

## ***Create Geomark in Google Earth Tutorial***

**General business example** – a potential applicant / user wants to create an area of interest that can be shared electronically to another party – eg: another agency, business partner or First Nations. Use this option if your **Google Earth version is 5.0** or higher.

A geomark can be created within the Google Earth application by copying the **shape** drawn in Google Earth and pasting it into the '**Create Geomark**' form in Google Earth. See [FAQ](#) for details on downloading the most current Google Earth version.

### **Step 1**

Step 1: Using your internet browser, click [here](#) to view the main Geomark Web Service webpage.



### **Step 2**

Step 2: Click on the '**Create Geomark in Google Earth**' link in the left hand Table of Contents.

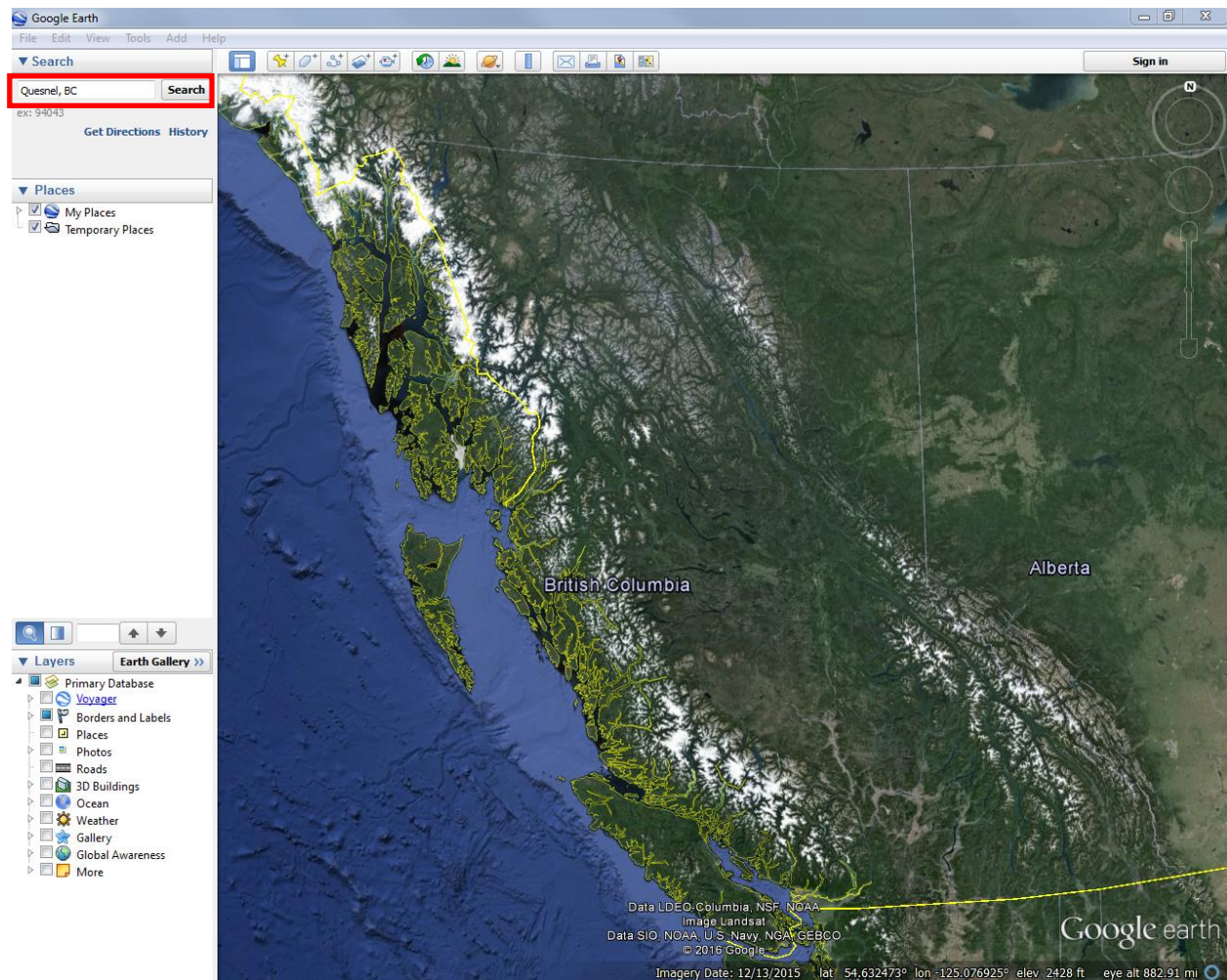


### Step 3

Step 3: Select '**Open**' and then '**Allow**' to open the Google Earth tool. Google Earth must be installed on your computer for this to occur. Download [Google Earth](#) to install if required. For government employees, please submit an iStore request.

### Step 4

Step 4: To zoom into an area, type the name of a city or a geographic name (such as a river or lake), a coordinate (eg: 49 34.3N, 117 32.1W or 43.23N, 117.34W) or a mapsheet (eg: TOL1A0) in the left navigation window:




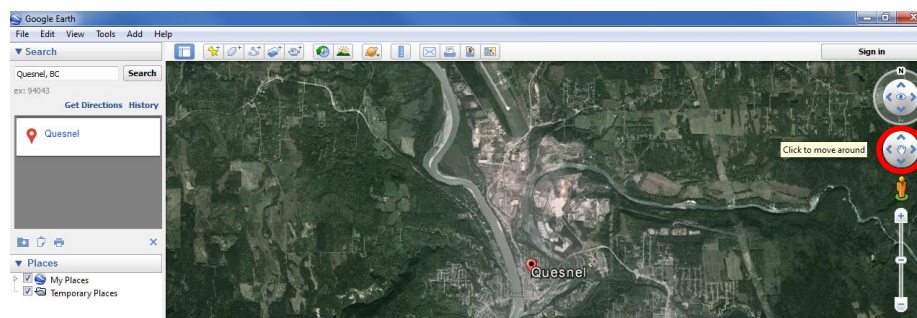
## Step 5

Step 5: Click on the **Search** button.

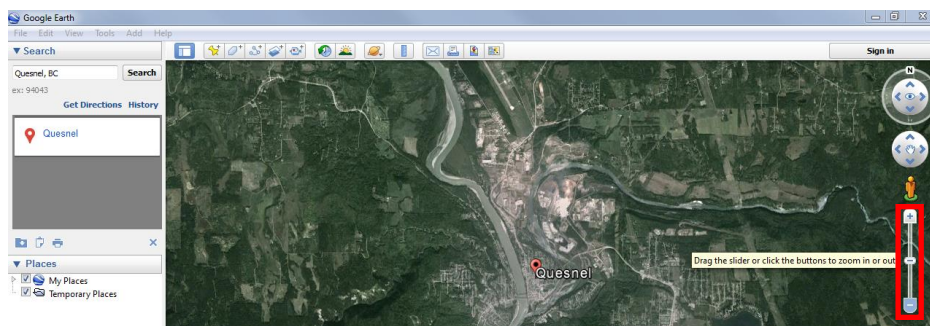


## Step 6

Step 6: If you move your mouse in the screen, you'll notice the cursor is now a "hand" (  ). By simply holding the left button of your mouse down and dragging it across the screen, you can navigate to another location.



You can also use the navigation tools on the right hand side of your screen to zoom in or zoom out of the area. Click on the "+" to zoom in or the "-" to zoom out.



## Step 7

### Step 7: Add Polygon, Path (Line) or Placemark (Point)

7a. You can use the **Polygon** tool to define your area of interest. A polygon is similar to a shape and is used to define areas on a map. The Polygon tool is located on the main toolbar.

