricted Data

Many datasets are restricted to government users, while others are available only to named users. Secure iMapBC provides direct access to any datasets you have permission to view.

Popular government-only datasets include:

- Profiles of Indigenous Peoples (PIP) Consultation Areas,
- Forest Tenure Cutblock Polygons,
- Fully Attributed version of ParcelMap BC Cadastre.

Named user-only datasets have security classifications Protected-A, B, or C and include potentially sensitive data related to archeology, endangered species, and mineral potential.

- 1. Open <u>iMapBC secure</u> and login.
- 2. Open the **Add Provincial Layers** tool restricted datasets will be shown alongside the public layers.

Ad	dd/Remove Map Information	).		3
PIP		8	Q	Show Selected
First Nations PIP Consultation Areas -	Acho Dene Koe			
First Nations PIP Consultation Areas -	Adams Lake Indian Band			
First Nations PIP Consultation Areas -	Ahousaht First Nation			
First Nations PIP Consultation Areas -	An Djam Lan (Gitxsan Laxyip)			
First Nations PIP Consultation Areas -	Ansa Ax (Gitxsan Laxyip)			
First Nations PIP Consultation Areas -	Anxmaiy Litsxw (Gitxsan Laxyip)			
First Nations PIP Consultation Areas -	Binche Whut"en			
First Nations PIP Consultation Areas -	Blueberry River First Nation - Civil Cl	aim Area Ya	hey De	cision
First Nations PIP Consultation Areas -	Blueberry River First Nations - Area A			
First Nations PIP Consultation Areas -	Blueberry River First Nations - Area B			
First Nations PIP Consultation Areas -	Blueberry River First Nations - Area C			
Land Ownership and Status				
		ок		Cancel

3. Add layers by browsing or searching the Layer Catalogue as usual.

A Note: Review and adhere to access restrictions if sharing your map or data.

### Exercise 4

In this exercise we will open the secured version of iMapBC to view the fully attributed parcel cadastre, a government-only dataset. If you are external to government, you will need specific permissions added to a BCeID. Otherwise, you will not be able to complete this exercise and can move on to Module 5.

1. **Open secure iMapBC:** Head to the iMapBC launch page by searching *imapbc* on Google and opening the first result. Open the second **Launch iMapBC (Username required)** link.



2. Login using IDIR credentials in the popup window.

Sign in to access this site			
Authorization required by https://sso7.gov.bc.ca			
Username	jdoe		
Password			]
		Sign in	Cancel

3. Load the project file from Exercise 3 by clicking **I want to...**, **Load**, and selecting the .gvhp file.

- 4. Open the **Layer Catalogue** (**I want to... > Add Provincial Layers**) and examine the available datasets. You can compare against the public version of iMapBC in another window.
- 5. Enter *pmbc* in the search bar and hit ENTER. Scroll down through the results and check **PMBC Parcel Cadastre By Owner Type Fully Attributed**, then click **OK**.

Add/Remove Map Information.		×
pmbc	<b>8</b> Q	Show Selected
PMBC Parcel Cadastre - Unclassified		
ParcelMap BC Parcel Fabric Cadastre - Fully Attributed (Some Selected)		
PMBC Parcel Cadastre - Fully Attributed - Outlined		
PMBC Parcel Cadastre By Owner Type - Fully Attributed		
PMBC Parcel Cadastre - Crown Provincial - Fully Attributed		
PMBC Parcel Cadastre - Crown Agency - Fully Attributed		
PMBC Parcel Cadastre - Untitled Provincial - Fully Attributed		
PMBC Parcel Cadastre - Federal - Fully Attributed		
PMBC Parcel Cadastre - Municipal - Fully Attributed		
PMBC Parcel Cadastre - Private - Fully Attributed		
PMBC Parcel Cadastre - Mixed Ownership - Fully Attributed		
PMBC Parcel Cadastre - Unclassified- Fully Attributed		
ParcelMap BC Parcel Polygons		
PMBC Parcel Polygons - Labels - PID		
PMBC Parcel Polygons - Outlined		*
	ОК	Cancel

6. The PMBC layer has been added, but what do the colours mean? Click the **legend** button to reveal the owner types. What owner type is this lot?



