

THE WILLIAM D. RUCKELSHAUS CENTER

UNIVERSITY OF WASHINGTON

Revisiting Many Waters: An Evaluation of the Walla Walla Water Management Initiative

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DISCLAIMER

The following report was prepared for the William D. Ruckelshaus Center, a joint effort of the University of Washington and Washington State University whose mission is to act as a neutral resource for collaborative problem solving in the State of Washington and the Pacific Northwest. University leadership and the Center's Advisory Board support the preparation of this and other reports produced under the Center's auspices. However, the key themes contained in this report are intended to reflect the opinions of the interviewed parties, and the findings are those of the author(s). Those themes and findings do not represent the views of the universities or Advisory Board members.

TABLE OF CONTENTS

	<u>PAGE</u>
EXECUTIVE SUMMARY.....	5
INTRODUCTION	11
RESEARCH METHODOLOGY.....	15
PART I: OVERVIEW OF THE WALLA WALLA BASIN.....	19
PART II: THE WALLA WALLA WATER MANAGEMENT INITIATIVE.....	25
PART III: EVALUATION FINDINGS FOR THE RUCKELSHAUS CENTER.....	31
PART IV: EVALUATION FINDINGS FOR THE INITIATIVE.....	37
PART V: LESSONS LEARNED FOR EVALUATION.....	61
APPENDIX A: TIMELINE OF WALLA WALLA WATER MANAGEMENT MILESTONES	73
APPENDIX B: LIST OF INTERVIEW QUESTIONS.....	77
APPENDIX C: LIST OF INTERVIEWEES.....	79
APPENDIX D: REFERENCES.....	80

Executive Summary

Background

Water in the Walla Walla Basin has many uses, including agriculture, habitat for fish, and human household consumption. Over the decades, management of Walla Walla's water resources has proven to be complex and challenging, with the need to balance multiple uses while working within the confines of existing laws and institutions. Entities at the federal, state, and local level have implemented a variety of policies, regulations, and on-the-ground projects, and a number of these efforts have relied on multi-party cooperative interactions.

In the mid-2000s, a diverse group of individuals from the Basin began working with the Washington Department of Ecology (Ecology) to create a new water management framework; this new approach to management and governance would emphasize flexibility and increased local control over water. This effort was known as the Walla Walla Water Management Initiative (the Initiative). In late 2006, Ecology and the Initiative contracted with the William D. Ruckelshaus Center (the Center) to provide neutral and independent consultation services to assist the Initiative with its objectives. After several months of work, the Center delivered two reports to the project sponsors in 2007. These documents contained information, findings, and considerations intended to help the Initiative develop a new and innovative approach to local water management. After several more years of work, the Initiative's efforts led to the authorization by the State Legislature of a new, unique collaborative group called the Walla Walla Watershed Management Partnership (the Partnership). The Initiative also secured funding for the new William A. Grant Water and Environmental Center at Walla Walla Community College.

Ten years after its initial work on Walla Walla water management issues, the Center has returned to the Walla Walla Basin in order to carry out a pilot of a new qualitative evaluation framework. The Center is developing this new framework in recognition of the importance and difficulty of integrating evaluation into its programming. In conducting this project, the Center's twin objectives are to: (1) investigate the effectiveness and applicability of the Center's previous contribution to the Initiative; and (2) provide useful information on the outcomes, successes, challenges and future opportunities of the Initiative (with a particular emphasis on the subsequent Partnership). A graduate student intern carried out this project, acting as the lead data collector and report author, with faculty advisors from Washington State University and the University of Washington, and additional assistance from Center staff. The project included interviews with a total of 27 individuals representing a variety of entities in the Walla Walla Basin. Interview data was supplemented with document-based information as available.

Findings

In regards to the *evaluation of the Ruckelshaus Center's contributions*, a number of interviewees stated that the Center's reports had provided important information for the development of the foundation or core concepts of the Partnership. Within this theme, several individuals specifically described how the reports helped to define the Partnership governance structure, organizational focus and/or membership composition. A few interviewees also commented on the specific contributions of the reports themselves, particularly highlighting the

usefulness of the case studies in the Center's January 2007 report. Additionally, a few interviewees noted how the Center's involvement added a level of credibility to the Initiative's efforts.

While feedback on the Center's involvement was largely positive, the project team found that almost half of those interviewed either did not know about the Center's reports or could not describe their contributions in general terms. Another handful of interviewees could not name any specific elements of the reports that were particularly helpful or unhelpful. Interviewees who were involved with the Initiative during the mid to late-2000s were more likely to have insights into the contributions or uses of the Center's reports. This finding should not be interpreted as a criticism of the Initiative, Partnership or the Center. The low response rate for these evaluation questions may be the result of fading memories and turnover of key individuals within the Initiative and Partnership. However, these findings could also be indicative of the limited, front-end nature of the Center's previous Walla Walla project, or the Center's overall status as an enabler and supporter that helps other entities solve their own policy problems.

When the project team asked interviewees about how the Center might improve its efforts, the most prominent theme was a suggestion for the Center to build project evaluation into its programming. Within this theme, interviewees suggested either conducting more post-project evaluations (similar to this project) or conducting periodic check-ins with project sponsors and participants. Several interviewees also commented on the usefulness or appropriate timing of this pilot evaluation. These pieces of feedback would seem to serve as an endorsement of the Center's current interest and approach to evaluation.

In regards to the project team's *evaluation of the Initiative*, a number of key, cross-cutting themes emerged out of multiple conversations:

- *Multi-party interaction* between entities is a key outcome and accomplishment of the Partnership. Interviewees highlighted how the Partnership has helped bring entities together, foster productive communication, and improve relationships. In turn, these connections have been helpful for coordinating water management activities and preventing the outbreak of contentious and adversarial interactions. Interviewees discussed these topics in the context of a tangible accomplishment, one of the Partnership's greatest successes, and an impact that goes beyond water management.
- *Increased knowledge, awareness, and access to information* is another key outcome of these efforts. Interviewees described how the Partnership has helped raise the level of local entities' awareness regarding water issues and management. The mechanisms of this change have included outreach or education programs, better access to data, and communication as a product of the Partnership's multi-party interactions. Several interviewees also highlighted how the Partnership participants have learned more about each other's activities, perspectives, and respective challenges. This theme also came up in responses to several different questions.
- A majority of the interviewees highlighted some aspect of the Partnership's *program implementation* as a tangible accomplishment and/or a notable success. On the whole, interviewees were particularly pleased with the water bank, citing extensive participation, benefits for water users and flows, and ease of implementation for both participants and the Partnership. Interviewees also commented on the merits of the Local Water Plans, drought

response strategies, aquifer recharge efforts, and on-the-ground projects in cooperation with irrigators and conservation districts.

- Interviewees were divided on the extent to which the Partnership's programs have led to *positive flow outcomes*. This point of disagreement should receive further attention due to the significance of this goal within the Partnership's work.
- Interviewees highlighted the *Walla Walla Basin-wide Instream Flow Enhancement Study* (funded by Ecology and co-lead by the Partnership and the Walla Walla Basin Watershed Council) as an accomplishment, an important Partnership success, and an opportunity for future progress. By all accounts, interviewees see the Study as a major project that has the potential to bring substantial benefits to the Walla Walla Basin. Interviewees describe the Study as a mechanism for improving flow outcomes from a bi-state perspective, with projects that can dovetail with the Partnership's current efforts. The Partnership itself has played an important role within this effort as the co-leader and "pass-through entity" for receiving state funding.
- While the communication and coordination within the Partnership is robust, interviews revealed continuing *points of contention and disagreement*. Interviews revealed varying responses on whether the Partnership had met its own goals and the goals of its participants. There is also evidence of disagreement and tension regarding flow outcomes and regarding the intentions or behaviors of certain participating entities. These findings are not entirely surprising given the diversity of Partnership participants and the contentious nature of water management; as with any long-term relationship, there may be a need for Partnership participants to collectively revisit the goals, accomplishments, vision, and mission.
- *Turnover of personnel* emerged as a notable challenge that has faced and will continue to face water management efforts in the Walla Walla Basin. Interviewees noted how there have been personnel changes in the State Legislature, Ecology, and within organizations that directly participate in the Partnership. This turnover has led to changes in organizational goals and relationships among Partnership-connected entities, posing a potential governance challenge. Turnover may also pose difficulties with ongoing funding efforts and the Partnership's upcoming legislative reauthorization.
- *Other key, current challenges* include funding constraints and program implementation difficulties. Issues related to funding include general money shortages, uncertainty, and the constraints of the state's biennial funding cycle. Program implementation difficulties include administrative and design-related challenges, along with sustaining water user participation. *Upcoming challenges* include reauthorization, ongoing funding, continuing to make progress on program implementation (specifically the Bi-state Flow Study), and resolving conversations about board composition and participation.
- *Strategies for addressing these challenges* include the Bi-State Flow Enhancement Project and other actions within the Partnership at the committee, programmatic, and staff levels.
- Feedback relating to the *Water Center* emphasizes the Water Center's value as a space that fosters valuable communication and coordination among entities with water management interests. The ability for entities to gather and co-locate their offices at the Water Center is an asset to water management in the Basin, and this has played an important role in the ongoing work of the Partnership and other entities.

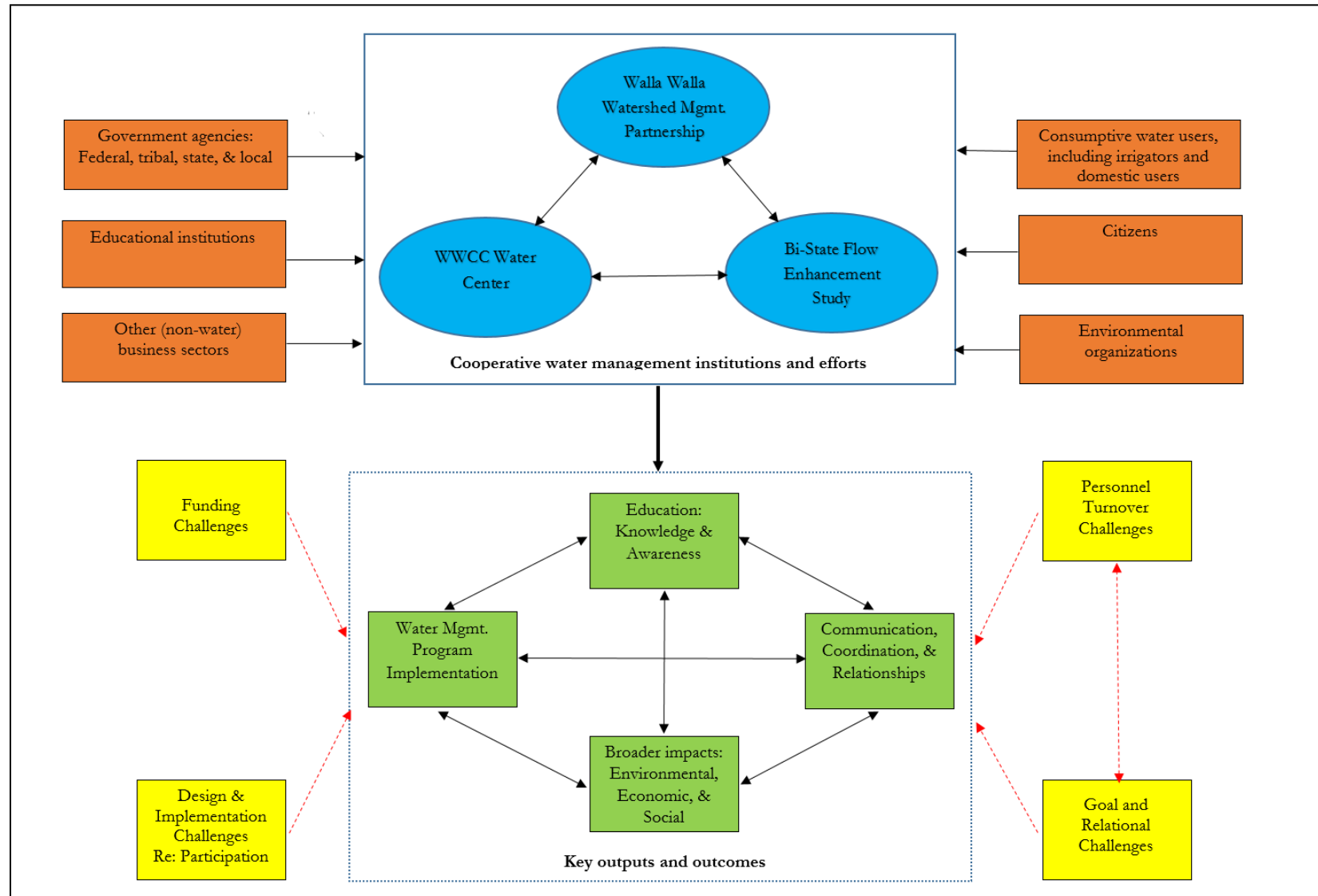
- In terms of impacts *beyond water management*, interviewees discussed the Partnership's role in facilitating multi-party collaboration or coordination, increasing education or awareness, supporting the Bi-state Flow Study, and contributing to broader economic and cultural effects that have benefited the entire Basin.

The diagram on page 9 illustrates the connections and interactions between individual entities, key cooperative efforts, accomplishments/outcomes, and challenges. The items appearing in this diagram are based on the key themes from the evaluation results.

Another purpose of this pilot evaluation is to generate ***insights and lessons learned for the Center's future evaluation efforts***. Overall, the project team found that the focus, methodology, and team structure were effective and replicable to other projects. The qualitative, semi-structured interview format was particularly useful for eliciting detailed feedback from the interviewees. In terms of team structure, the project team's university faculty advisors were particularly helpful during the research design and data analysis portion of the project, and the effort served as an excellent professional development opportunity for a graduate student. Additionally, the characteristics of the Partnership (and the policy setting overall) were well-suited to this type of evaluation project. With this said, there are still opportunities to fine tune a few minor aspects related to timing, question structure, and communication strategy.

