



NOAA's West Coast Region

High School Curriculum: ESA-Listed Salmon and the 4 Lower Snake River Dams
Recruiting teachers, Overview, Vocabulary, Evaluation, & Rubric

Recruiting Teachers

NOAA's High School ESA-Listed Salmon and the 4 Lower Snake River Dams Curriculum

Aligns with Social Studies **Classroom Based Assessment: Causes of Conflict**

- History
- Government, Policy, and International Management
- Civics

Curriculum Overview

Lesson	Topic	Type of Activity	Length of Time	Materials Needed	Assessment
1	History of Dams, Salmon, and Native Tribes in Snake River Basin	Brainstorming working with small groups (2-3 people) but homework is done alone.	50 min. period	3 worksheets/graphic organizers: <ul style="list-style-type: none"> • History of dams • History of Salmon • History of Native Tribes 	Research worksheets Classroom participation See rubric
2	Geography Governments, and Dam Modifications	Research work with a group of 6 students, homework is done in pairs.	50 min. period	2 worksheet: <ul style="list-style-type: none"> • Geography • Governments 	Research worksheets Classroom participation See rubric
3	Economics and Policy	Quick write and team building skills: work with half of the class. Establish leadership roles and emphasize communication and decision making procedures.	50 min. period	1 worksheets: <ul style="list-style-type: none"> • Policy 	Research worksheets Classroom participation See rubric
4	Management, Federal Caucus and Coalitions	Parliamentary procedure and more leadership skills. Have whole class decide on one answer.	50 min. period	3 worksheets: <ul style="list-style-type: none"> • Federal Caucus • Coalitions • Salmon Recovery 	Research worksheets Classroom participation See rubric
5	Civics and Conflict Resolution	Role playing conflict resolution styles using stakeholders in this issue	50 min. period, ideally a block period	1 worksheets: <ul style="list-style-type: none"> • Civics and conflict resolution Role playing scenario cards	Research worksheets Classroom participation See rubric
6	CBA	Graphic Organizer Persuasive Paper or presentation	Teacher dependent	Get off of OSPI's website http://www.k12.wa.us/assessment/WASL/SocialStudies/BridgingDocuments/HighSch08/HSEcon-CausesofConflict-CBA.pdf	CBA: Causes of Conflict Checks and Balances Cultural Interactions

To arrange a guest speaker contact wcr.education@noaa.gov

9th-12th Grade Social Studies Vocabulary

Social Studies: History vocabulary			
history ethnic groups racial groups cultural influence social influence conflict war religious motive political motive economic motive immigrant consequences	involuntary servitude federal policy treaty removal reservation allotment contemporary interpret points of view resistance assimilation	scientific invention technological invention social life economic life modes of transportation economic prosperity national unity exploration interaction native people territorial expansion	internal conflict external conflict diverse cultures 17 th Century 18 th Century European explorers European settlements American Revolution Civil War Reconstruction American Indians Manifest Destiny
Social Studies: Geography vocabulary			
maps globes graphs charts databases models landforms piedmont plateau	basin elevation tributary climate tundra prairie savanna canal urban	suburban rural metropolitan area estuary drought backcountry tidewater earthworks	annex cession province urbanization physical environment political development economic development westward migration
Social Studies: Economics vocabulary			
economics profit risk stock raw materials professional trade company export import debtor budget	inflation commerce supply demand natural resources conservation tariff taxation monopoly barter embargo	depression boycott boom bust capital human resource division of labor consumer good stock market unemployment rationing	interest trade-off opportunity cost entrepreneur free enterprise market economy deficit economic region diverse economy interest rate middle class
Social Studies: Civics and Government vocabulary			
democracy direct democracy democratic republic representative democracy monarchy	parliament congress dictatorship state coup d' etat	junta civil disobedience revolution independence legitimacy	colonialism empire emperor prime minister president

Teacher Feedback and curriculum evaluation
Classroom Background Information

Name: School: Class(s) you teach: Grade level:	NOAA Representative: Visit date:
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Lessons 1-4 Evaluation

	Yes	No	Comment
Was there enough background information to complete the lessons?			
Were the instructions for the lessons easy to follow?			
Was the time estimated for each lesson appropriate?			
Did the worksheets support the activities?			
Was the information age-appropriate?			
Were the students successful accomplishing the lessons using the websites?			
Would you be interested in teaching this again?			

How did you adapt any these lessons to your students?

How would you describe student engagement in these lessons?

Lesson 5 Evaluation

What did the NOAA representative do well?

What advice might you give this person who might visit other classrooms?

Thank you for your feedback. Your opinions are valuable and will help us transform these activities to be powerful tools for your students.

Please send to:
 NOAA Fisheries, c/o Peggy Foreman, 7600 Sand Point Way NE, Bld. 1, Seattle, WA 98115 or
 email wcr.education@noaa.gov

ESA Listed Salmon and the Four Lower Snake River Dams-CBA Research Worksheets Rubric

Rate on a scale of 1-4 4=Above standard 3=Right at standard 2=Needs improvement 1=Does not meet standard	Lesson 1 Worksheet: 20 points	Lesson 2 Worksheet: 20 points	Lesson 3 Worksheet: 20 points	Lesson 4 Worksheet: 20 points	Lesson 5 worksheets: 20 points
Content Accuracy: Did students correctly answer the questions and complete their research?					
Ideas: Ideas were expressed in a clear and organized fashion. It was clear that you understood the concepts.					
Completeness: Did student answer all of the questions in full detail?					
Objectives from each lesson addressed					
Neatness: Did student take pride in this work? Was it clean, not wrinkled, and easy to read with no distracting error corrections?					
Add up the total point for each worksheet					

Total score:

Comments:



NOAA's West Coast Region

NOAA's 9th-12th Grade Sustainable Halibut Fisheries Curriculum
Aligned for Social Studies CBA: "Humans and the Environment"

Pre-Visit Questionnaire

Your Name:		Teacher's Name:	
School/Groups Name:		Phone number:	
Periods: * * * * * *	Time: * * * * * *	Class size: * * * * * *	
School location:			
Driving Directions:			
Presentation Date:		Check in at office? Yes <input type="checkbox"/> No <input type="checkbox"/>	
		Room #:	
What is the best time to set up:		Resources that you brought:	
		# Distributed:	

Content background knowledge

- What background do your students have in policy and marine conservation efforts?
- Are there any vocabulary words or topics that you would like me to specifically address or connect to prior knowledge or concepts?