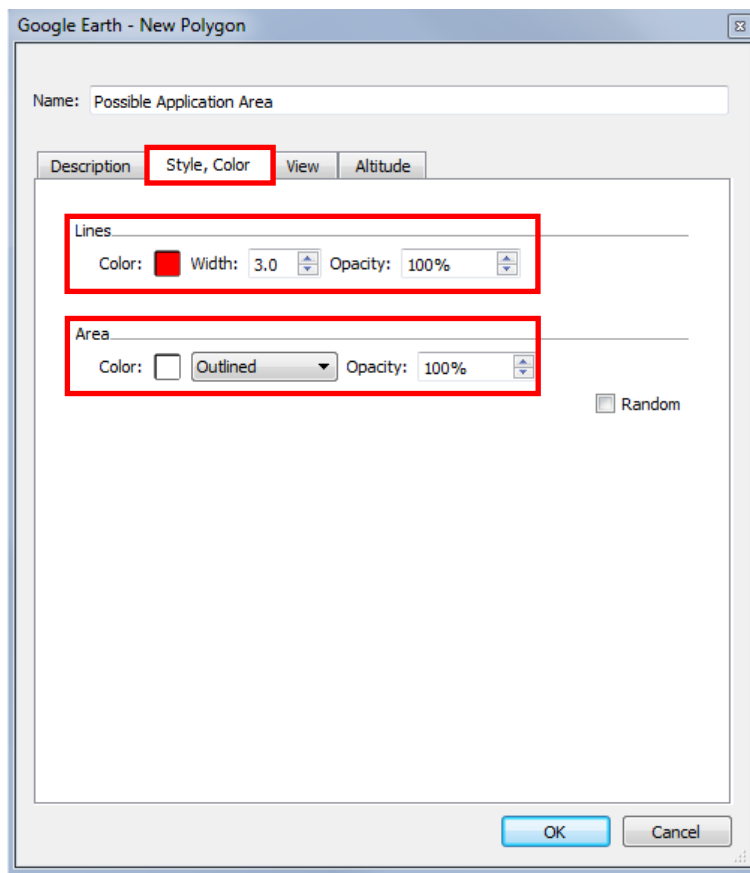


When the '**Add Polygon**' tool is selected, a new screen pops up. Use this screen to name your application area and to note important information about the area. This information may help others (such as FrontCounter BC) process your inquiry.

A screenshot of the 'Google Earth - New Polygon' dialog box. The 'Name' field at the top contains the text 'Possible Application Area' and is highlighted with a red rectangular box. Below the name field are four tabs: 'Description', 'Style, Color', 'View', and 'Altitude'. The 'Description' tab is selected and highlighted with a red rectangular box. Below the tabs are two buttons: 'Add link...' and 'Add image...'. A large text area contains the text 'I might be interested in applying for this area for a gravel pit.' At the bottom right of the dialog box are 'OK' and 'Cancel' buttons.

***\*Tip - Do not close this box or press OK until your area is defined.***

***\*Tip – It is recommended to 'Name' your area so it is meaningful and can be recognized (eg: John Doe Private Moorage area of interest). Unique descriptions can be used to define multiple polygons (eg: Cutblock 1, Cutblock 2).***



***\*Tip – To help capture and visualize the area you are drawing, you can change from 'filled' to 'outline' mode as well as change the line color and width.***

You may have noticed your mouse cursor now looks like a square.



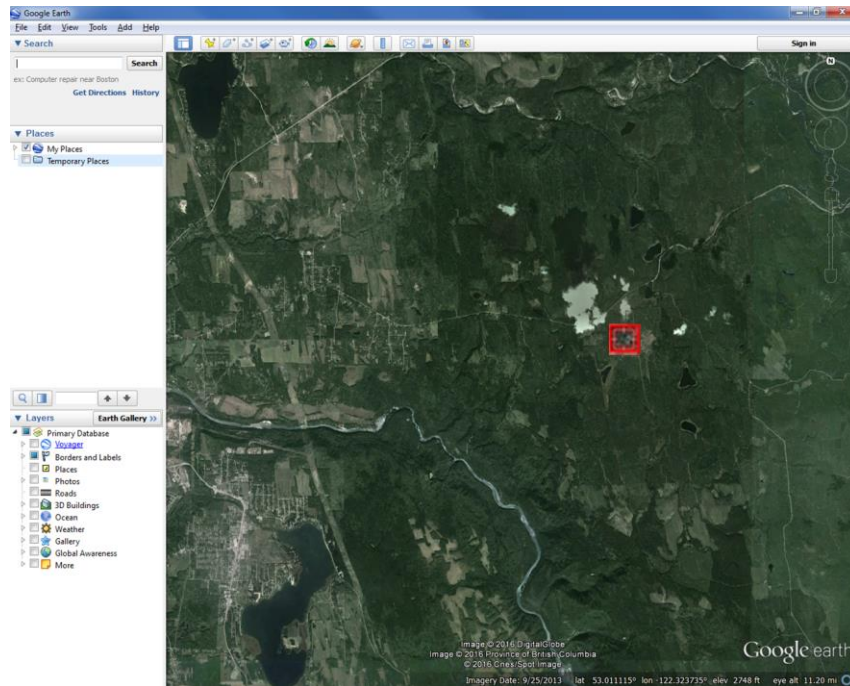
This means you are ready to start picking the points that will define the area you are interested in.

When defining your area, use the left button on your mouse to pick the points, pick points in a clockwise direction and avoid creating loops or overlaps. See the [FAQs](#) for points to watch for when drawing your area of interest.

