

River Rights: Whose Water Is It?

Developed by Robin Fogel-Shrive
Revised by Nelson Graff

STUDENT VERSION

Reading Selections for This Module

McEwen, Bill. "River Plan Too Fishy for My Taste Buds." *Fresno Bee* 26 Mar.2009. ProQuest. Web.

Weintraub, Daniel. "River Restoration Project Offers a Sprinkling of Hope." *Sacramento Bee* 26 Apr. 2009: E1.Print.

Reading Rhetorically

Prereading

Activity 1

Pre-Test

San Joaquin River Delta Project

1. Where does most of California's drinking water come from?
 - a. Rain and snowfall
 - b. The ocean
 - c. Aquifers
 - d. Wells
2. Which of the following accurately describes the Central Valley of California?
 - a. One of the world's most productive agriculture regions
 - b. The driest area in California with a large population
 - c. An empty desert
 - d. The most populated area in California
3. Into which part of California does the San Joaquin River flow?
 - a. Southern California
 - b. Northern California

- c. Central California
 - d. Coastal California
4. The original purpose of dams was to
 - a. Make a lake for recreational purposes.
 - b. Store water for California residents.
 - c. Give fish a place to live.
 - d. Prevent flooding.
 5. Which ocean fish has to swim upstream through rivers to lay eggs?
 - a. Cod
 - b. Bass
 - c. Catfish
 - d. Salmon
 6. What region of California has the largest population?
 - a. Northern California
 - b. Central Valley
 - c. Bay Area
 - d. Southern California
 7. Currently, most of the water from the San Joaquin River flows to
 - a. Bay Area residents.
 - b. Southern California residents.
 - c. Pacific Ocean.
 - d. The Friant Dam.
 8. How does diverting water away from a river for municipal, household drinking purposes affect the river's ecosystem?
 - a. Less wildlife and plants
 - b. Less flooding in residential areas
 - c. More food for the fish
 - d. Stronger ecosystem

9. What and where is the San Joaquin-/Sacramento Delta?
 - a. Area where the San Joaquin River begins to run into the ocean
 - b. Area where the San Joaquin and Sacramento Rivers meet
 - c. Flood plains around the Sacramento and San Joaquin rivers
 - d. Places where the San Joaquin and Sacramento Rivers dry up
10. The San Joaquin-Sacramento Delta made national headlines because
 - a. It is the most agriculturally productive area in the state
 - b. Farmers are losing their jobs
 - c. It is one of the most endangered river areas in America
 - d. There is a strong controversy between farmers, the fishing industry, and others in California over the river
11. The main reason California Central Valley farmers are losing their farms is because
 - a. There is not enough water to keep their farms productive.
 - b. They went on strike to fight for their water allocation.
 - c. The bad economy makes workers scarce.
 - d. The river keeps flooding their farms.

Activity 2

Getting Ready to Read—Quickwrite

Think about how much water you and members of your household use on a daily basis. Your teacher will ask you to write for five minutes on one or all of the questions listed below. The purpose of this writing is to provide personal thoughts and opinions on the subject. Respond in a paragraph format, yet focus on your thoughts and examples rather than on spelling and grammar.

1. What would you do if you were told that you and your family had to use half as much water as you usually use? How would you adjust your water consumption?
2. What kind of reason would make this change in water usage more acceptable?
3. Who would you want to decide this? (A popular vote/state legislature/governor?)

Activity 3

Getting Ready to Read: Pre-Test On-Demand Essay

You will have 45 minutes to plan and write an essay on the topic assigned below. Before you begin writing, read the passage carefully and plan what you will say. Your essay should be as well organized and carefully written as you can make it.

“Water Controversies Boil Over”

The excerpt from this story is taken from the Sacramento Bee “Opinion” section published April 26, 2009.

In the coming year, 46 nations risk violent conflict over water and climate-related crises, and 56 other countries face political instability, according to a study by International Alert, a British advocacy group. The United Nations says water wars may be more likely in the future than wars over oil.