Moving forward, the Center should continue to utilize the pilot evaluation's twin-objective approach. With any evaluation, it is important to make the effort useful and relevant for the major parties involved; this twin-evaluation approach can help the Center design projects that are relevant for itself and for the key entities whose participation is critical. While the broad components of the evaluation framework can be replicated to other efforts, the Center will need to carefully match its specific evaluation questions and methods to the context, timing, and needs of each new evaluation project. It will also be important for the Center to consider what it will do with the evaluation results at the conclusion of the effort. While post-project evaluations are helpful, the Center should also consider opportunities to implement pre/post evaluations and mid-point check-ins on its projects. Finally, the Center will need to identify an external funding source to make evaluation a sustainable activity.

Framework for understanding the connections between entities, cooperative efforts, accomplishments/outcomes, and challenges



Introduction

Scope and purpose of this evaluation project

Project evaluation can produce important information for practitioners, project sponsors, project participants, decision makers, university faculty, and other interested entities. In recognition of this, the William D. Ruckelshaus Center (Ruckelshaus Center or Center) is interested in developing a framework for evaluating collaborative processes where the Center has contributed its services. For the Center in particular, evaluation can help faculty, staff and the Advisory Board understand where and how the Center is providing value, while giving insights into what aspects of its methodology and practice are and are not working as well as they could. Ultimately, these lessons learned will help the Center improve and establish best practices over time.

Despite the utility of project and program evaluation, the Center and its peers have struggled to integrate regular evaluation into their programming and capacity. This difficulty is typically attributed to a variety of causes, including time and resource constraints. Many of the Center's projects also lend themselves to subjective rather than objective analysis, qualitative versus quantitative data, and long-term rather than short-term results; these characteristics create challenges when attempting to measure, analyze, or draw conclusions about these types of efforts. For an earlier attempt at developing an evaluation framework for the Ruckelshaus Center, see Foster 2011.¹

This *post-project evaluation* is a pilot study for the Center's new evaluation framework. The project focuses on the Walla Walla Basin, located in southeast Washington and northeast Oregon. From late 2006 through early 2007, the Ruckelshaus Center provided neutral and independent consultation services for a group of Walla Walla entities who were trying to develop a new approach to locally-based water management and governance. This effort was known as the Walla Walla Water Management Initiative (the Initiative). As part of its consultation project, the Center conducted an assessment of conditions in the Walla Walla Basin and carried out a review of comparable management initiatives in other locations. These efforts culminated in the publication of two reports. The first, published in January 2007, contained a selection of insights and lessons learned from water management efforts in other jurisdictions.² The second, published in July 2007, summarized conditions in the Walla Walla Basin and provided a set of considerations for establishing a shared governance mechanism for managing water issues.³

In 2009, the Initiative met its goal of developing a new approach to water management and governance. The result of the Initiative's efforts is a collaborative, state-supported entity known as the Walla Walla Watershed Management Partnership (Partnership). This Partnership has been working continuously since early 2010 under a ten-year pilot program laid out by statute in RCW 90.92.⁴ The Initiative also successfully lobbied for state funding to open the William A. Grant Water and Environmental Center at Walla Walla Community College.

Ten years later after its initial involvement, the Center has returned to the Walla Walla Basin in order to pilot its new evaluation framework, while also hoping to provide useful information for the entities involved with Walla Walla watershed management. This evaluation project has two explicit objectives. First, the project will investigate the effectiveness and applicability of the Center's previous contributions to the development of the Walla Walla Watershed Management Partnership.

Second, the evaluation will explore the outcomes, challenges, and opportunities that have emerged during the implementation of this Partnership.

During the course of the evaluation project, the Center is seeking to answer five questions:

1. What are the tangible impacts associated with the Walla Walla Watershed Management Partnership (impacts may pertain to water management, local governance capacities, or other areas of interest)?
2. What opportunities and challenges exist for the future of the Partnership's work?
3. How have the Ruckelshaus Center's recommendations been incorporated into the activities and structure of the Walla Walla Watershed Management Partnership?
4. What recommendations have been most helpful for Partnership participants?
5. How can the Ruckelshaus Center improve its services for future sponsors and involved parties?

The bulk of this project work occurred between late spring and early fall 2016. Qualitative interviewing was the primary data collection technique, supplemented by document analysis as available. The project team conducted formal interviews with 27 individuals (see Appendix C for a list of interviewees) and consulted with a small number additional informants during the implementation of this project.

The Project Team

The Ruckelshaus Center's Project Team consisted of Center staff, university faculty from both Washington State University (WSU) and the University of Washington (UW), and a graduate student intern. This team composition allowed the project to draw on the resources of the Center and the expertise of university faculty, while also providing a professional development opportunity for a graduate student. Trevor Robinson acted as the lead data collector and primary report writer for the project. By employing a graduate student and faculty advisors to collect, analyze, and report on findings, the Center intended to create an amount of distance between itself and the evaluation. This distance is important given the Center's interest in evaluating its own contributions and processes. Faculty and student involvement is also intended to result in an evaluation methodology that is replicable and financially sustainable for a university-based policy center with limited resources.

Dr. Sero and Dr. Thomas provided valuable assistance with research design, methods, and data analysis throughout the course of the evaluation. Molly Stenovec coordinated the launch of the project and provided early guidance for the intern, while Michael Kern supervised, and provided context and guidance for, the evaluation. All project team members provided feedback and review on early drafts of this report.

Navigating this report

The Center has prepared this project report with several audiences in mind. Parts I and II will be of interest to all readers, as these pages give an overview of the context in the Walla Walla Basin and describe the Ruckelshaus Center's contributions in more detail. Part III describes the findings

related to the Ruckelshaus Center and Part V provides some lessons learned for future evaluation work; these items may be of particular interest to Center faculty and staff, Advisory Board members, and other collaborative governance practitioners and scholars. Part IV describes the findings relating to the outcomes, challenges, and successes of the Partnership, and may be particularly useful to Walla Walla entities and other parties with interests in water management.

Research Methodology

General Approach

This evaluation project relied on qualitative data from documents and personal interviews. During spring and early summer 2016, the lead data collector conducted a qualitative content analysis of documents published by a variety of public, private, and non-profit entities, many of which had a direct presence in the Walla Walla Basin. The documents included a number of relevant project reports, strategic plans, technical studies, and news releases. The information in these documents helped orient the lead data collector to the setting, while also informing the development of interview questions and providing context for the interview responses. The project team also conducted almost 30 semi-structured interviews during mid to late summer 2016. As a result of these data sources, qualitative data formed the backbone of the project team's results and analysis, and subsequent sections provide more information on protocols and analytical approaches.

The goal of this evaluation project was to successfully meet the stated two objectives: (1) investigate the effectiveness and applicability of the Center's previous contribution to the Initiative; and (2) provide useful information on the outcomes, successes, challenges and future opportunities of the Initiative. Overall, the project team's use of qualitative data allowed for a rich and highly-detailed exploration of the team's research questions, drawing on the perceptions, experiences, and knowledge of people who have closely interacted with the Initiative and the water situation in the Walla Walla Basin. The results presented in Sections III and IV illustrate the key themes from this qualitative work.

It should be noted that a variety of quantitative environmental data for the Walla Walla Basin is collected and made available by several organizations. While informative, this quantitative information did not feature heavily in the project team's analysis. Due to system complexities and substantial data requirements, it is very difficult to determine a causal link between a policy/program and any observed, quantitative environmental changes. Because the intent of this evaluation was to understand the Center's contribution and obtain Initiative outcomes, the project team determined that a highly technical and rigorous analysis of this quantitative data was beyond the stated scope of the evaluation project. This subject is discussed in more detail on pages 66-67.

Interview Protocols

From mid-July through early September 2016, the Center's research team conducted interviews with 27 individuals representing a variety of entities with interests in Walla Walla Basin water management. Interviewees included representatives from agricultural water users, environmental groups, educational institutions, and officials from federal, tribal, state, and local government agencies (see Appendix C for a list of interviewees). Interviewees interacted with the Partnership and/or the Initiative in a variety of ways over a variety of different timeframes. The lead data collector conducted interviews by telephone or in-person. Interviews followed either a one-on-one or focus group format, with one-on-one interviews as the default arrangement.

The research team used a consistent set of questions for all interviews, regardless of format (see Appendix B for the list of interview questions). Interviews were semi-structured in nature; though

the data collector asked a consistent set of questions in a consistent order, responses were open-ended and the data collector was able to ask specific follow-up questions to clarify interviewees' statements. In all but two cases, the data collector took an audio recording of the interviews with interviewees' knowledge and permission (in two cases there were technical or logistical difficulties that prevented recording). The data collector used these audio recordings for notetaking and analysis purposes after the interviews were complete (see the data analysis section).

The research team used an iterative process to identify and select interviewees for the project. Over the course of the data collection period, the research team identified three separate "waves" of about eight interviewees who were contacted and interviewed during the same approximate time period. The data collector identified suitable interviewees through a review of documents, such as news articles, Partnership files, and information on the Partnership's website. Additionally, the data collector used a chain referral system (alternatively known as "snowball sampling") to supplement the document-based interviewee selection. Per the research protocol, the data collector asked every interviewee to identify other individuals who would be important to interview. The project team used feedback from the interviewees and the data collector's own judgement to build the interviewee waves. An overriding set of selection criteria also guided the interviewee selection process:

- Knowledgeable about the Partnership and water management issues in the Basin
- Current or former affiliation with the Partnership and/or Initiative, or other connection with water management in the Walla Walla Basin, through one of the following mechanisms (list is not exhaustive):
 - Participant in the Initiative
 - Employee/representative of an entity with interests in water management
 - Partnership professional staff
 - Member of a Partnership committee:
 - Board of Directors
 - Policy Advisory Group
 - Water Resource Panel
 - Involvement with the Ruckelshaus Center's 2006-2007 Walla Walla Project
- Supports Center's goal of having an interviewee sample that is broadly representative of the entities connected to Walla Walla water management
- Supports Center's goal of interviewing individuals who have interacted with the Partnership and Initiative at different timeframes
- Fit with project time and resource constraints
- Individual is willing and available to participate in the project

The research team does not intend for the interview list to be exhaustive. Instead, the research team intended for the list to be representative of all the interests connected to the Partnership and water management in the Walla Walla Basin.

Data Analysis

The research team used qualitative methods to analyze the interview data. After each interview, the data collector played back the audio recording (or reviewed written notes in cases where no

recording occurred), and entered summaries of interviewees' responses into a Microsoft Excel spreadsheet. The data collector did not take a verbatim transcription of the interviewees' words, but instead captured the key ideas for the responses to each question, using the interviewees' words and short, direct quotes were appropriate. Summarized responses on the spreadsheet were linked to a unique reference number and the interest categories for each interviewee, but the researchers did not include names and other identifying information in the spreadsheet or in the analysis.

The primary analysis task was to identify key themes and concepts that emerged in the interview data. For this process, the data collector made multiple read-throughs of the interview responses, attaching identifier codes to words, sentences, or paragraphs of text that discussed a certain theme or concept; these codes allowed the data collector to sort and categorize the data based on the interviewees' responses. The data collector developed a set of codes for each interview question, while also tracking themes that cut across multiple questions. This coding process was inductive in nature, with the data collector developing codes based on the content of the interview data (as opposed to forcing the data to fit a set of predetermined codes). The data collector used Nvivo 11 Pro analysis software to assist with this coding process. During the analysis phase, information from documents was used to supplement the interview data as available and appropriate.

All data collection, contact information, and analysis materials were securely stored throughout the duration of the project. All digital project files were stored on password-protected computers on secure networks, and all paper files were securely stored at the Ruckelshaus Center's Seattle office. The data collector destroyed written interview notes shortly after entering the responses into the Excel summary sheet. Audio recordings were deleted after data entry and prior to the end of the analysis phase. Per the research protocol, the data collector was the only individual to listen to the audio recordings or access written interview notes. Interviewees were identified by reference number only on the Excel summary sheet, and the master list of interviewee names was stored separately from these this document.

Part I: Overview of the Walla Walla Basin

Geographic setting and climate

The Walla Walla Basin is a bi-state watershed that encompasses 1,758 square miles in southeast Washington and northeast Oregon.⁵ 73% of the Basin area is located within Washington's Walla Walla and Columbia Counties, while the remaining 27% lies within Oregon's Umatilla, Union, and Wallowa Counties.⁶ The Blue Mountains occupy the eastern edge of the Basin with the elevation generally declining as one moves westward. The majority of land in the Basin is privately owned and devoted to agricultural use.⁷ The US Forest Service's Umatilla National Forest occupies much of the higher-elevation area along the Basin's eastern boundary, and the Washington State Department of Natural Resources maintains several dozen small tracts of land on the Washington side of the Basin.⁸ The Confederated Tribes of the Umatilla Indian Reservation (CTUIR) also own the 11,000 acre Rainwater Wildlife Refuge in Columbia County through a Memorandum of Agreement with Bonneville Power Administration (BPA).⁹

The largest municipality in the Basin is the City of Walla Walla, Washington, with an estimated population in July 2015 of 32,237 residents.¹⁰ Other communities on the Washington side of the Basin include College Place, Dayton, Prescott, Touchet, Lowden, and Waitsburg. Cities on the Oregon side include Milton-Freewater and Weston.

