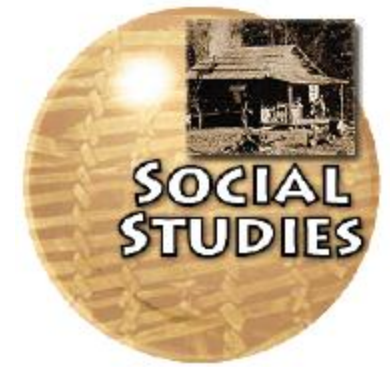


LESSON 7 - SHOULD THE DAMS ON THE ELWHA BE REMOVED? A CLASSROOM DEBATE



ESSENTIAL QUESTION:

What combination of factors both natural and manmade is necessary for healthy river restoration and how does this enhance the sustainability of natural and human communities?

GUIDING QUESTION:

Dams have been useful to human populations in providing water and energy for development of wilderness areas. Should dams that have outlived their use be removed in order to enhance the sustainability of natural and human communities?

LESSON OVERVIEW:

For this lesson, we direct you to The American Field Guide at: https://www.nps.gov/common/uploads/teachers/lessonplans/Salmon%20vs.%20Dams_The%20Dam%20Removal%20Debate%20on%20the%20Elwha%20River.pdf

They have built a fantastic lesson plan for the debate over the removal of the dams on the Elwha River. We brainstormed some answers for the *Environmental Decision Making Model* for this lesson which we've included here.

Focus question: Should dams on the Elwha River be removed?

	Aesthetic	Economic	Environmen tal	Educatio nal	Ethical/Mo ral	Health	Recreatio n	Scientific	Social/Cultu ral
Positive Short-term consequen ces		Tourism draw, media attention, deconstructio n jobs		Engineeri ng example, education opportuni ty	Obligation to maintain a healthy ecosystem		No obstructio ns for rafting, kayaking, canoeing, improved fishing, tourist	Study flora and fauna	Site of interest, artifacts may be found

							interest		
Negative Short-term consequences	Dam demolition will be messy, ugly and will leave bare slopes The river will be silty and muddy	Loss of electricity that can be sold, Water supply diminished	Build up of sediments will need to be removed, Some animals will lose their homes, exotics could be introduced on bare slopes		Loss of historical structures	Added silt could contaminate water supplies, dust created during removal	River closed to fishing during removal	Experimenting with nature	Loss of dams
Positive Long-term consequences	River will be free flowing without obstructions, full of fish	Fishery improved	Salmon habitat restored, healthier ecosystem, prevention of extinctions of salmon runs, recovery of other species	Restoration of a river ecosystem	Improved ecosystem	More fish = healthier humans and other species, Stronger cultural identity and health	Fishing improved over time	Will learn how to restore a river ecosystem and fishery	Cultural site of creation will be accessible, restore cultural heritage
Negative Long-term consequences	Loss of Lakes, Adwell	Higher prices for products produced from less	Perception of loss of flood control with			No plan for long term water	No lake fishing or boating	Lack of correct genetic	Social attachment to lakes,

ces	&Mills Long time until plants fill in lake bottoms	expensive electricity:pa per, Lay off of some employees, Expensive to remove sediments, Need to protect downstream structures and water supply	loss of dams			supply		Salmon for Elwha river	Loss of what has become familiar
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