Class dynamics

- Do you have any special needs students?
- How do you involve them in group discussion? (raising hands?)
- What techniques do you use to get their attention? (clap, turn off lights, etc.)

Equipment and Room Space

- Computer and LCD projector? Yes No Macintosh or PC
- Recommendations? own laptop CD or flash drive TV/VCR Yes No
 Make a pdf of your presentation to avoid inconsistencies in formatting/ font etc.
- Blackboard or dry erase board?
- Table if you have hands-on materials (baleen, salmon eggs, etc.)
- Open space if you are going to do an activity on the floor (sitting or able to move around)

Timing


- Will I have time to set up before you introduce me?
- What will they be doing before and after my presentation? (next period, break, lunch) 

Summarize your presentation for the teacher:

Notes and observations from your classroom visit:

ESA-Listed Salmon and the Four Lower Snake River Dams

High School Social Studies: Causes of Conflict CBA LESSON 1: HISTORY of DAMS, SALMON, and TRIBES

	Subject Area(s): Social Studies: History	Duration: One 50 min. period
Description: Students will learn more about the history of dams in the lower Snake River; endangered status of salmon, steelhead, and bull trout; and about Native American tribes in that region and their connection to this natural resource.		
Key words: natural resource, salmon stocks, hydropower, harvest, hatchery, habitat, sustainable, Native Americans, Congress		
Materials: Handouts for groups		
State Standards: WA, OR, and ID	<p>WA: EALR 3: Geography. Component 3.2: Understands human interactions with the environment. GLE: 3.2.1: Analyzes and evaluates human interactions with the environment in the U.S. in the past or present.</p> <p>OR: Social Science Analysis. SS.HS.SA.04: Analyze an event, issue, problem from varied perspectives or points of view.</p> <p>OR: Geography. SS.HS.GE.04: Analyze changes in the physical and human characteristics of places and regions, and the effects of technology, migration, and urbanization on them.</p> <p>ID: Standard 1: History. Goal 1.3: Identify the role of American Indian in the development of the United States. Objective 2: 6-12 USH1.1.3.2 Explain how and why events may be interpreted differently according to the points of view of participants and observers.</p> <p>ID: Standard 2: Geography. Goal 2.2: Explain how human actions modify the physical environment and how physical systems affect human activity and living conditions. Objective 1: 9-12 USH 2.2.2.1 Explain ways in which people responded to their physical environment in the development and emergence of the modern U.S.</p>	
Focus Questions:	<p>What are the functions of the dams on the lower Snake River for residents of Washington, Idaho, and Oregon?</p> <p>How do these dams impact salmon survival?</p> <p>What are the social and cultural perspectives of the dams in this region?</p> <p>What is the role of hydropower in reducing greenhouse gases?</p>	
Learning Objectives:	<p>At the end of this lesson students will be able to:</p> <ul style="list-style-type: none"> • Name the 4 lower Snake River dams. • Explain the Congressionally authorized purposes of the dams and describe their impacts on salmon and society. • Identify some of the significant historical fishing grounds of native tribes in this region 	
Engage and Encounter	<p>Ignite a conversation about the function of dams. Have these dams been the best tool to accomplish their goals? What were the alternatives? What did people do before the dams were built? How have society's needs changed since then? How are they changing now?</p>	
Explore and Investigate	<p>Salmon Brainstorm: students will explore the importance of this natural resource, the historical and current threats and their endangered status, and discuss what it means to have sustainable solutions. Discuss what would happen if salmon populations were to go extinct. How would this affect people/economy, other wildlife (especially other endangered species like southern resident killer whales whose main diet is salmon), and other factors.</p>	
Reflect and Explain Assessment:	<p>Students will write a persuasive paper using the Washington State Classroom Based Assessment (CBA), Causes of Conflict http://www.k12.wa.us/socialstudies/Assessments/HighSchool/HSHistory-CausesofConflict-CBA.pdf</p>	
Apply and Extend	<p>Students can evaluate the history of other dams (either along the Columbia, throughout the US, or even worldwide, like the Three Gorges Dam in China).</p>	
Contact NOAA	<p>For a guest speaker in lesson 5: email wcr.education@noaa.gov</p>	
Reference suggestions	<ul style="list-style-type: none"> • Cohen's Handbook of Federal Indian Law http://bookstore.lexis.com/bookstore/product/57318.html • Anything by Charles F. Wilkinson: especially <u>Blood Struggle: The Rise of Modern Indian Nations</u>, but also <u>Messages from Frank's Landing: A Story of Salmon, Treaties, and the Indian Way</u> • <u>Washington State Governor's Office of Indian Affairs</u> <www.goia.wa.gov> • Center for Columbia River History < http://www.ccrh.org/river/history.php#indigenous> • Northwest Power and Conservation Council < http://www.nwcouncil.org/history/IndianTribes.asp> 	