The Basin contains the Walla Walla River, the Touchet River, and Mill Creek. The Walla Walla River starts in Oregon, flows northwest past Milton-Freewater into Washington, and empties into the Columbia River at Wallula Junction.¹¹ The Touchet River starts in the Basin's northeastern corner,

flows southwest, and joins the Walla Walla River at the town of Touchet.¹² Mill Creek starts in the eastern part of the Basin, flows through the City of Walla Walla, and joins the Walla Walla River a short distance west of College Place.¹³ All three river systems have their headwaters in the Blue Mountains at elevations around 6,500 feet.¹⁴

In addition, the Basin also contains several groundwater aquifers. The entire basin is underlain by a deep basalt aquifer of varying thickness, with an estimated storage capacity

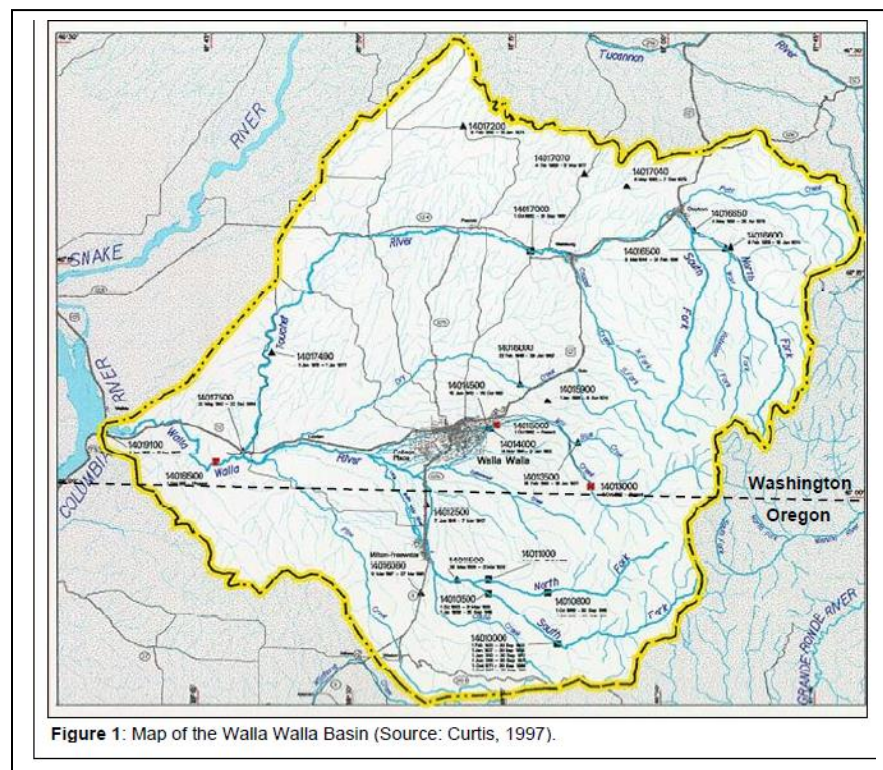


Figure 1: Map of the Walla Walla Basin (Source: Curtis, 1997).

of 4 million acre-feet.¹⁵ This deep aquifer is primarily recharged by runoff from the Blue Mountains.¹⁶ Additionally, a shallow gravel aquifer underlays approximately 120,000 acres of land in the vicinity of Walla Walla and Milton-Freewater,¹⁷ with a thickness of 200 feet beneath Walla Walla and thinning as one moves west.¹⁸ The shallow aquifer is recharged by infiltration of precipitation or irrigation runoff, and through connectivity with surface water bodies.¹⁹ The deeper basalt aquifer is not currently a significant source of recharge for the shallow aquifer, possibly due to extraction of groundwater from this basalt layer.²⁰

Studies have established that water is flowing between the shallow gravel aquifer and the surface waters in its vicinity.^{21 22} A 2005 study by the Washington Department of Ecology (Ecology) found that the Walla Walla River, Touchet River, and Mill Creek tend to be “losing” (surface water discharging to groundwater) in their upper reaches and “gaining” (groundwater discharging to surface water) in their lower reaches.²³ The stretch of the Walla Walla River downstream from Milton-Freewater is a losing reach with a particularly large flow from surface to groundwater.²⁴ In contrast, the reach near the confluence with the Touchet River experiences notable gains from groundwater.²⁵ The extent to which a particular reach is “losing” or “gaining” is related to seasonal variations in the connected aquifer.²⁶ There is some amount of connectivity between the basalt aquifer and surface waters, though various studies disagree on the extent to which the basalt layer recharges the Basin’s water bodies.^{27 28}

Precipitation inputs within the Basin are not uniformly distributed across space or time. The Basin exhibits a gradient of increasing precipitation as one moves eastward and gains elevation. Average annual precipitation at the mouth of the Walla Walla River is less than 10 inches annually, while the high-elevation headwaters at the eastern edge of the Basin typically receive over 40 per year.^{29 30} Much of the precipitation at higher elevations occurs as snow, while the lower areas primarily receive rain.³¹ 64 percent of the Basin’s precipitation occurs during the fall and winter months (October-March).^{32, 33} This precipitation profile leads to annual high surface flows in November through May, with the spring snowmelt period typically running from March to May and low flow occurring in June through October.³⁴

Human habitation and water use: A short history of the Walla Walla Basin

The Cayuse, Umatilla, and Walla Walla Tribes have inhabited the Walla Walla Basin for thousands of years, and European settlers began arriving in the area in the early 1800s.³⁵ Water has played a critical role in the history of the Basin, with the region’s human inhabitants relying on surface and groundwater resources for a variety of uses. These uses include habitat for fish, agricultural irrigation, and human consumption.

The Basin’s Native American tribes have long depended on local rivers and streams to provide habitat for salmon. Salmon has traditionally been a key staple of tribal members’ diets, along with berries, roots, and other wildlife found in the Basin.³⁶ During historical times, the spring and fall salmon runs throughout the Columbia River region served as important milestones along the tribes’ annual cycle of travel through their traditional territory.³⁷ In the modern day, salmon continues to play an important cultural role for the citizens of these three tribes.

In 1855, after several decades of escalating conflict with European settlers, the Cayuse, Umatilla, and Walla Walla tribes signed a treaty with the United States government. Under the terms of this treaty,

the tribes ceded over 6.4 million acres of land in the Columbia River watershed, including the entirety of the Walla Walla Basin.³⁸ In exchange, the tribes retained control over a reservation in northeast Oregon in the vicinity of Pendleton. The tribes also reserved access to their usual and accustomed fishing and hunting grounds throughout their original territory, including those in the Walla Walla Basin.³⁹ The three tribes are now collectively known and federally recognized as the Confederated Tribes of the Umatilla Indian Reservation (CTUIR).

Water is also a critical resource for the Basin's agricultural entities. Irrigation water use began with the arrival of European settlers in the nineteenth century, and agriculture has been an important part of the Basin's economy since the mid-1800s. The earliest known agriculture in the Basin dates back to 1825 at Fort Walla Walla.⁴⁰ Marcus Whitman created the Basin's first irrigation diversion at his Walla Walla Mission in 1836,⁴¹ and the Basin's earliest recorded water rights claims date back to the early 1860s.⁴²

The Basin's population of European settlers continued to grow throughout the second half of the nineteenth century, and this was accompanied by a steady increase in the volume of agricultural water diversions.⁴³ In the mid-1880s, portions of the Walla Walla River between Milton-Freewater and the Columbia River began running completely dry or experiencing only minimal flows during the peak irrigation season.^{44 45} This seasonal dewatering of the Walla Walla continued to occur annually during the late 1880s and throughout the entire twentieth century.⁴⁶ Seasonal dewatering also occurred in the lower reaches of Mill Creek and the Touchet River.⁴⁷ Year-round flows would ultimately be restored in the early 2000s thanks through the implementation of a settlement between Walla Walla area irrigation districts and the US Fish & Wildlife Service.^{48 49}

In the present day, irrigated agriculture is the largest land cover type⁵⁰ and largest water user in the Walla Walla Basin; as of 2007, agriculture had been allocated 99% of the surface water rights and 62% of the groundwater rights in the Basin.⁵¹ Most of the Basin's irrigated cropland is concentrated near the Walla Walla River and the lower reaches of the Touchet River; dryland farming is the dominant agricultural practice in other parts of the Basin, and the majority of the Basin's total cropland is not irrigated.⁵² Irrigated agriculture draws on both surface and groundwater sources, with most of the demand concentrated during the growing season (spring-summer). The Basin has an exceptional climate for growing a variety of agricultural products; significant crops include wheat, grapes, onions, alfalfa, asparagus, potatoes, orchard fruits, and green peas.^{53 54} Winemaking has experienced a surge in popularity in recent decades, and the Basin's vineyards also support a significant tourism industry. A 2011 study by Economic Modeling Specialists, Inc. found that the Walla Walla "wine cluster" supported around 150 wineries and approximately 2,000 jobs in wine production and wine tourism.⁵⁵ As of 2015, the region's estimated planted acreage of wine grapes was approximately 2,800 acres.⁵⁶

Finally, water in the Basin plays an important role for human consumption. The City of Walla Walla is the Basin's largest municipal drinking water supplier, drawing 88 to 90 percent of its water from the 36 square mile Mill Creek watershed.⁵⁷ The City also operates seven deep aquifer wells that can supplement surface supplies in times of low flow or completely accommodate demand in the event of a wildfire or other watershed disturbance.⁵⁸ This well system is linked to an aquifer storage and recharge (ASR) program. Since 1999, the City has pumped excess treated surface water into the deep basalt aquifer during times of high flow for use at a later date.^{59 60} In rural areas, most residents get

their drinking water from permit-exempt wells.⁶¹ Rules and eligibility criteria for permit-exempt wells are discussed in the *Overview of water policies, regulations, and management actions*.

The local population's consumptive water demand has placed a strain on the Basin's water resources. The hydrologic connectivity between the shallow gravel aquifer and surface waters also creates a risk that groundwater extraction will reduce instream flows.^{62 63} The Walla Walla Basin is currently over-allocated during certain times of the year, meaning that the amount of water reserved by water rights exceeds the quantity that is actually available. Washington's water right system follows a "first in time, first in right" doctrine; during periods where water rights exceed water supply, water rights holders with junior (newer) claims will be ordered to cease their use in order to protect senior water rights holders' access. Due to concerns about impairment of existing water rights, no new surface or groundwater rights have been issued in the Basin since 1996.⁶⁴ Additionally, under a set of water management rule amendments from 2007, all of the Basin's streams and rivers remain closed to further new consumptive uses (with a few exceptions) between May 1 and November 30.⁶⁵

Human activities both within and outside the Basin have also had a significant impact on the local salmon populations. During historical times, the Walla Walla River supported large runs of spring chinook, summer steelhead, bull trout, and rainbow trout. Tribal fishermen took advantage of both the spring and fall salmon runs as part of the tribes' annual migration through their usual and accustomed hunting and fishing territory.⁶⁶ In the nineteenth century, European settlers also began harvesting salmon in large quantities. However, the Basin's salmon runs largely went extinct by the early 20th Century, likely due to a combination of overharvesting, dewatering due to irrigation diversions, and habitat fragmentation due to reclamation projects.^{67 68 69} Several actions since 2000, including the aforementioned settlement agreement and a salmon reintroduction program, have helped rehabilitate the region's salmon populations.

Overview of water policies, regulations, and other management actions prior to the Initiative

These multiple uses and resource constraints have led to a variety of water management actions in the Walla Walla Basin. Some actions have been adversarial, while many others have been cooperative and coordinated. In particular, the last 15 years has seen a large number of watershed planning efforts featuring the involvement of numerous entities from different sectors and different levels of government. The following section briefly describes the Basin's notable management activities.

The early 20th Century saw several important developments regarding water rights and water allocations in the Basin. Between 1923 and 1929, surface water rights for many of the water courses on the Washington side went through a court adjudication process.⁷⁰ The purpose of water rights adjudication is to determine which entities had valid water claims, verify the amount of water attached to each right, and clarify the order of seniority for all the rights attached to a specific water course.⁷¹ However, this court adjudication did not alleviate the challenges of inter-state water management. In 1936, Washington filed a lawsuit against Oregon over a water allocation dispute involving the Walla Walla River. In *State of Washington v. State of Oregon*, the U.S. Supreme Court ultimately ruled that Oregon could legally divert all of the water out of the mainstem Walla Walla before it crossed into Washington.⁷²

Water scarcity concerns continued to persist in subsequent decades. In 1977, the Department of Ecology adopted the first iteration of the Water Resources Program Rule for the Washington side of Basin. This rule set forth seasonal closures from new consumptive uses for various surface water courses and introduced regulations for groundwater extraction.⁷³ In 2007, some of these regulations were modified by the aforementioned Ecology amendments to the Program Rule. The 2007 amendments include requirements for new permit-exempt wells drilled into certain sections of the shallow aquifer, such as daily use limits and mandates for mitigation.⁷⁴ The 2007 Rule amendments also created a water right for instream flows and seasonally closed all surface waters and the gravel aquifer between June 1st and November 30th.⁷⁵

In the late 1990s, the Basin's water users faced additional constraints due to federal action under the Endangered Species Act. In 1998, the U.S. Fish and Wildlife Service listed bull trout (*Salvelinus confluentus*) as a threatened species; in 1999, the National Marine Fisheries Service followed suit by listing the Middle Columbia River summer steelhead (*Oncorhynchus mykiss*) as threatened.⁷⁶ These listing decisions exposed the Basin's water users to potential liability for the take of one or both of these species. In January 2000, the Basin's irrigation districts received notice that their irrigation water diversions might constitute a taking of bull trout.⁷⁷

This notice of potential liability led to an early case of multi-party problem-solving for the Basin. The area's irrigation districts rapidly responded to the notice, and in June 2000, the US Fish & Wildlife Service entered into a settlement agreement with Gardena Farms Irrigation District #13, Hudson Bay District Improvement Company, and the Walla Walla River Irrigation District. Under this agreement, the three irrigation districts agreed to reduce the volume of their diversions from the Walla Walla River and to implement a number of improvements to their irrigation systems.^{78 79} In exchange, Fish & Wildlife agreed to forego legal action against the districts and to provide support for some of these diversion improvements.⁸⁰ The settlement involved extensive outreach to other Basin entities, including the CTUIR and environmental groups. The agreement laid the groundwork for subsequent multi-party water planning, and the actions pursued under the agreement are credited with restoring year-round flows to the lower reaches of the Walla Walla River.⁸¹

Several more watershed planning efforts occurred during the first decade of the 21st Century:⁸²

- Collaborative efforts to develop a Habitat Conservation Plan for bull trout (under the ESA) occurred from 2000 through at least 2008.⁸³
- Management efforts under Washington's Watershed Planning Act began in 2001, with the WRIA 32 Planning Unit completing the Walla Walla Watershed Plan in 2005.
- In 2004, the WRIA 32 Planning Unit, the Walla Walla Basin Watershed Council, and the Northwest Power and Conservation Council released the Walla Walla Subbasin Plan.
- In 2006, the Snake River Salmon Recovery Board (SRSRB) completed the Snake River Salmon Recovery Plan; the Walla Walla Basin is one of the areas covered under this document.
- In 2005 and 2008, respectively, Oregon and Washington released Total Maximum Daily Load (TMDL) water quality improvement plans for various water quality indicators for each side of the Walla Walla Basin.^{84 85}

- A cooperative group of Basin entities completed four Comprehensive Irrigation District Management Plans prior to 2008.
- In the early to mid-2000s, the CTUIR and the U.S. Army Corps of Engineers jointly carried out a Flow Enhancement Feasibility Study. The objective of this study was to develop long-term strategies for improving instream flows and aquatic habitat without seriously harming other water uses.⁸⁶ The study considered a number of alternatives relating to water storage or a water exchange with the Columbia River. In 2013, the Corps released a No Action Report for the study, citing high implementation costs that outweighed projected benefits.⁸⁷

All of these management plans covered various water management issues, including water quantity, habitat restoration, water quality, and mitigation for hydropower development. Each plan has supported the implementation of policy changes and on-the-ground projects. For example, the 2007 amendments to Ecology's Walla Walla Water Resources Program Rule grew out of the Walla Walla Watershed Plan.⁸⁸ On-the-ground projects have included fish passage barrier removal, riparian restoration projects, irrigation infrastructure improvements (such as converting open ditches to enclosed pipes), and irrigation efficiency measures.