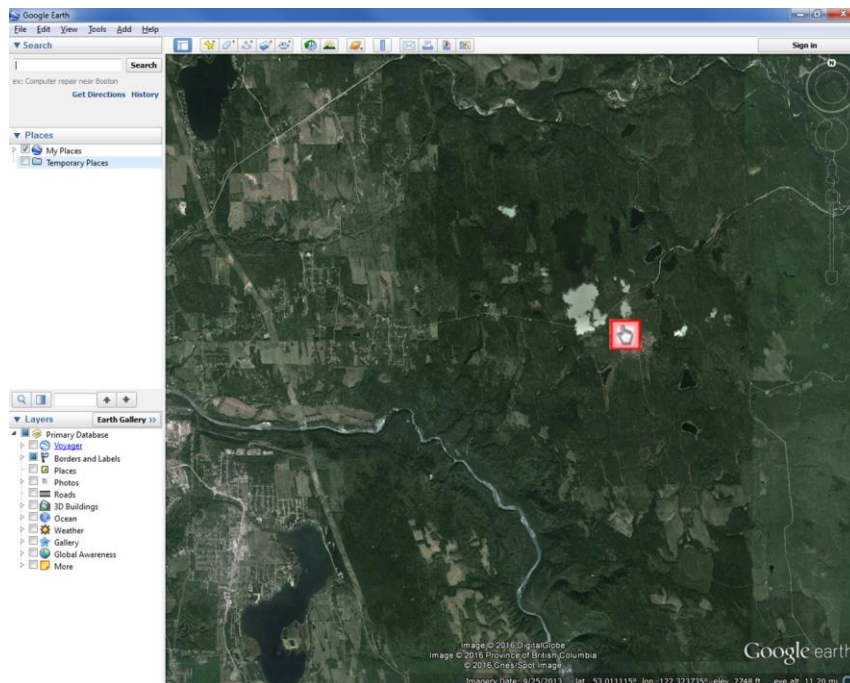



## Add Polygon Instructions

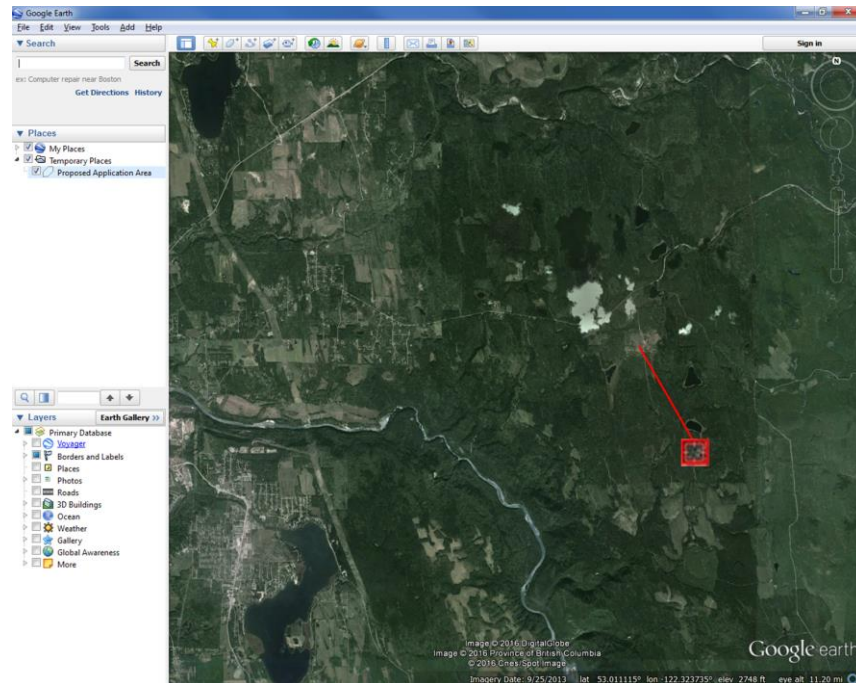
Pick the point on the map to place your first point and click the left mouse button.




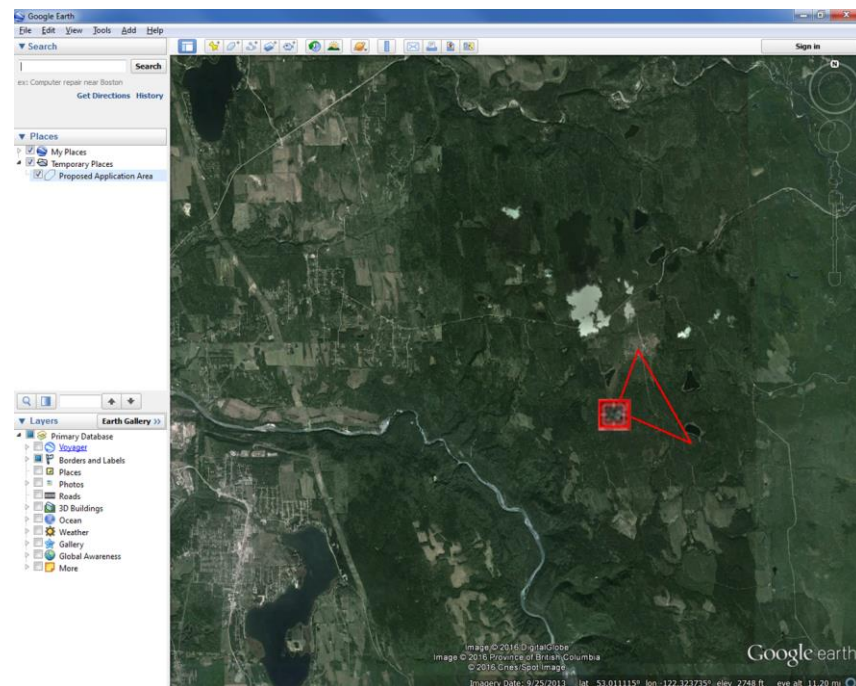
When a point is drawn on the map, a 'hand' icon will appear. This hand icon also appears any time your cursor hovers over a digitized point.



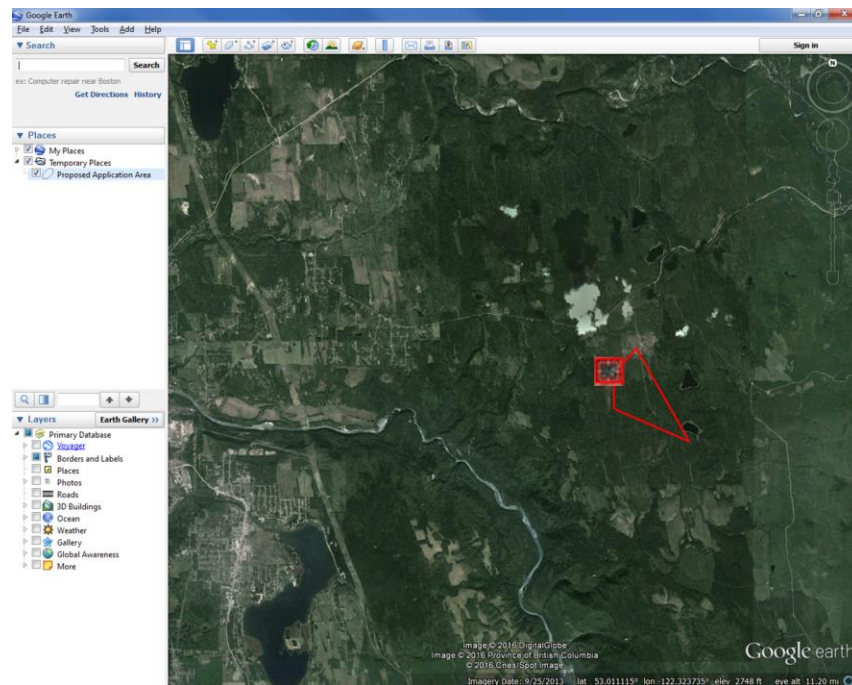
Place the square cursor  at your second point and click the left mouse button again.



Place the square cursor  at your third point and click the left mouse button. Do this for every point required to draw your area of interest.

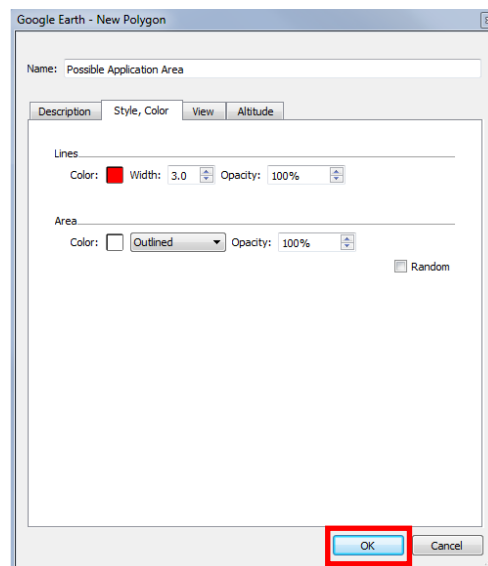


Remember to draw the area of interest in a clockwise direction.



When defining a shape, you can go back and 'undo' a previous point by clicking the right button on your mouse. You then reposition the square cursor and left click to set the point.

When you are finished defining the area, click on '**OK**'.

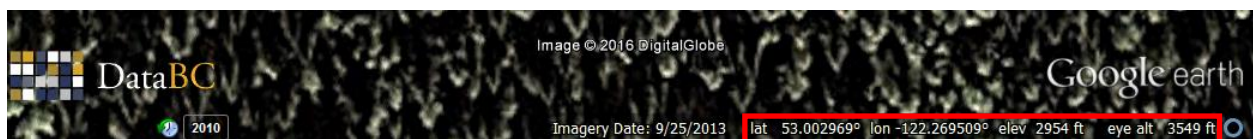




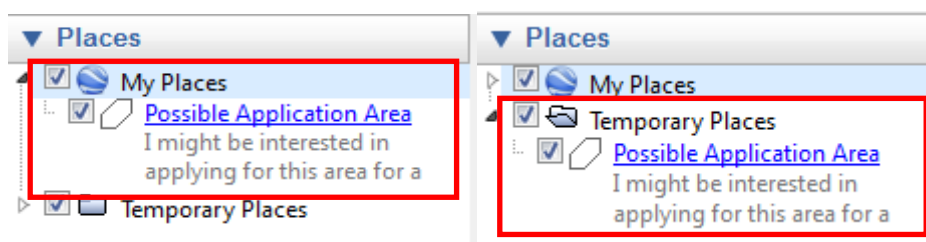
The points that you picked will form a "shape". A shape outlines and defines the area you are interested in. Your shape might look something like this example:



On the bottom of your screen, you'll notice some useful information about the area displayed on the screen. You can use these coordinates to find the location again, confirm the elevation or even see how far above the earth's surface you are viewing the land.



