

# **NWSRI VIDEO SERIES**

### **VIDEO 5 - CHANGES IN THE WATERSHED**

This video gives a general overview of the changes to the environment within the Nechako River Watershed, and what factors have lead to these changes.

**Total Length: 7:09 minutes.** The video is broken into several sections. Below are some key questions to think about in each section of the video.

#### Changes in the Watershed: 00:00 to 02:12

- Name and briefly explain how the Kenney Dam caused changes to the Nechako River Watershed.
- Pick one of the other industries named in the video that impacts the watershed, and describe how you think this industry causes habitat alterations in the watershed and ultimately the river.
- Explain how you think these impacts add together to cause change, and what changes have been observed in the river that impact sturgeon?

#### **Exploring Habitat Restoration Options:** 02:13 to 04:39

- Two different types of restoration projects/experiments were conducted between 2011-2016. What were the goals?
- Name the main findings of each type of experiment. How are these findings important for planning future restoration work?

#### **Seasonal Flow Management: 04:39-**

- Go the Water Engagement Initiative (<u>www.getinvolvednechako.ca</u>)
  website and explore the Real Time water data link, as well as the Nechako
  Reservoir Update information. Explain using a map your understanding of
  how the water flows within the entire Nechako Watershed.
- What is a hydrograph and how is it a useful tool for water management?
- Why do you think there are so many agencies involved with water management and the restoration of the Nechako White Sturgeon?

#### **Keeping the River Clean:** 05:26-7:09

• The video highlights some simple actions individuals can take to reduce the amount of pollution that enters river systems. Why do you think it is important to protect our water systems? Why do you think it is important to conserve the Nechako White Sturgeon?

## **INQUIRY ACTIVITIES:**

- 1) What has happened in the Nechako Watershed is not unique from a global perspective. Research a watershed from a different part of the world and do a comparison (similarities/differences) to the impacts observed there and those of the Nechako River Watershed.
- 2) Develop a program that could be used by an organization such as a municipality or school district, to support river and water stewardship.

#### **DEFINITIONS**

Throughout the video, the narrator uses scientific language. Here are some definitions to many of the terms.

#### **INQUIRY OPPORTUNITY:**

Expand on these definitions to learn more about what they mean and how they relate to fisheries research.

Habitat Alteration: Changes to the amount of suitable habitat for a species. Habitat alterations can be negative or positive depending on the context.

Recruitment Pulse: When a large number of individuals from a cohort or particular year survive to join the population.

**Infilling:** Material (like sand or silt) that fills a space or hole.

Interdisciplinary: When individuals from a number of organizations, institutions (eg. universities) and governments work together on a project using their own expertise, knowledge and skills to find the answer together.

Other useful resources for review to support understanding of the Nechako Watershed and the work that happens within the watershed.

Go to: nechakowhitesturgeon. org > Education > Grade 4-7

Recovery and Rehabilitation (> Unit 2 Presentations)

#### **Watershed Map**

(> Watershed Map)

More available at:

www.nechakowhitesturgeon.org
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