

Chapter 16

Dams Across Rivers

Watch the video entitled, “Where did the Colorado Go?”. This video is old as double knit polyester and mutton chop sideburns, but it tells an ageless story — one about an ancient river and humanity’s success in consuming it, all of it. The arid southwest has few true rivers. The Colorado River is the largest river in the region, and most desirable for thirsty humans. We have tapped into this source of water for a variety of reasons. Our efforts to exploit the river have yielded substantial benefits to the enterprises of humankind, but at quite a cost. Although dams are widely regarded among the general public as benign, even beneficial to the environment, you may be surprised to learn they can have a tremendous impact. Why is everything so complicated?

Use the questions below to prompt your viewing of this video, then answer them. Once you do, your concept of “water conservation” could take on a new, more sophisticated dimension.

LIBRARY ACCESS: This video is available at the Fullerton College Library for viewing in the library. So, if you would like to see it again, check it out at the video checkout desk of the library.

QUESTIONS

1. Why do humans put up dams?
2. Why are there so many dams on the Colorado River?
3. Briefly describe the various kinds of environmental impacts that result from the construction of dams.
 - Upstream impacts
 - Downstream impacts
4. What are phreatophytes?
 - How do dams encourage the growth of phreatophytes?
 - How do phreatophytes act to defeat the purpose of the dam?
5. Why is the water downstream from a dam so cold, even during the hot summer?
6. How is it that dams eventually can become waterfalls?
7. What are the various causes for water loss in the lake behind the dam?
8. Why is it that using the river water for irrigation in arid climates eventually can make the soil unfit for agriculture?
9. Why is it costly to transport water from the Colorado River to Los Angeles?
10. How are aqueduct systems disruptive to the environment?
11. How are coastal marine ecosystems affected by damming up the Colorado River, or any river?
12. Now that seasonal floods no longer deposit nutrient-rich silt on farmland in the Colorado River basin, how must farmers ensure that the nutrients in their soil does not become depleted in nutrients?
13. What are ways farmers can conserve water?
14. How does the concept of conserving water provide important benefits (direct and indirect) to ecosystems?