

Name: _____

Investigating Hydroelectric Power Dams with Web GIS Investigation Sheet

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 Web GIS to study and analyze hydroelectric power dams. You will

1. Query and analyze features of US hydroelectric power dams.
2. Query and analyze features of the 10 most powerful US hydroelectric power dams.
3. Create a new layer containing Pennsylvania hydroelectric power dams.
4. Query and analyze features of Pennsylvania hydroelectric power dams.

Read **all** instructions on your handout and answer **each** question.

1. What is the name of the **oldest** dam? _____
Helpful hint: Sort the YEAR COMPLETED column in ascending order.
2. Which year was the oldest dam completed? _____
3. What is the name of the **most recently** built dam? _____
Helpful hint: Sort the YEAR COMPLETED column in descending order.
4. How many dams were completed between **1990-1997**? _____
Helpful hint: Sort the YEAR COMPLETED column in descending order.
5. What is the name of the tallest dam? _____
Helpful hint: Sort the HEIGHT ft column in descending order.
Which state is it located in? _____
What is its height? _____
6. How many dams are between 500 and 800 feet high? _____
7. How many dams are on the Columbia River? _____
8. What is the size of the **largest dam reservoir** on the Columbia River? _____
9. How many different **watersheds** have dams on the Columbia River? _____
10. How many **different rivers** are the top 10 most powerful dams located on? _____
11. How many of these **dams** are located on the Columbia River? _____
12. Which states have more than one of the biggest power generating dams?

13. Which is the **most powerful** dam? _____
14. What is the dam's **capacity in megawatts (MW)**? _____
15. Using the Top 10 Dams Graph, what is the relationship between the dam height and the dam's capacity in megawatts (MW)?

16. How many hydroelectric power dams are in Pennsylvania? _____

17. Which is the **oldest** dam? _____

Helpful hint: Sort the YEAR COMPLETED column in ascending order.

18. Which is the **most recently** built dam? _____

Helpful hint: Sort the YEAR COMPLETED column in descending order.

19. Which is the shortest dam? _____

What is its height? _____

Helpful hint: Sort the HEIGHT ft column in ascending order.

20. Which is the tallest dam? _____

What is its height? _____

Helpful hint: Sort the HEIGHT ft column in descending order.

21. How many different watersheds have dams? _____

22. How many hydroelectric power dams are on the Susquehanna River? _____

Helpful hint: Sort the RIVER NAME column in ascending order.

23. Which dam has the biggest reservoir? _____

Helpful hint: Sort the RESERVOIR acre feet column in descending order.