“Water will ... become one of the defining limits to human development and a compounding factor in human misery,” Achim Steiner, director of the U.N. Environment Programme (Program), said during the World Water Forum, attended by more than 30,000 government officials and nonprofit leaders last month in Istanbul, Turkey.

A key message at the forum: There is probably enough fresh water available to meet human needs, despite climate change and population growth. However, the problem is poor management of water, which results in scarcity and conflict.

Fights over water—some small, some as large as California—are occurring across the globe. ...Solving these conflicts (he says) requires us to accept that water does not belong to anyone. It belongs to all.

Mat Weiser

Explain Weiser’s argument, and discuss the extent to which you agree or disagree with his analysis. Support your position, providing reasons and examples from your own experience, observations, or reading.

Take the following steps for this exercise:

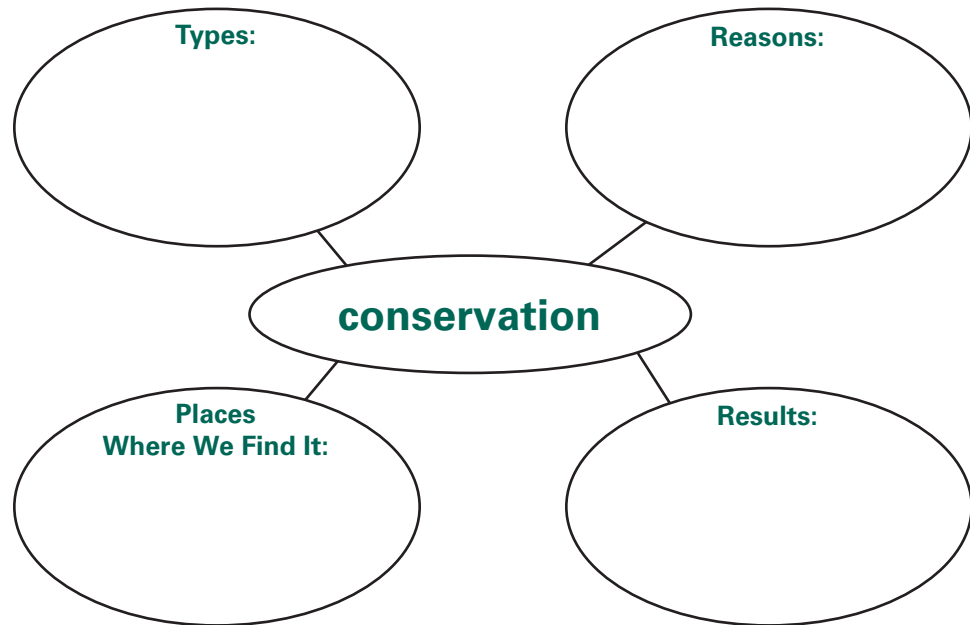
- Read the assignment carefully.
- Decide which issue you are going to discuss.
- Discuss the purpose of the assignment. What will you try to accomplish in your essay?

Activity 4

Semantic Mapping of Key Concepts

A semantic map (or web) will help categorize and organize the terms for this activity and topic.

1. Write the topic in the center of the map.
2. Create categories or use the sample based on the topic.
3. List words that fall under the categories.



Activity 5

Exploring Key Concepts

Scientific Investigation and Experimentation: Read and interpret topographic and geological maps.

Your teacher will provide visuals and maps to increase your understanding of the California water system. You may access these Internet sites at home as well.

Pictures of the San Joaquin Delta and a short newscast are available at http://www.pe.com/reports/2009/water/stories/PE_News_Local_S_delta22.1976829.html.

A map of California showing the location of the San Joaquin River and Delta is available at <http://www.spillwaynews.net/Maps/MajorCalifRivers.html>.