During this period of activity, entities such as the WRIA 32 Planning Unit and the SRSRB have acted as venues for stakeholders to engage in collaborative interactions regarding the Basin's water issues. In the early 2000s, a coalition of environmental interests, farmers, and other community leaders formed the Walla Walla Watershed Alliance as an additional venue to discuss water management on a bi-state level.

Numerous entities from different sectors and different levels of government have participated in water resource management activities within the Basin. As a result of this work, the 2000s saw the development of extensive water governance capacities among the local actors.⁸⁹ However, these governance capacities were widely dispersed and not always well-coordinated. During the early to mid-2000s, each planning initiative was overseen by a separate coordinating entity, and these coordinating groups were largely working independently of each other; a key exception to this pattern was a 2006 Detailed Implementation Plan that integrated the execution of the Walla Walla Watershed Management Plan and the Salmon Recovery Plan.

In 2000, the CTUIR began implementing a salmon reintroduction program in partnership with the Oregon Department of Fish & Wildlife.⁹⁰ These reintroduction activities were greatly aided by the restoration of the Walla Walla River's year-round instream flows resulting from the settlement agreement. An initial program success occurred in 2004, when 200-300 spring Chinook salmon returned to the Upper Walla Walla River and Mill Creek.⁹¹ This number increased to a little over 1,100 in 2009, and these salmon recovery efforts are ongoing as of the date of this report.⁹² As a result of these recovery efforts, in 2010 the tribes were able to open a tribal fishery on the Walla Walla River for the first time in almost 100 years.⁹³ The CTUIR and the Bonneville Power Administration (BPA) have also been pursuing the construction of a salmon hatchery on the South Fork Walla Walla River, on the site of a pre-existing holding and spawning facility operated by the tribes.^{94 95}

Part II: The Walla Walla Water Management Initiative

Origins of the Initiative

In 2004, a group of Walla Walla Watershed Alliance members, consultants, and environmental lawyers began discussing options for creating a new approach to water management for the Walla Walla Basin. These conversations emerged out of the recognition that existing state-level institutions and local-level management efforts had not been sufficient to satisfactorily resolve the Basin's water issues. These conversations eventually evolved into a more formal dialogue between the Washington State Department of Ecology and a coalition of Basin groups. In late 2005, as a result of this dialogue, Ecology Director Jay Manning offered to work with Basin entities to develop a new framework for local water management and governance. This new framework would delegate greater management authority to the entities at the Basin level. The framework would also allow for the development of a unique management scheme that could function outside the constraints normally prescribed by the state's water laws. Manning's key requirements for this local effort were that:⁹⁶

1. Stream flows and water quality that can sufficiently support fish are restored.
2. Conflicts arising from the new governance approach are handled within the Basin.

Manning would reiterate the terms of this arrangement during several public presentations in January and October 2006.⁹⁷ Basin stakeholders expressed a desire to take Manning up on his offer, and the parties agreed to jointly pursue a new water governance and management approach for the Basin. The effort to develop this new approach became known as the Walla Walla Water Management Initiative. Local participants included irrigators, environmentalists, county government officials, and officials from the CTUIR.

Actions in connection to the Initiative occurred from 2006 through 2009. In 2006, the state legislature provided Ecology with \$150,000 in support of the project.⁹⁸ The parties also contracted with the Ruckelshaus Center to provide insights and lessons learned from similar water initiatives in other jurisdictions. In fiscal year 2009, the Legislature provided an additional \$195,000 in funding.⁹⁹

In 2007, Ecology and the Ruckelshaus Center each released reports concerning the development of the Initiative. Both reports recognized similar sets of goals regarding flow and flexibility, with the Ruckelshaus Center also recognizing an additional goal of reduced regulatory risk. In its *2006 Report to the Legislature* (January 2007), Ecology identified the Initiative's key goals as:

1. *Flow for Fish*: Maintain sufficient stream flows and temperature conditions in streams throughout the Basin to support fish recovery. This includes protecting aquifers and the bypassed flows from Oregon as they flow through the Washington portion of the Basin.
2. *Flow for flexibility*: In exchange for flows for fish, allow water users to locally and cooperatively manage water use in the Basin.

The flow goal in the Ruckelshaus Center's 2007 reports was identical to the flow goal in the Ecology document. The Center also identified a similar flexibility goal and the additional regulatory risk objective:

1. *Flow*: Identical to the *Flow for Fish* goal in Ecology's 2006 *Report to the Legislature*
2. *Flexibility*: Allow the Basin community to govern water resources locally and provide them with flexibility in how water is withdrawn, conveyed and applied so they can optimize out-of-stream uses and achieve instream flow targets. This might involve altering water laws that inhibit reduced water usage.
3. *Reduced regulatory risk*: Reduce uncertainties faced by water users under current federal and state regulations. This might involve suspending state relinquishment laws going forward. At the federal level, this might involve developing a Habitat Conservation Plan (HCP) to address Endangered Species Act requirements.

These goals highlight Basin entities' interests in implementing flexible, voluntary policy tools while increasing the level of local control over water decisions. The underlying logic behind this approach was that local control, flexibility, and voluntary actions would improve flows for fish without degrading other uses (and with greater effectiveness than conventional regulatory approaches). The concept of *Flow from Flexibility* arose from these goals and assumptions, and this concept would continue to play a central role throughout the Initiative's work.

These efforts culminated in December 2008, when Ecology submitted a *Proposal for a Pilot Local Water Management Program in the Walla Walla Basin* to the Governor and State Legislature. This proposal led to the introduction of enabling legislation (HB 1580) in the House of Representatives in January 2009. This bill passed both chambers in April 2009, and Governor Gregoire signed the bill into law on April 23, 2009.¹⁰⁰ The bill was codified at Chapter 90.92 RCW, with a sunset date of June 30, 2019.

With the enabling legislation in place, a coalition of Walla Walla Basin entities petitioned Ecology to establish the Walla Walla Watershed Management Partnership. The Partnership would act as the primary entity for implementing the management framework laid out in the enabling legislation. Ecology approved the petition on August 11, 2009, clearing the way for the Partnership to begin its work in late 2009-early 2010.¹⁰¹

The Walla Walla Watershed Management Partnership

The Partnership's vision statement is: *The Partnership envisions the Walla Walla River Basin as a place where water is managed locally to achieve and sustain a healthy river system where human and natural communities thrive and flourish now and in the future.* This vision is operationalized through an organizational mission to *implement the pilot local Walla Walla water management program* set forth in RCW 90.92. The Partnership outlines its specific goals, objectives, and associated strategic actions in an organization-wide Strategic Plan. The four goals within the Strategic Plan (last updated in 2012) are:¹⁰²

1. Successfully implement innovative water management actions at the Basin level.
2. Manage water with consideration of all basin needs, including environmental, agricultural, economic, and cultural.

3. Develop and sustain collaborative partnerships to provide innovative, adaptive solutions to Walla Walla's complex water allocation challenges.
4. Educate water users and stakeholders about unique Partnership programs for integrated water management.

A main assumption underlying the Partnership's work is that "the key to augmenting stream flows is for water users to be afforded greater flexibility beyond what conventional state water management options can deliver."¹⁰³ This aligns with the concept of *Flow from flexibility* that emerged during the Initiative. As a means of implementing these goals, the enabling legislation has given the Partnership a set of tools that are unique within Washington, in alignment with Manning's initial offer to Walla Walla Basin stakeholders.

The Partnership consists of three multi-stakeholder committees supplemented by a small professional staff:

- The *Board of Directors* provides program leadership. The Board is made up of representatives from a number of government and nongovernmental entities within the Basin. The CTUIR, counties, irrigation district, and conservation districts choose their own representatives, while the water rights holder, environmental interest, and citizen at-large representatives are appointed by the rest of the Board members. Board members serve two-year terms, and several members have served multiple terms. The entities with representation on the Board are:
 - Confederated Tribes of the Umatilla Indian Reservation
 - Columbia County
 - Walla Walla County
 - City of Walla Walla
 - Columbia & Walla Walla Co. Conservation Districts
 - Gardena Farms Irrigation District #13
 - Basin Water Rights Holders
 - Basin Environmental Interests
 - Citizens at-large
- The *Water Resource Panel* provides technical review and assistance to support the Partnership's activities. As of 2015 the panel is composed of eight representatives from groups such as the CTUIR, Washington Water Trust, the Walla Walla Basin Watershed Council, and several state agencies.
- The *Policy Advisory Group* serves as a forum for participants to discuss local water issues and provide policy advice to the Board of Directors. The group consists of approximately 25 representatives from a wide variety of Basin groups, including environmental non-profits, government agencies, conservation districts, water users, and other watershed management entities in the Basin.

The Board of Directors meets monthly. A review of online archives indicates that the other two committees typically meet a few times per year, with declining frequency in recent years. All meetings are open to the public. The Partnership has maintained thorough records of attendance and decisions made at all of these meetings. The Partnership's offices and meeting spaces are housed within the William A. Grant Water & Environmental Center at Walla Walla Community College.

As a pilot water project, the Partnership has the ability to implement a number of innovative and voluntary water management tools. The law empowers the Partnership to operate a water bank that

gives water users the ability to forego use of some or all of their water right without risk of relinquishment under the “use it or lose it” clause in state water law. This “use it or lose it” clause is a commonly-cited impediment to water conservation, and Partnership is currently one of the only water management organizations in the state with the ability to bypass this rule. The Partnership also has the authority to create Local Water Plans (LWPs), which provide individual water users with customized water management strategies for added flexibility while leaving water instream. Other notable policy tools include Critical Low Flow Plans, Agreements Not to Divert (ANTDs), and exempt well mitigation programs.

Many Partnership actions do not require direct Ecology approval, allowing for quicker and lower-cost transactions. Additionally, the Partnership’s LWPs and ANTDs contain provisions that Ecology is not normally authorized to use.

The William A. Grant Water and Environmental Center

The Initiative also played a role in the development of the William A. Grant Water and Environmental Center (the Water Center) at Walla Walla Community College. This space was established in 2007 “to serve as a place where people with diverse interests and values could gather to learn, share knowledge and work together to address issues essential to the sustainability of southeastern Washington’s water-dependent agriculture, salmon runs, and overall economy.”¹⁰⁴ The Water Center concept initially emerged in late 2004, and state funding for the facility was secured in 2005.¹⁰⁵ State Representative William A. Grant was a key supporter of this effort,¹⁰⁶ and the Water Center is named in recognition of his contributions.

The Water Center currently contains community meeting/event spaces and houses the Community College’s Water Technologies and Management Degree Programs. In addition to the WWCC programs, the Water Center also has office space for the Partnership and four other entities. Several of these entities have interests in local water and other environmental issues:

- CTUIR
- Ecology
- Sustainable Living Center
- UNIBEST International

The Water Center underwent a significant expansion in 2011, adding additional space for laboratories, classrooms, and offices. In 2014, Earth Economics conducted an economic impact analysis of the Water Center using the IMPLAN (Impact Analysis for Planning) tool.¹⁰⁷ Section IV discusses this impact analysis in greater detail.

The Ruckelshaus Center’s Walla Walla project: 2006-2007

As previously mentioned, the Ruckelshaus Center provided neutral and independent consulting services for the Initiative during mid-2006 through early 2007, through an interagency agreement between Ecology and Washington State University. The primary purpose of the Center’s involvement was to provide insights and information that would aid in the development of a Basin-wide water governance mechanism. To that end, the Center conducted background research and carried out a number of interviews with representatives from local organizations and other knowledgeable individuals. A key component of the Center’s project was to conduct a review of “efforts to achieve goals similar to the Water Management Initiative in Washington and other

relevant western states and describe potentially useful lessons from those efforts. This work [was] intended to provide an enhanced understanding of the experiences of others regarding efforts to increase water use flexibility and create performance-based water management systems.”¹⁰⁸ The Center ultimately produced two report documents:

- *Insights on Design and Implementation from Innovative Water Management Efforts* (January 2007): This report summarized the purpose, goals, and components of the Initiative (based on the perspectives of Basin stakeholders) and also offered a selection of lessons learned from an analysis of similar water management case studies in other jurisdictions.
- *Managing Many Waters: An Assessment of Capacities for Implementing Water and Fish Improvements in the Walla Walla Basin* (July 2007): This report identified the opportunities and functions that would facilitate effective water management in the Walla Walla Basin, assessed the current water governance capacities in the Basin, and then identified gaps between the needed functions and the existing capacities.