***\*Tip - If you have navigated away from your area of interest and want a quick way to return to your original location, double-click on the file name you created in either the 'My Places' or 'Temporary Places' section of the left navigation window.***



7b. You can also create an area of interest using the '**Add Path**' (line) tool to delineate a line or road. The 'Buffer' functionality is then used to create a geomark with an area. Creating an area of interest using the buffer functionality will be explained in Step 14.

The Path tool is located on the main toolbar.



When the '**Add Path**' tool is selected, a new screen pops up. Use this screen to name your application area and to note important information about the area. This information may help others (such as FrontCounter BC) process your inquiry.

***\*Tip - Do not close this box or press OK until your area is defined.***

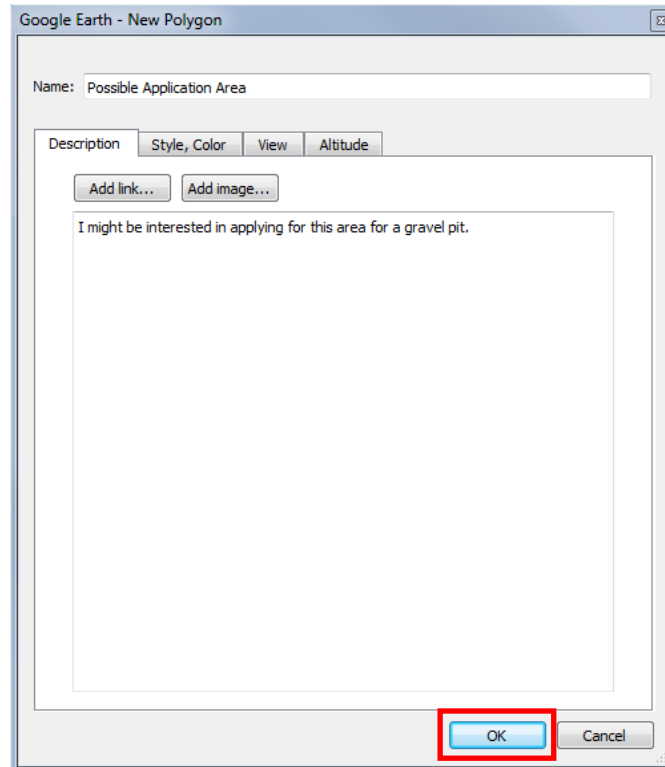
***\*Tip - It is recommended to 'Name' your area so it is meaningful and can be recognized (eg: John Doe Private Moorage area of interest). Unique descriptions can be used to define multiple polygons (eg: Cutblock 1, Cutblock 2).***

You may have noticed your mouse cursor now looks like a square.



Use the left button on your mouse to pick the points that will delineate the path or line you are interested in.

When you are finished drawing the path, click on '**OK**'.



7c. Use the same steps outlined in 7b to create an area of interest using the '**Add Placemark**' (point) tool.

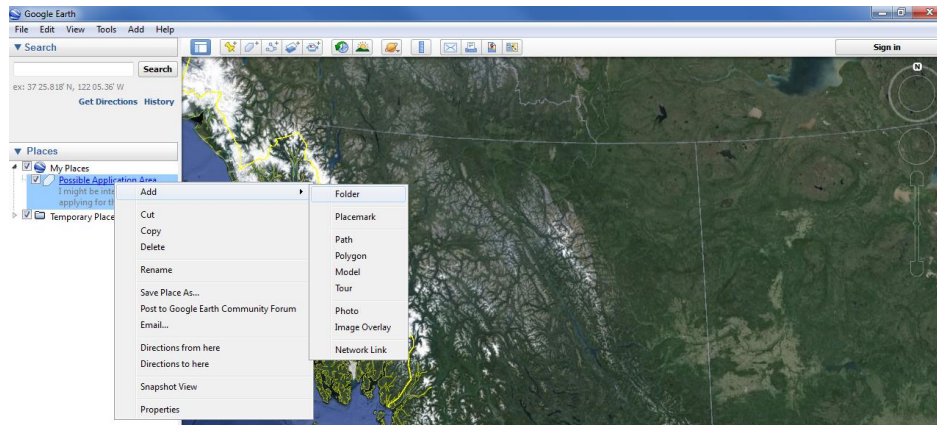


## Step 8

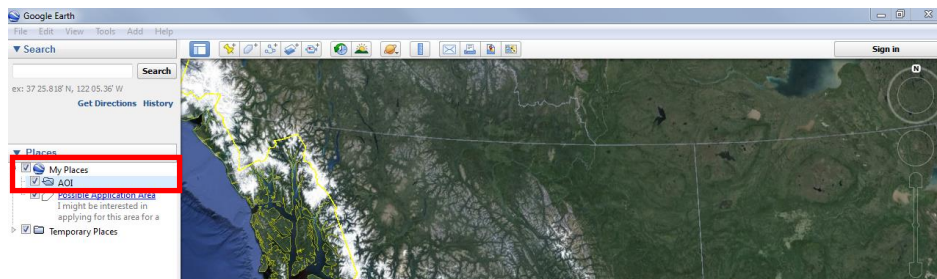
### Defining Multiple Shapes in one geomark

To create a geomark that defines multiple shapes or polygons:

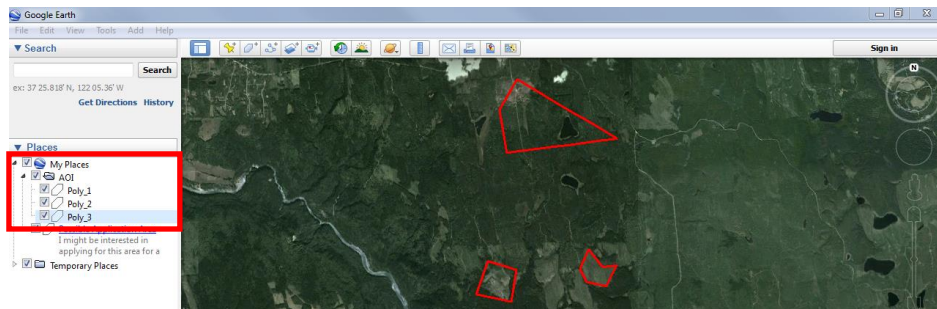
- i. Create a folder in your Google Earth session. Right click on 'Temporary Places' in the left hand table of contents, click '**Add**' and then '**Folder**'. Name your folder appropriately.



- i. Click once on the newly created folder so it is highlighted and then create a polygon as per Step 4.



- i. Create as many polygons as required in that folder as per the above steps. Having multiple polygons in your newly created folder will look like the following.



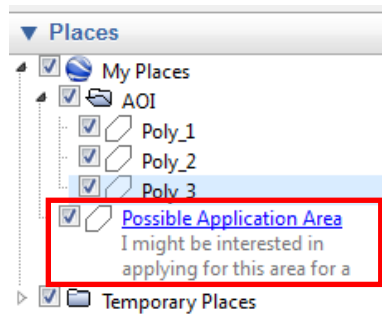
If you want to delete any of the areas you created, the next step of this tutorial will show you how to delete a shape.