Science concept words have been identified and are included in a series of images below. As you view each picture, draw your own version of the concept on the worksheet. You will then write a definition based on your knowledge and the classroom discussion of the concept word.

Technical Vocabulary: San Joaquin River Delta Project

After you view the pictures of each vocabulary word, draw your own picture of each word in the chart that follows. Then write a definition of each word in the third column.



delta



channel



canal



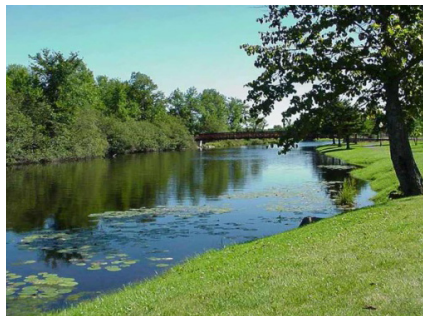
irrigate



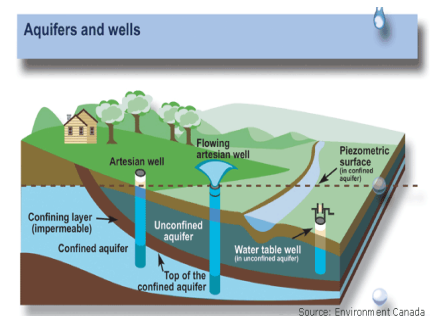
aqueduct



runoff



bank



aquifer

Vocabulary	Picture	Definition
delta		
channel		
canal		
irrigate		
aqueduct		
runoff		
bank		
aquifer		

Activity 6

Surveying the Text

What do the titles “River Restoration Project Offers a Sprinkling of Hope” and “River Plan Too Fishy for my Taste Buds” tell you about the authors’ positions on the river restoration project? Record these ideas and prepare to share them with the class.

Activity 7

Making Predictions and Asking Questions

These two newspapers are published in different parts of California. One article is from the *Sacramento Bee* and the other is from the *Fresno Bee*, which are owned by the same publishing company. How might the issues be presented differently in the articles because of their geographic locations? Record your ideas.

Activity 8

Understanding Key Vocabulary

The following vocabulary words might be important to your understanding of the articles you will be reading. Record your knowledge of each word, and if you are familiar with a particular word, write your definition or use a dictionary to obtain the word meaning.

Your teacher will help you with the pronunciations and may ask you to work in pairs or in a small group with an assigned word to increase your understanding of the word.

Word	Definition	Can Use It in a Sentence	Think I Know it	Don't Know It
Vocabulary from Weintraub's "River Restoration Project Offers a Sprinkling of Hope"				
combatants				
contentious				
restoration				
diversion				
momentum				
concede				

Word	Definition	Can Use It in a Sentence	Think I Know it	Don't Know It
Vocabulary from McEwen's "River Plan Too Fishy for my Taste Buds"				
recirculation				
revitalize				
constituents				
monolith				
economic				
divert				
silicon chips				
endeavor				
establishment				
dire				

Reading

Activity 9

Reading for Understanding

You have considered the titles and sources of the two articles and reviewed some of the key concepts and vocabulary you will find in them. Now, read through the articles silently, and answer the following questions for each:

1. Which of your predictions turned out to be true?
2. What surprised you?
3. If your prediction was inaccurate, what in the text misled you?
4. What, if anything, is confusing to you?
5. What is the main idea of each article? Write a sentence stating the main idea for each.

Activity 10

Noticing Language—Science Vocabulary

delta	a flat area where rivers split apart or join a larger body of water
channel	the bed or course of a river
canal	an artificial or man-made waterway
irrigate	to supply dry land with water by means of ditches, pipes, or streams
aqueduct	a pipe or channel designed to transport water to areas with little natural water
runoff	rainfall not absorbed by the soil
bank	a slope of land on the sides of a body of water
aquifer	underground water (usually found in sandstone)

Which word is being described in each example?

