Welcome to
Create Custom Map with
QGIS Print Layout

Questions to think about:

- What is your name?

- What program/department are you from?

- What brought you to the workshop today?

- What do you hope to get out the workshop?

2026

University of Victoria | Libraries

With *QGIS* someone could:

• Create beautiful maps…

And/or

• Conduct spatial analysis…

QGIS has hundreds of tools and possibilities…

This is an Introduction to *QGIS* with creating a custom map

Create Custom Map with *QGIS* Print Layout

2026

As per the instructions when you signed up:

QGIS downloaded on your computer?

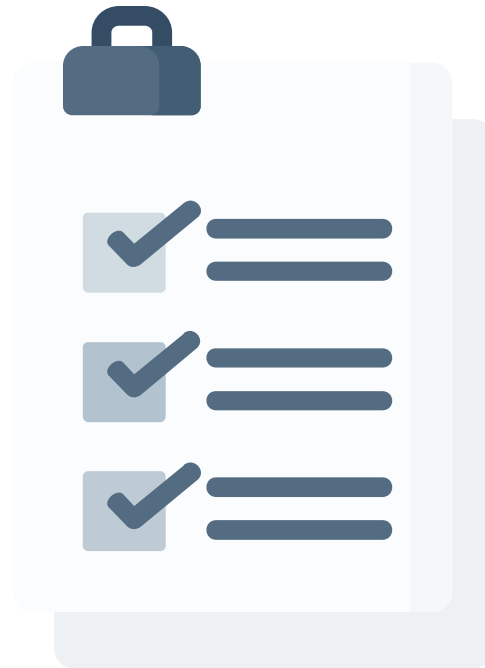If not, please come back to the workshop another time!

Territorial Acknowledgment

We acknowledge and respect the ləkʷəŋən peoples on whose traditional territory the university stands and the Songhees, Esquimalt, and WSÁNEĆ peoples whose historical relationships with the land continue to this day.

Learning Objectives

- **Review** and list differences with some mapping tools

- **Identify** and **navigate** key *Print Layout* elements

- **Distinguish** why *QGIS Print Layout* is necessary for custom map(s)

Outcomes

Using *QGIS*, participants will:

- **Load** (.shp, .csv) files

- **Navigate** main features of *Print Layout*

- **Create** and **export** custom map using *QGIS Print Layout*

What is a Mapping Tool?

- Software/hardware typically designed for specific tasks or functions such as mapping
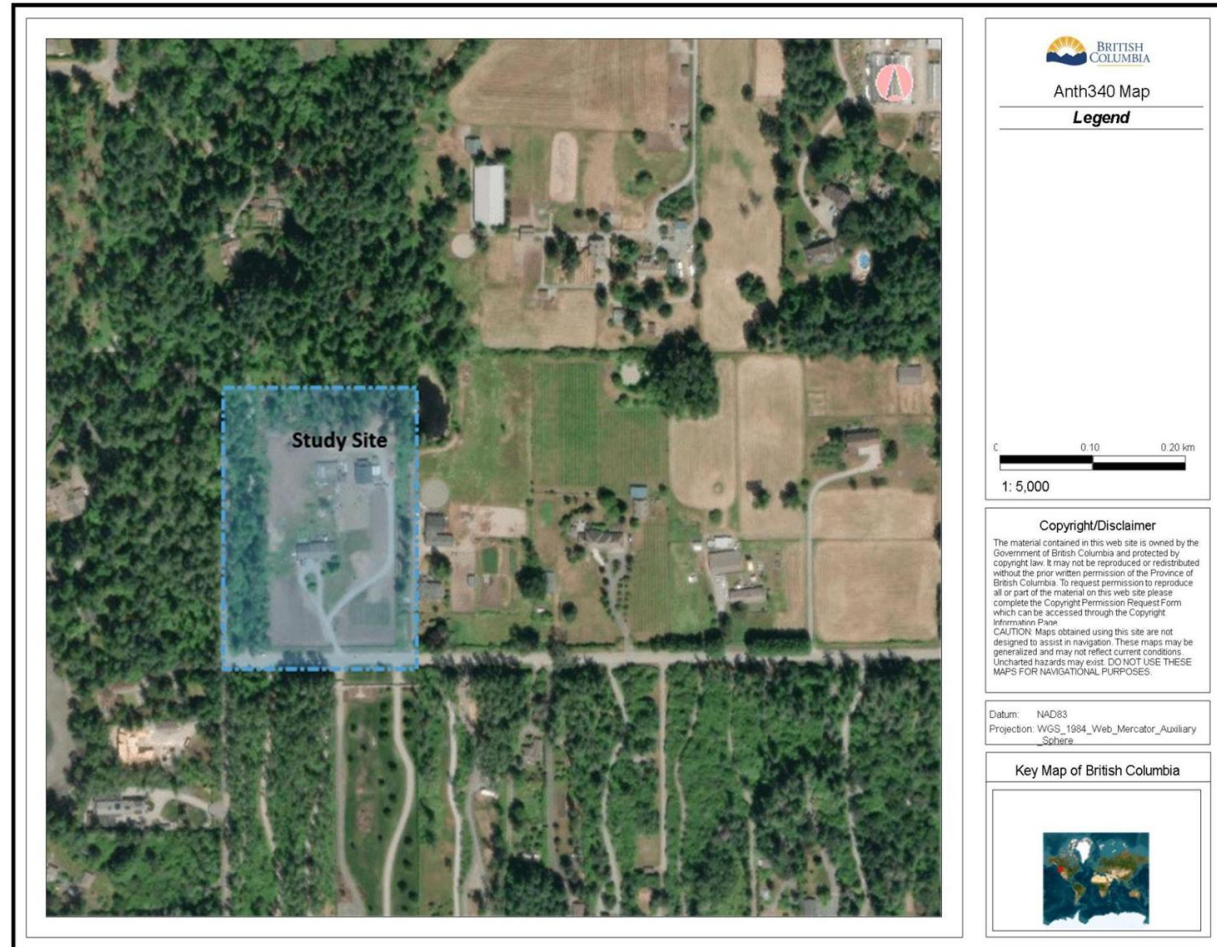- Very limited spatial analysis

What is a GIS?

- A comprehensive system which encompasses a range of geospatial tools for spatial modelling and analysis

Not all mapping tools are a GIS!