## Step 9

### Deleting Shapes

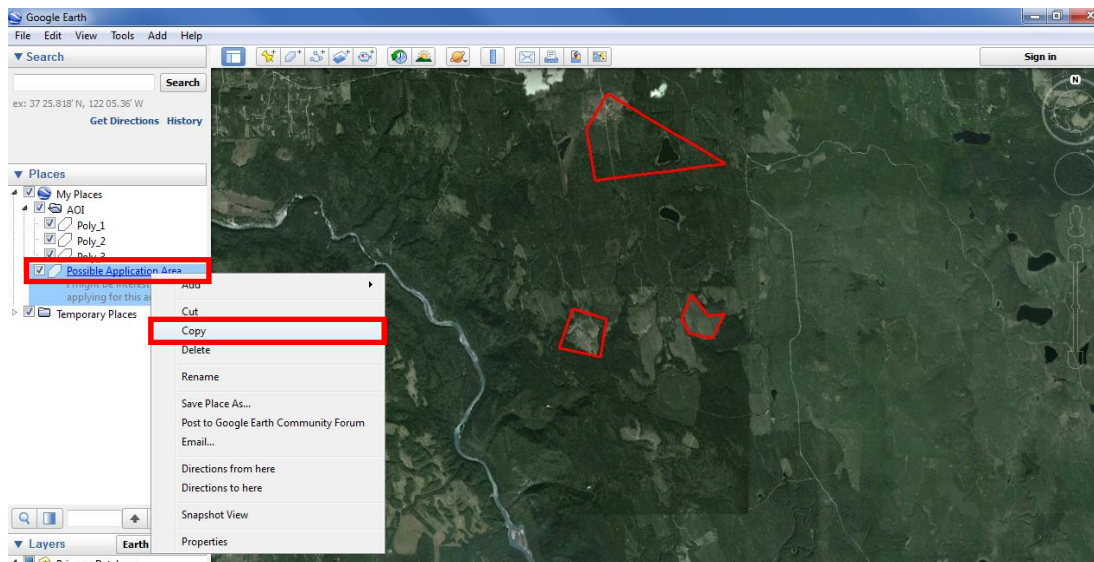
To delete your shape, click on the name of the shape you created. You will find the shape name in the "My Places" or "Temporary Places" section of the left navigation window.



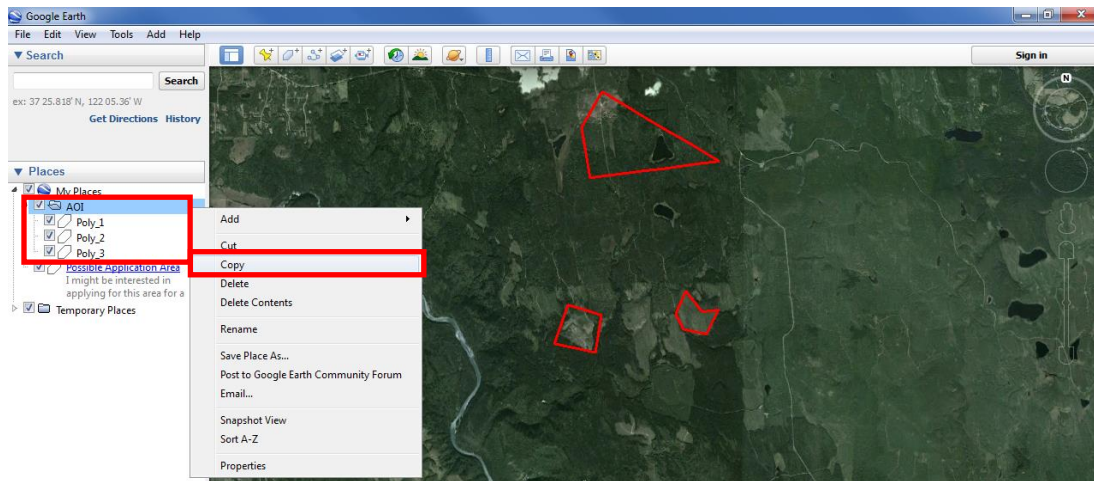
Once you've selected the shape name, click the right button of your mouse. From the list of options presented, choose **Delete**. The shape will be removed from your screen and the shape name will disappear. Use the **Polygon Tool** to outline the area again.

## Step 10

Step 10: Once your area of interest is defined, your area of interest name will appear in the left hand table of contents. Click on the name once in the table of contents to highlight it and then click your right mouse button and select '**Copy**'.

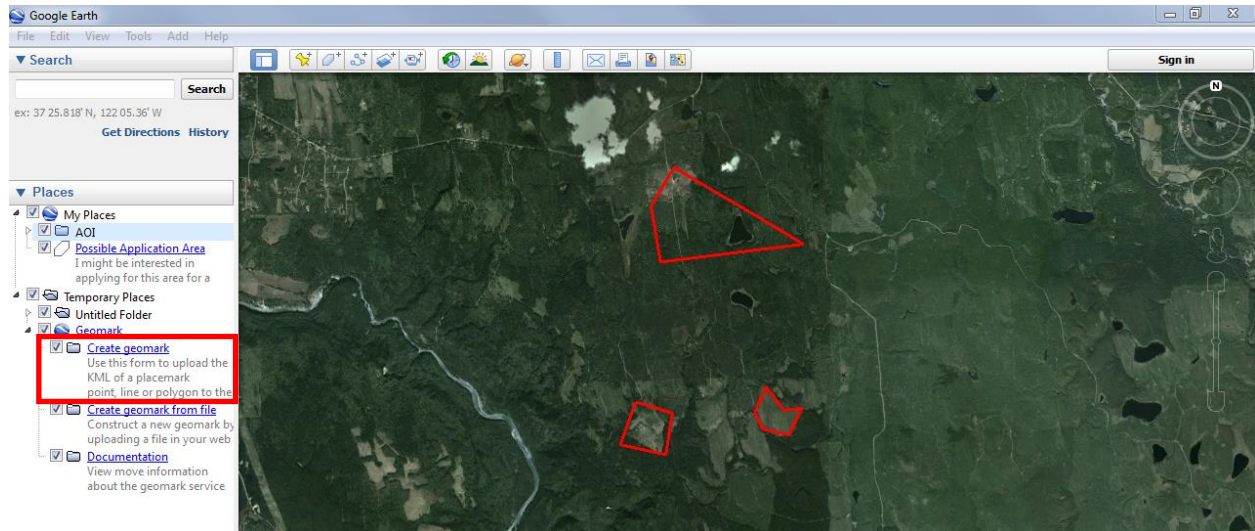


If you have created a new folder that contains multiple polygons, click once on the name of the folder to highlight it and then click your right mouse button and select **'Copy'** to copy the entire folders' contents.