1. _____ This type of water can make a waterfall.
2. _____ Through this system, southern California receives the water it needs from northern California.
3. _____ Weeping willows grow here; their branches hang over the water.
4. _____ Here the large river turns into three smaller rivers.
5. _____ A well usually gets its water from this source.
6. _____ This looks like a river, but there is no land on the sides, just sloped cement.
7. _____ Farmers create a sprinkler system for their crops.
8. _____ The direction or path of the river was directly north-south.

Vocabulary from the article by Daniel Weintraub

Below each underlined word, substitute a synonym from the word bank by writing the correct letter above the appropriate underlined section.

WORD BANK:

- | | |
|-------------------------------------|------------------------|
| A. return to its original condition | G. give in |
| B. shift to a new direction | H. money maker |
| C. causing disagreement | I. terrible |
| D. wasteful project | J. simple |
| E. force of movement | K. stability |
| F. people who argue | L. unnecessary project |

"There's a lesson here for combatants on other contentious issues large and small"

"At first the farmers fought the lawsuit that sought the river's restoration"

"But once the courts ruled that the river's diversion had endangered the salmon..."

"The environmentalists who brought the lawsuit, once having gained the legal momentum, could have refused to concede any points"

Vocabulary from the article by Bill McEwen:

Below each underlined word, substitute an appropriate synonym word from the word bank by writing the letter above the matching underlined section.

WORD BANK:

- | | |
|-------------------------------|---------------------------------|
| A. bringing life back to | G. re-using |
| B. move it in a new direction | H. money maker |
| C. electronic memory parts | I. terrible |
| D. institution | J. singular, unchangeable block |
| E. effort | K. stability |
| F. voters | L. unnecessary project |

"Two, there is no funding for dams or river recirculation technology that would maximize . . ."

"Ultimately, restoring salmon to the San Joaquin River is critical to revitalizing California's ailing salmon hatchery"

"...of collars in coming years on a program that will yield a salmon exhibit instead of a sustainable fishery.

". . .why Congress--including Valley agriculture supporters such as Jim Costa of Fresno and Dennis Cardoza of Merced would support this boondoggle.

"...designed to protect representatives of the majority party from tough questioning by constituents"

"In addition, agriculture isn't a monolith"

"We have a powerful economic engine in regard to food supply..."

"We need more efforts to capture water -- not to divert it."

"This [restoration plan] would be like diverting silicon chips away from San Jose to make toys instead of computers"

"The shame of it is that river restoration -- a worthwhile endeavor -- should've never been tied to salmon."

"... a modest amount of water and supported the establishment of a trophy trout or bass fishery below Friant"

"We're going to have dire poverty."

Activity 11

Revisiting Key Vocabulary

Revisit Activity 8 and note why the understanding of these words helps the understanding of the authors' claims.

Activity 12

Annotating and Questioning the Text

Your teacher will review the difference between fact and opinion and the persuasive terms logos, ethos, and pathos. You will then read the first article, "River Restoration Project . . .," and use different color highlighters to identify the facts presented from the arguments made representing the writer's opinion. As a way to identify facts from opinions, look for statistics, facts, researched evidence, and carefully chosen words that express opinions. Compare your annotations with a partner, and select your best example of a fact and an opinion to share in a class discussion.

You will then use a similar strategy for the second article, "River Plan Too Fishy...." Note which article has more facts (logos) and which is more emotional in tone (pathos).

Postreading

Activity 13

Summarizing and Responding

The Summary of Informational Text Template is a tool to further your understanding of the author's purpose, main claim, and audience in reference to the tone of the text. Word banks are provided for your reference, although you may use other words to best summarize the author's intent.

Summary of Informational Text Template

Reading Selection and Author:

Who/What? Sentence 1

_____ in the _____ ,
(author) (text) (A)

_____ , _____
(title) (verb) (D)

that _____ .