ESA-Listed Salmon and the Four Lower Snake River Dams

Lesson 1 Procedures: HISTORY of DAMS, SALMON, and TRIBES

Background: *The population and economy of the Pacific Northwest were much smaller before the dams were built. Have students investigate how these dams transformed the region's economy, geography, and the environmental impacts they have had on wildlife, especially salmon ("salmon" will include steelhead throughout this curriculum). The US Army Corps of Engineers (COE) and the United States Bureau of Reclamation (USBR) are the owners and operators of the 31 federally owned hydro projects on the Columbia and Snake Rivers. Following America's entry into World War II, some of these dams provided low-cost power, the Pacific Northwest was the logical location for aluminum plants needed to produce the metal for airplanes. This curriculum focuses on the Snake River Basin, but some background information on the larger Columbia River basin can be explored as well. http://www.bpa.gov/power/pq/fcrps_brochure_17x11.pdf Have students learn about current salmon populations and economic growth, then examine the costs and benefits of the dams in modern times.*

I. Whole Class: (15 minutes)

A. Discuss the functions of the lower Snake River dams in our region (hydropower, transportation of goods, and irrigation). What other means of power, transportation and irrigation were available in the 1970s, when these dams were built, and now? Encourage students to put these functions in historical perspective. How did these people accomplish these goals before the dams were put in? Analyze costs and benefits of alternatives for the future or address carbon footprints of various types of energy production.

II. Small Groups: (35 minutes)

A. Have students work with a partner and brainstorm why salmon are an important natural resource (socially, culturally, historically, economically, recreationally, etc.). Discuss the main threats to Snake River salmon (direct human impacts through hydropower, harvest, hatcheries, and habitat; indirect human impacts through climate change). Then emphasize the importance of creating sustainable solutions.

B. Make a group of 3: Have this new group compare the work they just did in a team of 2 (why an important natural resource, main threats to salmon and the importance of sustainable solutions). Then explain that homework tonight has three parts, so each student will choose which worksheet to do individually tonight.

III. Homework/ Assessment:

A. Worksheets provided: Have students finish their research and be prepared to share with the class the next time they meet. See rubric.

1. History of the lower Snake River dams
2. History of the endangered status of salmon in the Snake River Basin
3. History of Native Tribes and Salmon in the Snake River Basin



HISTORY: Background on Lower Snake River Dams – 5 W's

Who built them/manages them?

What are their Congressionally authorized purposes? How do they accommodate salmon passage (adult fish ladders, juvenile bypass systems, spill, etc.)

When were they built?

Where were they built? What population area do they serve?

Why the particular interest in the four lower Snake River dams?



HISTORY: Background on Salmon and Steelhead – 5 W's

Which species/stocks are listed as threatened or endangered in the Snake River Basin?	
When were they listed (timeline)	
Where in the Snake River Basin do they spawn and rear?	
Explain the importance of this resource to the general population, to the regional economy, and to American Indian Tribes.	
What are the historical and current numbers of Snake River salmon?	



HISTORY: History of Native Tribes and Salmon in the Snake River Basin – 5 W's

Suggest references for material on tribes:

- Cohen's Handbook of Federal Indian Law < <http://bookstore.lexis.com/bookstore/product/57318.html>>
- Washington State Governor's Office of Indian Affairs <www.goia.wa.gov>
- Center for Columbia River History < <http://www.ccrh.org/river/history.php#indigenous>>

Which tribes are present in the Snake River Basin?	
How are salmon significant to these people?	
Where are the reservations if any? Where are their historical and cultural fishing grounds?	
How have the dams impacted the culture and fishing heritage of these people?	
What was US v. Oregon, or the Boldt decision?	

ESA Listed Salmon and the Four Lower Snake River Dams-CBA Research Worksheets Rubric

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Add up the total point for each worksheet					


Total score:

Comments:

ESA Listed Salmon and the Four Lower Snake River Dams

High School Social Studies: Causes of Conflict CBA

LESSON 2: GEOGRAPHY, GOVERNMENTS, and DAM MODIFICATIONS

	Subject Area(s): Social Studies: Geography and Governments	Duration: One 50 minute period
	Description: Students will research the government jurisdictions and make a map to depict the levels of complexity. Students will also be exploring some of the dam modifications made over the years that address salmon recovery efforts.	
	Key words: jurisdictions, NGO's, dam modifications, spills, and blocked passage	
	Materials: Handouts for groups	
State Standards: WA, OR, and ID	<p>WA: EALR 3: Geography. Component 3.1 Understands the physical characteristics, cultural characteristics, and locations of places, regions, and spatial patterns on the earth's surface. GLE 3.1.1: Analyzes information from geographic tools to draw conclusions about an issue or an event.</p> <p>OR: Geography. SS.HS.GE.01: Understands and uses geographic information using a variety of scales, patterns of distribution, and arrangement.</p> <p>ID: Standard 4: Civics and Government. Goal 4.2: Analyze and explain sovereignty and treaty trust relationship the United States has with American Indian tribes with emphasis on Idaho, such as hunting or fishing rights, and land leasing.</p> <p>ID: Standard 2: Geography. Goal 2.1: Analyze the spatial organizations of people, places, and environment on the earth's surface. Objective 1: 9-12 USH2.2.1.1 Develop and interpret different kinds of maps, globes, graphs, charts, databases, and models.</p>	
Focus Questions:	<p>What are the government jurisdictions in the Columbia/Snake River Basin? Government-recognized tribes are sovereign nations, how do they fit into the picture? How could these governments work together to accomplish goals or action plans?</p>	
Learning Objectives:	<p>At the end of this lesson students will be able to:</p> <ul style="list-style-type: none"> Name the 3 states most directly affected by the government's management of the Federal Columbia River Power System. Explain what modifications have been made to the lower Snake River dams in the last 20 years and evaluate what is known about their success. 	
Engage and Encounter	<p>Students will share their research about the history of the dams, salmon, and tribes in the Snake River Basin. They will increase the size of their working group and continue to find strategies of working together as a unit.</p>	
Explore and Investigate	<p>Research time: Students will have class time to develop a plan of how to work together in a team of 6 and begin their homework.</p>	
Reflect and Explain Assessment:	<p>Students will write a persuasive paper using the Washington State Classroom Based Assessment (CBA), Causes of Conflict http://www.k12.wa.us/socialstudies/Assessments/HighSchool/HSHistory-CausesofConflict-CBA.pdf</p>	
Apply and Extend	<p>Students can look at the success, challenges, and failures of other dams in the U.S. and abroad. Find out the process of how scientists or interested parties determine if these strategies would work/are working.</p>	
Contact NOAA	<p>For a guest speaker in lesson 5: email wcr.education@noaa.gov</p>	

