

## Lesson 8 'Hydropower'

### **Task:**

You and your partner have been assigned to represent a stakeholder in the following scenario. Your assignment is to research and develop a persuasive presentation supporting your position. You will make a 5 minute presentation to the City Council (class) and be expected to defend your position. Use the 'Issue Organizer' slide to organize the information for your presentation and the scoring rubric to ensure that you have addressed all elements of the presentation.

### **Scenario- Rebuilding a hydroelectric dam on the Elwha River:**

You live in Boomtown(fictional) which is located next to the Olympic Mountains and the Strait of Juan de Fuca in Washington State. Most of the town's income is from commercial fishermen, sports fishermen, and summer vacationers. A lumber manufacturing company has expressed interest in building a new mill near the town that would offer employment opportunities to local residents. Your electricity is supplied by a municipal coal fired electrical plant 100 miles away. However the plant cannot produce the electricity the lumber mill needs to operate or the expansion of new residential homes and small businesses. Because of the contour of the land around Boomtown and the location of the Elwha River, a proposal has been made to generate more electricity by rebuilding a dam and hydropower plant on the river. There is a rebuilding salmon population in the Elwha River and the river has undergone some course changes in the past 10 years since the prior dam removal.

Based on your assigned role, research the effects of building a dam in Boomtown (use Energy of Moving Water E-book pgs. 13-28 and internet sources) and complete the 'Issue Organizer' slide. Develop a 5 minute persuasive presentation that includes the elements below (use the rubric on the back to assess your progress)

**My stakeholder role:** \_\_\_\_\_

### **Your group's presentation:**

- Clearly identify your position in your thesis/position statement.
- Give at least three compelling reasons for your position and support each reason with at least three facts.
- Explain the opposition to your position and present an effective rebuttal discounting the issue(s)
- Organize your presentation in a logical manner and be sure that materials used are neat, clear, and easy to read

### **STAKEHOLDER ROLES:**

- **Local Energy Company Representative:** Wants to build the dam and provide economical electricity.

- **Fixed Income Residential Consumer**: Needs a reliable source of economical electricity and also new job opportunities.
  - **Sports Fisherman**: Wants fish population to remain high downstream from the dam.
  - **Environmental Biologist**: Wants to protect the river ecosystem.
  - **Environmental Activist**: Wants the river kept in its natural state.
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- **River Property Owner**: Wants to make sure his property is protected and property values are maintained.
  - **Real Estate Developer**: Wants to develop waterfront homes on the newly created reservoir from the proposed dam.
  - **Current Property Owner**: Wants to make sure his property is properly compensated for if the reservoir permanently floods his land.
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- **Hydro Developer**: Wants to install new hydropower technologies at the proposed dam site.
  - **Local Indian Tribe Representative**: Wants to protect sacred land above the dam and fishing rights in the ocean and river.
  - **Commercial Fisherman's Union Representative**: Wants to protect the fish population.
  - **Marine Biologist**: Wants to protect the local marine environment.
  - **Wave Energy Investment Group**: Has a federal grant to build wave harnessing devices on the Strait of Juan de Fuca.