

# What does it mean to restore the Elwha River Ecosystem?

## **Issue Analysis Curriculum**

Written by Marie MARR  
Bainbridge Island School District  
Bainbridge Island, WA

**GRADE LEVEL:** Middle School/ High School

**CLASS TIME:** 5 periods; varies with extensions.

## **LEARNING OBJECTIVES:**

Students will learn the effects of human choice over time.  
Students will understand multiple perspectives related to settlement, economic and cultural prosperity.  
Students will understand relationship between resources and economy.  
Students will understand that cultural values change over time.  
Students will understand that values shape the beliefs an individual holds on a controversial issue.

## **Washington State Social Studies EALRS:**

History 1.2 Understanding events, trends, individuals, and movements shaping the United States.

History 2.1 Compare and contrast ideas in different places, time periods, and cultures, and examine the interrelationships between ideas, change and conflict.

Geography 3.1 Identify and examine people's interaction with and impact on the environment.

Geography 3.2 Analyze how the environment and environmental changes affect people.

Economic 1.1 Understand that the condition of scarcity requires people to choose among alternatives and bear the consequences of that choice.

Economic 1.2 Recognize that the availability and use of resources influences the production of goods and services in the economy

Civics 1.2.2b Describe efforts to reduce differences between democratic ideals and realities.

Civics 4.3.2a Analyze the influence of various interest groups and individuals on the development of public policy and decision-making.

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## **TEACHER MATERIALS:**

1. Access to on-line references listed in **Resources**.

2. A copy of *The Lorax*, by Dr. Seuss, preferably in video or DVD format, but a picture book can substitute.
3. Class copies of blank **Issue Analysis Worksheets**, produced from the template included in this curriculum.
4. Class copies of the **Value Descriptors**, produced from the Master included in this curriculum.
5. Class copies of the **Issue Analysis Vocabulary**, produced from the Master included in this curriculum.
6. A copy of Lundahl's DVD, *Unconquering the Last Frontier: The Historical Saga of the Damming and Undamming of Washington's Elwha River* is highly recommended but not critically essential.

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## **AN INTRODUCTION TO *ISSUE ANALYSIS* AND BACKGROUND INFORMATION:**

In 2008, the two dams in the Elwha (Clallam County, Washington) will be removed in a gargantuan effort to return the historic salmon runs to the river. The U.S. Department of the Interior now owns both dams, and much of the watershed is contained within Olympic National Park. Restoration activities will hope to return a critical piece of the natural biodiversity to this amazing river ecosystem. The biodiversity that prevailed prior to the installation of the dams has been altered because of the absence of salmon to all but the lower 4.9 miles of the river. But restoration work will involve more than salmon and plants. Humans are involved. And humans don't always agree, because the process affects individuals in different ways, historically, in the present, and in the future.

Unlike pure science, "The Truth" can be a fluctuating concept in human terms, depending on the eye of the beholder. Individuals have beliefs about controversies related to values they hold. In our restoration scenario, there are many different beliefs and values in evidence. We'll call these individuals, with different perspectives, the stakeholders, or "players." One player, for example, is the National Park Service. The N.P.S. in Olympic National Park is mandated by our federal government to preserve and protect the natural environment for the ongoing use and appreciation by the American public. This restoration effort is right down their alley, so to speak. Some players, who have purchased property and built homes on Lake Aldwell, above the lower dam and outside the park, really wish their view of the serene mountain lake, on which they fish and kayak, could remain. Restoration to them sounds like loss of property values, loss of recreation opportunities, and loss of aesthetic experiences they have come to cherish. The members of the Lower Elwha Klallam Tribe, on the other hand, have been around a lot longer and consider the watershed to be their ancestral home, from which they have derived their cultural identity and economic well-being. They, like the National Park Service, are in favor of full restoration. Still another player, the Washington State Historical Society (again a governmental entity), looks at the process a little differently. They support creating a free-flowing river, without the dams, but the equipment buildings themselves have historical significance that the Historical Society wants preserved. A

myriad of other players exist, with differing beliefs and values. Whose opinion should prevail? How can the removal of the dams restore both respect for differing views and a healthy, biodiverse ecosystem?