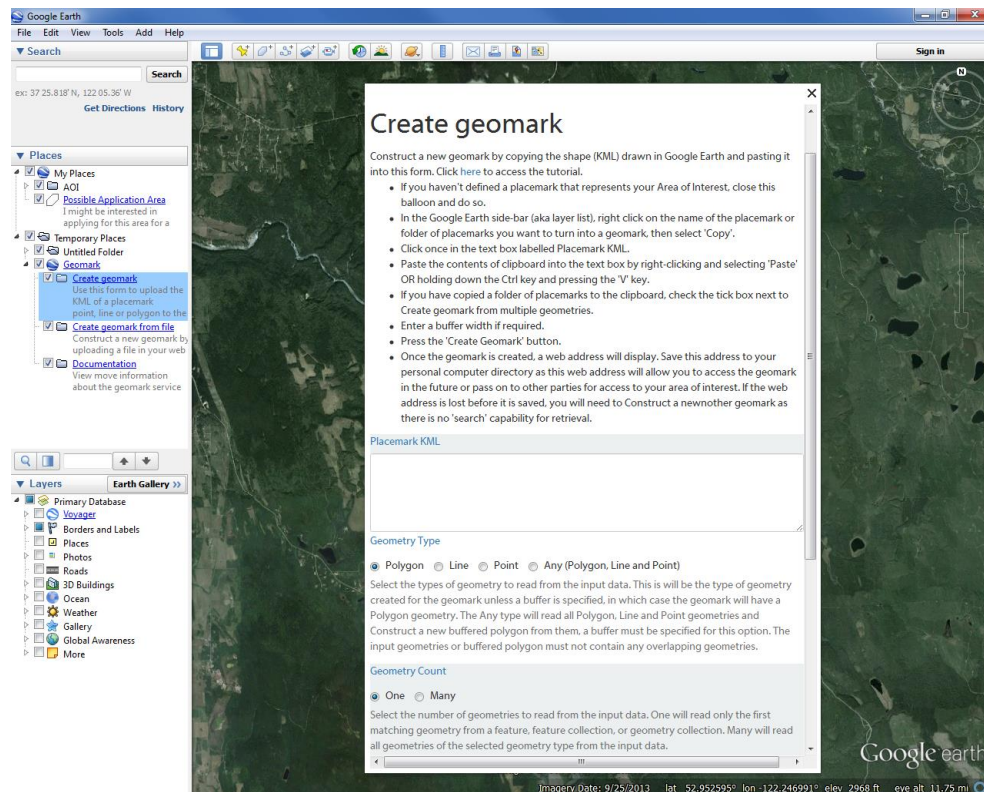
## Step 11

Step 11: Click on the 'Create Geomark' link.



## Step 12

Step 12: A form will pop up in a new window.

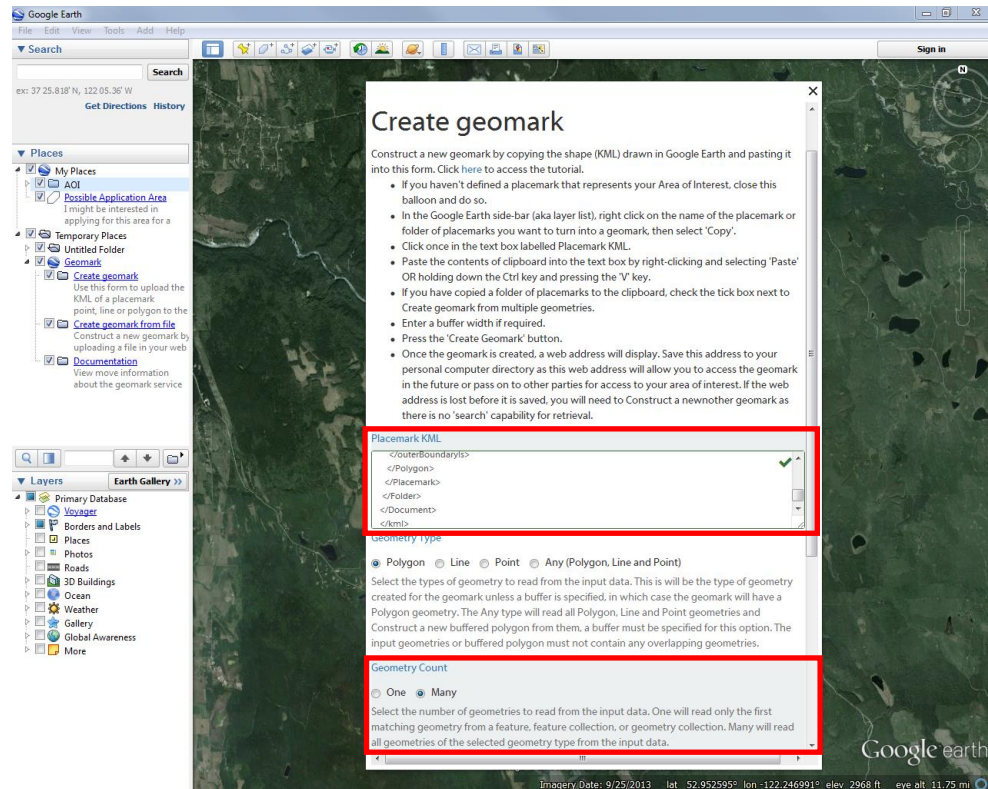




## Step 13

Step 13: Click once in the text box located on the form. When the cursor starts flashing, either right click the mouse and select **'Paste'** OR press **'Ctrl' + 'V'** together to paste the area you've created into the text area.

If you created a new folder that contains multiple polygons, make sure the **'Many'** button is ticked for Geometry Count. If this button is not ticked, only the first polygon in the folder will be created as a geomark.





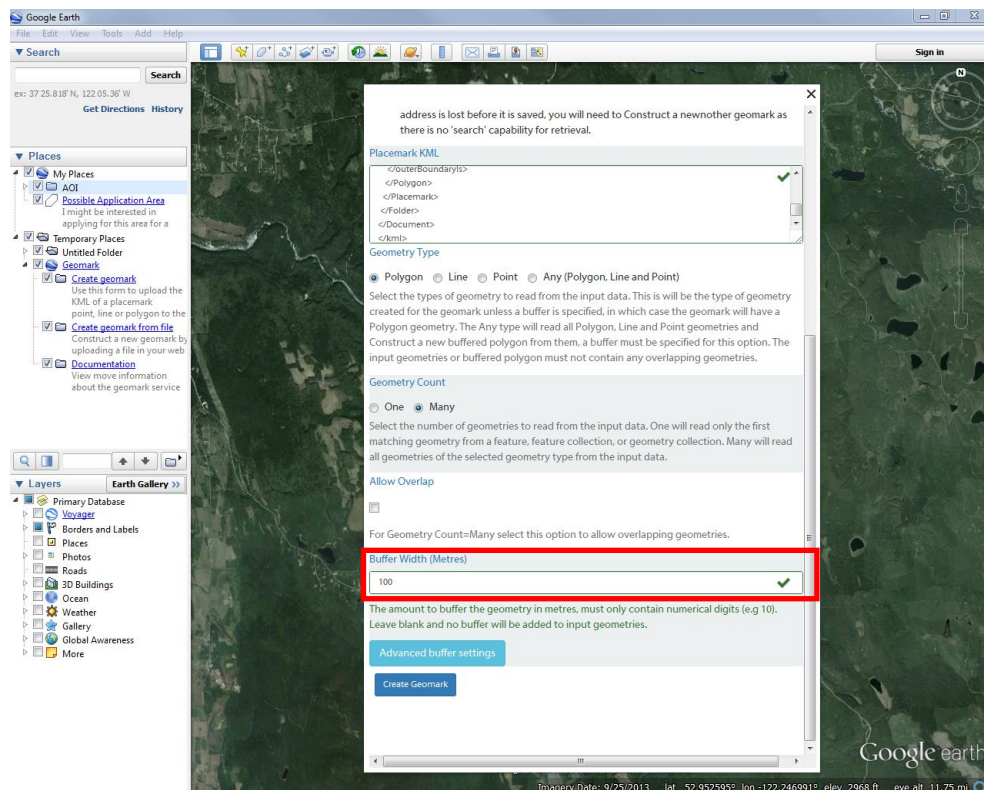
## Buffering Shapes

A buffer is a zone around a map feature measured in the units of distance indicated. Example, a buffer width of 100m will result in total distance of 200m or 100m on each side of the line feature. More detailed information regarding buffering shapes can be found in the Geomark Service application.

