

Institute for Public Policy  
and Economic Analysis

**A Survey of Views of the Competing  
Users of River Water Resources  
in the Intermountain Province  
of the U.S. Columbia River Basin**

By:

**Vandana Asthana, Ph.D.**

Department of Government

June, 2012

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Columbia River Basin**

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With this latest monograph from the Institute for Public Policy & Economic Analysis, I welcome you to Eastern Washington University. I hope this research will inform your knowledge of the Inland Northwest. Efforts like this Institute monograph series are manifestations of this University's commitment to serve the region. I applaud the initiative of Eastern's Board of Trustees to launch this Institute.

Teaching remains our core mission at Eastern Washington University. Increasingly, teaching and research are interwoven. Our faculty members stay professionally current when publishing in peer-reviewed journals. These achievements, in turn, allow them to better convey the evolving knowledge base of our academic disciplines.

Our students receive an enhanced education if their classroom experience is informed by the content and enthusiasm of their professor's research. Increasingly, we ask students to conduct research projects of their own. Whether conducting their own projects or assisting professors, our students acquire a richer learning experience through research.

Research for academic journals is not the only area our faculty members target, however. Our University also asks its faculty to engage the communities and region from which we draw our students. This research provides a greater sense of place and a commitment by our faculty to it. It also translates academic methods and findings into a broader, and ultimately more relevant, arena: the lives of the residents of the Inland Northwest.

The overarching goal of the Institute for Public Policy & Economic Analysis is to serve the region by translating knowledge. It does this through a variety of activities, including this series, annual economic forecasts, contract research and the Community Indicators Initiative. I invite you to explore its web site ([www.ewu.edu/policyinstitute](http://www.ewu.edu/policyinstitute)) to learn more.

I have tremendous optimism that by collaborating with EWU's faculty, staff and partners, I will continue to ensure our institution will be anchored into the daily course of life throughout the Inland Northwest. During these difficult economic times, our collective future depends on an educated and informed citizenry. Helping our region reach higher levels of knowledge is something this University can and will do.

My office and that of the Institute director welcome all comments on how we might better serve.

A handwritten signature in black ink that reads "Rodolfo Arévalo". The signature is written in a cursive, flowing style.

Rodolfo Arévalo, PhD  
President

## Table of Contents

Executive Summary.....	1
A Brief Overview of the Subject Area - the Columbian Landscape.....	4
Methodology of Study.....	5
Three rivers in the Intermountain Province of the Columbia River Basin.....	7
Institutions and Water Stakeholders in the Intermountain Province.....	13
Stakeholder Perceptions on the Intermountain Province Rivers' Water Resources.....	20
Discussion.....	39
Caveats & Conclusion.....	42
References.....	43
Endnotes.....	47

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## Executive Summary

**T**his monograph presents findings from a study designed to identify the competing users of water resources of the rivers in the Intermountain Province (IMP) of the Columbia River basin and their disputations. Water is the lifeline of this region and plays an important role in the sustenance of life and development of the Pacific Northwest. The province is located in the Northeast corner of Washington State and the Northern Idaho Panhandle. There are six sub-basins in the IMP, including Coeur d' Alene, Pend Oreille, Spokane, Upper Columbia, Sanpoil, and Lake Rufus Woods. The Coeur d' Alene sub-basin is in Idaho. The Pend Oreille and Spokane sub-basins are in the states of Washington and Idaho. The remaining sub-basins are within Washington State. Additionally, portions of the Upper Columbia and Pend Oreille sub-basins extend into Canada.

In the history of the Pacific Northwest, the IMP has been home to a luxuriance of clean waters flowing through creeks, streams, rivers and lakes that provide sustenance to the lush, green-forested areas, wildlife and native inhabitants. A set of institutions and water policies transformed this landscape leading to the creation of a "hydraulic society" (Worster,1985) that serves the competing needs of hydropower, flood control, irrigation, navigation, fisheries, municipalities, industries and ecology. The environmental effects of these policies are evident in the impact they have on ecosystems, gene pools, aquatic habitat and human health risks. As the area's population continues to increase, it puts tremendous pressure on the resources of the rivers, creating conditions for increased competition amongst the various actors that desire a greater portion of the rivers resources. The monograph puts these trends in perspective.

In view of the ability of government policies to impinge upon the lives they touch, there is an essential need to analyse the impact of policy processes in a region identified with the centrality of fish, free flowing rivers and abundant water resources. The research findings of this study chronicle perspectives of a wide range of stakeholders to provide inputs to policy makers while framing long-term strategies for sustainable water management<sup>1</sup>.

The study examines the competing perceptions that various users of the IMP rivers in the state of Washington have about dam operations, present and prospective future withdrawals of the river system, water quality, changes in water temperature, fish and wildlife and potential outcomes in the basin in the wake of impending climate change. Due to constraints, the study could not examine the views of those in Idaho or Canada. The technique adopted in this study was face-to-face, 'open ended, in-depth interviews, to elicit actor's own narratives about resource use practices in the watersheds. Interviews took place in the summers of 2010 and 2011.