Walking in someone else's shoes has long been recognized as a valuable way to understand a point of view that differs from our own. But do we simply shuffle the tennis shoes around? No, that probably won't work.

"Issue Analysis," on the other hand, is a process by which we can analytically research and evaluate social issues [Hungerford, et al, 2003]. In this sense, "problems" become social "issues" when people disagree about the solution. Through this process, we can learn how to look for the underlying beliefs of an individual or group, in order to understand the value that belief represents.

In order to overcome disagreements, hurt feelings, and suspicions based on misunderstandings and/or differing belief and value systems, this way of walking in another's shoes is an academic exercise that can lead to enhanced cultural sensitivity. Hence, this process helps to shorten the negotiation time when compromise is needed to settle disputes in a fair and equitable manner. Consider this a "teaching tolerance" technique.

Let's start with a **guiding question**, then look at the **beliefs** and **values** of the key players in this scenario. [*Note: Definitions of the underlined terms in bold can be found in the Vocabulary section.*] In a purposefully simplified manner, all of these are completed for you. A task for students would be to understand this process well enough so that they could fill in missing beliefs and values, which a teacher would delete from this master list based on the sophistication of the class. A list of activities follows the completed **Issue Analysis** that will help to introduce the concepts to your students in graduated steps of difficulty. Extension activities are also offered, which students can be asked to complete after they are familiar with the key **players**, their **positions** on the **guiding question**, and their corresponding **beliefs** and **values** related to the **issue**.

Here's our guiding question:

**To what extent will the restoration of the Elwha River watershed justify the removal of the two dams?** In other words, what does it mean to restore the Elwha River Ecosystem in the eyes of the various stakeholders?

The major players are listed, followed by A) their position on the guiding question and B) their belief statement, with the corresponding value that belief probably represents. Some players have multiple beliefs on our issue; others have only one major belief. Feel free to add or change any information given in this **Issue Analysis**, based on current research you uncover.

# The Issue Analysis

## MAJOR PLAYERS

### **1. THE TRIBES: LOWER ELWHA KLALLAM**

A.) Full justification, full restoration, highest extent.

B.) BELIEFS and REPRESENTATIVE VALUES

a. The Elwha is the Mother Watershed for the Klallam People. The river is the sustainer of all life. Our Creation Site is now located, underwater, near where the lower dam was built. Restoration will make us spiritually whole again.

Value = RELIGIOUS

b. The Salmon are like people to us. Their well-being and our well-being are inextricably intertwined. The restoration of the salmon restores the balance of our lives. This relationship necessarily assumes sustainable practices.

Value = HEALTH & SAFETY

Value = ENVIRONMENTAL

c. Everything our culture derives meaning from is related in some way to the Elwha River, the surrounding watershed, and the interactions of the ecosystem.

Value = ETHNOCENTRIC

d. From the Elwha watershed, our tribal members also sustain themselves and their families' needs. Restoration will mean jobs for our people.

Value = ECONOMIC

e. After numerous instances of our legal rights being ignored and abused, the Boldt Decision, in 1974, guaranteed to us 50% of the fishing harvest in our usual and accustomed fishing areas. During and after restoration, this right will be enforced.

Value = LEGAL

### **2. NATIONAL PARK SERVICE**

A.) Full justification/restoration.

B.) BELIEFS and REPRESENTATIVE VALUES

a. Our mandate by the federal government is to preserve and protect the natural environment for the ongoing use and appreciation by the American public. Because the federal government has decided to fund this restoration within our jurisdiction, we'll carry out those plans.

Value = POLITICAL

### **3. STATE & FEDERAL GOVERNMENT AGENCIES**

(Dept. of Natural Resources, Bureau of Reclamation, United States Geological Service, et al.)

A.) Neutral

B.) BELIEFS and REPRESENTATIVE VALUES

a. As an arm of the government, we will carry out the jobs we are assigned to do in this process. We are involved in the pre and post planning and instigation of the restoration work.

Value = POLITICAL

b. Many of us are involved in exciting research as part of this project. It's the perfect science experiment because the one variable is the number of salmon in the watershed. We're documenting the effect of this changing variable.

Value = SCIENTIFIC

#### **4. WASHINGTON STATE HISTORICAL SOCIETY**

A.) Partial justification/restoration.