Maps from mapping tools

Some applications can make very basic maps, but lack tools to create customizable, advanced maps like *QGIS*

Map created on *iMapBC*

Maps from mapping tools

Some applications can make very basic maps, but lack tools to create customizable, advanced maps like *QGIS*
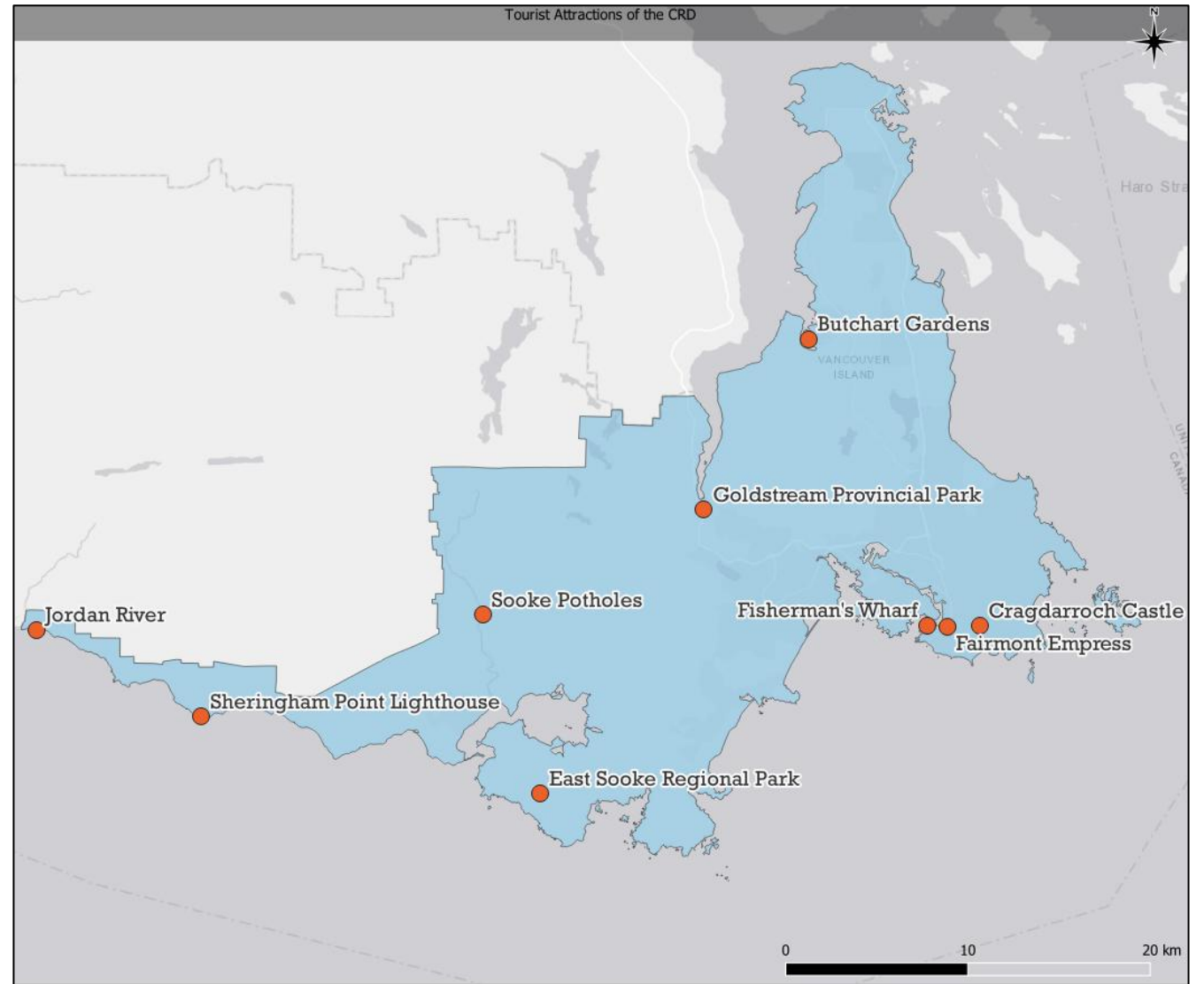