ESA Listed Salmon and the Four Lower Snake River Dams

Lesson 2 Procedures: GEOGRAPHY, GOVERNMENTS, and DAM MODIFICATIONS

Background: *Students will be exploring the 4 lower Snake River dams that are physically located in SE Washington and learn how the hydropower, irrigation, and navigation benefits, as well as the adverse effects on listed salmon, pertain to all three states. To learn more about the dam modifications in different jurisdictions, a good reference would be Section 1.2.3 in Corps, BPA, and Bureau of Reclamation. 2007. Biological assessment for effects of Federal Columbia River Power System and main stem effects of other tributary actions on anadromous salmonid species listed under the Endangered Species Act. August 2007. This document is available at http://www.salmonrecovery.gov/Files/BiologicalOpinions/BA_MAIN_TEXT_FINAL_08-20-07_Updated_08-27.pdf*

I. Group work: (10 minutes)

- A. Have students share their findings with their group of 3 (dams, salmon, and tribes).
- B. Now invite one other group of three to make a group of 6. Have them compare their findings and continue to share their results.

II. Whole class: (40 minutes)

- A. Have one team review what was learned about the dams, salmon, and the Native American tribes in the Snake River basin. Then highlight how the river flows through multiple states and have the students think about who might manage the dams? Make decisions? Ask students to think about the levels of government in their neighborhoods or at school. Discuss these jurisdictions and how they overlap and support one another. Why is this important in the 4 lower Snake River dam issue?
- B. Research time: Hand out the worksheets to each group. There are three tasks, so divide responsibilities so that two people work together on a task.

III. Homework/ Assessment:

- A. Worksheets provided: Have students finish their research and be prepared to share with the class the next time they meet. See rubric.

The three topics assigned to each group are as follows:

1. Create a political map showing the government jurisdictions (city, county, tribal, state, and federal levels).
2. Summarize the partners and government levels involved in the salmon recovery efforts in the Snake River Basin.
3. Research the dam modifications on the 4 Lower Snake River Dams to improve salmon survival.

GEOGRAPHY, GOVERNMENTS, and DAM MODIFICATIONS: Analyze the map of dams and endangered/threatened species of the Columbia River Basin. You will focus in on the 4 lower Snake River dams. There are three tasks that need to be accomplished:



1. Create your own map showing government jurisdictions (city, county, tribal, state, and federal) in the lower Snake basin. Concentrate on the reach between Hells Canyon at the upper end and the confluence with the Columbia. Make sure to indicate Native American reservations on this map.
2. Visit the following website and summarize the partners involved in Salmon Recovery Efforts in the Lower Columbia/Snake River Basin.
http://www.westcoast.fisheries.noaa.gov/protected-species/salmon_steelhead/recovery_planning_and_implementation/index.html Use the worksheet on the back as a guide.

3. Research the efforts to modify the 4 lower Columbia and 4 lower Snake River dams to improve fish passage. When were these changes made? Reveal their successes and challenges.

- Fish ladders
- Transporting juvenile fish downstream by barge
- Spill (put water over spillway instead of through turbines)
- Flow augmentation (release water stored in upper basin reservoirs to augment spring and summer flows and reduce temperatures)



GOVERNMENTS


Summarize the involvement of the partners involved in salmon recovery efforts in the lower Columbia and Snake River basins.
e.g., see <http://www.cbfga.org/AUOverview.cfm> or <http://www.lowercolumbiasalmonrecovery.org/partners/partnerlist#b>

Federal	
State	
Local	
Tribal	
Regional	
Private	
Non-Governmental Organizations (NGOs)	
Special	