How? Sentence 2

_____ supports his / her _____
 (Author's last name) (stance) (B)

by _____
 (C)

Why? Sentence 3

The author's purpose is to _____
 (refer to (D) and add info)

_____ in order to/so that _____

To Whom? Sentence 4

The author writes in a _____ tone for _____
 (E) (audience)

Word Bank

A (text)	B (stance)	C (purpose)	D (purpose)	E (tone)
article book review essay column editorial etc.	argument position assertion claim suggestion point question explanation statement etc.	comparing contrasting telling explaining illustrating showing demonstrating defining describing clarifying listing etc.	shows points out suggests states questions argues exposes proves etc.	academic formal informal sarcastic humorous informative contemptuous cautionary condescending respectful etc.

Activity 14

Thinking Critically

The following questions and activities will help you gain a better understanding of the two articles on river restoration. Teachers may assign research of the two journalists as a homework assignment.

Questions about Logic (Logos)

1. Which article is the most convincing?
2. What is the major claim Weintraub makes?
3. What is the major claim in McEwen's article?

Questions about the Writer (Ethos)

1. What can you infer about Weintraub and McEwen from their articles? How do they present themselves in ways to make readers trust their viewpoints?
2. Do you trust both authors? Why or why not?
3. Do you think the authors are serious?

Questions about Emotions (Pathos)

1. Which article affects you emotionally? Why?
2. Do you think that McEwen is trying to manipulate your emotions? How or why?

Activity 15

Thinking Critically—Group Project

Your teacher will lead a class discussion on the following special interest groups that have a stake in the outcome of the San Joaquin River restoration project. The class will then be divided into five groups. Each group will be assigned a particular perspective, and each member of each group will discuss questions and record answers to the questions on a separate piece of paper.

Perspectives:

- Farmer
- Environmentalist
- Politician
- Resident of Southern California
- Salmon fisherman

Farmer

1. How is water important to you as a farmer?
2. Explain how farmers used the San Joaquin River before the Friant Dam was installed.
3. How did the Friant Dam affect many San Joaquin Valley farmers?
4. Explain what the farmer's position is on the restoration of the San Joaquin River.
5. Rate the following in order of importance to a farmer: the water you drink and use for personal needs, the water used to grow food, and the water needed to support wildlife.
6. How could the river restoration project help or hurt you?

Environmentalist

1. How did the Friant Dam affect the wildlife of the San Joaquin River?
2. Salmon need to swim from the ocean and upstream a river to the mountains to lay their eggs. How did the Friant Dam affect the salmon, and what results did this have on the salmon population?
3. How does the change in the salmon population affect other plants and animals that live around the river?
4. Rate the importance of the uses of the San Joaquin River: the water you drink and use for personal needs, the water used to grow your food, and the water needed to support wildlife
5. As an environmentalist, do you think the Friant Dam was good or bad for your concerns? Explain your reasoning.
6. How could the river restoration project benefit or hurt you?

Politician

1. Why do politicians try to make everyone happy?
2. What new businesses might develop at the San Joaquin River if it was restored?
3. How would businesses or jobs created by the restoration of the San Joaquin River help you as a politician?
4. Describe how your background might influence your opinion on this topic?

5. Describe how people who donate money to politicians' re-elections influence their actions.
6. How do you think politicians should vote on the restoration project?
7. How could the river restoration project help or hurt you?

Resident of Southern California

1. Where does your water come from? (Even if you know this from reading the article, many Southern Californians may not know this. Let's be honest, many people do not know where their water comes from.)
2. Rate the importance of the uses of the San Joaquin River in order: the water you drink and personally use, the water used to grow your food, and the water needed to support wildlife.
3. Southern California is a desert. How does spending billions of dollars to take water from other sources in order to bring water to you make you feel?
4. Would you think it fair to charge southern California residents twice the amount of money for their water than other consumers in the state?
5. As a resident of southern California, do you think the Friant Dam was good or bad for you? Explain your reasoning.
6. How could the river restoration project help or hurt you?