7. The **PMBC Parcel Cadastre By Owner Type – Fully Attributed** dataset is identical to the public dataset but with a few extra feature details, such as Legal Description. Use **Identify** to view the details for the parcel at 1599 Angus Drive.

What is the area of the lot?

## Module 5: Uploading Data

In this module:

- Uploading Data
- Styling Layers
- Exercise 5

### **Uploading Data**

1 Upload Data Files containing project or field data can be uploaded to iMapBC through a variety of common geospatial file types.

	Add Data To Map	×
Choose files to become temp	o upload from your computer, and they o orarily available on the map.	will
Supported fil a .zip containii	<b>e types include:</b> .csv, .xlsx, .kml, .shp, .gp ng a FileGDB or shapefiles	x, or
Note: L browse	.arge or complex spatial data may impac r performance.	t
Choose File	s No file chosen	
	Upload	ncel
	Layer Details	×
Layer Name:	Project footprint	
	Proceed	ncel
	Symbolize Data	>
Color: Out	tine Color:	
Line Width: 🗧	2	рх
Line Style:		~
SOIIO		v
Solid		~

Proceed

To upload, open the **Data Sources tab** in the top toolbar.

Click **Upload Data.** A menu will open to upload your file.

Choose a file from your computer, then click **Upload.** 

You will be prompted to give your data a layer name, which will be shown in the Layers list.

The next window allows you to customize the appearance of your data (*symbology*) or to accept the random colours assigned. Layer appearance can be modified later.

### **Styling Layers**

Visualization Options ×
Select a visualization for your layer: Custom Layer Style
Choose Symbology Type: Simple
Color: Outline Color:
Line Width:
2 px
Line Style:
Solid 🗸
Fill Style:
Solid 🗸
Apply Done
Apply Done

If you want to change how a layer looks, click the **Layer Actions arrow** next to the layer name in the Layers list.

Click **Turn off/on layer visualizations**, then choose **Custom Layer Style...** 

The available Symbology Type options will vary by data type. **Simple** will use one style for all features. **Attribute** allows for categorizing data based on feature attributes, e.g. the classification of a park.

When you are done customizing, click **Apply**, then **Done**.

If you want to remove your customization entirely, **Remove layer** and then add the layer again.



Before



After

## Exercise 5

In this exercise we will bring in data for a fictional proposed mine project near Bella Coola. We will check to see if there are any conflicts with Wildlife Habitat Areas.

#### **Uploading Data**

- 1. **Open iMapBC** (public or secure).
- 2. Open the **Data Sources tab** in the toolbar and click **Upload Data**.



3. Along with these training materials, you have been provided with a data file called *example\_mine.kml*.

Click **Choose Files** and select *example\_mine.kml* on your computer. Then click **Upload**.

Add Data To Map	×	
Choose files to upload from your computer, and they w become temporarily available on the map.	ill	
<b>Supported file types include:</b> .csv, .xlsx, .kml, .shp, .gpx, a .zip containing a FileGDB or shapefiles	or	
Note: Large or complex spatial data may impact browser performance.		
Choose Files example_mine.kml		
example_mine.kml 25 KB		
<b>Upload</b> Can	cel	

- 4. On the Layer Name popup, click **Proceed.**
- 5. On the **Symbolize Data** popup, try changing the colour. Then click **Proceed**.

6. Our data has been added, but where is it? Open the Layers list, click the Layer Action arrow next to the line feature, and click **Zoom to full extent**.

The map will zoom to our uploaded data. We can see the access road and proposed mine site.



▲ Note: Unfortunately, iMapBC does not preserve the feature names or styles when loading .kml files so they are just shown as *example\_mine 1* and *2* in the Layers list.