### Step 14

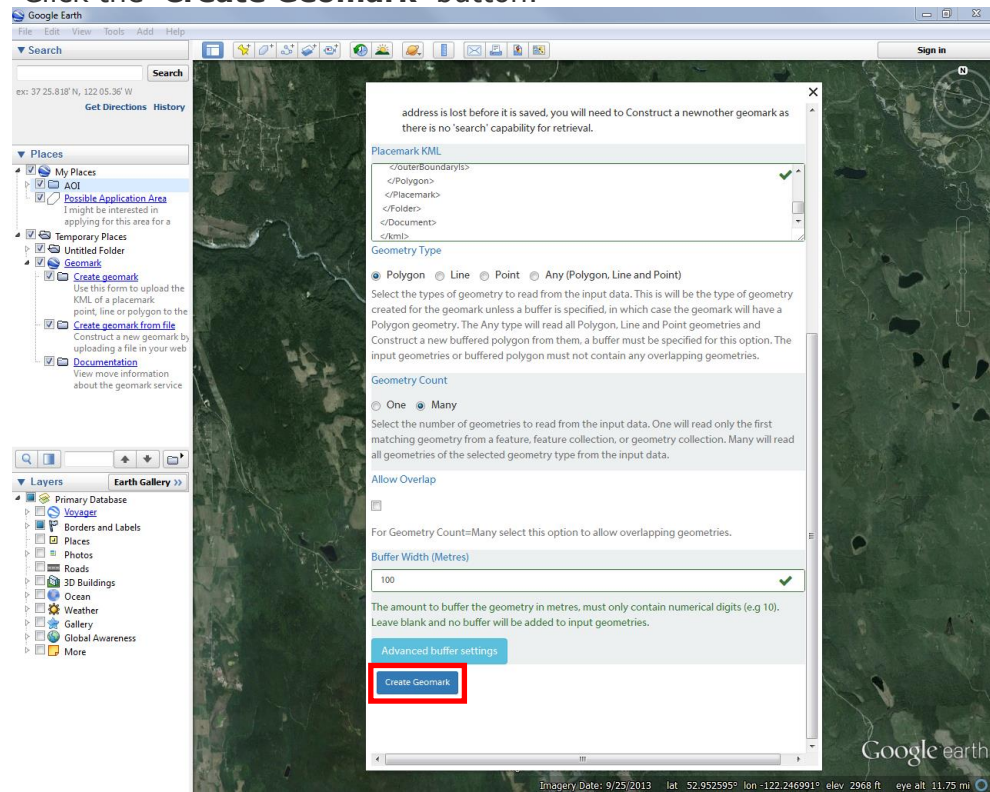
Step 14: To buffer the polygon, line or point created above, enter the desired buffered distance in metres in the text box provided.

**NOTE: A line or point cannot be converted to a geomark unless a buffer width is entered. All resulting geomarks will NOT store or show the original point, line or polygon.**



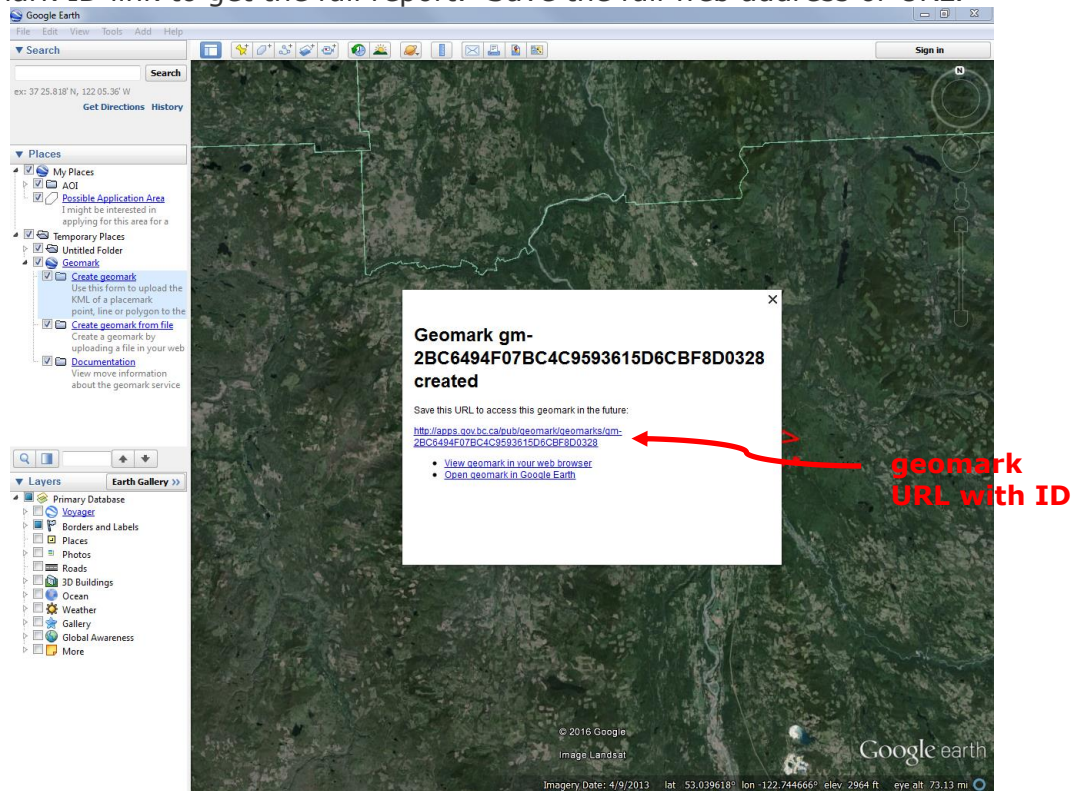
## Step 15

Step 15: Click the 'Create Geomark' button.



## Step 16

Step 16: Once the geomark is created, a geomark ID and link will be displayed. Click the geomark ID link to get the full report. Save the full web address or URL.



## Step 17

Step 17: Save the full web address or URL, which includes the geomark ID, to your personal directory as this web address will allow you to access the geomark in the future or pass on to other parties for access to your area of interest. If the web address is lost before it is saved, you will need to create another geomark as there is no 'search' capability for retrieval.

The screenshot displays the Geomark Web Service interface. The browser's address bar shows the URL `apps.gov.bc.ca/pub/geomark/geomarks/gm-542f450f78df49e4849410bcec27cc6e`, which is highlighted with a red box. A red arrow points from this URL to the 'geomark URL with ID' annotation. Below the header, a section titled 'Save the link' contains a text box with the same ID and a button labeled 'Save the link'. A red arrow points from this section to the 'geomark Report' annotation. The main content area displays a table of geomark details:

ID	gm-542f450f78df49e4849410bcec27cc6e
Creation Date	2016-05-06
Expiry Date	2016-08-04
Bounding Box (W,S,E,N)	-122.287629,52.967272,-122.228895,53.02153
Centroid (lat,lon)	52.99825,-122.259948
Geometry Type	MultiPolygon
Geometry Count	3
Vertex Count	121
Length	17 km
Area	590 ha
Is Geometry Valid	✓
Geometry Validation Error	-
Is Geometry Simple	✓
Is Geometry Robust	✗ (Minimum clearance is 0.0009999999310821295 m)