B.) BELIEFS and REPRESENTATIVE VALUES

a. We support creating a free-flowing river, without the dams, but the equipment buildings themselves have historical significance, which should be preserved. The state guidelines under which we work mandate that we intervene to keep these buildings as intact as possible.

Value = POLITICAL

#### **5. PORT ANGELES CITY COUNCIL**

A.) Neutral/Undecided

B.) BELIEFS and REPRESENTATIVE VALUES

a. As elected officials, we represent the opinions of our constituents. If we don't, we won't get re-elected! Some of the voters want the dams out and others are dead set against it, even though the feds have now come up with money for removal and restoration. As long as our city water quality doesn't deteriorate, we're leaning in favor of the restoration.

Value = POLITICAL

#### **6. PORT ANGELES CHAMBER OF COMMERCE**

A.) Justified

B.) BELIEFS and REPRESENTATIVE VALUES

a. Because we can see that this restoration project will bring new jobs and well as increased numbers of tourists into our area, we support the project.

Value = ECONOMIC

#### **7. "R.E.A.L." LOBBY GROUP [Rescue Elwha Area Lakes]**

A.) Not justified.

B.) BELIEFS and REPRESENTATIVE VALUES

a. We lobbied hard against the dam removals. We lost that battle. We don't want the dams removed or the lakes drained. We resent what we think will be a loss of private property values from these changes. There must be other ways to increase the salmon runs. This might not be about salmon at all; it may just be a land-grab by the National Park Service. We don't like this forced government-involvement in our lives. It's clearly a reduction of the individual freedoms we feel this country was founded on.

Value = ECONOMIC

Value = EGOCENTRIC

## **8. ENVIRONMENTAL LOBBY GROUPS**

A.) Full justification

B.) BELIEFS and REPRESENTATIVE VALUES

- a. All of life is connected. Through the restoration activities, a critical piece of the natural biodiversity, the salmon, will be returned to this amazing river ecosystem. The return of the salmon will then help recreate the original environmental balance in the Elwha watershed.

Value = ENVIRONMENTAL

## **9. SPORT FISHERS**

A.) Justified.

B.) BELIEFS and REPRESENTATIVE VALUES

- a. We're a little suspicious, because there aren't many salmon in the other rivers (which don't have dams) around here, but if the Elwha dam removals help return the historic runs to the watershed, and we get to have fun fishing again, we're all for it.

Value = RECREATIONAL

## **10. COMMERCIAL FISHERS**

A.) Justified

B.) BELIEFS and REPRESENTATIVE VALUES

- a. The Tribal fishers are allowed, by law, 50% of the salmon runs in their historic fishing areas. That leaves 50% for the rest of us. Any increase in the runs is an increase for all of us.

Value = ECONOMIC

## **11. NON-FISHER RECREATIONALISTS**

A.) Justified

B.) BELIEFS and REPRESENTATIVE VALUES

- a. We like to hike, watch birds and other wildlife, and boat. We're just outdoor people. We won't be able to kayak in Lake Aldwell or Mills any more, but we'll probably still be able to raft in the river. We think that more wildlife will be drawn to the watershed when and if the salmon return. This will be a plus for our leisure time.

Value = RECREATIONAL

## **12. COMMERCIAL, NON-FISHER INTERESTS (guides, lodges, tourist-oriented)**

A.) Full Justification

B.) BELIEFS and REPRESENTATIVE VALUES

- a. The restored area, with the return of the salmon, will bring new clients to us. Our businesses will grow. We support the whole process.

Value = ECONOMIC

## **13. NIPPON PULP & PAPER MILL, Nippon Paper Industries**

A.) Full Justification

B.) BELIEFS and REPRESENTATIVE VALUES

- a. We've received an excellent financial settlement from the Dept. of the Interior for the sale of the lower dam and for the electricity it generated. The restoration will not affect the economic stability of our bottom line. [Note: The ownership of the dams has changed numerous times since they were built. Crown Zellerbach, James River, Fort James, and Daishowa America were all previous owners.]  
Value = ECONOMIC

**14. ARTISTS, PHOTOGRAPHERS**

- A.) Justified
- B.) BELIEFS and REPRESENTATIVE VALUES
  - a. The area is beautiful now; the restored area will be as well. Perhaps if more wildlife appears, we'll like it even better.  
Value = AESTHETIC

