Water and Work

Weigh the uneven effects of decisions about the Aral Sea.

E.P.2.3.C "Evaluate the extent to which political and economic decisions have had significant impact on human and physical environments of various places and regions."

NAME _____ DATE _____

1 READ AND MARK

Read it twice

YOUR JOB Underline the two major water-policy choices, circle their effects on people and the environment, and write 1 or 2 beside each effect to link it to the choice that caused it.

The Changing Aral Sea

1 At the edge of the Aral Sea, fishing boats once returned to busy ports in Kazakhstan and Uzbekistan. During the Soviet era, leaders expanded cotton farming in dry Central Asia. Cotton brought income and supplied textile factories, but its fields needed large amounts of water. Beginning in the 1960s, irrigation canals diverted water from the Amu Darya and Syr Darya, the two rivers that fed the sea. Some canal water also soaked into the ground or evaporated before reaching farms. The choice helped produce cotton, yet it reduced the river water flowing into the Aral Sea.

2 As the sea shrank, its shoreline moved far from former ports. Many fishing jobs disappeared, harming families and local businesses that depended on the catch. Exposed lakebed left salt and pollutants behind; winds carried dusty material toward nearby communities and fields. Saltier water made survival difficult for many fish. These changes did not affect every place equally: areas near the old shoreline faced stranded harbors, while farming districts gained irrigation water. The drying also changed the physical environment across a much wider region than the original cotton fields. A decision that supported one industry imposed costs on others.

3 After the Soviet Union ended, governments faced different choices. In 2005, Kazakhstan completed the Kok-Aral Dam to hold more Syr Darya water in the North Aral Sea. The northern water level rose, salinity fell, and some fish populations and fishing returned. Farther south, the much larger South Aral Sea continued to lose water as river withdrawals for irrigation remained high. The dam did not restore the entire sea, and cotton still provides income and jobs in parts of the region. Judging the impact means weighing these uneven results: which people and places benefited, which suffered, and how far a policy's effects reached.

2 ANSWER WITH EVIDENCE

Use the passage

1. How significant was river diversion for the Aral Sea's physical environment? Support your judgment with two changes from the passage.

2. To what extent did cotton expansion benefit people across the region equally? Compare farming districts with former fishing ports.

3. Why did the effects of irrigation extend beyond the cotton fields? Evaluate one effect on a place away from those fields.

4. How far did the Kok-Aral Dam reverse the effects of earlier water decisions? Compare the North and South Aral Seas.

3 YOUR TURN

Your own words

Imagine regional leaders plan to gradually reduce water taken for cotton over several years. In five or six sentences, recommend whether they should do so, predict one physical change and effects on two different groups, and weigh the trade-off using evidence from the passage.

Water and Work

PART 1 · READ AND MARK

Underline the two major water-policy choices, circle their effects on people and the environment, and write 1 or 2 beside each effect to link it to the choice that caused it. Accept any marking that follows this job and points at the right text.

PART 2 · ANSWERS

#	QUESTION	ANSWER
1	How significant was river diversion for the Aral Sea's physical environment? Support your judgment with two changes from the passage.	**The impact was major: the sea shrank, moving its shoreline far from former ports, and its water became saltier.**
2	To what extent did cotton expansion benefit people across the region equally? Compare farming districts with former fishing ports.	**Benefits were unequal. Farming districts gained irrigation water and cotton income, while former fishing ports lost fishing jobs and related business.**
3	Why did the effects of irrigation extend beyond the cotton fields? Evaluate one effect on a place away from those fields.	**Less river water reached the sea, exposing lakebed. Wind carried salt and pollutants from that lakebed toward nearby communities and fields, spreading the impact beyond the cotton farms.**
4	How far did the Kok-Aral Dam reverse the effects of earlier water decisions? Compare the North and South Aral Seas.	**The dam helped the North Aral Sea: its water level rose, salinity fell, and some fishing returned. It did not restore the South Aral Sea, which continued to lose water.**

PART 3 · YOUR TURN (SAMPLE ANSWER)

I recommend that leaders gradually reduce water taken for cotton over several years. More river water could reach the Aral Sea, which might slow its shrinking or help some areas recover. Fishing families might gain work if water and fish return, although recovery would take time. Cotton farmers could face lower yields and lose income unless they get help using water more efficiently. The policy is worth trying because it could reduce long-term damage, but leaders should support farmers during the change.

Accept different judgments when students support them with accurate evidence from the passage. In Part 3, look for a plausible physical effect, effects on two distinct groups, and a clear trade-off.