

Question Exploration Guide

① What is the Critical Question of the Colorado River...

- a) Identify TWO benefits other than agriculture and recreation that people derive from that system of dams.
- b) Discuss TWO potential environmental consequences of damming a major river.
- c) Describe TWO conservation strategies for reducing agricultural water consumption.
- d) Identify TWO possible environmental consequences of climate change on the hydrology of the Colorado River.
- e) Identify and describe TWO possible consequences of climate change on coastal ecosystems.

② What are the Key Terms and explanations?

Agriculture	
Recreation	
Sediment	
Derive	
Damming	
Consequence	
Conservation Strategy	
Climate Change	
Hydrology	movement, distribution and quality of water on earth
Coastal Ecosystem	

③ What are the Supporting Questions and answers?

a) What benefits fall under agriculture and recreation?	Ag = farming = crops, livestock ; Recreation = boating, swimming, fishing
What other benefits do dams provide?	Flood control, electricity
How do dams change water flow?	Slow speed of water, drop sediment in different places
How can dams affect the local ecosystem?	Slows water flow which can cause extinction of local fish and aquatic plant species, drop sediment where it isn't supposed to be instead of dispersing it
What determines agricultural water consumption?	Types of crops planted, when crops are watered, how crops are watered, what livestock is raised and how including density (free range or not)
How can agricultural water consumption be reduced?	Plant appropriate crops, use drip irrigation, pasture livestock or eliminate livestock ranching
What does climate change do?	Changes temp which changes whether water is frozen or liquid, warmer temperatures increase evap
Consequences of climate change on hydrology?	Faster melting increases (at first) water flow, increased evap means less water volume
Possible consequences of climate change on coastal ecosystems?	change in temp = change in river water volume = change in salinity = change in species (up or down) change in chemistry of ocean such as DO levels = change in species (up or down) change in wind currents = change in ocean chemistry

4 What is the main Idea answer?

5 How can we use the main idea?

6 Is there an Overall Idea? Is there a real-world use?