Map created on *Google Earth Pro*

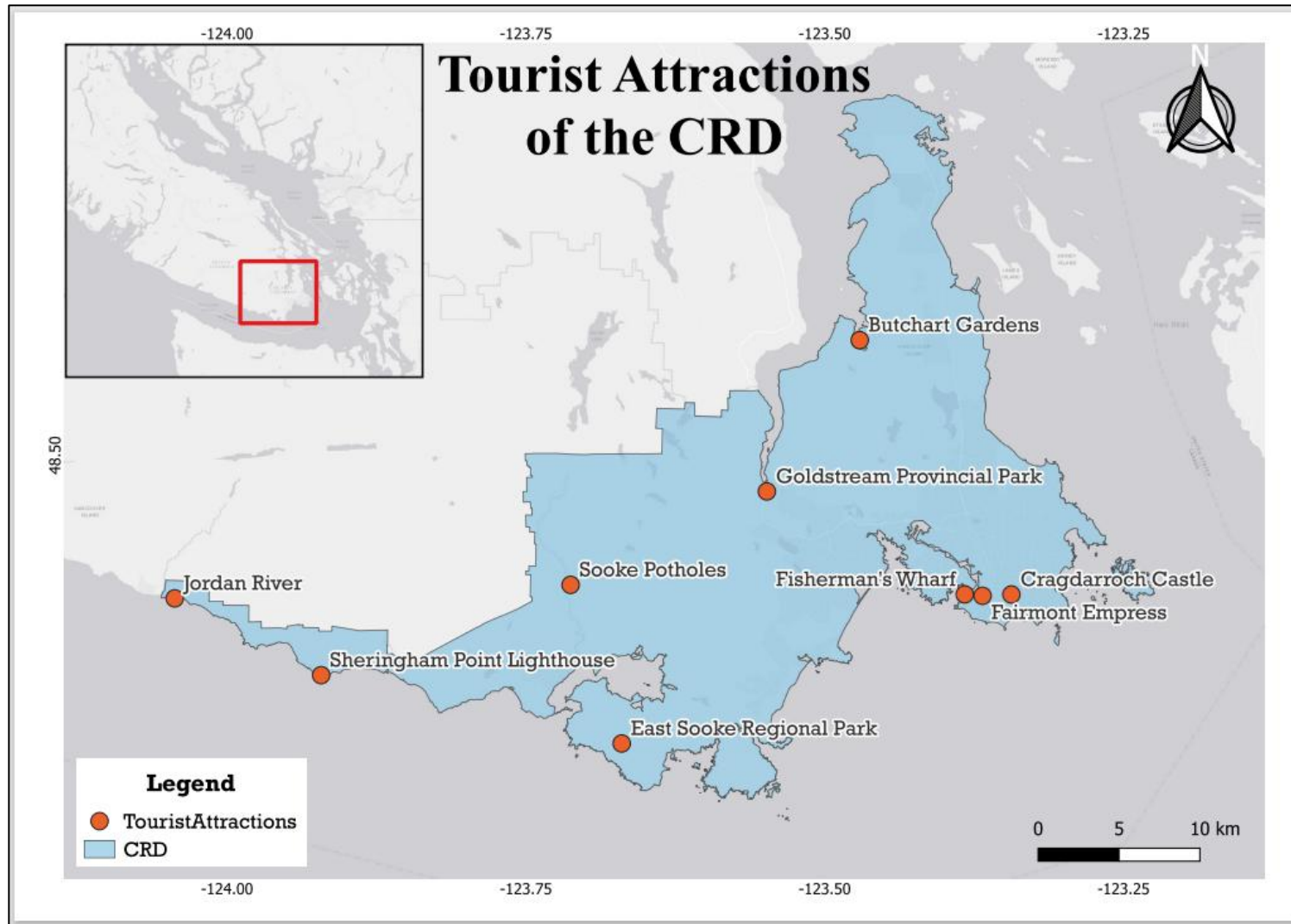*QGIS* **offers basic map "decorations" on map view**:
can screenshot or export as PDF or image
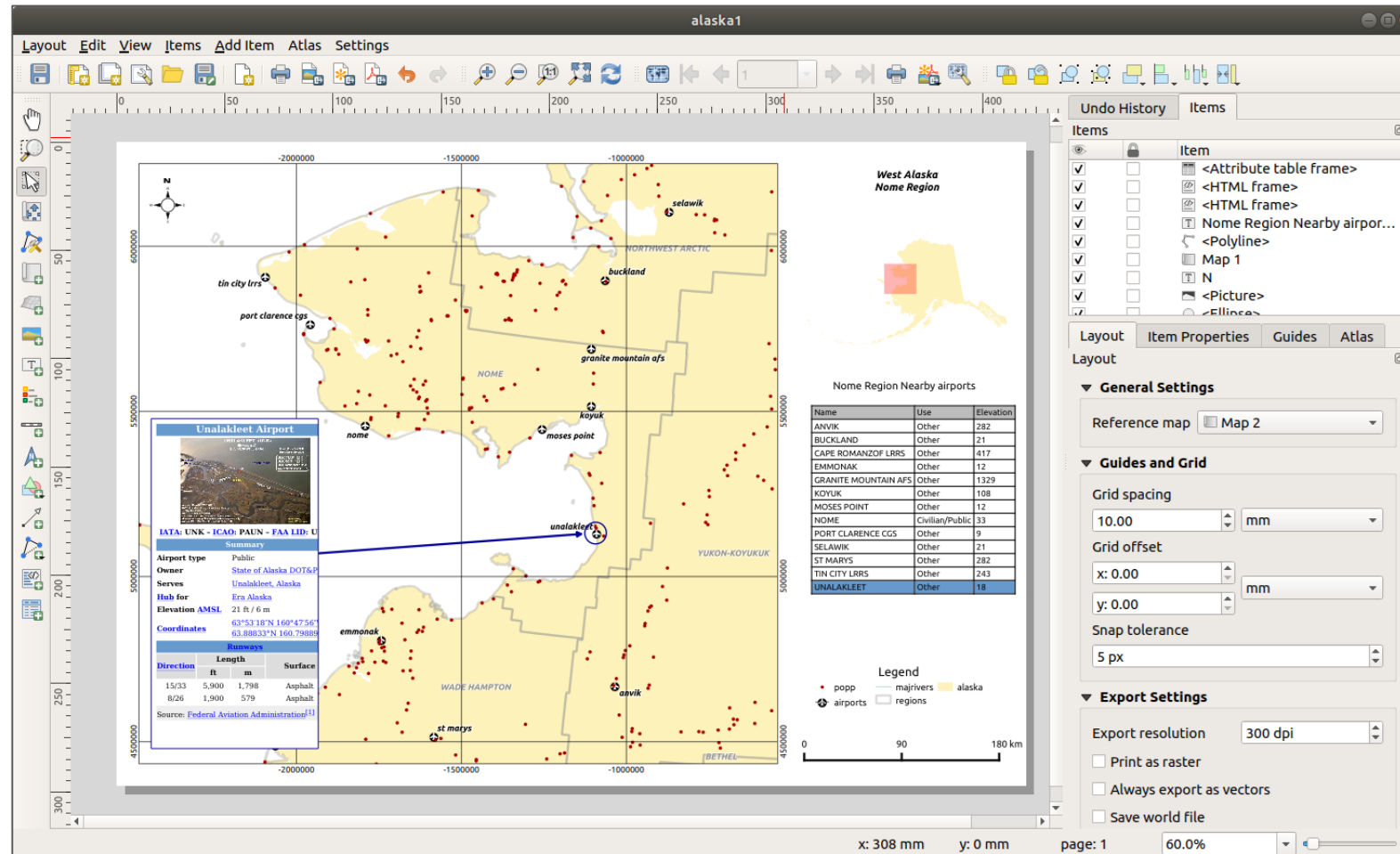But can't add…