ESA-Listed Salmon and the Four Lower Snake River Dams

High School Social Studies: Causes of Conflict CBA

LESSON 3: ECONOMICS and POLICY

	Subject Area(s): Social Studies: Economics, Policy, Checks and Balance	Duration: One 50 minute period
	Description: Students will brainstorm about stakeholders and assemble them into two groups (Concerned with the fate of the salmon/environment and concerned with the economic benefits (i.e. energy production) of the dams). Students will also be challenged by organizing into larger groups and managing this many people.	
	Key words: stakeholders, private sector, civic organizations, proposed action, biological opinions, consultations, executive summaries.	
	Materials: Handouts for groups	
State Standards: WA, OR, and ID	<p>WA: EALR 1: Civics. Component 1.4: Understands civic involvement. GLE: 1.4.1 Analyzes and evaluates ways of influencing local, state, and national governments to preserve individual rights and promote the common good.</p> <p>WA: EALR 2: Economics. Component 2.4: Understands the economic issues and problems that all societies face. GLE: 2.4.1 Analyzes and evaluates how people in the US have addressed issues involved with the distributing of resources and sustainability in the past or present.</p> <p>OR: Civics and Government. SS.HS.CG.02: Understands the interrelationship between local, state, and federal governments.</p> <p>OR: Civics and Government. SS.HS.CG.06: Understands how government policies and decisions have been influenced and changed by individuals, groups, and international organizations.</p> <p>ID: Standard 3: Economics. Goal 3.2: Identify different influences on economic systems. Objective 2: 9-12 E3.2.2 Explain and illustrate the impact of economic policies and decisions made by governments, businesses, and individuals.</p> <p>ID: Standard 4: Civics and Government. Goal 4.2: Build an understanding of the organization and formation of the American system of government. Objective: 2: 9-12 G4.2.2 Explain the functions, power, interactions, and relationships among federal, state, local, and tribal governments.</p>	
Focus Questions:	Who are the people or stakeholders involved in this conflict? What economic impacts of dams and salmon affect stakeholders? How do laws and policy work to protect salmon?	
Learning Objectives:	At the end of this lesson students will be able to: <ul style="list-style-type: none"> • Differentiate between the issues regarding salmon and the 4 Lower Snake River Dams Issue from an economic perspective. • Explain the purpose of the Endangered Species Act and how it works. • Describe an example of checks and balances in policy (like Section 7(e)(1) in the ESA) 	
Engage and Encounter	Students will share what they learned in regards to homework (map, jurisdiction, and dam modifications).	
Explore and Investigate	Quick Write on the stakeholders involved in this issue. Students will discuss how the dams and salmon affect their livelihood; followed by adding a T-chart to determine which issue affects each.	
Reflect and Explain Assessment:	Students will write a persuasive paper using the Washington State Classroom Based Assessment (CBA), Causes of Conflict http://www.k12.wa.us/socialstudies/Assessments/HighSchool/HSHistory-CausesofConflict-CBA.pdf	
Apply and Extend	Students could explore other programs or elements of the Endangered Species Act and see if they can find other examples of checks and balances embedded into the process (i.e., designation of critical habitat needed for recovery, Section 4(b)(2) of the ESA.	
Contact NOAA	For a guest speaker in lesson 5: email wcr.education@noaa.gov	

ESA-Listed Salmon and the Four Lower Snake River Dams

Lesson 3 Procedures: ECONOMICS and POLICY

Background: *Students will start off looking at the economic impacts of some of the constituents in this region. Encourage students to think of sustainability in terms of economic impacts, environmental impacts (health of salmon and their habitat), and how it impacts society. Then they will look at how the Endangered Species Act (ESA) works. The ESA is intended to protect the listed species. An example of “checks and balances” in the ESA are Section 7 Provisions. All federal agencies must **cooperate** with the Secretaries and use their own programs to further the conservation of endangered and threatened species, and **not authorize, fund, or carry out** any action that would jeopardize a listed species or destroy or modify its critical habitat (Jeopardy refers to acts that reasonably would be expected, indirectly or directly, to reduce appreciably the likelihood of survival and recovery by reducing reproduction, numbers of distribution of a listed species.) The action agencies must consult with NOAA Fisheries when activity affects listed species or likely jeopardizes proposed species or habitat (informal or formal consultations).*

I. Group work: (15 minutes)

A. Have students share their findings with their group of 6 (map, jurisdictions, and modifications).

II. Whole class: (35 minutes)

A. **Quick Write:** Review the functions for the 4 lower Snake River dams. Have students do a “Stakeholders Quick Write” on a scratch piece of paper or in their journals. (In two minutes, have students write as many different stakeholders that you can think of that are impacted by the dams and/or salmon. Remind them that they do not need to worry about spelling, grammar, complete sentences, etc. They are often words or phrases that can be expanded on later. Encourage them to do this in list format on left of their paper, leaving space for another activity to the right). (10 minutes)

1. Once everyone is ready, say: “On your marks, get set, go!”
2. 30 seconds into it, prompt them by saying: “Who are the seasonal people affected by salmon (fishermen, hotels, restaurants, etc.)”
3. 1 minute into it, “Remember to include stakeholders at the local, state, and different government levels.”
4. Count down how much time they have left; then stop them at 2 minutes. Have them count how many stakeholders they wrote down.
5. Review as a class and encourage students to write down additional stakeholders they heard from their classmates.
6. Then have them make 2 columns next to their list (T-chart: specific resource concerns: Those who are concerned about the fate of the salmon and those who are concerned about the economic benefits of the dams) and work with the person next to you to decide which issues each of these stakeholders cares about.

B. Teamwork Activity: Get back into groups of 6, have students double check each other's T-charts. Do a complexity check with the students: Ask them to think about their work so far: "You have researched something on your own and shared with your group of 3; then you worked with a partner and shared with your group of 6; what challenges arose when the groups continued to get larger? How is this similar to the salmon and dam issue?" (25 minutes)

1. Explain how many groups of 6 there are in the class. Using any strategy (team with the highest number of stakeholders, etc.), have THEM decide how to combine the groups to make two large groups.
2. Discuss how this decision was made; what worked; what was difficult?
3. Next, tell them that one group will represent stakeholders who are most concerned about the fate of salmon and the other group will represent those that are most concerned about the economic benefits of the dams. Have them pick which side they want; encourage them do this without teacher help in a timely manner. Then plant the seed that to work with a large group, leadership is needed. Have them brainstorm and be prepared to share with the teacher how leadership will take place in this group.
4. Hand each person a worksheet and have them begin. What they don't finish in class will be homework.

III. Homework/ Assessment:

A. Worksheet provided: Have students finish their research and be prepared to share with the class the next time they meet. See rubric.



POLICY- Background on the Endangered Species Act

Use this website to help with this research: <http://www.nmfs.noaa.gov/pr/laws/esa/>

What is the purpose of this law and how do its various sections protect salmon and promote species recovery?

