Why Use AWRVI?

Who Developed AWRVI?

- Fresh water is one of our most critical resources.
- Being able to see the 'big picture' of the water that communities rely on is an important asset in the decision-making process.
- Cumulative impacts in a watershed can be assessed through this decision-support and community-building tool.
- It provides a framework to map and access water resources, use-values and potential vulnerabilities under certain conditions.
- It is designed to be used specifically in the Arctic's varied and unique environment.

- Researchers from the Resilience and Adaptive Management Group, the Water and Environmental Research Center, the Institute of Northern Engineering, and the International Arctic Research Center, University of Alaska.
- The Center for the Study of Complex Systems, University of New Hampshire.
- Alaska Science Center, The U.S. Geological Survey.
- The developers came from diverse cultural backgrounds, including small, resource-dependent communities.

How Do I Access AWRVI?

- AWRVI is available at http://ram.uaa.alaska.edu/AWRVI
- To request a hardcopy of the details of AWRVI, please contact:
- The Resilience and Adaptive Management Group, University of Alaska Anchorage 3211 Providence Drive Anchorage, AK 99508
- Phone: 907-786-1136 Fax: 907-786-1314

Summary of AWRVI indicators:

b-index		Component	Indicator
ſ		Natural supply	Precipitation
			Surface water storage
	RVI sical		River runoff
		Municipal supply	Reservoir and well yield
			Treatment tech- nology
			Hydraulic gradi- ent
۷R			Water source diversity
nysic		Quality	Water quality
			Upstream devel- opment
		Permafrost status	Permafrost distribution
		Subsistence	Aquatic subsis- tence habitat
•		habitat	Terrestrial sub- sistence habitat
j		Knowledge	Traditional knowledge
			Education
			Residency
	//	Financial	Community wealth
		Information capacity	Land tenure
		Sensitivity to change	Community values
			Social network diversity
			Perception of change

Why Was AWRVI Developed?

- **≜** No index exists to assess resilience and vulnerability of people in the Arctic to changes in water resources.
- sustainability of people in the Arctic.
- People in the Arctic face uncertainty in their day-to-day lives due to environmental changes.
- The need for Arctic communities to determine their vulnerability to changes in freshwater resources is becoming more urgent.

Who do I contact for more information?

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> **Resilience and Adaptive** Management Group

RAM The Resilience and Adaptive Management Group





Graphic Design by Alejandro IV Barragán

THE ARCTIC WATER RESOURCES **VULNERABILITY** INDEX







The Arctic is a unique environment with a challenging set of factors including remote communities with poorly developed infrastructure and high energy costs, a rapidly changing climate, and variable abundance of liquid water much of the year.

What is AWRVI?

🚔 A composite water index to evaluate the well-being of Arctic communities with respect to fresh water and a tool comprised of 27 socio-economic (e.g., social network capacity), biological (e.g., subsistence habitat) and physical (e.g., variation in precipitation)

🚔 AWRVI integrates a range of existing and communityspecific water-related data and information into a series of indicators to give an overall score.

It provides a holistic profile of a community's key water issues, allowing for intra-community and inter-community comparison and analysis.

It can be used by a community to identify where strengths and weaknesses exist regarding water management issues.