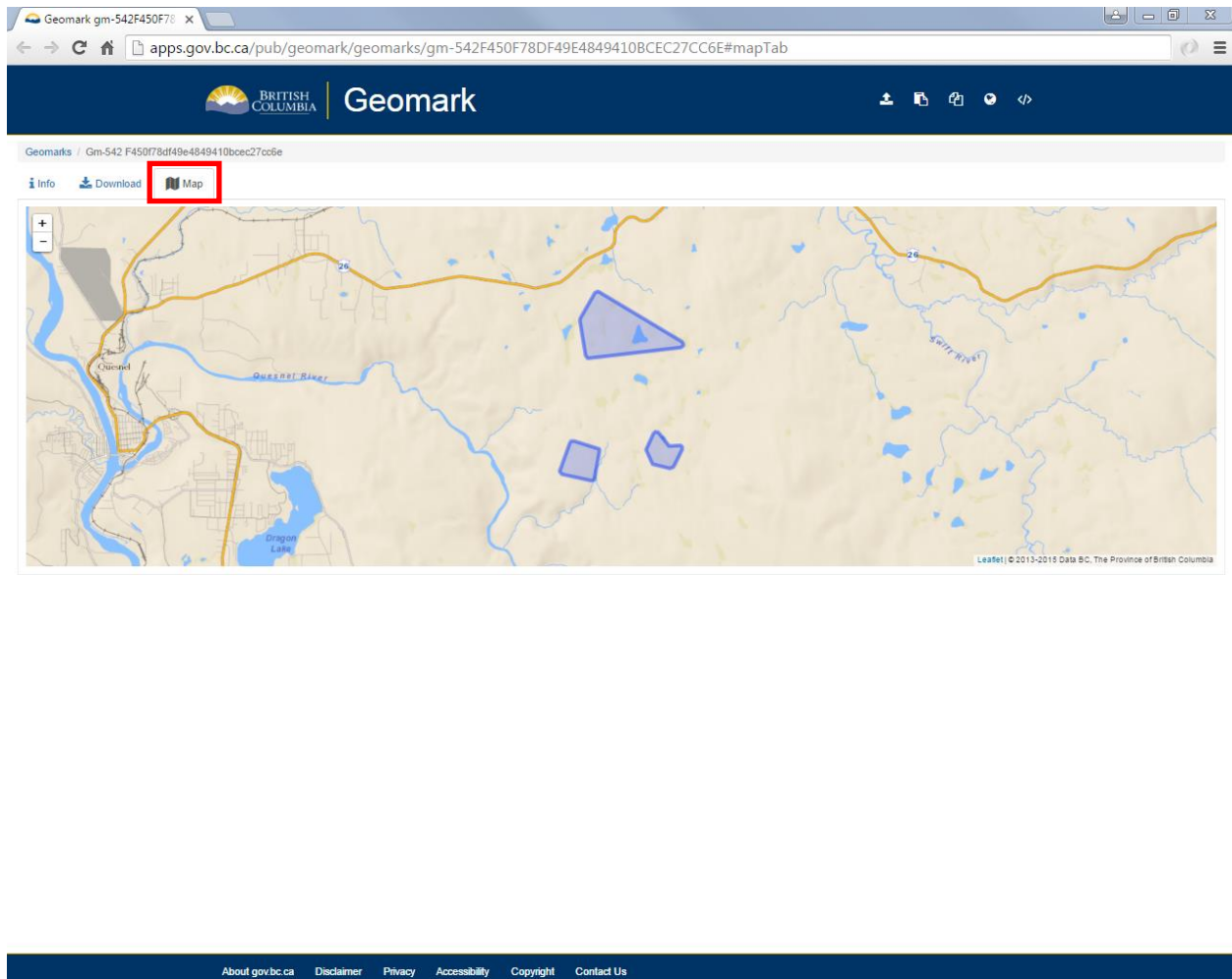
Red annotations include a bracket labeled 'geomark Report' on the left side of the table and a label 'geomark ID' with an arrow pointing to the ID value in the first row.

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## Step 18

Step 18: You can view the file you converted to a geomark using the Map tab.








## Step 19


Step 19: Or you can download the geomark into a file format and projection that is more convenient for viewing and / or analysis.





# Geomark

































Geomarks / Gm-542 F45078df49e4849410bcec27cc6e

 Info

 Download

 Map

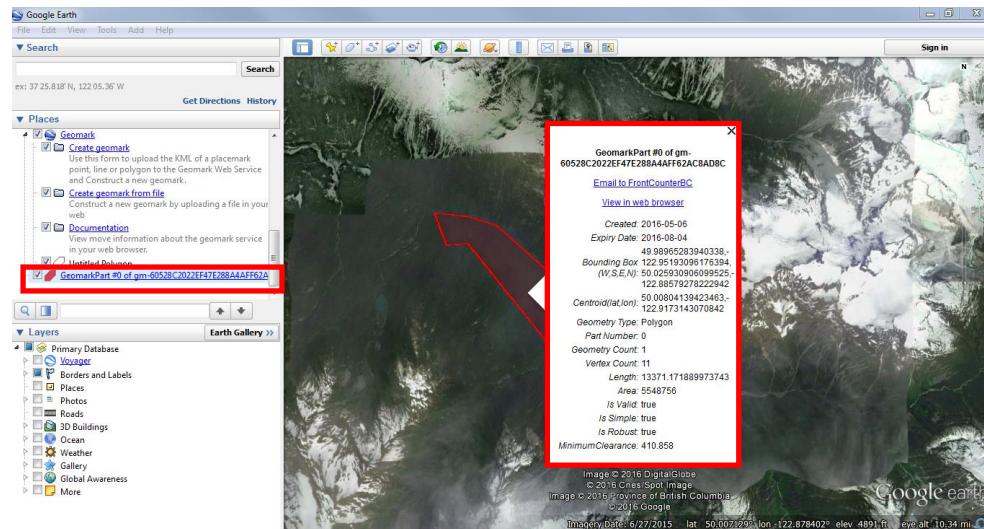
- Click one of the buttons below to download the geomark in that [Coordinate System](#) and [File Format](#).
- The Shapefile format is delivered as a (.shpz) ZIP file containing shp, shx, dbf and prj files.

FileFormat	WGS 84 (4326)	BC Albers (3005)	UTM 7N (26907)	UTM 8N (26908)	UTM 9N (26909)	UTM 10N (26910)	UTM 11N (26911)
KML		-	-	-	-	-	-
KMZ		-	-	-	-	-	-
Shapefile							
GeoJSON							
GML							
WKT							

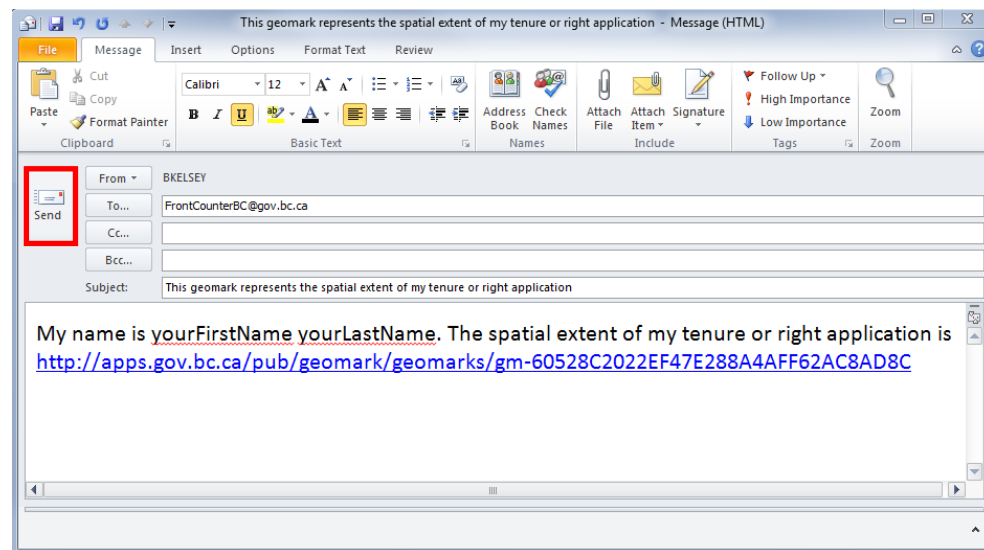
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## Step 20

Step 20: To send an email to FrontCounter BC about your proposed application area download the geomark (Download tab) into KML format. Click on the area of interest in Google Earth and view the information window.



Click on the link labelled as 'Email to FrontCounterBC' and you will be presented with a pre-formatted email template.



Update the email body with information specific to your application and click 'Send'.