Salmon Fisherman

1. How was your business doing before the Friant Dam was constructed?
2. How was your business after Friant Dam? Explain.
3. Rate the importance of the uses of the San Joaquin River in order: the water you drink and use, the water used to grow your food, and the water needed to support wildlife.
4. If the restoration project doesn't work, how would it affect your business?
5. As a fisherman, do you think the Friant Dam was good or bad for you? Explain your reasoning.
6. How could the river restoration project help or hurt you?

Community Group Directions

You will now form new groups with each group member representing a different perspective.

1. Go around the group and introduce yourselves from your assigned perspectives. Each person should give a summary of what he or she thinks and feels about the San Joaquin River Restoration Project.
2. Talk with your group, and try to persuade other people to take your side in this issue.
3. Vote as a group, and come to a conclusion for the solution that makes the most people satisfied.
4. Often the winner is the side with the most power. Look at the different perspectives. Which side do you think has the most power?
5. Be ready to share your group's conclusion with the class.
6. Given each of your perspectives, what are the three most critical needs that you have in common?

Quickwrite: Now that you have heard different perspectives on the issue of river restoration, what is your view regarding the best course of action? Which perspective or perspectives were the most persuasive in forming your view?

Activity 16

Reflecting on Your Reading Process

Quickwrite: Your teacher will ask you to discuss about one or all of the following questions with a partner. Take notes during your conversation and prepare to share one response with the class.

- What have you learned from joining this conversation? What do you want to learn next?
- What reading strategies did you use or learn in this module? Which strategies will you use in reading other texts? How will these strategies apply in other classes?
- In what ways has your ability to read and discuss texts like this one improved?

Connecting Reading to Writing

Discovering What You Think

Activity 17

Taking a Stance and Gathering Evidence to Support Your Claims

As you prepare to write, review the quickwrite you did at the end of Activity 15 and your view regarding the best course of action for California on river restoration. Now review the annotations you made on the two articles in Activity 12, the summary you wrote in Activity 13, and your answers to the thinking critically questions in Activity 14. Does this review change your view on the topic? Restate your position on river restoration in writing. Consider the following questions:

1. What support have you found for your position?
2. What evidence do you have for that support?
3. Is this piece of evidence a fact or an opinion? Is it an example?
4. If this evidence is a fact, what kind of fact is it (statistic, experimental result, quotation)?
5. If it is an opinion, what makes the opinion credible?
6. What makes this evidence persuasive?

Activity 18

Considering the Writing Task

You will have 45 minutes to plan and write an essay on the topic assigned below. Before you begin writing, read the passage carefully and plan what you will say. Your essay should be as well organized and carefully written as you can make it.

In one of the boldest river restorations in the Western United States, a 63-mile stretch of the San Joaquin River will be transformed from a dusty ditch into a fish-friendly waterway under legislation approved Wednesday that ends a decades-long dispute between farmers and environmentalists.

The \$400 million project, approved by Congress as part of a landmark wilderness bill, will increase the amount of water released from the Friant Dam near Fresno into the San Joaquin River. The flows are intended to resurrect the river's salmon fishery, decimated in the years following the dam's construction in 1942.

Kelly Zito
"Plan to Restore San Joaquin River Approved."
San Francisco Chronicle, March 26, 2009

Should California spend the money for the San Joaquin River Restoration Project? Why or why not?

In a well-written response, support your position with evidence from the two articles read in class. Be sure to support your opinion based on the evidence from the *Fresno Bee* and the *Sacramento Bee*, as well as information from the group project and your own readings and observations. You must quote at least three references from the two articles.

Writing Rhetorically

Entering the Conversation

Activity 19

Composing the Draft

Write your essay following the guidelines specified in the assignment.

Revising and Editing

Activity 20

Reflecting on your Writing Process

Quickwrite: Your teacher will ask you to write for a short time about one or more of the following questions. Once you have written, prepare to share with the class.

