

# NWSRI VIDEO SERIES

## VIDEO 1 - CONSERVATION CENTRE

This video gives a general overview of the purpose of the Nechako White Sturgeon Conservation Centre, why it was built, how it works, and the main work that happens at the hatchery.

**Total Length: 9:03 minutes.** It is broken into several sections. Below are some key questions to think about in each section of the video.

**Overview of the Conservation Centre:** 00:00 to 01:36

- What is the problem with sturgeon in the Nechako River?
- Why did they build the Conservation Centre?
- What other work are they doing to help sturgeon?

**Preservation of DNA:** 01:36 to 02:54

- What is the overall goal of the conservation program?
- How does the Conservation Centre help conserve sturgeon for the long-term?

**Recirculating Aquaculture System:** 02:54 to 04:50

- What are the benefits of the RAS?
- What is the process of the RAS?
- How much water is recirculated?

**Spawning Ground:** 04:50 to 06:06

- Where do Nechako White Sturgeon spawn, and how many locations?
- Describe the habitat for successful sturgeon spawning.

**Broodcapture:** 06:06 to 07:59

- What are the methods of catching sturgeon and what are the unique details of each method?
- What is the favourite food of sturgeon?

**Release after Spawning:** 07:59 to 09:02

- How long are they kept at the hatchery?
- How are sturgeon tracked after release?

## INQUIRY ACTIVITY:

**Pick one of the topics that you found most interesting from the video, and do an Explore project to present to your class.**

**For example if you thought the Recirculating Aquaculture System was interesting, you can:** research and draw out the RAS system in detail; present a poster on what chemical reactions are happening to make the process work; explore the coding and algorithms involved in managing the RAS system; determine the environmental benefits to having such a system and how that can be expanded to other areas... the ideas are endless!

## 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.*

**Recruitment:** The number of young fish that reach maturity.

**Natural Recruitment:** Fish spawned in the river that survive to maturity.

**Recruitment Failure:** When fish do not reach maturity.

**Stop-Gap Measure:** A temporary solution, while you find a better solution.

**Founder Population:** Starting a new population from a small group of individuals.

**Genetic Diversity:** Individuals in a population that have a wide range of characteristics that helps them survive harsh changes in the environment.

**Imprint:** Every water system has a set of chemicals that gives it a unique 'scent'. A fish will 'learn' or imprint this scent at an early age. This is how they instinctively return to spawn in the same river from which they were hatched.

**Effort:** Is a measure of the amount of work or intensity of fishing put into catching fish. It is a mathematical calculation.

**More available at:**

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