Background Information

The following questions ask you about your role as an expert.

- 1. What organization or agency do you work for?
- 2. What is your position/title at this organization or agency?
- 3. What city do you work in?
- 4. List the kinds of tasks you work on in your position. For example, analytical technical tasks, field site tasks, administrative, etc..
- 5. How many years of experience do you have in this career?
- 6. What is your gender?
- 7. What is your age?

Water Reservoir Parameters

Five technical parameters relevant to the construction and operation of a floodwater reservoir are being considered to help build our site suitability decision model. This is a preliminary model that will be expanded upon in the future.

For this study, a floodwater reservoir is an artificial wetland/lake constructed to retain water for long term water supply. This reservoir would be fed by floodwater and precipitation run-off. The Barays at Angkor are examples of traditional floodwater water reservoirs in Cambodia. We would like to determine sites for similar multi-use floodwater reservoirs. These reservoirs could provide many benefits such as water retention during drought periods, groundwater recharge, promoting biodiversity, increased fish production, recreation, and tourism.

The five survey parameters considered for our site model are as follows:

Geologic Porosity – A measurement of how much void space is in the rock formations below the soil

Slope Gradient - A measurement of how quickly the land changes elevation

Soil Drainage - A measurement of how quickly water drains through the topsoil

Annual Precipitation - measurement of how much rainfall an area receives yearly

Land Use – A description of how the land is covered in an area (farm use, forest, etc.)

The following table asks you to <u>rank how important the five parameters are when compared to one another</u>. For example, you will be asked to <u>compare how important geologic porosity is in comparison to soil drainage</u>.

The table below shows how the questions are ranked. The parameters are compared on a scale from "1" to "9", where "1" means the parameters are equally important and where "9" means that one parameter is extremely more important than another.

Number	Meaning
1	Parameters are equally important
3	One parameter is slightly more important than the other
5	One parameter is moderately more important than the other
7	One parameter is much more important than the other
9	One parameter is extremely more important than the other

Based on the e the above table, please make the following comparisons by selecting which parameters are more important for floodwater reservoirs when compared against each-other.

Left Parameter Is Extremely More Important					eters impo	are ortant	_			Right Parameter Is Extremely More Important
	9	7	5	3	1	3	5	7	9	
Geologic Porosity	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	Slope Gradient
Geologic Porosity	\circ	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	Soil Drainage
Geologic Porosity	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	Annual Rainfall
Geologic Porosity	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	Land Use
Slope Gradient	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	Soil Drainage
Slope Gradient	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	Annual Rainfall
Slope Gradient	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	Land Use
Soil Drainage	\circ	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	Annual Rainfall
Soil Drainage	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	Land Use
Annual Rainfall	\circ	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	Land Use

Annual Precipitation

Please rank the following annual precipitation ranges from best (1) to worst (6) for the surface area of a water reservoir. Click the circle to assign a rank to each range. Each rank can only be used once.

	1	2	3	4	5	6
924 - 1522mm (36.4" - 59.2")	\circ	\circ	\bigcirc	\bigcirc	\bigcirc	\circ
1522 - 1921mm (59.2" - 75.6")	\circ	\circ	\circ	\circ	\circ	\bigcirc
1921-2348mm (75.6" - 92.4")	\circ	\circ	\circ	\bigcirc	\bigcirc	\circ
2348-2861mm (92.4"- 112.6")	\circ	\circ	\circ	\bigcirc	\bigcirc	\circ
2861-3545mm (112.6" - 139.6")	\circ	\circ	\circ	\bigcirc	\bigcirc	\circ
3545-4557mm (139.6" - 179.4")	\circ	\circ	\circ	\bigcirc	\bigcirc	\circ

Soil Drainage Classes

Please rank the following soil drainage classes from best (1) to worst (6) for inside the water reservoir. You can rank the items by clicking and dragging the items.

	1	2	3	4	5	6
Very Poorly Drained Soils	\bigcirc	\bigcirc	\circ	\circ	\bigcirc	\circ
Poorly Drained Soils	\bigcirc	\bigcirc	\circ	\circ	\circ	\circ
Moderately Drained Soils	\bigcirc	\bigcirc	\circ	\circ	\circ	\circ
Moderately Well Drained Soils	\bigcirc	\bigcirc	\circ	\circ	\bigcirc	\circ
Well Drained Soils	\bigcirc	\bigcirc	\circ	\circ	\circ	\circ
Existing Water Body Soils	\bigcirc	\circ	\circ	\circ	\circ	0

Slope Gradients

Please rank the following slope gradient ranges from best (1) to worst (6) for *inside* the water reservoir. Click the circle to assign a rank to each range. Each rank can only be used once

	1	2	3	4	5	6
0 - 1.62%	\circ	\circ	\bigcirc	\circ	\circ	\circ
1.62% - 5.1%	\circ	\circ	\bigcirc	\circ	\circ	\circ
5.1% - 10.2%	\circ	\circ	\bigcirc	\bigcirc	\circ	\circ
10.2% - 16.4%	\circ	\circ	\bigcirc	\bigcirc	\circ	\circ
16.4% - 24.8%	\circ	\circ	\bigcirc	\bigcirc	\circ	\circ
24.8% and greater	\circ	\circ	\circ	\circ	\circ	\circ

Geologic Porosity Percentages

Please rank the following geologic porosity percentages from best (1) to worst (6) for *inside* the water reservoir. Click the circle to assign a rank to each percentage. Each rank can only be used once.

	1	2	3	4	5	6
1%	\circ	\circ	\circ	\circ	\circ	\circ
6%	\circ	\circ	\circ	\circ	\circ	\circ
9%	\bigcirc	\circ	\circ	\circ	\circ	\circ
19%	\circ	\circ	\circ	\circ	\circ	\circ
22%	\circ	\circ	\circ	\circ	\circ	\circ
27%	\circ	\circ	\circ	\circ	\circ	\circ

Land Use

Please rank the following land uses from best (1) to worst (6) for inside the water reservoir. Click the circle to assign a rank to each land use. Each rank can only be used once.

	1	2	3	4	5	6
Wetlands	\circ	\circ	\circ	\circ	\bigcirc	\circ
Forest	\circ	\bigcirc	\circ	\bigcirc	\bigcirc	\circ
Crop Land	\circ	\circ	\circ	\circ	\bigcirc	\circ
Urban Development	\circ	\bigcirc	\circ	\bigcirc	\bigcirc	\circ
Barren Land	\circ	\bigcirc	\circ	\bigcirc	\bigcirc	\bigcirc
Existing Water Body	\circ	\circ	\bigcirc	\circ	\circ	\circ