Key components from *Insights on Design and Implementation* included:

- An outline of the primary goals and the key components of the Initiative based on interviews with Initiative participants and others
- A description of the various water management policy tools that were in use or under consideration in the Basin
- Insights and lessons learned from eight case studies for six key Initiative components: governance, establishing flow & performance measures, market-based incentives, integrating science and irrigation knowledge, equitable distribution of costs and benefits, and dispute resolution
- Short narrative descriptions of each of the eight case studies

Key components from *Managing Many Waters* included:

- An overview of eight water challenges facing the Basin in 2006, including over-allocation of surface water, bi-state water management, ESA listings, and fear of water right relinquishment
- A summary of conditions influencing the implementation of the Water Management Initiative, including multiple planning efforts and independent, often-uncoordinated implementation
- A list of objectives, capacities, and gaps related to implementing fish and water improvements, optimizing water use, and creating a shared governance mechanism
- A list of 10 considerations for establishing a shared governance mechanism, including broad stakeholder engagement, ensuring access to expertise and resources, and addressing concerns about risk and liability

In both reports, the Center clearly stated that it was not making any “recommendations.” On page 4 of *Insights and Design on Implementation*, the Center wrote that its intent was “to provide independent and impartial analysis related to the goals of the Water Management Initiative. It is the prerogative

of those in the Walla Walla Basin...and other interested parties, to develop the Water Management Initiative in accordance with the specific needs and circumstances currently active in the Basin.” On page 2 of *Managing Many Waters*, the Center wrote that the report was “designed to inform those in the Basin and at the Department of Ecology as they consider ways to coordinate and integrate water and fish improvements in the Basin.” While no formal recommendations were provided, the Center reports did include a substantial amount of insights, information, and considerations that could be used by Basin stakeholders as they developed their new governance structure.

Part III: Evaluation Results for the Ruckelshaus Center

This section summarizes the project team's key findings regarding the Center's 2006-2007 Walla Walla project. As part of the pilot evaluation, the project team had hoped to:

- Learn about how Walla Walla entities had incorporated the Center's reports into the Partnership
- Identify specific items were particularly helpful or notably unhelpful
- Solicit interviewees' opinions on how the Center could improve its services, based on interviewees' experience with the first Walla Walla project

The project team noted two major themes in interviewees' answers to these questions. First, there was notable variation in interviewees' familiarity with the Center's reports. Some interviewees could describe the use of the reports in broad terms, while a few were able to give more specific examples. However, a substantial portion of the interviewees did not have much familiarity with the reports and could not provide information on how those documents had contributed to Walla Walla water management. It has been ten years since the Center's initial Walla Walla project, and this finding could simply be due to fading memories and personnel changes. However, this theme could also demonstrate how these sorts of front-end reports fit into an organization's structure and processes over time.

Among those who knew about the Center and its reports, the key theme was the reports' contribution to the governance structure and overall model of the Partnership. A number of interviewees credited the reports with providing key information that helped to develop the Partnership's foundation or key concepts. Several responses highlighted the specific contributions of one or both of the reports. When interviewees commented on ways that the Center could improve itself, the most prominent theme was post-project evaluation of a similar nature to this pilot effort.

Incorporating the Center's reports into the Partnership's structure or programming

A: Contributing to the development of the Partnership

Ten interviewees described how the Center's reports played an important role in developing the concept and key features of the Partnership, or otherwise laying a foundation for the group's efforts. Interviewees discussed how the Center's reports (or in a few cases the Center itself) provided input that helped define or formulate the Partnership as an organization. Two of the responses described how the reports had specifically contributed to the organization, structure, or functioning of the Partnership. However, most interviewees spoke in broader terms, with phrases such as "The reports gave some good guidance and served as a really good foundation that contributed early on" or "the reports helped us muscle through the needed groundwork that was important for defining the Partnership." Most of the interviewees who gave this response had been involved with the Initiative between 2004 and 2009; some of these individuals have continued to take an active role in the Partnership, while others have reduced their recent involvement.

The project team made several other observations about this group of responses. Three interviewees highlighted how the Center's reports ultimately helped build the enabling legislation or the

associated requests and provisos. Two interviewees discussed one or both of the two reports as part of their responses (see Part C: Minor Themes). Additionally, two other interviewees mentioned how they thought “some” or “most” of the Center’s suggestions had been incorporated into the Partnership, though neither mentioned specific items for this question. Overall, this set of responses tended to be broad or general, without many references to particular reports, report content, or specific elements of the Partnership.

B: Lack of familiarity with the Center’s reports

Another group of ten respondents chose not to answer this question due to lack of familiarity with the Center’s reports or their use. Two of these ten interviewees commented that they knew of the Center’s reports but did not have much understanding about how the Initiative or Partnership had used the documents. Two other interviewees noted that they had not heard of the Center’s reports prior to the current evaluation project. The other six interviewees gave no indication of whether they previously knew of the reports, but merely noted that they did not know how the reports had been used. None of the ten interviewees in this group had significant participation in the Initiative; all of these individuals became involved with the Partnership after it formed, with varying timeframes of participation.

C: Minor Themes

Three interviewees explicitly mentioned the Center’s first report (or the case studies within that document) in their responses to this question. Two of these three individuals mentioned how the case studies had been helpful for learning about how groups in other jurisdictions were handling water management. The third interviewee spoke in more general terms about how the first report had supported the development of the Partnership. Two of these three interviewees also mentioned the second report, though they gave very different characterizations of this report’s role and contents. All three of these interviewees had been involved with the Initiative.

Three other interviewees described how the Center’s reports (and overall involvement) had boosted the credibility of the Initiative and the proposed Partnership in the eyes of Ecology and the State Legislature. Two of these interviewees described how the content of the reports gave the Initiative something to point to as evidence or “ammunition” for the group’s intentions. Two interviewees also specifically noted how the Center’s status as a neutral, university-affiliated organization had enhanced the credibility and confidence surrounding the effort.

Finally, two interviewees emphasized that the Center’s reports were a piece of a larger process. One of these interviewees talked about how Walla Walla entities had been working on this effort before, during, and after the Center’s project, and ultimate credit for the success of the Initiative should go to those Walla Walla entities. This interviewee also talked about how the Center’s reports had contributed to the development of the Partnership (Theme A). The other interviewee stressed that the Walla Walla entities benefited from the overall process of working through the Initiative and building the Partnership, and the Center’s project was a single piece of this total effort.

Specific items, recommendations, or other components of the Center's reports that were particularly useful or worked out particularly well in practice

A: No identification of specific items, recommendations, or other components

A total of 17 interviewees did not identify any specific items when asked this question. Ten of these interviewees did not have any familiarity with the Center's involvement (these are the same ten individuals who indicated their lack of familiarity in the general question about incorporation of the Center's reports). The other seven interviewees could describe the Center's contributions in broad terms but could not think of any specific items that were particularly helpful (though a few offered tentative suggestions). Among these seven individuals, there was a fairly even split between people who had participated in the Initiative and people who had not.

B: Development of governance structure

Among the interviewees who named specific items, recommendations, or other components, five individuals noted that the Center's reports had been helpful for developing the Partnership's governance structure. This discussion of the governance structure was fairly general, for the most part. Two interviewees explicitly mentioned how the reports helped highlight which stakeholders to include on the Partnership's Board of Directors, and one interviewee talked about getting the idea for the Partnership's three-committee structure from the reports. Two of these five interviewees offered diverging opinions on the extent to which the reports' governance recommendations had been taken up by the Center; one interviewee thought there would be "very good alignment" between the recommendations and the Partnership's actual structure, while the second thought that the Initiative had incorporated pieces of the Center's recommendations, and that the appearance of the structure had evolved during the Partnership's development.

C: Minor themes

Additionally, the project team detected three minor themes within the interviewees' responses to this question:

- Two interviewees commented that the case studies in the Center's first report were notably helpful for getting ideas from other jurisdictions that had grappled with similar issues.
- Two interviewees described the value of having the Center illustrate the governance capacities in the Walla Walla Basin (referencing content in the second report).
- Two interviewees noted that the Center's reports affirmed the goals and/or vision of the effort, which boosted the confidence and energy of the effort.

Specific items, recommendations, or components of the Center's reports that did not work out well in practice**A: No identification of specific items, recommendations, or other components**

A total of 18 interviewees did not offer any specific items, recommendations, or other components in their responses to this question. Ten of these interviewees did not have sufficient familiarity with the Center's reports (as noted in the responses to the previous two questions). The other eight interviewees described the Center's contributions in broad terms but could not think of any specific items that were particularly unhelpful or unsuccessful. From the responses, it is unclear whether this is a function of having no unhelpful/unsuccessful items to report, or merely a lack of recall. One of these interviewees took the question as an opportunity to complement the Center on the process and results of the 2006-2007 project, but the remaining 17 interviewees did not offer any other kind of feedback.

B: Implementation difficulties

Three interviewees described how there were sound idea(s) in the Center's reports that encountered implementation problems once the Partnership got underway. Two of the described an understanding or expectation that had been prevalent during development of the Partnership (and at least referenced in the Center's reports) that had not worked out in practice. Neither interviewee attributed any fault to the Center, but merely commented on the overall water management situation. The third interviewee discussed implementation problems relating to the Center's suggestions for the composition of the Partnership's Board of Directors.

Suggestions for what the Center could do to makes its services more helpful or relevant for future clients**A: Post-project evaluation**

Six interviewees from a diverse array of interests suggested an action that fell within the sphere of evaluation. This feedback is particularly meaningful given the evaluative nature of this project. In their responses, a majority of the six interviewees highlighted how this sort of evaluative work can be helpful for the Center and for its project participants. Within the broader theme of evaluation, four interviewees suggested revisiting past projects in a similar fashion to what the Center is doing with this current effort. Two interviewees went into more detail, suggesting that the Center could conduct periodic check-ins on its past projects at pre-determined time intervals. One interviewee also suggested revisiting the case studies from the Center's first report, in order to check in on how those example groups are functioning after more than a decade of work. This interviewee suggested that a "second round of case studies" might reveal parallel experiences between the Partnership and these other groups, potentially leading to additional lessons learned from the case groups' strategies and activities.

B: No suggestions

12 interviewees did not have any suggestions for this question. Eight of the 12 had no comments due to the lack of familiarity with the Center's reports, while the other four had expressed some knowledge of the reports but could not think of anything to suggest. When giving their answer, four interviewees also complemented the Center's 2006-2007 Walla Walla project, describing how the process had been appropriate and enjoyable while the final products had been helpful for the Basin.

C: Minor themes

Two interviewees suggested that the Center could be more involved in the implementation of these sorts of reports. These two interviewees noted how the reports themselves do not equate to on-the-ground action, and they suggested that the Center can provide useful support as participants are carrying out its reports and recommendations. Another interviewee offered a contradictory view, suggesting that the Center should try to prioritize smaller-scale consultation and analysis projects. This interviewee highlighted the importance of the Center's neutral, third-part orientation, and then discussed how the Center can preserve its neutrality by limiting its involvement in any particular situation.

Commentary and conclusions

The stated purpose of the Center's two reports was to provide useful information that could help Walla Walla entities develop a workable and innovative system for the local governance and management of water resources. Though limited and generally non-specific, the feedback from interviewees would seem to indicate that these two reports fulfilled their primary purpose. The consensus (among those familiar with the Center's 2006-2007 project) was that the reports had provided important information for the development of the Partnership's governance structure and other core features. Due to the lack of specific feedback, the project team cannot make good conclusions about specific recommendations or processes that were particularly helpful or unhelpful. The project team's conclusions would also be stronger if a larger number of interviewees had been able to provide a response. However, this is still a noteworthy theme.

Interviewees' lack of familiarity with the Center's reports is a finding in and of itself. These results could indicate that ten years is too long of a time gap if the objective is to learn specifics about the impact and effectiveness of the Center's involvement (for a discussion of the tradeoffs related to the timing of the project, see Part VI). There were also strong time-related trends in interviewees' familiarity with the documents; people who participated in the Initiative were more likely to recall how the reports contributed to the effort. Perhaps this is not surprising given the reports' early role in the development and foundation of the Partnership.

This finding could also show that, while the reports played an important role early on, they have not filled an ongoing role in supporting or informing the Partnership's activities. It is the nature of the Center to work in the background and enable other entities to make progress on complex public policy problems; given that the Center played a role early on, and then left the Basin, perhaps it is not surprising that participants cannot remember specifics about the Center's involvement. This is

not a criticism of the Partnership or the Center, but merely as an observation of how these types of reports contribute to the lifecycle of an organization.

Finally, though the feedback was limited, the reoccurring suggestion of post-project evaluation is an endorsement of the Center's efforts to develop an evaluative framework. This feedback suggests that at least some project clients would be supportive of more routinized evaluation in the Center's programming. The project team provides additional commentary on evaluation in Part V.

Part IV: Evaluation Results for the Walla Walla Watershed Management Initiative

This section summarizes the key findings for the project team's evaluation of the Walla Walla Watershed Management Initiative, with a particular emphasis on the subsequent Partnership. The project team asked a variety of questions about the Partnership's water management accomplishments, successes, challenges, other impacts, and prospects for the future. Interviewee responses are the primary source of these evaluation results, with additional findings from document analysis as appropriate. The section begins by summarizing information obtained from an analysis of the Partnership's recent reports. The section then presents a series of major cross-cutting themes that emerged across multiple interview questions. The project team finds that these cross-cutting themes are the most important "takeaways" from the evaluation. After the discussion of cross-cutting themes, the section presents other findings from the various evaluation questions, including a discussion of future prospects for the Partnership.

At the end of the section, the project team presents two recommendations for the Partnership and other involved entities (page 51). The project team developed these recommendations after a thorough analysis of the interview responses, and these suggestions are best understood within the context of the project's key findings.