- Legend

- Shapes

- Overview inset map

QGIS *Print Layout* can create advanced custom maps
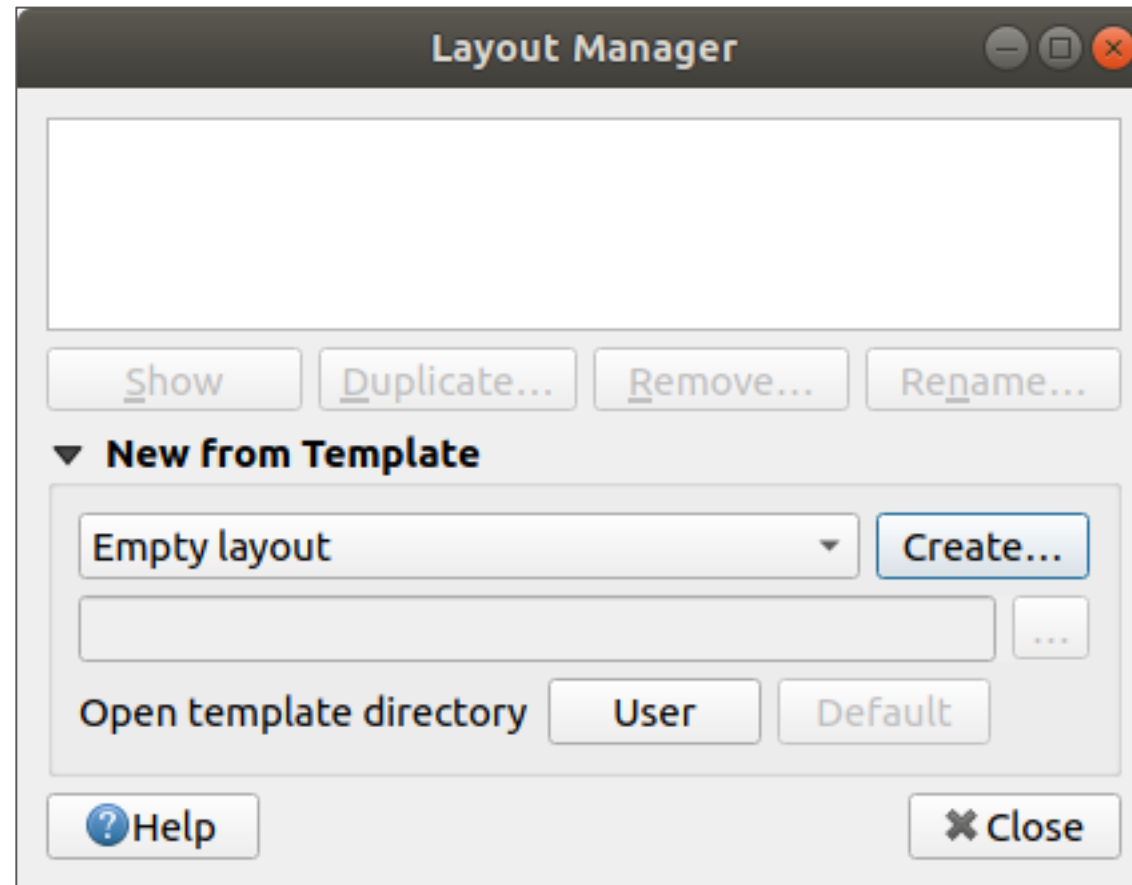

Map created on *QGIS **Print Layout***

Exporting map on *QGIS*

- Need to be able to print or export *QGIS* map
- GIS map file is not an image - has references to all layers, labels, colours, etc.
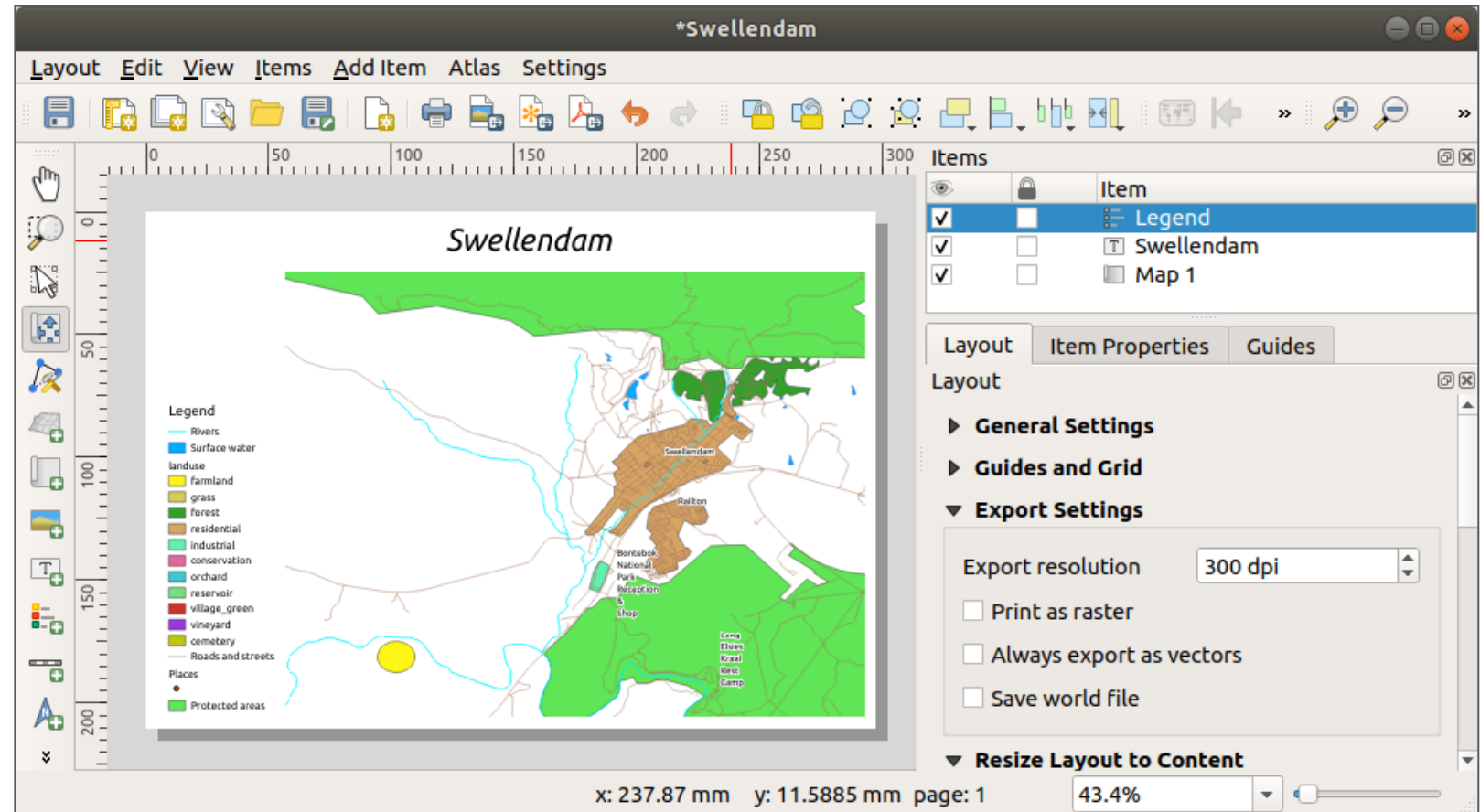- Can export map file via *Print Layout*

Why *Print Layout*?