The ESA provides for different programs to conserve (i.e., recover) endangered and threatened species. Describe briefly the following:

Section 4:

Section 6:

Section 7:


Describe the checks and balances of Section 7:

Section 10:

ESA-Listed Salmon and the Four Lower Snake River Dams

High School Social Studies: Causes of Conflict CBA

Lesson 4: MANAGEMENT, the FEDERAL CAUCUS, and COALITIONS

	Subject Area(s): Social Studies: History and Governments	Duration: One 50 minute period
	Description: Students will learn how to use parliamentary procedures to work and make decisions as a group. They will also learn how Federal Agencies work together and the important roles of coalitions.	
	Key words: Federal Caucus, coalitions, consultations, and parliamentary procedure	
	Materials: Handouts for groups	
State Standards: WA, OR, and ID	<p>WA: EALR 1: Civics. Component 1.4: Understands civic involvement. GLE: 1.4.1 Analyzes and evaluates ways of influencing local, state, and national governments to preserve individual rights and promote the common good.</p> <p>WA: EALR 5: Social Studies Skills. Component 5.1: Uses critical reasoning skills to analyze and evaluate positions. GLE: 5.1.2 Evaluates the depth of a position on an issue or event.</p> <p>OR: Civics and Governments. SS.HS.CG.02.01: Understands the primary function of federal, state, and local levels of government and how the actions of one influence the workings of the others.</p> <p>ID: Standard 4: Civics and Government. Goal 4.2: Build an understanding of the organization and formation of the American system of government. Objective: 2: 9-12 G4.2.2 Explain the functions, power, interactions, and relationships among federal, state, local, and tribal governments.</p>	
Focus Questions:	<p>How do organizations with different missions and people with different viewpoints work together? What are some challenges they face and how do they overcome them? What role does collaboration and coordination have in the recovery efforts?</p>	
Learning Objectives:	<p>At the end of this lesson students will be able to:</p> <ul style="list-style-type: none"> Summarize the purpose of the Federal Caucus and who the players are Define a coalition of stakeholders and give an example of one in this issue Explain the main threats affecting salmon today 	
Engage and Encounter	<p>Students will explore different leadership styles and decide upon one for their group. Relate this to the issue of salmon recovery and the complexity of jurisdictions and stakeholders. Students will define Coalitions and discuss why these groups come together even though they might have different goals, perspectives, and outlooks on an issue.</p>	
Explore and Investigate	<p>Salmon Recovery Activity: Students will demonstrate how to agree on one answer and use parliamentary procedures to accomplish this.</p>	
Reflect and Explain Assessment:	<p>Students will write a persuasive paper using the Washington State Classroom Based Assessment (CBA), Causes of Conflict http://www.k12.wa.us/socialstudies/Assessments/HighSchool/HSHistory-CausesofConflict-CBA.pdf</p>	
Apply and Extend	<p>Students could get involved in coalitions and learn more about the issues. Students could invite different stakeholders to their school and hold a panel discussion on Salmon Recovery.</p>	
Contact NOAA	<p>For a guest speaker in lesson 5: email wcr.education@noaa.gov</p>	

ESA-Listed Salmon and the Four Lower Snake River Dams

Lesson 4 Procedures: MANAGEMENT, the FEDERAL CAUCUS, and COALITIONS

Background: *Students will be researching the role of management on this issue; define what coalitions are and how they might influence the decision making process. Then they will inquire about salmon recovery and how so many jurisdictions participate in projects that make positive contributions to agencies, organization and communities. Students will further investigate the role of the Federal Caucus (federal agencies) and how they work with other state, tribal, and local governments.*

I. Group work: (15 minutes)

A. Leadership Activity: Have the two groups meet, decide how leadership will continue in this large group, and then discuss how they will all share what they researched last night. Emphasize the time limit.

B. Define Coalitions: *Have the students think about the partners in their group and how they might work together. Have the leader appoint one person in his/her group to look up what a coalition is and have that student share what it is and brainstorm why these might be important to making progress on a cause or issue.*

II. Whole class: (35 minutes)

A. Salmon Recovery Activity: Review with students the complexity of salmon recovery efforts and then share with them their challenge or goal for today.

1. Think/Pair/Share: Have them THINK to themselves how all of these people work together to accomplish salmon recovery. Ask them to fill in the blank: Salmon recovery efforts need to be _____. Then turn to their neighbor (PAIR) and decide on a word or phrase that best answers that question. Lastly, they will SHARE their responses with the class.
2. Complexity check: Ask if working in a group made up of half of the class like yesterday was hard. Then tell them the goal of today is to work as one whole group with differing opinions, perspectives, and livelihoods. Write their responses on the board from the Think/Pair/Share and see if they can prioritize the top 3, then narrow it down to one answer. How will the final decision be made (parliamentary procedure, majority vote, 2/3, etc.)?
3. Have students decide the size of the group they want to work with. There are three main parts and this research will be shared with the whole class and discussed in more detail with the NOAA representative tomorrow.

III. Homework/ Assessment:

A. Worksheets provided: Have students finish their research and be prepared to share with the class the next time they meet. See rubric.

1. Research the Federal Caucus.
2. Find an example of a coalition in the Snake River Basin.
3. Investigate the current threats to salmon recovery.



FEDERAL CAUCUS

Learn about the 8 Federal Agencies that make up this Caucus and identify their role in salmon recovery in the Columbia/Snake River Basin.

What is the Federal Caucus and what do they do? http://www.salmonrecovery.gov/ (left hand column and then click on more information)	
What do these acronyms stand for? Use this website to help with this research click the agencies on the left	What is their role?
NOAA=	
USFWS=	
EPA=	
USFS=	
BPA=	
USACE=	
USBR=	
BLM=	





Where does this group fit in the Salmon Recovery Process? Why do you think there is a Federal Caucus?



COALITIONS

Learn what a coalition is and what role they play in salmon recovery. Specifically research a Salmon/Fishing Coalition that is involved in the 4 lower Snake River dams Issue.


Coalition Name:	Who makes up this coalition and what are their concerns, individually and as a group:
What are the advantages of working in coalitions?	

