

Dams in the Champlain Valley Speaker Series 2021

Presentation 1: Roy Schiff

Removing Obsolete Dams in the Lake Champlain Basin – VT and NY Case Studies on Past Uses and How to Remove Failing Structures

Essential Question:	What factors go into the deciding whether or not to remove a dam?
Vocabulary:	<p><i>Spillway</i> – section of the dam down which water flows when it is released</p> <p><i>Abutment</i> – the part of the dam that connects to the valley/streambank</p> <p><i>Breach</i> – a break in a dam</p> <p><i>Reservoir</i> – body of water created behind a dam</p> <p><i>Sedimentation</i> – accumulation of sediments behind a dam over time</p> <p>See this Term Definitions document for a comprehensive list of terms and dam types</p>

- Old dams require careful consideration when thinking about their future. Many old dams eventually require removal and, as Roy will discuss, this process is often complex. Pay attention to some of the pros and cons that must be weighed when deciding to remove a dam or not: the expense or keeping the dam vs removing it; the hazards of keeping vs removing; the aesthetic or practical value to its community; the ecological benefit of reconnecting the waterway.
- What kinds of practical challenges do engineers and communities face when planning to remove a dam? What can make this such a challenge? The size of the dam plays a large part, as well as the nature of the waterway, existing damage to the dam, and safety considerations downstream. What has the long-term ecological impact been on the dam site, and how might removing it impact the future stream? Brainstorm answers or questions to some of these issues as you listen to Roy Schiff.
- What are some examples of environmental benefits dam removal can include?
- **Reflection:** What kinds of skills are needed to carry out Roy Schiff’s work? What other questions or dam related topics did this presentation bring up for you?
- **Extension:** Investigate a case study of a dam removal, or a dam considered for removal near to your home. Is it possible to visit the location in person?

News Articles of Local Removals	<p>Emily Russell. “As the Boquet River Rewilds, its wild salmon return.”</p> <p>https://www.northcountrypublicradio.org/news/story/39373/20190820/as-the-boquet-river-rewilds-its-wild-salmon-return</p>
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	<p>"Derelict Dam Removed in Northfield." Vermont Digger. https://vtdigger.org/press_release/derelict-dam-removed-in-northfield-vt/</p>
Guides and Challenges to Dam Removals	<p>"How Dams are Removed." AmericanRivers.org. https://www.americanrivers.org/threats-solutions/restoring-damaged-rivers/how-dams-are-removed/</p> <p>"Ecology of Dam Removal." AmericanRivers.org. https://www.americanrivers.org/conservation-resource/ecology-dam-removal/</p>

Bibliography

Removal case studies

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<https://dnr.wi.gov/topic/Dams/documents/TermDefinitions.pdf>

- Russell, Emily. "As the Boquet River Rewilds, its wild salmon return." NorthCountryPublicRadio.org. NCPR, August 20, 2019. Accessed 3/22/21.
<https://www.northcountrypublicradio.org/news/story/39373/20190820/as-the-boquet-river-rewilds-its-wild-salmon-return>
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Removal challenges

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