Layers can be renamed using **Edit layer properties** in the Layer Actions menu.

Opening the .kml file in Google Earth shows the original names and styling.

### Viewing Uploaded Data Alongside Provincial Layers

1. Now that we have our project data visible, we'd like to compare it with Wildlife Habitat Areas (WHAs).

Use **Add Provincial Layers** to add the **Wildlife Habitat Areas – Approved – Colour Themed** layer. You know the drill! If necessary, zoom in so WHAs are visible.



2. Does the mine site or access road intersect with the WHAs?

Zooming in for a closer look, we can see the road intersects **WHA Number: 5-140**. Use **Identify** to find out more about this WHA. What species does it protect?



- 3. If you zoomed in to WHA 5-140, use **Back** in the navigation group to return to the previous view so the mine polygon is in the map window.
- 4. Does the mine polygon overlap with a WHA? We can use the **Opacity slider** next to the layer name to see behind the polygon.



- 5. **Save** your project (**I want to... > Save**) as *Exercise*\_5 for use in the next module.
- 6. [Optional] Let's modify the WHA styling to show the species of concern. In the Layers list, click the **Layers Action arrow** next to Wildlife Habitat Areas, then click **Turn on/off layer visualizations**.
- 7. Choose **Custom Layer Style...**, **Attribute** for Symbology Type, and **Common Species Name** for the attribute to symbolize.



We can see that all the WHAs in the upper Nusatsum River valley are for Grizzly Bear.

### Extension: Loading .kmz files

While iMapBC can load .kml files, .kmz files are not accepted. The good news is .kmz files can be easily converted to .kml in Google Earth (or using an online tool, though data privacy might be compromised).

An example file *SiteC.kml* has been provided if you want to test this out.

- 1. In **Windows Explorer** find the .kmz file and double click it to open it in **Google Earth**.
- 2. In the **Places** panel on the left, right click the layer (or folder) of interest and select **Save Place As...**



- 3. In the Save file window, change **Save as type** from Kmz to **Kml**.
- 4. Try loading *SiteC.kmz* and the new .kml file in iMapBC.

## Module 6: Exporting Maps

In this module:

- Printing Maps
- Capturing Screenshots
- Exporting GeoTIFF Images
- Exercise 6

### **Printing Maps**



iMapBC can export maps in a variety of formats for screen viewing or printing. With just a couple clicks, the **Print** tool allows you to export a map with standard elements including a legend, scale bar, and north arrow.

Print Map	×
Select Lavout	
Default Landscape - 8.5x11	•
Output Format	
Pdf	•
Resolution	
Low	-
Grid	
(None)	-
Current Scale - 1: 2311162	-
Title	
iMapBC Mapping	
	_
Datum	_
NAD83	
	-
Lock print preview with map	_
Print Cano	el

The **Print** tool is found in the **Home** and **Export tabs**. The tool offers a variety of layout and size options.

The map extent will be shown as a red rectangle in the map window. Uncheck **Lock print preview with map** to adjust the map by panning and zooming.

After clicking **Print**, the map will prepare and then can be opened with **Open File**. This will open your map in a new window where you can download the file or print to paper.



### **Capturing Screenshots**



Another export option is **Export Image**. Export Image captures the entire current extent of the map window and, unlike Print, does not add map features like a legend.

Export a Map Image	: ×
Select Image Format PNG Include Georeference Data	Create Image

#### On the **Export tab**, click **Export Image**.

You can choose an image format. PNG is fine for most purposes.

Click **Create Image** then **View Image** to open the file in a new window.

## Exporting GeoTIFF Images

**GeoTIFF** is a special image format which stores location information. GeoTIFF can be viewed just like other common image formats, but can be easily imported to Google Earth, Gaia, Avenza and other mapping tools for further analysis or to view offline in the field.