- Can create and export multiple maps for the same *QGIS* map
  - Organize these using *Layout Manager*
- Can create and save templates for future maps
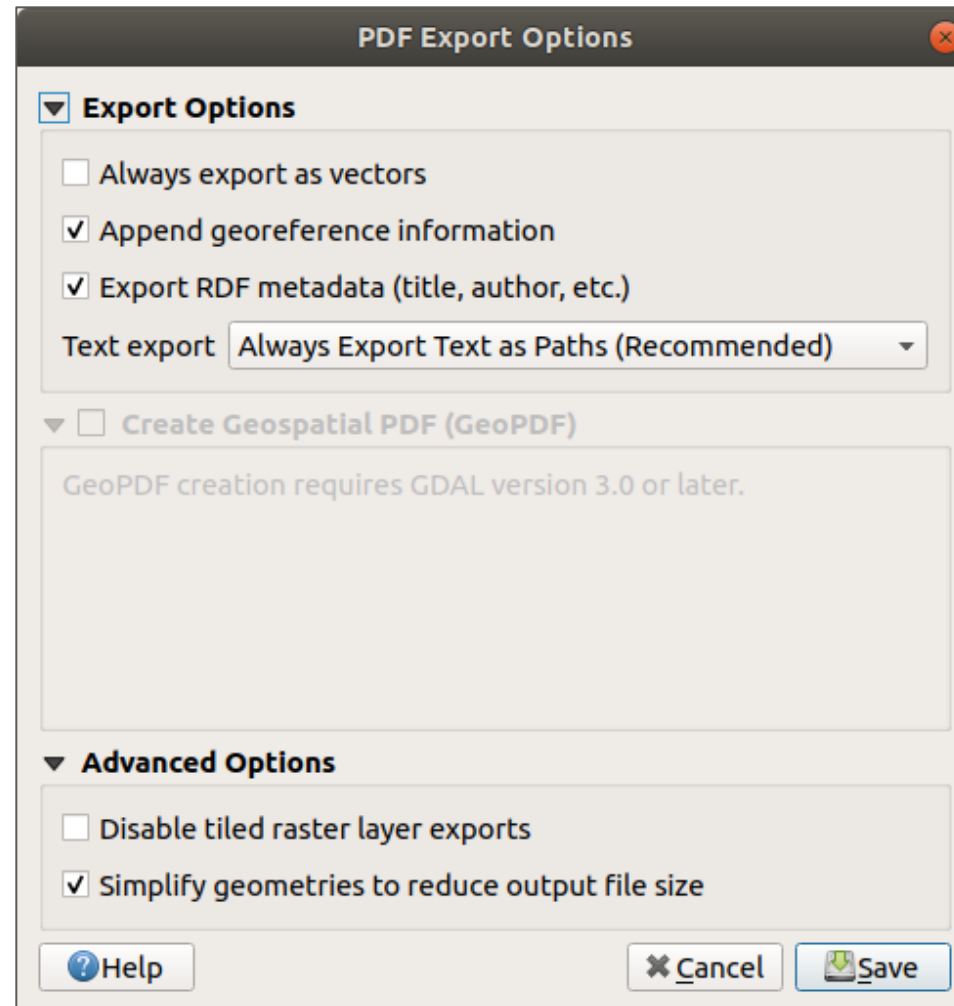

QGIS Training Manual

Why *Print Layout*?

Print Layout allows:

- customizable legends
- text
- images
- overview inset maps
- grids/coordinates
- shapes
- etc.

Why *Print Layout*?

- Can export maps in multiple formats
    - .pdf, .svg, .jpeg, .png, etc.

[QGIS Training Manual](#)

Understand *QGIS* interface

*your interface may look different

Menu Bar
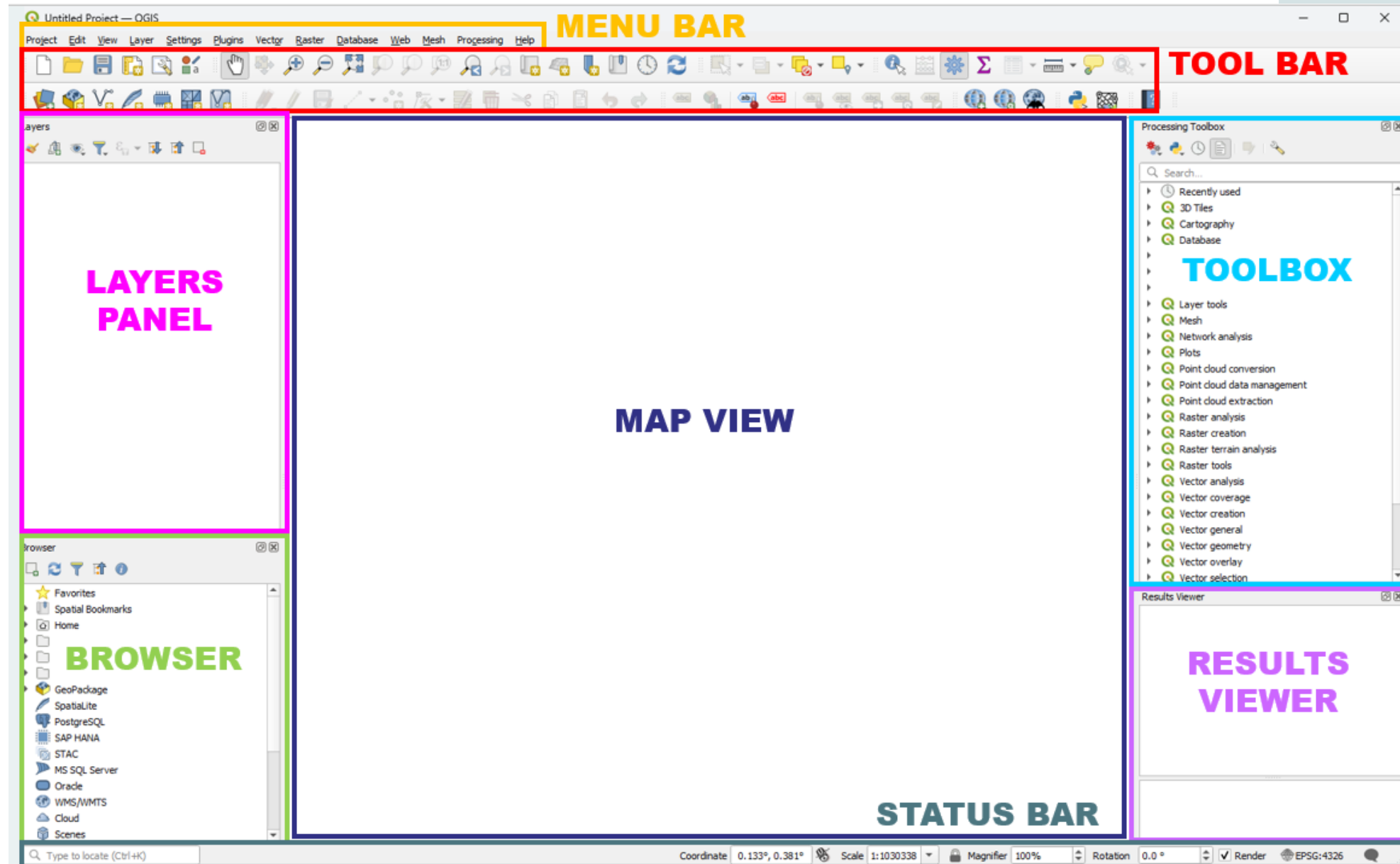
Toolbar

Layers Panel

Browser

Map View

Status Bar

Toolbox

Results Viewer

Understand *QGIS* interface

Menu Bar: Project Edit View Layer Settings Plugins Vector Raster Database Web Mesh HCMGIS Processing Help