	<h2>SALMON RECOVERY PROCESS</h2> <p>Learn more about salmon recovery at: http://www.nmfs.noaa.gov/pr/recovery/ and actions at hydropower projects that can improve the likelihood of salmon recovery.</p>
<p>Hydropower actions that can improve salmon status:</p>	
	<p>How is harvest managed? What phase of the salmon life cycle is it addressing? Why is it important?</p>
<p>Brainstorm some solutions and alternatives</p>	
	<p>How is habitat managed? What phases of the salmon life cycle is it addressing? Why is it important?</p>
<p>What land use actions are "Salmon Friendly"</p>	
	<p>How are hatcheries managed? What phase of the salmon life cycle are they addressing? Why are they important?</p>
<p>Where are they located in the Snake River Basin?</p>	

ESA-Listed Salmon and the Four Lower Snake River Dams

High School Social Studies: Causes of Conflict CBA

LESSON 5: CIVICS and CONFLICT RESOLUTION

	Subject Area(s): Social Studies: Civics	Duration: 1-2 days Block period would be ideal
	Description: Learning the complexity of stakeholders and jurisdictions managing these resources, but learning how to communicate in a way to open conversation rather than close it down.	
	Key words: conflict resolution, negotiate, arbitrate, communicate, mediate, legislate, litigate, compromise, collaborate, problem solving, and competing.	
	Materials: Handouts for groups Conflict Resolution examples (cut and ready to hand out to students)	
State Standards: WA, OR, and ID	<p>WA: EALR 1: Civics. Component 1.4: Understands civic involvement. GLE: 1.4.1 Analyzes and evaluates ways of influencing local, state, and national governments to preserve individual rights and promote the common good.</p> <p>WA: EALR 2: Communication. Component 2.2: Uses interpersonal skills and strategies in a multicultural context to work collaboratively, solve problems, and perform tasks. GLE: Uses communication skills that demonstrate respect.</p> <p>OR: Civics and Government. SS.HS.CG.05: Understands the civic responsibilities of United States citizens and how they are met.</p> <p>OR: English L.A. EL.CM.SL.13: Identify and analyze the types of arguments used by the speaker.</p> <p>ID: Standard 1: History. Goal 1.3: Identify the role of American Indian in the development of the United States. Objective 2: 6-12 USH1.1.3.2: Explain how and why events may be interpreted differently according to the points of view of participants and observers.</p> <p>ID: Standard 6: Communication. Goal 6.1: Acquire listening skills. Objective 5: 9-12 Speech 6.1.5 Analyze the types of arguments used by a speaker.</p>	
Focus Questions:	<p>How can a citizen get more involved in an issue like salmon recovery?</p> <p>What strategies are useful to demonstrate that you are being a good listener and are open to positive communication?</p> <p>What are conflict resolution strategies and why are they important?</p>	
Learning Objectives:	<p>At the end of this lesson students will be able to:</p> <ul style="list-style-type: none"> • Describe different civic actions and ways to get involved • Demonstrate ways to communicate in a calm/respectful manner and pose alternatives • Understand the value of conflict resolution and be able to give examples of different strategies 	
Engage and Encounter	<p>Ask a NOAA representative to share his/her background and involvement in this issue. Emphasis will be on the importance of effective civic engagement and describing the complexity of Salmon Recovery.</p>	
Explore and Investigate	<p>Conflict Resolution Activity: Students will work with partners with opposing points of view and demonstrate a conflict resolution strategy.</p>	
Reflect and Explain Assessment:	<p>Students will write a persuasive paper using the Washington State Classroom Based Assessment (CBA), Causes of Conflict http://www.k12.wa.us/socialstudies/Assessments/HighSchool/HSHistory-CausesofConflict-CBA.pdf </p>	
Apply and Extend	<p>Investigate different civic organizations and find ways to get involved in this issue. Teach what you have learned to other people and engage in a meaningful conversation that will allow you learn more perspectives.</p>	
Pilot Evaluation	<p>Thank you for piloting this curriculum, please fill in the evaluation form and mail in. We appreciate your feedback and hope to make improvements in the upcoming year.</p>	

ESA-Listed Salmon and the Four Lower Snake River Dams

LESSON 5 Procedures: CIVICS and CONFLICT RESOLUTION

Background: *The NOAA representative can clarify any content that the students have researched and review how NOAA Fisheries and the ESA play a part in the issue of the four Snake River dams. Have students relay what they have learned and clarify any misconceptions or misleading; guide them to see that this issue has many sides to it and remind them that the CBA that they are working on is called, Causes of Conflict and our goal today is to help solidify those causes and encourage students to realize that citizens involved in this issue have a voice if they know how to communicate in positive, solution oriented ways.*

I. NOAA Representative (40 minutes)

A. Whole class: Have the NOAA representative share his/her background. Then review the salmon recovery process and how the Federal Caucus coordinates federal actions and is not a decision-making group. Lastly, have this person emphasize how the broad group of local, state, tribal, and federal governments; the private sector; and civic organizations work together to recover a species. ****Coalitions-if time**** (20 minutes)

B. Conflict Resolution Activity: Ask students to think about the different groups they worked in prior to this visit and why it was relevant to this issue. Tell them that working with people of opposing viewpoints can be challenging, but a life skill that can be applied in any situation. Tell the students that they will be doing an activity in partners again, but each person will represent a different side. Ask the class to split back into the two opposing groups, "Concerned with Status of the Salmon" and "Concerned with Economic Benefits of Dams" and pair off with one person from the other side. Distribute the stakeholder roles and conflict resolution strategy. Each group will create an example with their stakeholders and share with the class. (10 minutes)

C. Share: Ask if anyone wants to share or role play with the whole class. (5-10 minutes)

D. Wrap up: Share with students that Salmon Recovery and the 4 lower Snake River dams are only one example of complex, real life challenges. Ask if any of them changed their perspectives during these exercises and if they would be interested in learning more about the issue. Inspire them to think beyond high school and the path they choose to take in life. How might a person get more involved? (education (formal or informal), teach someone else about these issues or interview others to get their perspective, write a letter to their politicians, join an organization that supports your beliefs, etc.)