Program Outputs (Obtained from Document Review)

The following list contains brief summaries of the Partnership's major actions. The Partnership's official website contains copies of documents that are relevant to many of these activities. Additionally, the Partnership has released annual reports for 2010, 2011, and 2012, as well as special Progress Reports to the Legislature for 2012 and 2013-2015. These documents provide summaries of the outputs and important processes associated with the Partnership's activities. This information was obtained from a review of Partnership documents (primarily the 2015 Report to the Legislature), and the project team has not independently verified these statements. Some of the interviewee responses have contradicted the Partnership's information regarding the Water Bank and the Local Water Plans.

- *Water Banking:* A voluntary program aimed at encouraging water rights holders to leave portions of their water allocations in an instream "water bank" without running the risk of relinquishment under Washington water law. The program is implemented through non-use agreements between the Partnership and water users. There are no participation fees and penalties if the water user terminates the agreement earlier than expected, and there is no need for review or approval from Ecology. As of 2015, the water bank contained 131 agreements and 21,103 acre-feet of water instream. Some interviewees have suggested that the portion of water in the water bank is not reflective of the additional amount of instream flows, due to the existence of "paper water rights" that are not backed by physical water instream. Other interviewees characterize the water bank as a highly successful program.
- *Local Water Plans:* Customized and flexible management plans for individual water users. LWPs evaluate a user's water right and their patterns of water use, and then outline strategies for helping the user conserve water and enhance instream flows. Each LWP is a joint effort

between the water user and the Partnership, with oversight from Ecology. Five LWPs have been completed to date, with an associated instream water savings of 588 acre feet. Partnership documents repeatedly point out the technical complexity and substantial time cost associated with preparing an LWP. Interviewees gave varying accounts over the extent to which specific LWPs have been implemented.

- *Water Rights Acquisition:* The Partnership has the ability to purchase or lease water rights from water users. These acquisitions go into the state's Trust Water Right Program with the explicit intention of providing instream flows. Between 2012 and 2015, the Partnership acquired two water leases totaling 2,600 acre-feet annually, with several additional transactions in negotiation.
- *Agreements Not to Divert:* The Partnership can make arrangements with water users to reserve portions of the users' water right for instream flow purposes in short-term (up to ten day), emergency situations. In 2015, the Partnership secured 450 acre-feet of water from two users, to be executed during as needed during the summer and early fall. Neither agreement had occasion to be invoked as of December 2015. ANTDs are approved by the Partnership's Executive Director in consultation with tribal and state fish managers.
- *Exempt Well Mitigation:* The Partnership operates a water right mitigation bank and sells mitigation credits to developers and homeowners. These mitigation credits are available for individuals who are required to arrange water use mitigation under Ecology's Water Resources Program Rule.¹⁰⁹ One credit equals 0.55 acre-feet, with a price of \$2000/credit as of December 2015. The bank contained 22.2 acre feet in December 2015, with only one credit being sold between 2013 and 2015.
- *Outreach and support for water users:* The Partnership maintains a Water Right Listing Service as a resource for water users who are interested in acquiring or selling water rights. Partnership staff are able to provide consultation and assistance to Basin water users as needed. Finally, the Partnership publishes a newsletter twice per year to keep community members updated on the group's activities and other events in the Basin.
- *Walla Walla Watershed Plan implementation:* When RCW 90.92 went into effect, the Partnership replaced the WRIA 32 Planning Unit as the coordinating entity for the implementation of the Walla Walla Watershed Plan. One of the Partnership's strategic actions is to "provide coordination and support to enable completion of 50%" of the actions specified in the Plan by 2015.

In its 2013-2015 Report to the Legislature, the Partnership noted the importance of stable and sustainable funding, and recommended that the legislature and Ecology expand their financial support for the organization in the coming years. In the report, the Partnership also noted that its management and implementation responsibilities are continuing to grow, but this growth is putting a strain on the Partnership's limited staff and financial resources. However, the Partnership's assessment of its own efforts was largely optimistic, suggesting that organization's work has led to increased instream flows, protection of water rights, and broad community acceptance of flexible water management.

Cross-cutting themes from the Interviews

A: Multi-party interactions: communication, coordination, and bringing Basin entities together

There is a strong history of multi-party collaboration in the Walla Walla community. The concept of the “Walla Walla Way” stretches back several generations and refers to a cultural approach to problem solving on a range of issue. In recent years, there has been a particularly strong collaborative approach towards water management. Between 2000 and 2010, the entities in the Walla Walla Basin carried out a number of multi-party cooperative efforts; the outputs of these efforts have included a settlement agreement, a variety of management plans, and numerous on-the-ground projects. Meanwhile, groups such as the Walla Walla Watershed Alliance and the WRIA 32 Planning Unit have served as forums for discussion and coordination among various Basin entities. Ten interviewees explicitly referenced one or more of these cooperative efforts in their descriptions of pre-Partnership water management conditions. The Initiative itself was a cooperative effort championed by a coalition of diverse interests from the Walla Walla community.

Based on feedback from the interviewees, the project team finds that the Partnership has played an important role in continuing these multi-party cooperative interactions. These interactions include a number of components, such as:

- Entities coming together to communicate and work with each other
- Improving relationships, particularly among former adversaries
- Avoiding visible, highly contentious disputes over water
- Sustaining the cooperative effort over a long timeframe
- Linkages with other entities or water management projects in the Basin

A total of 20 interviewees discussed multi-part interaction in response to at least one question, and many individuals brought it up multiple times. The concept was most prevalent in conversations about the Partnership’s tangible accomplishments, greatest successes, and broader impacts going beyond water management. Individuals from a diverse array of interest and organizations discussed multi-party interaction, but there was not a substantial difference in how the interviewees described these topics across the questions.

Multi-party interaction as a tangible accomplishment or a notable success

Interviewees were asked separate questions about the Partnership’s tangible, on-the-ground water management accomplishments and its most notable success(es). Ten interviewees discussed multi-party interaction as a tangible accomplishment, and 15 characterized it as one of the Partnership’s most notable successes (with eight individuals bringing it up in both questions). Key sub-themes were very similar across the two interview topics.

The most prominent sub-theme was the notion of bringing entities together and fostering dialogue or cooperative work. 14 interviewees discussed this theme in one or both of these questions. Interviewees went on to describe how the act of bringing people together (and keeping them talking) was important for building a dialogue, enhancing coordination, and keeping parties informed about

what is happening in the Basin. A handful of interviewees linked these processes to subsequent events: two interviewees explicitly referenced the concept of improved relationships as a byproduct of these interactions, with another interviewee described how “keeping stakeholders at the table” helped avoid a “detrimental breakdown in relationships.” Another interviewee stated that the “connections” between participants had improved communication and the sharing of information between parties. Overall, interviewees found that this dialogue, coordination, and relationship-building has been essential for moving forward with water management worked.

The interview data revealed three additional components of this relationship-building process. Two interviewees highlighted how the Partnership had done a good job of fostering “continuing relationships” between formerly adversarial parties. Three interviewees took this idea a step further, suggesting that the Partnership had helped improve the relationship between Basin water users and Ecology. A key element of this improved relationship, as described by two individuals, is a reduction in water users’ fears connected to water regulation. Four interviewees also described how the Partnership had helped prevent a visible or highly contentious water dispute between Basin entities. These interviewees pointed to the lack of major disruptions, over-reactions, and publicized battles showing up in local newspapers. One individual in particular suggested that this lack of news was newsworthy in itself.

Three interviewees specifically commented on the longevity of these stakeholder interactions. These interviewees were pleased to see that the positive interactions were ongoing, that the initial dialogue had sustained itself without any major stakeholders dropping out of the process. One interviewee was pleased to see that “everyone is still talking,” while a second commented on how the effort was still “hanging in there.”

A final subtheme is the concept of cooperation between the Partnership itself and other water management entities. Three interviewees spoke to this idea: one interviewee talked about how the Partnership has been working on good projects with the Walla Walla Basin Watershed Council, and a second spoke of the cooperation between the Partnership and the City of Walla Walla. The third interviewee spoke in more general terms, praising the Partnership for being a good contributor to projects and efforts throughout the Basin.

Goal alignment

Additionally, in the question about alignment between Partnership accomplishments and Partnership goals, two interviewees praised the Partnership for meeting goals related to multi-party collaboration and coordination. When asked about their own goals for the Partnership, five interviewees described their satisfaction with the Partnership’s accomplishments regarding inclusivity and coordination among stakeholders.

Multi-party interactions as a broader impact beyond water management

11 interviewees also brought up multi-party interactions as a Partnership impact that went beyond water management. There were three notable sub-themes within this topic, with one interviewee touching on multiple ideas. When prompted for broader, non-water impacts, six interviewees talked about how the Partnership had helped improve coordination, communication, or relationships among participating entities (in a manner very similar to what was described in previous paragraphs).

Three interviewees also specifically commended on the Partnership's connection and interaction with a specific entity (primarily the William A. Grant Water Center at the Walla Walla Community College). Finally, three interviewees described how, as a result of the Partnership, several entities participating in the effort have increased the extent to which water management and water issues are incorporated into their own work.

Seven of these 11 interviewees also brought up multi-party interactions as a key overall success of the Partnership. Additionally, three of these 11 interviewees also described these multi-stakeholder interactions as a tangible water management accomplishment of the effort.

Conclusions and commentary regarding multi-party interactions

Overall, multi-party interaction is one of the largest single themes to emerge from the interview data. By all accounts, the Partnership has played an important role in continuing the Basin's collaborative approach to solving problems. Several key observations stood out across multiple questions:

- The Partnership has played an important role in bringing entities together to exchange information and coordinate activities.
- These interactions have improved relationships and enhanced coordination among participants.
- The interactions have been sustained over a number of years and have helped the Basin make progress on water management issues while preventing significant adversarial interactions between participating entities.

A key overall finding is that many interviewees saw this interaction as an important early step leading to better communication, relationships, and coordination. Some interviewees connected these processes to progress on water management, while others saw them as impacts beyond water management, and still others viewed these processes as factor with implications for both water management and broader Basin outcomes.

B: Knowledge, Awareness, and Information

Increasing knowledge and awareness is another significant theme reoccurring across several questions, including management or capacity changes, tangible accomplishments, greatest successes, and broader impacts beyond water management. Several interviewees also pointed to a connection between collaborative interactions and these knowledge gains.

Eight interviewees observed that, in the time since the Partnership began its work, there have been increases to Basin entities' knowledge, awareness, or access to information. Five of these interviewees linked the changes to the Partnership, while the other three spoke without attributing a cause. Within this theme, five interviewees described how Partnership participants have developed enhanced knowledge or awareness of water issues in the Basin. Five interviewees (with an overlap of two) also described how Partnership participants have gained a greater awareness of other entities' actions and perspectives. Finally, two interviewees mentioned how there is now a greater availability of streamflow monitoring information.

Six interviewees discussed this theme in the context of Partnership accomplishments. Three of these individuals credited the Partnership with helping to enhance Basin entities' education or awareness levels (as an outcome or impact). The other three interviewees commented on the implementation of a Partnership communication, education, or outreach program (as a program output).

Additionally, three interviewees stated that education and increased awareness was one of the Partnership's greatest successes, with particular emphasis on new learning about water issues and management challenges. Five interviewees also brought up increased education and awareness as a larger impact that goes beyond water management.

In total, 15 interviewees made reference to knowledge, awareness, or education in the Walla Walla Basin. Most of these interviewees explicitly linked this concept to the Partnership. Within these responses, the general trend is that the Partnership has helped raise the level of community awareness regarding water management strategies and challenges. The mechanisms of this change have included outreach or education programs, better access to monitoring data, and communication as a product of the Partnership's multi-party interactions. The connection between knowledge gains and collaboration is particularly meaningful. One interviewee highlighted how the Partnership's collaborative processes have allowed participants to learn about other entities' roles and interests, stating that "I can see who the other players are and what they're doing."

As a minor counterpoint, two of these interviewees also noted challenges with outreach to specific entities or interest groups. These two interviewees particularly highlighted the challenge of broadcasting the Partnership and its programs to certain segments of the Basin's populations. This suggests that, while the Partnership has done a good job of building the Basin's knowledge and awareness levels, there still may be opportunities to make additional improvements.

C: Implementation of the Partnership's water management tools and programs

The Partnership's water management programs were frequent topics in the discussions of tangible, on-the-ground water management accomplishments. A number of interviewees also characterized program implementation as one of the notable successes of the group. Interviewees' perceptions of the Partnership's programs were generally positive, though there were conflicting perspectives on a few key issues. The findings in this section can be useful for gauging entities' awareness and opinions of the Partnership's various programs. In turn, this feedback can help inform future outreach efforts or program revisions.

Program implementation accomplishments

A total of 19 interviewees described a Partnership water management tool as a tangible, on-the-ground water management accomplishment. The project team identified a nine water distinct water management tools or programs in interviewees' responses, along with a handful of general references to "improving water management."

Water banking was the most commonly-cited tool, with references from 12 interviewees. Interviewees typically described the water bank as a tool that allows water rights holders to refrain from using some or all of their water right without fear of relinquishment under state water law; a number of interviewees described how water in the bank cannot be taken away due to non-use, and participants are free to withdraw their water from the bank at any time. The majority of comments

were positive, commending the bank for its ease of implementation and its role as a water conservation tool. However, several interviewees questioned the flow outcomes of this bank, citing concerns that the bank was primarily filled with “paper” right waters that did not translate into additional water left instream.

The second most commonly-cited tool was the Local Water Plan (LWP). Interviewees characterized the LWPs as tools that gave enhanced water management flexibility to landowners. Most interviewees were complementary of the LWPs, though interviewees had differing opinions on the extent of LWP implementation. These differing responses could have been due to the fact that the Partnership has worked on at least half a dozen LWPs at different times over the last seven years. Two interviewees called attention to the upcoming renewal of several early LWPs, with one interviewee emphasizing that the renewal process could be difficult and time-consuming for the affected water users.