**15. CONSUMERS OF SALMON**

- A.) Full Justification
- B.) BELIEFS and REPRESENTATIVE VALUES
  - a. We want salmon, any way we can get it! Wild salmon costs more than farmed salmon, but it's better for us because of the Omega-3 Fatty Acids wild salmon has. More salmon sounds great to us! Yum, yum!!  
Value = EGOCENTRIC  
Value = HEALTH & SAFETY

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## VALUE DESCRIPTORS

[Adapted from *I.E.E.I.A.*, Harold Hungerford, et al.  
Copyright, Stipes Publishing L.L.C., 2003.  
For additional information, see [www.cisde.org](http://www.cisde.org)]

- Aesthetic**..... The appreciation of form, composition, and color through the human senses. Beauty.
- Economic**..... The use and exchange of money, materials, and/or services.
- Ecological**..... Pertaining to the maintenance of natural biological systems. (Humans aren't involved here.)
- Educational**..... Concerning the accumulation, use, and communication of knowledge. Learning.
- Egocentric**..... Pertaining to a focus on self-centered needs and fulfillment. (The Big "I")
- Environmental**..... Pertaining to human activities in terms of quality of natural resources. (For example, plant and animal species, air, water, soil, etc.).

<b>Ethical/Moral</b> .....	Pertaining to present and future human responsibilities, rights and wrongs, and ethical standards. (Think of the conscience finger wagging “no.”)
<b>Ethnocentric</b> .....	Pertaining to a focus on the fulfillment of ethnic/cultural goals. Groups.
<b>Health &amp; Safety</b> .....	The maintenance of positive human physical conditions.
<b>Legal</b> .....	Relating to national, state, or local laws; law enforcement; lawsuits.
<b>Political</b> .....	The activities, functions, and policies of governments and their agents.
<b>Recreational</b> .....	Pertaining to human leisure activities.
<b>Religious</b> .....	The use of belief systems based on faith or dogma.
<b>Scientific</b> .....	Concerning the process of empirical research; knowledge gained by scientific study.
<b>Social</b> .....	Pertaining to shared human empathy, feelings, and status. (Being concerned about others’ well-being.)
<b>Technological</b> .....	Concerning the use of technology for human/ societal goals.

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## ACTIVITIES

Teachers can choose from the following activities, based on the time available and sophistication of their class. These selections assume that the class has some background on the history of the two dams. Ideally, the class will have completed the curriculum developed by Dori Wuepper previous to tackling these. If available, show the 62-min. video [see Resources] by Robert Lundahl, *Unconquering the Last Frontier: The Historical Saga of the Damming and Undamming of Washington’s Elwha River*.

## The ISSUE ANALYSIS

### Day 1:

1. Give an overview of the Issue Analysis process by explaining the terms “issue,” “guiding question,” “player,” “position,” “belief,” and “value.” [See attached vocabulary sheet.] Print out for students or ask them to take careful notes.
2. Give each student a copy of the Value Descriptors [See attached]. Matching values to belief statements is one of the most challenging activities in this process, but assure students that it is a little like learning to ride a bike: once you catch on, you won’t forget it! Spend at least one whole period going over the Value Descriptors. Have students take notes on their copy. Discuss some possible examples for each descriptor.

3. Homework: Ask students to create five different belief statements, matched to the value each represents. An example: “Wow, I love e-Bay! I can save so much money!” value = economic. Another: “I was tempted to cheat on the test, but I knew my conscience would give me a stomach ache.” value = ethical/moral.

### **Day 2:**

1. Collect homework after asking for volunteers to share some belief statements. Ask the class to identify what value the statements represent.

2. Give each student a copy of the Issue Analysis Worksheet.

3. Show the video “**The Lorax**,” [Dr. Seuss; 30 min.] with the names of the key players on the board: the Lorax, the Once-lers, the Truffula Tree people, and the Consumers of Thneeds. If the video isn’t available, the story could be read aloud to the class.

