Exploring Hydroelectric Dams with Google Earth

Hydropower is energy that comes from the force of moving water. Most hydroelectric power plants are developed at dams. In this activity, you will use Google Earth to explore hydroelectric dams. You will

- Explore five existing hydroelectric dams around the world.
- 2. Use the **Ruler** tool to measure the length of dams and distances to populated areas.
- 3. Infer why dams are placed near population centers.

Read all instructions and answer each question on your field guide.

Step 1: Download data.



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Step 2: Turn on the Populated Places and Terrain layers.



Step 3: Explore hydroelectric dams, measure their width, and the distance from each dam to nearby population centers.

a.	Double-click on Hoover in the Places window.	
b.	Click on the Hoover icon in the 3D viewer to read information about Hoover dam.	
	Write the river name, location, height, Chart on your field guide.	and capacity of Hoover in the Hydroelectric Dams Data
C.	Click on the Ruler tool on the tools menu at the top of the screen. The ruler dialog box appears. If the dialog box covers up the dam, move it to a different area on your screen.	Ruler #2 Line Path Length: 0.00 Miles #1 Mouse Navigation #3 Clear
d.	Click on Line (arrow #1). Click on the drop-down arrow (arrow #2) and select Miles if it is not already selected.	

e.	Click from the left river bank to the right river bank of the dam to measure its width.	
	Write the width of Hoover in the Hydroelectric Dams Data Chart on your field guide.	
	NOTE: If you make a mistake, click Clear (arrow #3) and measure the width again.	
f.	Click Clear (arrow #3). Do not close the ruler dialog box.	
g.	Use the navigation controls at the top right of the screen to find a nearby population center (city or town) that is located close to the Hoover dam.	
	Helpful hint: Population centers are marked	d with a small red circle 🦲.
h.	Measure the distance from the Hoover dam to a nearby population center. Using the Ruler tool, click on the Hoover dam and then drag your line to the nearby population center.	
	Write the name and distance of the nearby population center to the Hoover dam in the Hydroelectric Dams Data Chart on your field guide.	
i.	Click Clear . Do not close the ruler dialog box.	
j.	Use the navigation controls to explore the area surrounding the Hoover dam.	
	What does it look like? Is the Hoover dam area surrounded by a forest, mountains, an urban area, or something else?	
	What does the water body area behind the Hoover dam look like? Does it appear to be a lake or a river?	
	Write a description of the area surrounding the Hoover dam in the Hydroelectric Dams Data Chart on your field guide.	

k. Repeat **Steps b, e, f, g, h, i,** and **j** to complete the **Hydroelectric Dams Data Chart** for the remaining 4 dams.

Helpful Hint: Some dams have more than one water release gate. Be sure to measure each one and add the segments together to determine the width of the dam.

I. Click **Clear**. Close the ruler dialog box when you finish.



Answer **questions 1 - 7** on your field guide.