Horizontal bar at top provides access to various functions and tools

(Project management, Edit, Plugins, Vector & Raster tools, etc.)
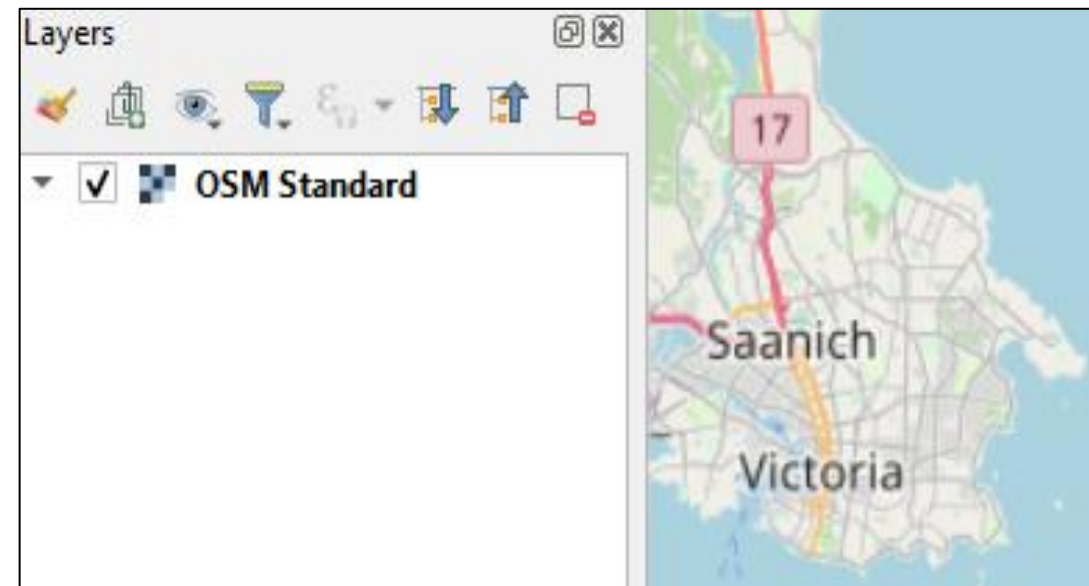
Toolbar:

Contains icons for frequently used tools, such as Add Data, Pan, Zoom, Identify, etc.

Quick access to essential operations.

Layers Panel:

Displays all active **Layers** in the project.

Allows users to organize, manage visibility and access properties of layers
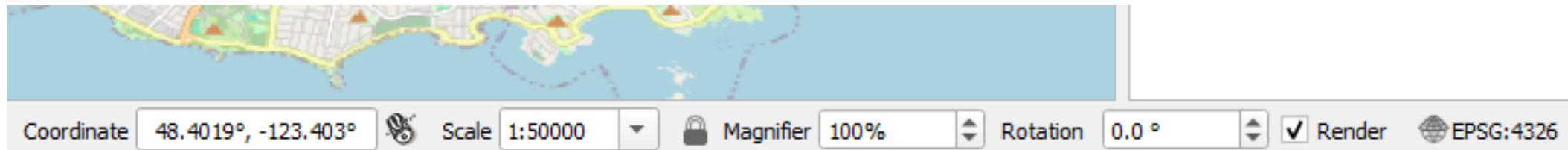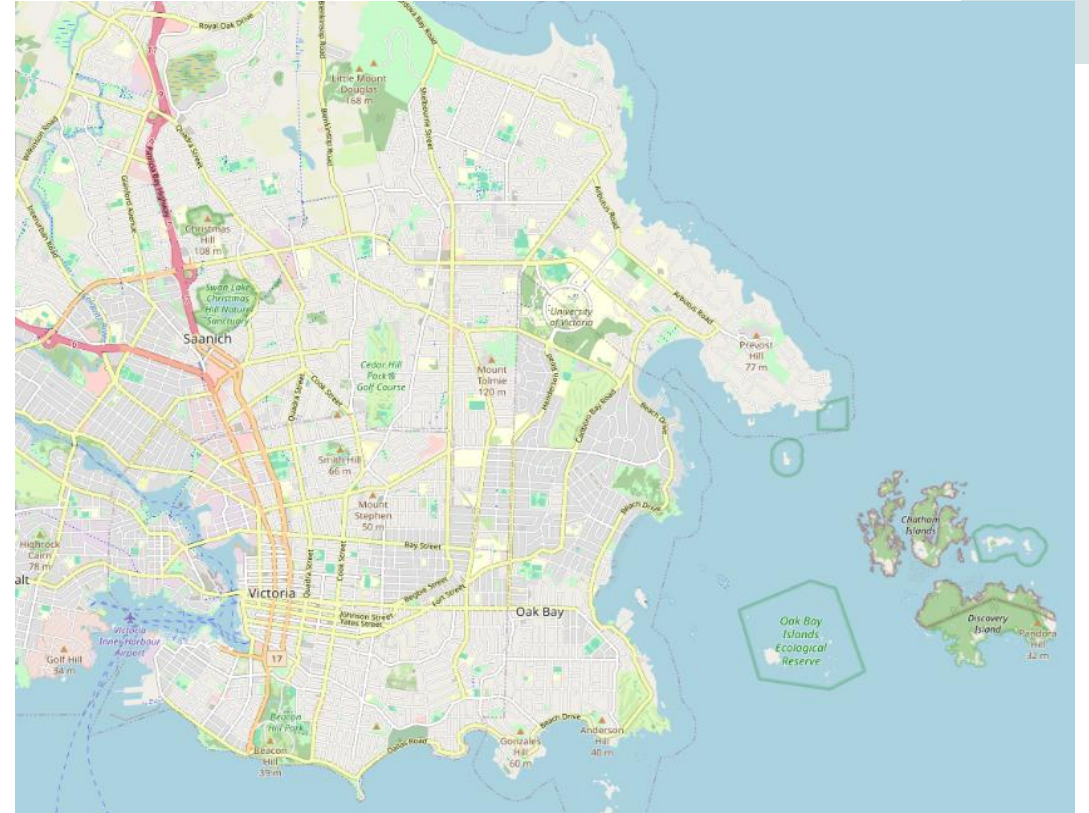
Understand *QGIS* interface

Map View:

The central area where spatial data is displayed.