4. Do the worksheet together at the end of the movie so that students understand how the process works.

a. Suggested answers:

**Guiding Question:** “*To what extent should the Truffula Trees be cut in order to make thneeds?*”

**Players and their positions**, followed by their beliefs and values:

**Lorax:** Don’t cut! **Belief:** The loss of the trees will destroy the habitat/homes of all these little creatures; the whole balance of the ecosystem will be upset. **Value:** Environmental

**Once-lers:** Cut! **Belief:** We represent progress! We can create jobs and make money. If we don’t do it, someone else will. **Values:** Economic. Egocentric.

**Truffula Tree people:** Don’t cut! **Belief:** We will all have to relocate or die, as all our homes and habitat are destroyed. **Values:** Egocentric. Healthy & Safety.

**Consumers:** Cut! **Belief:** We need these thneeds! They are the latest thing! **Value:** Egocentric.

b. Note that three of the four major players have “egocentric” as a value, yet their beliefs are quite different. This will help your students understand that “egocentric” [a focus on self-centered needs and fulfillment] is often the underlying value for a player’s position on a controversy. Issue Analysis isn’t an attempt to place blame, or to label any value as better or worse than any other. Instead, it’s a value-fair way of analyzing a controversial issue.

5. Homework: Explain to your students that they will be doing an issue analysis together in class tomorrow on some local controversy, probably something students are concerned about at school. Each student must write down two possible topics to bring to class. For example, is having an open campus a topic of discussion at your school?

### **Day 3:**

1. On the board or overhead projector, write down all the possibilities that students have brought to class. Have them vote on one they would like to do together, as an issue analysis, in class. Make sure it is one on which there are clear differences of opinion.

2. Give each student a blank Issue Analysis Worksheet and have them fill in the blanks as the class discussion progresses. Create a master copy on a transparency for all to see. Ask volunteers to create a guiding question, and then list the players and the position of each player on the issue. Note that by prefacing a guiding question with the phrase “to what extent,” you avoid setting up the possibility for *Yes* or *No* answers. Remind the class that if there are not positions that oppose each other, there is no issue. (If there is no opposition, everyone agrees and resolution is easy!) Once the guiding question is established, as well as a list of the key players and their positions on the issue, discuss as a class what the beliefs of each player is, followed by a discussion on what value each belief probably represents.

3. Homework: Give out another copy of the Issue Analysis Worksheet and ask each student to take one of the other topics from the list generated at the beginning of class. Emphasize that the topic chosen should be one the student is reasonably familiar with. Complete an issue analysis, including guiding question, players, positions, beliefs, and values, on the chosen topic.

#### **Day 4, 5, and beyond:**

1. Collect homework. If time permits, share some of the results. Some teachers will want to spend a whole period sharing and discussing, before moving on to the next step.

2. You are now ready to try the issue analysis process on the Elwha River restoration, adapting it to the sophistication level of your class. Be sure to review students on the basic background to the Elwha restoration efforts. This activity assumes that the class is already familiar with the issue. Based on their knowledge of the issue, delete answers to all or parts of the completed issue analysis accompanying this lesson, using the following guiding question:

**To what extent will the restoration of the Elwha River watershed justify the removal of the two dams?**

a. If you use a blank Issue Analysis Worksheet, try giving students a minimum number of players they must identify through their research and prior knowledge. Most teachers will discover that expecting students to fill in a blank Issue Analysis Worksheet is an unreasonable assignment for all but the most sophisticated classes.

b. Allow students class time to begin. This is a good assignment to begin in a computer lab, with access to the on-line references listed in Resources. If students begin in class, you will have time to answer questions and encourage your less able students.

c. The key players, their positions and belief statements can be found through research and previous class discussion. Based on their understanding of the Value Descriptors [Hungerford, et al, 2003], listed on the sheet previously given to them, students would then assign the missing value attributes.

c. Your completion deadline will be related to the sophistication level of your class.

d. Assessment: Once the completed issue analyses are turned in, expect and encourage wide-ranging discussions of the beliefs and values of the various players. Accept all answers that are supported by reasoned logic and research, even if they differ

from the official answer sheet. These kinds of discussions support strong thinking skills and enhanced sensitivity to a variety of cultural values.

e. Good luck with this activity!

## **EXTENSION ACTIVITIES**

### **1. Town Meeting**

1. Of course you could assign a persuasive essay, but why not try something more fun after students have completed and discussed their analysis of the Elwha restoration efforts? An easy extension of the Issue Analysis process is to set up a town meeting. Assign the role of each player to a group of students, who will further research their character. One spokesperson from each group should be chosen to represent the player in the debate, in the way a defense team handles a trial.