Through in-depth interviews of local government, an electric utility, state agencies, non-profit organizations and affected tribes, the research described in this monograph identifies: (1) the major resources available in Washington's portion of the Intermountain Province, (2) institutions and stakeholders that manage and use these resources (3) competing uses and contestations that surround the management of these resources, (4) challenges and policy recommendations. The findings reveal certain challenges that stakeholders feel are common to the region. Given the operational and secondary effects of dam operations that will continue to operate in the IMP landscape, the actors felt that there was no simple prescription for forming, implementing and managing the water resources of the area under

study. Yet there remains an underlying need for reform in the way water is perceived, allocated and negotiated. Some observations made from the interviews conducted in the present study are as follows.

On a physical and geographical scale, the interviewees agreed that all the sub basins in the Intermountain Province are located in the 'blocked area' of the Grand Coulee and Chief Joseph dams, an area that stops the migration of all anadromous<sup>ii</sup> (ocean-going) fish species. The loss of these anadromous fish is a critical aspect of the regional biodiversity that has a wide array of impacts within the province. Water levels in all the main stem reservoirs in the IMP, including Pend Oreille, Coeur d' Alene , Roosevelt, and Rufus Woods lakes, are controlled by the hydropower system. Decisions about water management affect people throughout the Columbia River Basin and beyond. The timing and extent of fills and drawdowns has a profound effect on the ability of the reservoirs in the IMP to sustain fish and affects many species of wildlife. The development changes that accompanied dam building has brought about critical challenges in water quality indicators of these rivers, in certain parts and times of the year that include such as dissolved oxygen, water temperature, phosphorous, and fecal coliform bacteria levels.

Stakeholders agreed that climate change was an issue that deserves consideration as all actors have a stake in it. According to a USBR report, areas of the Pacific Northwest, including the IMP, will be affected by changes in climate, causing disruptions in the hydrology, aquatic and wild life habitats, and precipitation patterns (USBR 2011). Institutions, state agencies and non-profit groups converge on this assessment, but due to the element of uncertainty in the mapping of timing and occurrence of precipitation patterns, groups diverge on the process of managing this change. Some non-state actors however emphasized that

this uncertainty should be translated into the managing climate change under the "precautionary principle<sup>iii</sup>" and not used to the advantage of powerful political interests.

From a governance perspective, the study demonstrated that all actors believed in a strong need for a watershed approach based on hydrological rather than political boundaries. With several state and federal agencies, tribal sovereigns and their overlapping jurisdictions, the hydrology of conjunctive<sup>iv</sup> and ground management of water resources tends to be ignored. A consensus emerged that an integrated watershed governance should be an essential part of the decision making process as these decisions create a much wider, more holistic consideration of affected interests. Integrating land use and ground and surface water decisions into a geographic unit can lead to conditions where water policies can respond to the changing landscape of the Pacific Northwest. Although non-profit groups agreed that the Washington Department of Ecology (DOE) has started to engage in watershed governance, groups felt that there still needs to be a concerted effort to collaborate with other basin states, Canada, several tribal sovereigns and other stakeholders to manage these resources wisely.

On a policy level, competing perceptions exist over water resource development and management decisions amongst the state, tribes and non-profit groups. Differences also existed on issues relating to water rights and additional water withdrawals amongst the actors. State agencies like the DOE declare "managing water is one of the critical challenges of the twenty first century". However, to some public interest groups, while Washington State projects itself as a competent dynamic, modern and rational regime and tries to shape water policy decisions by the scientific and technical knowledge, the process masks the mainstream orthodox approach of the "supply

based<sup>1</sup> model in water resource development that dominates government thinking. While stakeholder participation is strongly encouraged by the state, interviews of some stakeholders revealed that terms like 'community centred,' 'participatory,' and 'bottom up' have served to qualify but not alter foundational assumptions of government in any way.

Certain people with interests affected by water decisions feel frustrated with decision-making processes in state agencies that exclude or marginalize their participation or influence. However, they also conceded that a vibrant civil society in the IMP opens up policy spaces that can challenge pervasive orthodox thinking of the state and help to reconfigure relationships between actors, leading to effective collaboration on certain issues. Yet, some interviewees felt that while state agencies have collaborated and cooperated in some issues of watershed governance, there is still a strong need for a neutral social space where all stakeholders can equally participate and make their voices heard in the corridors of political power.

The road to sustainable water management in the IMP is a long and arduous one. Water management approaches such as water conservation, conjunctive use of surface and

ground water, a paradigm shift from a supply based paradigm positing the abundance of water have the potential to promote the region's economic growth. These approaches are needed to meet human needs and a healthy ecosystem. Sound comprehensive water resource management needs good public policies that depend not just on scientific and technical expertise but also on cultural factors and the willingness of elected public officials to take actions in the face of risks, uncertainties and growing pressures facing our communities.

The monograph is divided into five main sections. The first section introduces the theme, objectives, methodology and the physical and social characteristics of the rivers under the study. The second section discusses the historical framework of development and change within which the approaches of the stakeholders are framed. The third section briefly describes the institutions and actors engaged in water policy management and their roles. The fourth section summarizes the competing perceptions and positions of the stakeholders on how they view the management of these resources. The last section analyses the implications of these contestations and provides some general policy recommendations.