Other commonly-referenced accomplishments include irrigation improvements conducted in Partnership with irrigators and the conservation districts (five interviewees), development of Critical Low Flow Plans (four interviewees), implementation of education and outreach actions (three interviewees), and development of drought response and mitigation strategies (three interviewees). Interviewees were generally complementary of all these water management tools.

Program implementation as a notable Partnership success

Ten interviewees also mentioned a program or tool as one of (or the only) greatest successes of the Partnership. As with the other key themes, interviewees from a variety of perspectives referenced this idea. There were four distinct sub-themes within this concept, and several interviewees mentioned multiple tools in their responses. Among these ten interviewees, eight had previously characterized Partnership water management programs/tools as a tangible, on-the-ground water management accomplishment.

Nine interviewees characterized the Partnership’s water bank as a notable success, while three interviewees brought up the Local Water Plans and two discussed the Partnership’s aquifer recharge work. Two of these individuals also suggested that the Partnership’s increased scope of local authority was a major success in and of itself. One additional interviewee praised the overall added flexibility of the Partnership’s approach without naming a specific tool or program.

While talking about the water bank, interviewees brought up a number of reasons why they thought the bank was a good program. Five interviewees (out of the nine who mentioned the program as a notable success) commented on how the bank was helping to reduce unnecessary use of water while also benefiting water rights holders (either by protecting water rights from relinquishment or reducing costs associated with unnecessary pumping). Two interviewees also commended the water bank for its simplicity from both a user and administrative perspective; these interviewees highlighted the streamlined and simple process for users while also complementing the program’s low administrative overhead and the ease of accounting. Several interviewees also praised the high levels of water user participation in the bank. Only one of the nine interviewees mentioned water banking specifically commented on the associated increases in stream flow, though several made suggestions about a reduction in “wasted water.”

When characterizing the LWPs as successes, the three aforementioned interviewees highlighted the plans' flexibility for landowners. As the interviewees described them, the LWPs allowed landowners to change sources, points of diversion, or to otherwise "move their water around their land" much more easily than previously allowed by Ecology. Meanwhile, both interviewees referencing aquifer recharge characterized these projects as "successful" due to the increases to aquifer levels.

Interviewee responses to the "success" question are particularly useful for highlighting what entities like about these management programs. This emphasis on *why* interviewees like the programs is the key distinguishing feature between the discussions of programs as accomplishments versus notable successes. As noted in the previous paragraphs, interviewees praised the water bank for its benefits to water rights holders, less "wasted" water, and administrative simplicity for all parties. Discussions of the LWPs focused on the flexible management opportunities for landowners. What is less clear from these responses is the extent to which interviewees think these programs have led to increased streamflow as a program outcome. Some interviewees contend that water banking has led to increases in streamflow, or at minimum a reduction in water that is pumped and wasted. However, others state that the programs have had little to no effect.

D: The Water Center

The Water Center emerged as an important contributor to the water management efforts in the Walla Walla Basin. Nine interviewees brought up the Water Center in their responses to a variety of questions; in retrospect, it may have been an oversight not to include a targeted question about the role of this facility. Nevertheless, there are several clear themes in the interview results.

Five interviewees spoke of the notable relationship between the Partnership and the Water Center. The consensus from these responses was that the two entities have played an important role in supporting each other's work, and interviewees want to see this strong relationship continue into the future. The Water Center makes an important contribution to the Partnership by housing its staff offices, hosting committee meetings, and providing nearby workspace for several other key water management entities. The Partnership is one of several co-locators housed at the Water Center, and Earth Economics' economic impact evaluation estimates that the Partnership accounts for about 30% of the Water Center's total economic contributions.¹¹⁰

Five interviewees went into detail about the nature of the Water Center's contributions to the Walla Walla Basin. The key takeaway is that the Water Center plays a valuable role as a meeting space for entities to come together and have productive conversations about water issues. Many of the multi-party interactions described on previous pages occurred within the Water Center. Four of these interviewees specifically mentioned the value of having several water management entities co-located in one place, as a means of strengthening these cooperative interactions. Two interviewees also commented on the Water Center's contribution to the growth of information availability and participants' knowledge of water issues. Two other interviewees stated that the Water Center had become well known beyond the Basin, attracting the attention of parties that were interested in duplicating its format.

E: Differing perspectives and goals among Partnership participants

Numerous entities have a stake in Walla Walla water management. The Partnership brings together a diverse group of interests on its Board of Directors, and a number of other organizations act as project partners or advisors. As one would expect, these entities have different goals and definitions for success. Even with all of the collaboration and communication attributed to the Partnership, it would be unrealistic to expect such diverse entities to fully agree on all issues. The project team asked a pair of questions relating to the alignment between goals and accomplishments, and also detected several other important patterns across the responses to other questions.

Alignment between Partnership goals and Partnership accomplishments

The data collector asked every interviewee to comment on how they thought the Partnership's accomplishments had aligned with its goals. There was no strong consensus in the interviewees' responses to this question, but there are a number of notable themes to explore. When responding to this question, ten interviewees described the goals of the Partnership in their own words, even though the data collector did not specifically ask for this information. The analysis of these ten responses serves as a good starting point for the discussion of goal alignment, even though the information is not perfectly comparable. At least one interviewee from every major interest category described their understanding of the Partnership's goals, so the following information is a decent cross-section of the perspectives in the Walla Walla Basin. The key themes in the ten responses are as follows:

- Six interviewees stated that restoring stream flows was a key Partnership goal:
 - Two out of these six interviewees also mentioned how the Partnership needed to restore flows while preventing the outbreak of serious disputes among stakeholders (“avoiding World War III”).
 - Another interviewee described how flows needed to be restored “for fish and people.”
 - One interviewee stated that the Partnership's goal was to provide flexibility for water users while also leaving flows instream.
- Two interviewees stated that the Partnership's goal was to foster more locally-based water management, accompanied by a reduction in Ecology's direct authority.
- One interviewee described how the Partnership's goals primarily focus on the agricultural community.
- One interviewee stated that the Partnership's goals are reflective of the interests on the entity's Board of Directors.

Regarding interviewees' thoughts on the alignment between Partnership accomplishments and goals, six interviewees thought that the alignment was “spot on” or very close. Six more interviewees stated that there was partial alignment, or otherwise acknowledged that the Partnership had made progress but there was more work to be done. Three of the interviewees in the “partial alignment” category highlighted a failure to meet the Partnership's streamflow goals. A total of seven interviewees made this point, with the other four individuals focusing exclusively on the stream flow issues. A small number of other interviewees cited other themes, (including success at meeting collaboration goals) or declined to answer the question.

As part of their responses, five interviewees emphasized that individuals from different organizations will have different perspectives on goal alignment. This observation echoes the project team's findings; interviewees gave a variety of answers and there was no clear consensus on the alignment between Partnership goals and accomplishments. There was also diversity in how the interviewees appear to understand the Partnership's goals themselves.

Alignment between interviewee goals and Partnership accomplishments

The data collector also asked interviewees to discuss the alignment between their *own* goals and the Partnership's accomplishments. Once again, the project team noted a good deal of variation in the interviewees' responses. Seven interviewees stated that there was good alignment between the Partnership's accomplishments and their own goals, or otherwise thought the group had been successful overall. A total of ten interviewees highlighted a specific satisfactory output or outcome, with inclusivity/collaboration and program implementation as the two most common elements.

Four interviewees were cautiously satisfied with the Partnership's accomplishments, taking either a "glass half full" approach or talking about how they think the Partnership is "getting there." Four interviewees also pointed out specific deficiencies in the Partnership's accomplishments. Among this group of four, the failure to achieve flow targets was the most commonly-named issue.

Perspectives on streamflow

A number of interviewees identified stream flow as an important Partnership goal. One of Manning's key requirements for the Partnership was that "stream flows and water quality that can sufficiently support fish are maintained," and several documents from 2006-2007 also highlight this goal. However, there appears to be some disagreement over the Partnership's flow achievements.

Statements about flow changes emerged across a number of questions. Ten interviewees stated that stream flows in the Walla Walla Basin have not improved or are still deficient; three of these individuals also noted the challenges in measuring or demonstrating these flow increases. On the other hand, six interviewees stated that the Partnership's programs have led to more water in stream, though several individuals acknowledged that these increases are small. Furthermore, while there is general agreement on the extensive implementation of the water bank, there is disagreement over whether the bank was led to tangible increases to water instream. Among those who thought the water bank had not led to flow increases, paper water rights were commonly cited as a key problem.

The project team does not have the capacity to independently determine whether (and to what extent) stream flows have increased as a result of the Partnership's work. Evaluating stream flow is a highly technical, data intensive task with many confounding variables, and this work is beyond the scope of the Center's current project. However, the project team can conclude that there is a clear difference of opinion over this important Partnership work area. There are also signs that the flow issue is a source of consternation and tension among several interest groups. Though challenging and contentious, it may be in the Partnership's best interests to come to a consensus on the status of stream flows, and to then decide what the appropriate next steps should be. This relates to one of the project team's recommendations for the Partnership (see page 51).

Differences in how participants perceive each other's strategies and behavior

The project team has also concluded that some of the Partnership-connected entities are either:

1. Misinterpreting others' intentions and strategies, or
2. Not effectively signaling their own intentions and strategies

In several cases, the interview data suggests that there is a difference between how an entity characterizes its own behavior, and how other individuals perceive that group. For example, one Partnership participant may see another entity as uncooperative or difficult to work with, but that second entity sees itself as reasonable and willing to compromise. This type of miscommunication or misunderstanding has led to frustration and tension between participants. The project team concludes that this issue is not an imminent threat to the Partnership's existence. However, it is an opportunity for maintenance to these relationships.

Conclusions and commentary on goals and perspectives

As noted in the introduction to this theme, one cannot expect diverse interests to fully agree on contentious issues such as water management. The robust collaborative interaction (despite the differing opinions) may be a testament to the strength of the Partnership. It may also be indicative of the participating entities' willingness to work together. These differences of opinion are not at all surprising and may indeed be inevitable in a multi-party group that is addressing challenging issues over an extended time period.

However, the interview data does suggest a few opportunities for improvement. These items inform Recommendation 1 on page 51.

1. There appear to be differing perspectives on the Partnership's goals, in terms of what those goals are and how the group's accomplishments have aligned with them. This suggests a need for Partnership participants to collectively revisit the group's accomplishments and objectives, in order to come to some agreement on goal alignment, what needs to be done next, and whether or not those goals are still appropriate for the group.
2. These conversations should prioritize the status of stream flows (and appropriate next steps based on agreed-upon facts) since there appears to be disagreement about this important work area. It may be helpful if these conversations are informed by water rights experts and hydrologic data.
3. Participants should try to ensure that their behavior towards the group aligns with their organization's goals and strategies.

F: The Basin-wide Instream Flow Enhancement Study

A number of interviewees brought up a current project known as *The Basin-wide Instream Flow Enhancement Study* (the Study). The Partnership and the WWBWC are currently co-leading this Study, enabled by a grant from Ecology's Office of Columbia River (OCR). The purpose of the Study is to "identify and evaluate strategies to increase stream flows in the Walla Walla River;"¹¹¹ project tasks will include identification of possible flow enhancement actions, feasibility analyses, and (if funding

allows) implementation of preferred actions. A number of actions are under consideration as part of this effort, including a pump exchange with the Columbia River, irrigation improvements, surface water storage, and aquifer storage or recharge.¹¹² The Study will also consider climate change scenarios and will attempt to address the ongoing bi-state flow protection problem.

A number of Walla Walla Basin entities are participating in this effort. A multi-party steering committee is guiding the project, in addition to the two co-lead agencies. Representatives from Basin entities have also formed a number of technical subcommittees. The April 2016 version of the Study's Strategic Plan called for scoping, project review and project screening to occur in 2016, followed by project evaluation, selection and packaging of preferred projects, and submission of this package to Ecology in 2017.¹¹³

Interviewees referenced this Flow Study in a number of different contexts. By all accounts, Partnership-connected entities seem to see this Study as a major project that has the potential to bring substantial benefits to the Walla Walla Basin. Five interviewees described the Partnership's support and involvement in the Study as one of group's greatest successes. A key item in all of these responses was the Partnership's status as a "pass-through" entity that is receiving the money from Ecology and then applying it to the Study. Two of these five interviewees also stressed that the Partnership is the only entity that currently has the ability to act in this "pass-through" role.

Seven interviewees (including two of the five described in the previous paragraph) also characterized the Study as a means of addressing the challenges that the Partnership has been facing. The interviewees in this group noted that the Study has the potential to deliver important increased stream flows into the Basin. Three of these seven interviewees did not specifically note a failure to meet streamflow goals; this suggests that the Study has broad appeal, even to those who do not consider flow to be the Partnership's most pressing issue.

Perhaps most notably, four interviewees characterized this Flow Study as an "upcoming challenge," emphasizing that the Partnership would need to make progress on the Study in the near future. Three of these interviewees stressed the need for participating entities to work together, reach consensus on appropriate projects, and then implement those projects expeditiously.

In total, 12 interviewees referenced the Flow Study in at least one context, and most of these individuals refer to it multiple times. This commentary came from a diverse array of interviewees from both sides of the Basin. The key takeaway from this theme is that the existence of the Flow Study is a success in and of itself, but also a significant opportunity to make additional progress in the Walla Walla Basin. Based on this feedback, the project team recommends that:

- a. Ecology's OCR and the State Legislature give serious consideration to any project proposals that emerge from the Study's current scoping work.
- b. The members of the Partnership and the Study's Bi-state steering committees continue looking for opportunities to coordinate Partnership actions with the products of this Study.

G: Turnover of Personnel

Since 2009, there have been a number of personnel changes within organizations that are connected to the Partnership. References to these changes came in a variety of contexts throughout the interviews, with interviewees noting the following concrete examples of turnover:

- Changes to the Walla Walla Basin's delegation to the State Legislature, including the death of Representative William Grant and the impending retirement of Senator Mike Hewitt. With the retirement of Hewitt, the Basin's legislative delegation will have completely turned over from its composition at the time of the Initiative and Partnership authorization.
- The departure of Governor Christine Gregoire and Ecology Director Jay Manning
- Other staffing changes within the Department of Ecology at the state and regional level
- Leadership turnover within entities that participate in the Partnership
- Staffing changes within the Partnership itself

Additionally, several prominent participants in the Initiative (including a number of interviewees) have scaled back their direct involvement in the Partnership and in broader Walla Walla water issues, though they remain knowledgeable about the local water situation.