2. Other students can volunteer to be the moderator, press, town council, and interested townspeople who wish to ask pointed questions.

3. Be sure to establish the rules of presentation and rebuttal, adapted to the sophistication level of your class. Will the Town Council make any decisions at the end?

4. You will probably discover that students take this activity even more seriously, including dressing their parts, if you pretend that the local public access T.V. channel is videotaping the whole town meeting. Students and parents enjoy watching these videotaped productions.

5. Assessment: Evaluate student involvement in the various aspects of this undertaking, based on their interests and skill levels.

### **2. Town Center Kiosk**

1. Ask students in small groups to choose one key player to represent with its position, beliefs, and related values on a large kiosk, using text and pictures.

2. Each group should cover a large cardboard box (e.g., empty refrigerator or hot water-heater box) with visuals that support the views of their player.

3. These would be fun to have on display before a mock town meeting.

4. Assessment: Have each student fill out an evaluation rubric on which the criteria for an effective presentation board would be listed. Each kiosk should be rated separately. In this way, students will be encouraged to carefully read all the material on each kiosk.

### **3. Salmon Dinner Party**

1. Offer students the opportunity to throw a salmon dinner party, with the various players as invited guests.

2. The Big Question: who will sit next to whom? Placement around the table must be analyzed and justified. Allow participants to change places for dessert. Hosts don't want people to end up throwing food at each other. Hosts do want to promote civilized discourse that might lead to some breakthroughs for negotiations, compromises, and resolution of the issue.

3. Design the invitation, menu, and table decorations.

4. Assessment: Party plans, using large poster paper or a PowerPoint, should be presented to the class for peer evaluation and discussion.

## 4. Children's Book

1. An extension activity that will appeal to your quieter, creative students is the design of a children's book.
2. Students could be paired, with one as the illustrator and one the scriptwriter.
3. The story should include why the dams are going to be removed, how various players are going to be affected, and the hoped-for success of the restoration process.
4. An alternative to a book would be a narrated video cartoon.
5. Another alternative would be to write the book from the perspective of a Lower Elwha Klallam elder, who is passing on information, by way of a story, to a grandchild.
6. Assessment: Have students share their books with reading buddies in elementary classrooms.

## 5. Newspaper

1. Assign groups of students to design a special edition newspaper which announces that the two dams have been removed, the silt has dissipated, and the river is free-flowing once again. The question remains: Will the salmon return?
2. Students should be required to design a suitable masthead and name for the newspaper, as well as to assign the roles of editor and reporters.
3. The newspaper should include articles that announce the news, some historical background, some interviews of various players and their reactions, an editorial that takes a position on the overall results, a political cartoon that reflects the editorial stance of the paper, letters to the editor that represent various players, classified ads buying and selling various related items, scientific information about salmon, etc. etc. Part of the assignment should be for each group to brainstorm what other aspects of the restoration project their newspaper should cover. For example, some might think to interview old timers, who remember the early days of the dams; others might include diary entries, which the families of early settlers might have tucked away; still others might include the Native American legends related to the Elwha watershed.
4. If time allows, students could be encouraged to use a computer program such as *Publisher* or *PageMaker* to print their newspaper. Otherwise, for the sake of expediency, allow students to word process their columns in 2.5-inch widths, which could then be cut and pasted on pieces of poster paper, around downloaded pictures or drawn illustrations.
5. Newspapers should be printed on one side of the paper only, so that they can go on display on a flat bulletin board. These make a wonderful hallway attention-getter.
6. Assessment: Have students share their results.

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# Issue Analysis: VOCABULARY

[Adapted from *Ecology: An Introduction for Non-Science Majors*.  
By Harold R. Hungerford. Copyright, Stipes Publishing L.L.C., 2003.  
For additional information, see [www.cisde.org](http://www.cisde.org)

**Issue Analysis:** A value-fair process of understanding the differing points of view on a controversial topic by investigating the positions, beliefs, and values of the key players.