1. What have you learned about your writing process?
2. What were some of the most important decisions you made as you wrote this text?
3. How did the activities you did throughout this module prepare you to do the writing assignment? How were they helpful?
4. In what ways have you become a better writer?

Activity 21

Tales of the San Joaquin

You will watch the award winning documentary film *Tales of the San Joaquin* by Chris Beaver and complete the movie summary. A class discussion on the film and its bias will follow.

Tales of the San Joaquin: A River Journey Video Summary

1. Where do most of the salmon we eat come from?
2. What has caused the decrease in salmon in North America?

3. What percentage of the salmon's habitat has been cut off?
4. What is the name of the once second largest river in California?
5. What do some think is the San Joaquin's greatest contribution?
6. What is the source of the San Joaquin River?
7. What happens to the river before it reaches the Central Valley?
8. Why do you think they moved most of the river south?
9. What did Bud Ranks and the San Joaquin farmers do?
10. Did they save the river? Why or why not?
11. When was the last steamboat ride in the San Joaquin?
12. Does the San Joaquin River flow continuously? Explain your answer.
13. How did the Bureau of Reclamation replace the water from the San Joaquin River to the farmers?
14. What is the name of the place where the San Joaquin and Sacramento rivers meet?
15. How has the change in the river affected the fishing industries?
16. On what grounds is the Bureau of Reclamation being sued?
17. How long has this court case lasted?
18. What was the final verdict of the lawsuit? What does this ruling mean?
19. Who runs and operates Friant Dam?

Activity 22

Post-Test

San Joaquin River Delta Project

1. Where does most of California's drinking water come from?
 - a. Rain and snowfall
 - b. The ocean
 - c. Aquifers
 - d. Wells

2. Which of the following accurately describes the Central Valley of California?
 - a. One of the world's most productive agriculture regions
 - b. The driest area in California with a large population
 - c. An empty desert
 - d. The most populated area in California
3. Into which part of California does the San Joaquin River flow?
 - a. Southern California
 - b. Northern California
 - c. Central California
 - d. Coastal California
4. The original purpose of dams was to
 - a. Make a lake for recreational purposes.
 - b. Store water for California residents.
 - c. Give fish a place to live.
 - d. Prevent flooding.
5. Which ocean fish has to swim upstream through rivers to lay eggs?
 - a. Cod
 - b. Bass
 - c. Catfish
 - d. Salmon
6. What region of California has the largest population?
 - a. Northern California
 - b. Central Valley
 - c. Bay Area
 - d. Southern California
7. Currently, most of the water from the San Joaquin River flows to
 - a. Bay Area residents.
 - b. Southern California residents.
 - c. Pacific Ocean.
 - d. The Friant Dam.

8. How does diverting water away from a river for municipal, household drinking purposes affect the river's ecosystem?
 - a. Less wildlife and plants
 - b. Less flooding in residential areas
 - c. More food for the fish
 - d. Stronger ecosystem
9. What and where is the San Joaquin-/Sacramento Delta?
 - a. Area where the San Joaquin River begins to run into the ocean
 - b. Area where the San Joaquin and Sacramento Rivers meet
 - c. Flood plains around the Sacramento and San Joaquin rivers
 - d. Places where the San Joaquin and Sacramento Rivers dry up
10. The San Joaquin-Sacramento Delta made national headlines because
 - a. It is the most agriculturally productive area in the state
 - b. Farmers are losing their jobs
 - c. It is one of the most endangered river areas in America
 - d. There is a strong controversy between farmers, the fishing industry, and others in California over the river
11. The main reason California Central Valley farmers are losing their farms is because
 - a. There is not enough water to keep their farms productive.
 - b. They went on strike to fight for their water allocation.
 - c. The bad economy makes workers scarce.
 - d. The river keeps flooding their farms.