Users can interact with the map, visualize layers and analyze spatial relationships.

Status Bar:

Located at the bottom, it provides information about current project: coordinate display, scale and CRS settings.

Coordinate 48.4019°, -123.403°   Scale 1:50000   Magnifier 100%   Rotation 0.0 °   ✔ Render   EPSG:4326
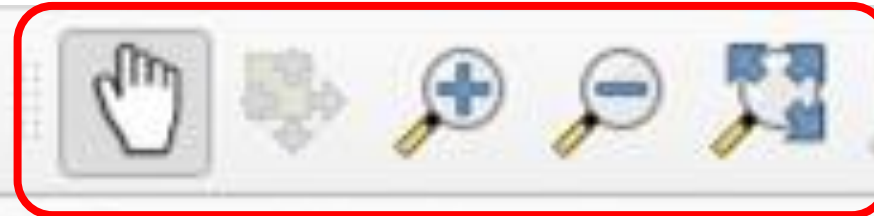
Toolbar essentials

New project, open, and save   Pan   zoom "**zoom full**"
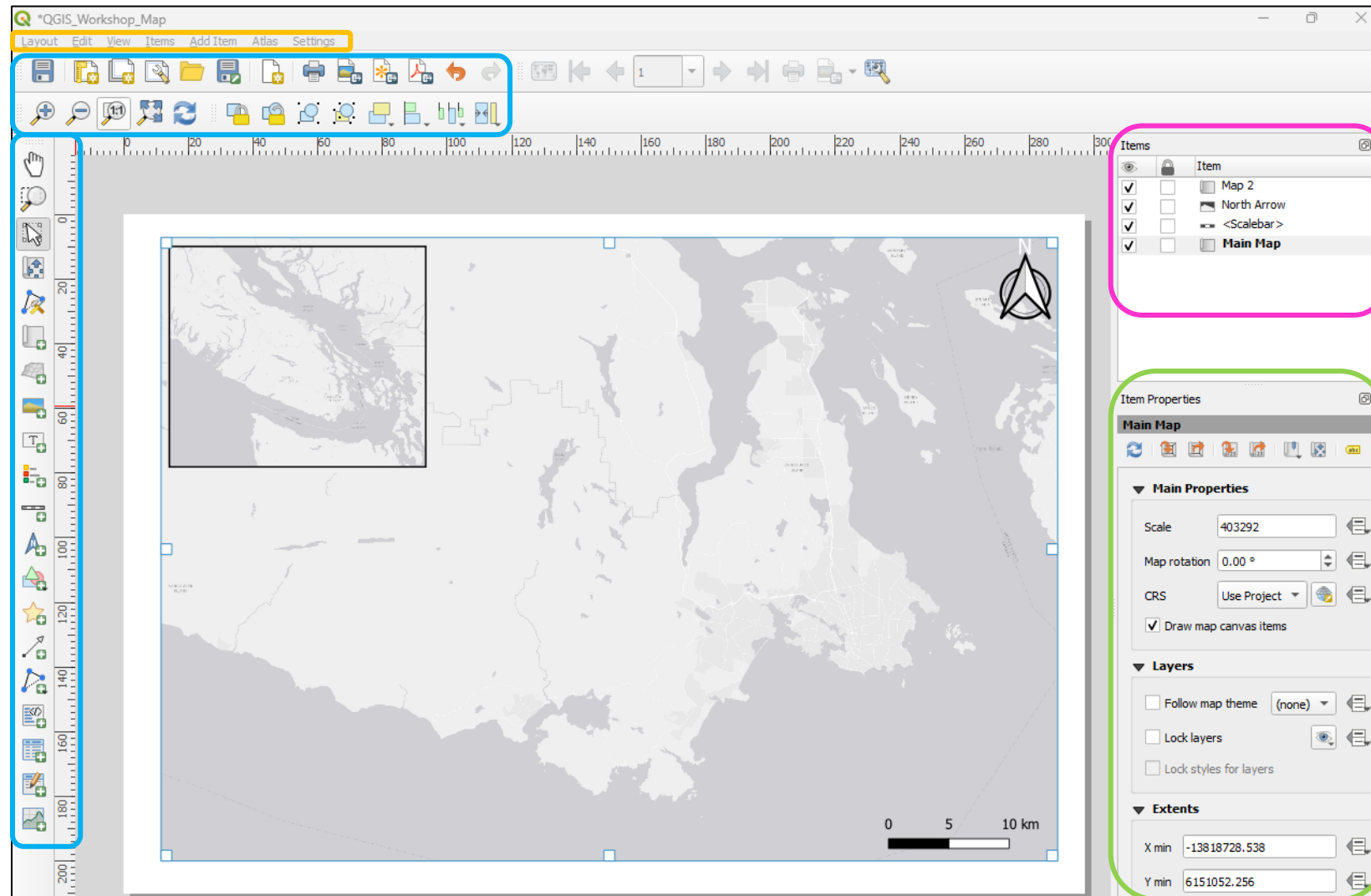