**Problem:** A situation or condition in which something or someone is at risk.

**Issue:** A problem about which two or more people or organizations disagree.

**Guiding Question:** A three-part question that defines the controversial issue. Part 1 assures that the answers won't be *Yes* or *No*, through the use of the phrase "To what extent...." or "Should....," or "In what ways...." Part 2 is the body, telling WHAT is being investigated. Part 3 tells WHY or qualifies the issue to a certain locale or population. Example: [*To what extent*] [*should the return of the salmon to the Elwha watershed be encouraged*] [*in order to restore the original biodiversity of the area*]? Here's another example: "[*Should*] [*the use of fertilizers, herbicides, and pesticides be restricted*] [*in order to protect the water quality of Pacific Northwest salmon streams*]?"

**Player:** Those persons or organizations that have a role in an issue or its solution.

**Position:** The stand or posture taken by the player in regard to the issue or its solution.

**Belief:** An idea that a person holds to be true. It might or might not be true, but the person believes that it is.

**Value:** Specific ideas, which help an individual decide what is important or worthy. A value is the worth a person places on something. Values help shape the beliefs that an individual holds to be true. Everyone has personal values which are based on their past experiences. These values might involve money, status, beauty, religion, or a number of other things.

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# RESOURCES

*[Note: Do an Internet search using Elwha River + restoration as key terms for many good resources, including archived newspaper articles.]*

Elwha River Ecosystem Restoration Implementation: Draft Environmental Impact Statement April 1996. Denver, CO: United States Department of the Interior. National Park Service. 1996.

Elwha River Ecosystem Restoration Implementation: Final Supplement to the Final Environmental Impact Statement July 2005. United States Department of the Interior. National Park Service.

[www.nps.gov/olymp/elwha/docs/Elwha%202005%20Final%20SEIS/HTML/index.htm](http://www.nps.gov/olymp/elwha/docs/Elwha%202005%20Final%20SEIS/HTML/index.htm)

Elwha River: On-Line Resources from Olympic National Park National Park Service. [www.nps.gov/olymp/elwha](http://www.nps.gov/olymp/elwha)

Hungerford, Harold R. et al. Investigating and Evaluating Environmental Issues and Actions. Champaign, IL: Stipes Publishing L.L.C., 2003.

Hungerford, Harold R. Ecology: An Introduction for Non-Science Majors. Champaign, IL: Stipes Publishing L.L.C., 2003.

Lien, Carsten. Olympic Battleground: The Power Politics of Timber Preservation. 2nd Edition. Seattle: The Mountaineers Books, 2000.

Lower Elwha Klallam Tribe. Elwha River Restoration Project. [www.elwha.org/River%20Restoration.htm](http://www.elwha.org/River%20Restoration.htm)

Lundahl, Robert. Unconquering the Last Frontier: The Historical Saga of the Damming and Undamming of Washington's Elwha River. DVD. Cinereve. Robert Lundahl & Associates, LLC. 2002 [[www.unconquering.org](http://www.unconquering.org) Running time: 62:00 min.

Seuss, Dr. The Lorax. 1972. Video or DVD. Twentieth Century Fox. Running time: 30 min.

Thrush, C., Editor. ENVIR 450A: The Elwha and the Changing Northwest Environmental, Cultural, and Social Perspectives. Reading Packet, Program on the Environment, University of Washington, Fall Quarter 2004.

Wray, Jacilee. Olympic National Park Ethnographic Overview and Assessment. Olympic National Park, 1997.

## REFERENCE:

To obtain more information about the Issue Analysis process, which is part of a complete curriculum entitled Investigating and Evaluating Environmental Issues and Actions

(I.E.E.I.A.), written by Harold R. Hungerford, et al, and published by Stipes Publishing L.L.C., [2003 is latest edition.] visit the following websites: [www.cisde.org](http://www.cisde.org) and [www.stipes.com](http://www.stipes.com)

Inservice trainings for teachers are regularly scheduled for this nationally acclaimed curriculum. Contact the Center for Instruction, Staff Development & Evaluation (C.I.S.D.E.) in Carbondale, Illinois, for more information.

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[print in landscape orientation!!]

## ISSUE ANALYSIS

**Issue** Question \_\_\_\_\_

\_\_\_\_\_ ?

**Players and their  
positions on the issue**

**Beliefs**

**Values**