Export a Map Image	×
Select Image Format	
GeoTIFF	~
BMP	
JPEG	
PNG	
TIFF	
GeoTIFF	
PDF	

To export as GeoTIFF, use the **Export Image tool**, then choose **GeoTIFF** as the image format.

**Create Image > View Image** and a file called *Export.tif* will download to your computer.

To import to Google Earth, open Google Earth. Locate the .tif file in Windows Explorer and drag and drop the file onto the map in Google Earth.



### Exercise 6

In this exercise we will export our mine project from Exercise 5 in various formats.

#### Printing to PDF

- 1. **Open iMapBC** and open the saved project from Exercise 5 (**I want to... Open**). A copy of this file has been provided with the learning materials (*Exercise\_5.imap4m.gvhp*).
- 2. Adjust the map extent by zooming out and panning so the entire access road is visible.



- 3. Click **Print** in the center of the toolbar.
- 4. Leave the default print settings as is. However, we can adjust and center our map. In the **Print panel**, scroll down and uncheck **Lock print preview with map**. Click and drag the map to center it around the area of interest.



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5. Ready to print? Click **Print**, then **Open File**. The .pdf will open in a new window or tab. This may look different depending on your browser and operating system.

Options to download or print the file can be found in the top right in Microsoft Edge (pictured) and Google Chrome.



Note the uploaded features are excluded from the legend.

### Exporting Images

- 1. Return to iMapBC.
- 2. Without changing the view, open the **Export tab** and click **Export Image**.
- 3. Leave the default format (PNG) and click **Create Image**, then **View Image**.
- 4. The entire map extent is exported. **Right click > Save image as** to save to desktop.



### Using GeoTIFF to view in Google Earth

- 1. Return to iMapBC.
- 2. We've seen how Export Image includes the full map extent. Adjust the extent if desired, then click **Export Image** again.
- 3. Change the format to **GeoTIFF**, then click **Create Image**, then **View Image**.
- 4. A file called *Export.tif* will be downloaded to your computer. Find the file in **Windows Explorer**, then double click it to view the file in the default image viewer.



5. If it is installed on your computer, open **Google Earth Pro**. From Windows Explorer, **drag and drop** the file into the map area in Google Earth.



6. Click **OK** on the prompt. The map will zoom to our project area. Explore the map in 3D.



7. Back in **iMapBC**, try the **GeoTIFF URL** tool. It produces a similar output but with a less narrow aspect ratio.

## Module 7: Additional Information

In this module:

- Getting Help
- Downloading Data
- KML Ground Overlays

## **Getting Help**

You can learn more about other functions in iMapBC from the complete <u>User Manual</u>, linked from the <u>iMapBC home page</u>. Other useful features include Sketch tools to add features and notes to a map, and Query tools for finding data of interest.

If things aren't working properly, you want report an outage, or have questions that need human help, you can file a ticket through <u>NRS Helpdesk</u> (Application Support).

## Downloading Data

Most provincial data viewable in iMapBC can also be downloaded directly in common formats such as shapefile, GeoJSON, and CSV. Compared to image exports, these formats offer greater flexibility for analysis, as well as custom styling and offline viewing.

A short video tutorial showing how to download data from iMapBC is available on <u>YouTube</u>. GeoJSON is the simplest format and will work in many applications.

More detailed documentation for the data download process is available at <u>Exporting Data</u> <u>via a Shopping Cart - Province of British Columbia (gov.bc.ca).</u>

## KML Ground Overlays

Data and Resources		
WMS getCapabilities request		
wms	Access/Download	View
Download KML Ground Overlay file		
kml	Access/Download	View
BC Geographic Warehouse Custom Download		
multiple	Access/Download	View

You may have noticed a resource in the BC Data Catalogue called **Download KML Ground Overlay file**.

These files provide a link to view BCGW data directly in Google Earth and are available for all public layers found in iMapBC.

KML Ground Overlays do not support custom styling or identify to view feature details. It is also suggested to <u>turn off 3D buildings</u>, especially when viewing urban areas.