Add data

Print Layout interface

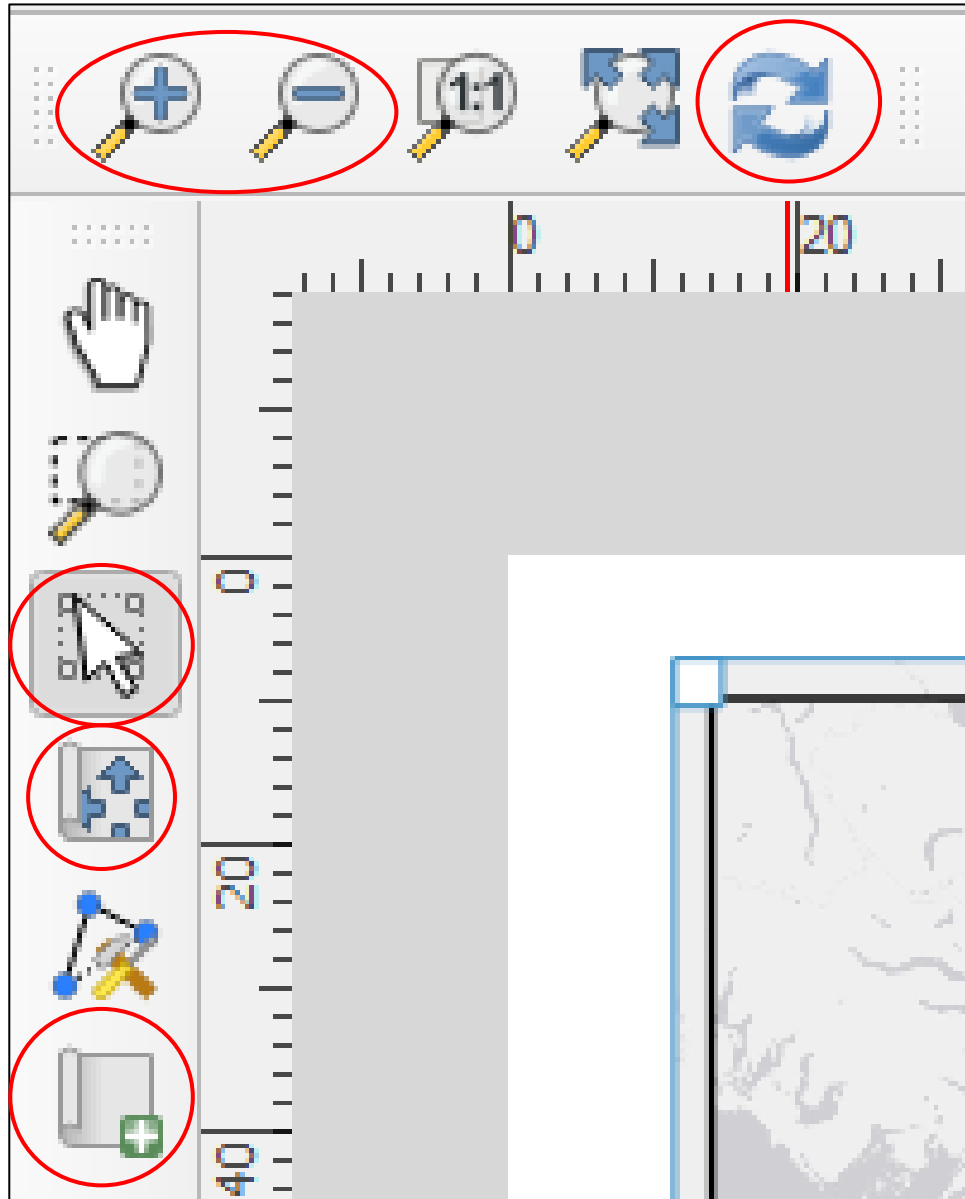*Menu Bar:* Layout (save, templates, export, etc.), Add Item, Settings, etc.

Toolbar(s): essential tools - save, open, export, zoom, add items, select/move item, etc.

Item Panel: list of items on the map – toggle view on and off, lock item, change item name, rearrange items

Item Properties: properties of selected item– many options for changing scales, fonts,, borders/frames, units, etc.

Print Layout interface: tools

Select/Move Item: move items in the print layout, opens the selected items' *Item Properties*

Move Item Content: move the map itself

Zoom: Not too useful as it Zooms in/out print layout (but not map(s)!)

Refresh: refresh print layout map to match main *QGIS* window

Add map: add map to print layout: click and drag to draw map on white sheet
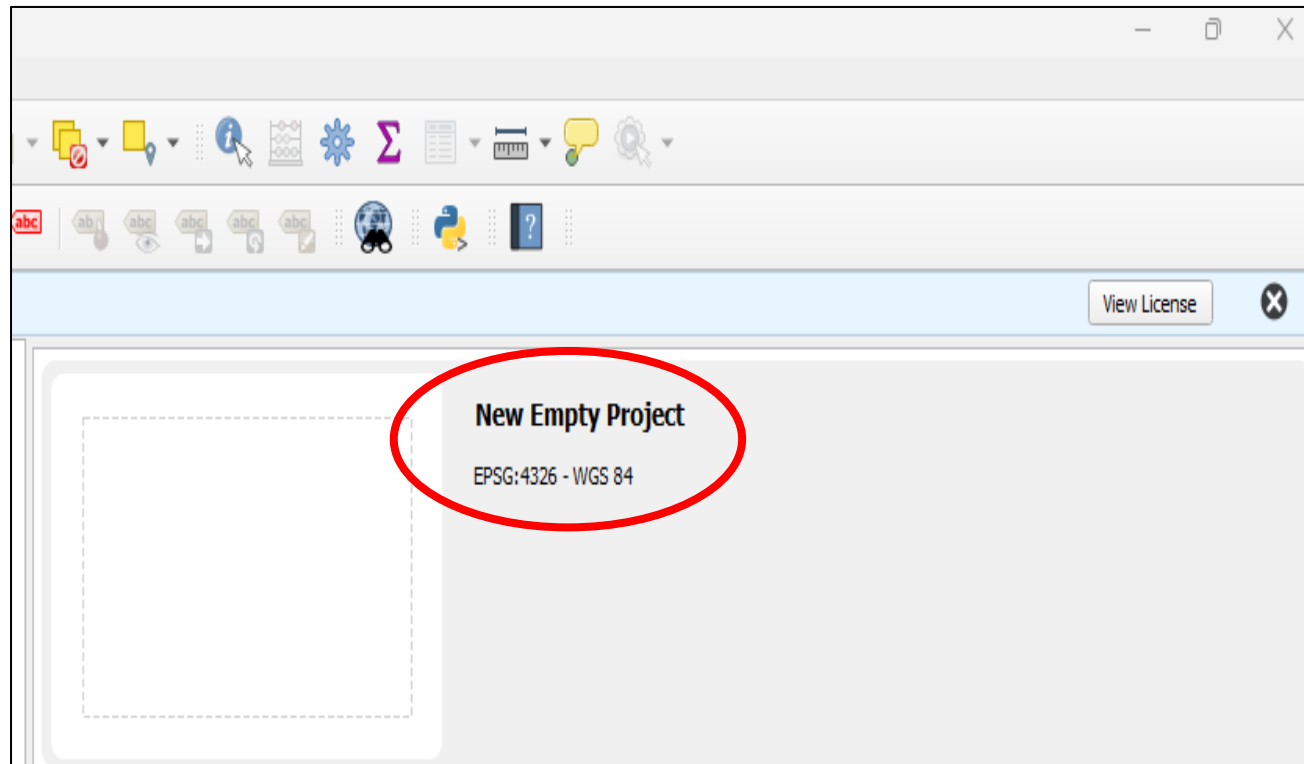
Start *QGIS* *(if you haven't already)*

Download workshop data

- Extract /unzip the .zip file
- Save it where you can find it…

Open QGIS (your version may be different)

- Double click on *New Empty Project*

Note: New *QGIS* projects open with Geographic Coordinate System (GCS) **EPSG:4326**

.zip file includes data for workshop and PDF of exercise instructions

From this point onwards
everyone works at their own pace

There are **Check-In** slides to **ask** for help
(or **ask** sooner!)