

Riparian Management Course

Session 1

Instructions for Defining Your Riparian Area Using Google Earth Pro

Background to Google Earth Pro

Google Earth Pro is a **free** online GIS software that allows you to observe locations across the world at the touch of a button, in just seconds. It has the same basic functions as Google Maps, just with enhanced features and functionality.

Purpose of this Activity

Defining your riparian area with Google Earth Pro will give you a concrete site to focus on developing a management plan for over the rest of the course. You can choose to include all the riparian areas on your property. Or, you may choose to focus on a specific riparian area that is of high management priority for you.

This document is supplementary to the video titled “Demo for Defining Your Riparian Area Using Google Earth Pro”. Together, the video and this document will help you:

1. Navigate to your residence or site of interest
2. Identify and delineate (create a polygon around) your riparian area
3. Use the following features:
 - a. Search bar
 - b. Time lapse
 - c. Name and save location on Google Earth Pro portal
 - d. Save image as PDF

Finding Your Site

The site we I will be looking for is the **Crop Diversification Centre North in Edmonton, Alberta**. To navigate to this site, I simply typed the name of the location into the search bar, seen on the top left hand side of the page. To find your home base, you can do one of two things

1. Type in a landmark nearby and navigate the roads from that point
2. Look up your own home coordinates with another tool such as Google Maps (can be done by converting an legal land description to coordinates, if you have that available to you. (See http://www1.aer.ca/GISConversionTools/ats_degrees_converter.html)

Identifying Your Riparian Area

Once you have some idea of the area you wish to delineate, you will **identify the riparian area on Google Earth Pro**. The **riparian area** will be the **area surrounding the body of water**, not the physical body of water itself. In my map, there is a creek area to the south of CDC North. This riparian area can be identified with the following:

- Riparian Vegetation (The ‘green’ area)

- Transitional species and upland species
 - Emergent vegetation (cattails, sedges, willows) vs upland vegetation (Spruce, Aspen, Pine etc.)
- Topography
 - Naturally occurring low points on the landscape
- Observing flood history. The Timelapse tool is on the upper toolbar of Google Earth Pro (shown as a clock with a back arrow). It allows you to see your area at different moments in history.
- Soils (more of an on the ground observation and confirmation tool)
 - You will be looking for moist, organic soils, or signs of gleying (the presence of color change due to waterlogging, typically grey or green colors in the soil profile) or mottling (the presence of color change due to waterlogging, typically white or red spots in the soil profile).

In my case, I focused on the riparian vegetation to determine when the riparian area was – see ground photos in Figure 1.



Figure 1: A still photo of the Google Earth Pro walkthrough completed on August 4, 2020 during Session 1 of the Riparian Management Course, including relevant ground photos of the riparian area

Drawing a Polygon Around Your Riparian Area

Once you have your area identified, you will **create a polygon around the area** using the following steps:

1. Identify the polygon tool on the screen (on the tool bar, look for elongated blue hexagon)
2. Name your polygon something easier to identify (ie Riparian area 1)
3. While the naming page is open, you will create your polygon by clicking on the screen around the perimeter of the riparian area.
 - a. To make this easier, set the polygon to have no shading or color inside, just an outline.
 - b. To change shading, go to 'style, color' tab when the edit polygon page is still open and change the color of the line and/or shading of the polygon
4. Once you have 'drawn' the perimeter, click '**ok**' on the information box. Your drawing is created!

Saving Your Polygon

If you are happy with the drawing, you can then **save your item into a relevant project folder**

1. Right click on 'my places' in the menu on the left hand side of the page
2. Click 'add' and then 'folder'
3. Make a relevant name for the folder (ie Riparian Area 1)
4. Drag or copy/paste your drawing "labeled riparian area 1" from "temporary places" to the folder you just created.

Saving Your Work and the Polygon as an Image File

Once you have completed this step you can **save your work and save the image**. To save your work:

1. Go to 'File' in the top left hand corner of the page
2. Click 'save' and then 'save my places'

To save your map as a JPEG image:

1. Go to 'File' in the top left hand corner of the page
2. Click 'save' and then 'save image'
3. Name your map by clicking on the box titled 'Untitled Map', and enter a relevant name (Riparian Area 1)
4. Click 'save image'

Navigate to a folder in your computer where you wish to save this item, give it a descriptive title, and save it. You may wish to save it to the Riparian Management Course Dropbox folder provided to you, if you wish to receive feedback.

Once this is completed, be sure to add in the name of your riparian area on page 5 of your Riparian Management Course Workbook

Questions?

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