II. Homework/ Assessment:

A. Worksheet provided, have students turn in with rubric.

III. Day six or homework: Classroom Based Assessments:

A. The hydropower issue was designed to complement one of the 11th grade classroom based assessments. Below are the CBAs that could be used:

1. Causes of Conflict
2. Checks and Balances
3. Cultural Interactions

1.	For the economic benefits of the dams: Farmer who uses water from reservoir to irrigate his crops For the status of the salmon: Commercial fisherman
	Negotiate: Roger and Kendra were arguing over who would get to use the box of markers. They realized that arguing was getting them nowhere, so they figured out several ways they could both use the markers. Then they chose the way they liked best.
	Negotiate:

2.	For the economic benefits of the dams: Barge owner who transports goods to and from Lewiston For the status of the salmon: West Coast Federation of Fishermen's Associations
	Arbitrate: Jerome, Ted, and Alfredo are supposed to put up a bulletin board display together, but they can't agree on what the theme should be. They finally went to their teacher Mr. Nunez and asked him to choose the bulletin board theme.
	Arbitrate:

3.	For the economic benefits of the dams: Foreman at the Locks, helps with barge transportation of grain from eastern Washington For the status of the salmon: Save our Wild Salmon, Non-governmental organization
	Develop alternatives:

4.	For the economic benefits of the dams: Barge company owner, who transports grain via the Columbia River For the status of the salmon: Sports fishermen
	Communicate: Juanita was upset because her best friend Sara walked by her this morning without saying a word. She didn't speak to Sara all day. Finally Sara got Juanita to say what was wrong. "I didn't even see you," Sara cried. "I would never walk by without saying something to you." It was all a misunderstanding.
	Communicate:

5.	For the economic benefits of the dams: Operator of the dam- maintains the facility For the status of the salmon: Native American fishermen
	Mediate: Ricardo and Diana were playing on the same softball team, but they both wanted to pitch. They were shouting at each other. Finally Monty came up and helped them work out a solution to the problem.
	Mediate:

6.	For the economic benefits of the dams: State engineer who deals with flood control measures For the status of the salmon: American Rivers member
	Brainstorm solutions:

7.	For the economic benefits of the dams: Fish transport barge operator who takes salmon around the dams to ensure their survival For the status of the salmon: Restaurant owner who benefits from the seasonal fishery
	Legislate: Marla was being teased and called names by some kids in the class. She hated being called names. Every morning the class had a class meeting to discuss things. Marla suggested that there be a class rule against name-calling and teasing.
	Legislate:

8.	For the economic benefits of the dams: Aluminum manufacturing company For the status of the salmon: Manager for fishing gear store on the Columbia
	Litigate: Carmen has accused Reba of stealing things out of her locker. They have taken their problem to the student court. The court is made up of a high school girl, who is the judge, and a jury of eighth- and ninth-graders. They will present evidence to the court. The jury will decide if Reba is guilty. If she is, the judge will decide her punishment
	Litigate:

9.	For the economic benefits of the dams: Power company employee who sells energy to other states For the status of the salmon: Sierra Club member and local wind generator engineer
	Win/Win situation:
	Win/Win situation:

10.	For the economic benefits of the dams: Power Company employee For the status of the salmon: Solar power advocate who wants to diversify our energy resources
	Compromise: Anna and Jennifer are fighting over who gets to use the car after school. Anna has a track meet and wants to pick up a friend on her way and Jennifer wants to pick up applications at nearby businesses for a summer job. After bickering for awhile they decide to compromise; They will both go and pick up Anna's friend and drop them off at the track meet, then Jennifer will take the car to run her errands and come back and pick up the two runners when she is done.
	Compromise:

11.	For the economic benefits of the dams: Barge captain For the status of the salmon: Idaho Wildlife Federation
	Problem Solving: After soccer practice Kelsey was going to go home with Cheyenne for a sleep- over while her mother was away on business. However, Kelsey rode her bike to school and Cheyenne takes the bus. Kelsey didn't bring her bike lock to leave her bike at school and thinks it is too far to ride her bike by herself to Cheyenne's house. Kelsey also didn't have a note to ride the school bus in the morning, so the girls thought of all of the options of what they could do. They called Cheyenne's mom and she could drive the girls in the morning, if Kelsey could run the bike over to a friend who lives across from school.
	Problem Solving:

12.	For the economic benefits of the dams: Wheat farmer in Idaho For the status of the salmon: Washington Wildlife Federation
	Collaboration:
	Collaboration:

13.	For the economic benefits of the dams: Corn farmer in Washington For the status of the salmon: Friends of the Earth NGO executive director
	Accommodate:
	Accommodate:

14.	For the economic benefits of the dams: Lewiston port manager For the status of the salmon: Northwest Sportfishing Industry Association
	Pointing Fingers: Not taking responsibility
	Pointing Fingers:

15.	For the economic benefits of the dams: Federal employee working at a dam up river from the four dams For the status of the salmon: Public Power Council member
	Avoidance (I lose, you lose):
	Avoidance:

16.	For the economic benefits of the dams: Dock worker in Lewiston, ID For the status of the salmon: Idaho Salmon and Steelhead United
	Competition (I win, you lose):



CIVICS and CONFLICT RESOLUTION

Describe some ways that citizens can get involved in salmon recovery issues?

Describe some barriers in communication that make it difficult to solve problems when conflicts arise. Think about what actions, body language, and communication skills prohibit communication or resolving problems.

What are some strategies you learned from today's activity to address conflict resolution? Describe the appropriate demeanor, body language, and communication styles that allow both parties to feel comfortable and work together.