The theme of personnel turnover came up in several interview questions, with a total of 11 interviewees making at least one reference to the concept. First, three interviewees identified turnover as a factor that has driven changes to management or governance capacities within the Basin. In these conversations, two interviewees described how the departure of key leaders has changed the energy, focus, and vision within the Partnership. The current roster of Partnership staff and leaders has a different set perspectives and experiences than the previous group of collaborators; this change is not necessarily good or bad, but it does lead to shifts in the character of the Partnership. Two of these interviewees also described how turnover has changed the priorities of some of the entities involved with the Partnership. Both interviewees described how leadership change within a specific entity has led to a perceived change in that organization's goals attitudes toward the Partnership.

Four interviewees discussed turnover as one of the greatest challenges the Partnership has faced. Once again, several of these interviewees linked personnel turnover to changing priorities and relationships among Partnership-connected entities. Minor sub-themes within this question included changes to the Partnership's energy and challenges to maintaining institutional memory.

Turnover is most prominent in connection to an upcoming challenge, with seven interviewees speaking to this theme. Five out of seven noted personnel changes at Ecology or the state legislature, and three talked about turnover within Partnership staff or Basin entities. Turnover is once again identified as a driver of changing organizational priorities, practices, or relationships. However, the most significant theme is the relationship between turnover and future funding; four interviewees specifically expressed concerns that the loss of key legislative and Ecology allies would threaten the Partnership's ongoing access to funds. Two interviewees also linked this turnover to reauthorization challenges.

Though the Partnership has experienced many changes to individual personnel, the effort has enjoyed consistency in the organizations, beliefs, and focus areas. Seven interviewees brought up this consistency when talking about things that have not changed, emphasizing that many of the key organizations in the early 2000s are still involved in water management. Three interviewees also asserted that the longevity of the Partnership's multi-party interactions was a notable success. Finally, two interviewees noted that the Partnership's program implementation has remained robust even with changes at the personnel level.

Other key themes

A: Current or historic challenges confronting the Partnership

In addition to asking about accomplishments and successes, the project team also wanted to learn about the challenges facing the Partnership. The project team was able to identify four major themes in interviewee responses to this question:

- Relationships with specific entities
- Funding issues
- Turnover of personnel
- Process difficulties

Relationships with specific entities

15 interviewees described a challenge with another entity's behavior; these comments applied to direct Partnership members and to groups with more limited involvement. These statements were made by a variety of interviewees and directed toward a number of different interest groups. Overall the problems within this theme do not pose an immediate risk to the Partnership, but they are worthy of attention through conversations and problem-solving. As stated in previous sections, these minor disputes are not surprising given the contentious subject matter and the duration of the multi-party interactions. Interviewees identified five sub-themes, and a number of individuals spoke of multiple problems:

- Eight interviewees commented on mindset issues among others, including a lack of incentive to participate or a resistance to change.
- Four interviewees reported that others were behaving in an obstructive manner.
- Three interviewees suggested that another entity had failed to take a management action or was slow on their implementation.
- Two interviewees described difficulties with outreach or providing information to specific groups.
- Two interviewees suggested that another entity's consumptive water behavior was a barrier to further success.

Some of these issues may stem from broader issues of clashing goals or miscommunication of intentions and strategies (as described on page 45-47). Additionally, some areas of concern (particularly those related to lack of incentives or difficulties with outreach) can be addressed through policy design or implementation strategy. As previously noted, every multi-party relationship will encounter certain challenges over time, and this requires ongoing monitoring, discussion, and adjustment. Overall the Partnership remains quite strong and none of these issues threaten to derail the multi-party effort. However, there may be a need for Partnership participants (both those on the Board of Directors and the Policy Advisory Group) to share their concerns and then engage in a conversation about how to resolve the differences.

Funding

Ten interviewees spoke about the Partnership's ongoing funding challenges. There were a variety of sub-themes within this broad topic. First and foremost, eight interviewees spoke to the Partnership's general shortage of money. Money shortages tied into four specific problems: lack of money for projects, lack of money for staffing and operations, limited opportunities for finding additional resources, and mission-related issues. Under the umbrella of mission-related issues, one interviewee described how shortages can lead to a "mission creep" scenario, where the Partnership feels compelled to take on new grants and then adjust its work to meet the new grant requirements. The other interviewee talked about how funding problems can lead to a general "struggle" with completing the Partnership's mission.

Separate from the issue of funding shortages, four interviewees commented on the constraints of the state's biennial funding cycle (which is the primary source of Partnership money). Every two years, the Partnership must devote a large amount of time and staff hours to preparing a new budget request. This cycle leads to two specific problems: (1) placing a great deal of stress on the Partnership participants and (2) devoting a large amount of time to budget preparation, which cuts into staff time and energy for actual water management work.

Turnover

As described in the ***cross-cutting themes*** section, four interviewees identified personnel turnover as a challenge for the Partnership. Within this theme, interviewees noted that there had been turnover of leadership within Partnership participants, loss of allies at the state level, and staffing changes within the Partnership itself. Two of these four interviewees also identified turnover as a challenge for the future.

Process difficulties: linking participation to implementation and design issues

Four interviewees suggested that participation in certain Partnership programs was lower than it ought to be, with connections to program implementation or design deficiencies:

- Two interviewees described challenges with the implementation of the group's water rights acquisition program, specifically noting that the water price is too low and difficult to adjust upwards. In turn, interviewees stated that this low price was reducing participation in the program. Barriers rooted in the psychology and history of local water use were also identified.

- Two interviewees cited program design issues, specifically a lack of sufficient incentives and/or regulations. Again, interviewees linked these design issues to low participation; in particular, one interviewee noted that program participation has plateaued in recent years after a large amount of initial interest.

B: How the Partnership has addressed these challenges

The project team also investigated the strategies and opportunities for addressing these challenges. Interviewees identified two major action categories: activities within the Partnership and continued work on the OCR-funded Flow Study. As the following sections show, these two themes are not mutually exclusive. An additional six interviewees declined to answer due to their distance from the Partnership, and three more argued that the group's challenges have not been addressed at all.

Actions within the Partnership

11 interviewees stated that the challenges were being addressed through activities within the Partnership. These actions are currently occurring at three organizational levels: committee, programmatic, and staff. Three interviewees discussed actions at the Board or committee level, with two describing ongoing conversations about vision, mission, and Board membership. One interviewee also described a new ad hoc subcommittee within the Partnership that is currently working on the bi-state flow protection problem.

Five interviewees talked about actions at the programmatic level, describing actions such as increasing outreach, emphasizing the water leasing program, focusing on the Flow Study, and vigorously pursuing new instream flow projects. At the staff level, three interviewees commented on a recent 50% allocation of staff time to the Flow Study. One additional interviewee described interactions between Partnership staff and Ecology staff, with Ecology staff acting in an advisory capacity on water rights issues.

Additionally, five interviewees discussed Partnership efforts to find more funding. Interviewees described a variety of alternative funding opportunities under discussion, including new grants, a new budget proviso, a permanent line item in Ecology's budget, and fees charged to Basin water users.

Basin-wide Instream Flow Enhancement Study

As described in the ***cross-cutting themes*** section, seven interviewees identified the Flow Study as a promising strategy for addressing the Partnership's flow-related challenges.

C: Impacts beyond water management-economic and cultural effects

Practitioners and scholars have found that environmental collaboratives may have additional impacts beyond their specific work areas. The project team attempted to explore these broader impacts in order to get a more complete picture of the Partnership's contributions to the Walla Walla Basin. Interviewees commented on four themes: multi-party interactions, increased education or awareness, the OCR-funded Flow Study, and broader economic or cultural effects. The first three categories

have already appeared in the *cross-cutting themes* section. The following paragraphs outline the theme of economic and cultural effects extending beyond water management.

Four interviewees described the Partnership's contribution to the Basin's broader economy. A key theme in these responses was the Partnership's role in helping entities avoid serious adversarial water disputes; interviewees suggested that this lack of animosity created an environment that was conducive (or at least not inhibitive) to economic and cultural growth. Two interviewees also made explicit reference to the ongoing growth of the wine sector. In particular, one individual gave a compelling example of how the Partnership's water management tools can be helpful for farmers wishing to enter the wine business.

Four interviewees also commented on other cultural effects. Two of these interviewees described how the Partnership's vision has supported a broader culture of innovation in the Basin, with a strong connection to the contributions of the Water Center and WWCC. Two other interviewees described how the Partnership has helped reinforce a culture of collaboration among Basin residents, with one interviewee stating that the Partnership has helped "keep the Walla Walla Way alive."

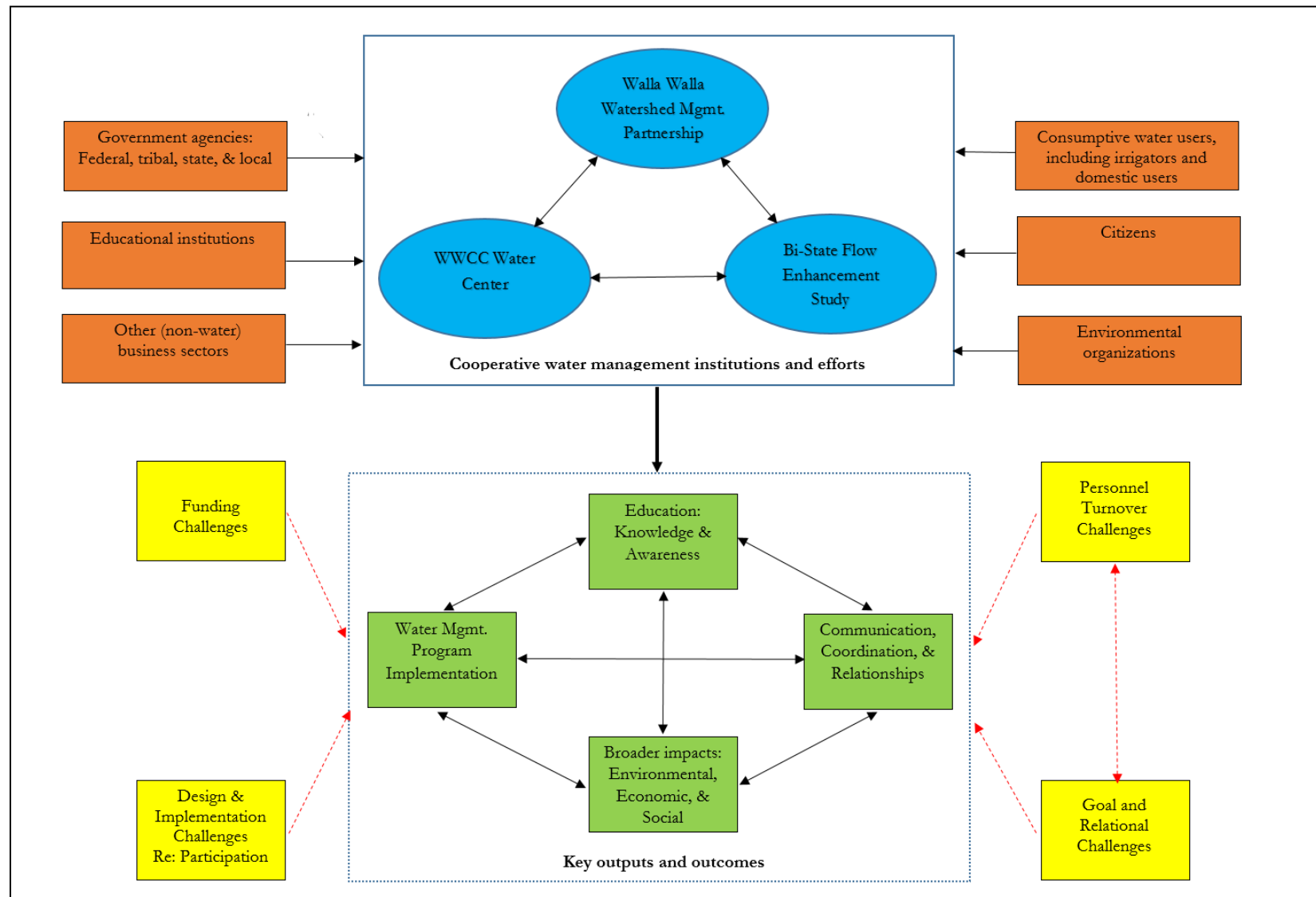
Linkages between individual entities, cooperative efforts, accomplishments & outcomes, and challenges

The following page presents a simplified framework for visualizing the connections between many of the key themes in these evaluation results. This visual framework can be useful for understanding the layout of the system and identifying how to target additional management efforts.

Through background research and interview feedback, the project team has identified a number of individuals and entities that contribute to water management work in the Walla Walla Basin (orange boxes). These entities interact with each other in three major multi-party cooperative efforts, which are the Partnership, the Water Center, and the Basin-wide Flow Study (blue ovals). There are also important connections between these three cooperative efforts. The project team recognizes that there are other multi-party groups at work in the area, but these three efforts were most relevant to the project's scope and findings.

These three cooperative water management efforts each contribute to a number of outcomes and accomplishments (green boxes). Furthermore, these outcomes and accomplishments interact and reinforce each other in a networked pattern. Finally, the project team has identified a number of key challenges (yellow boxes) that can interfere with one or more of the outcomes and accomplishments, potentially affecting the integrity of the entire system.

Framework for understanding the connections between entities, cooperative efforts, accomplishments/outcomes, and challenges



Upcoming challenges

The project team asked every interviewee to describe challenges that the Partnership will need to address in the near-term (over the next few years). Interviewees highlighted a variety of upcoming challenges, several of which were similar to difficulties that the Partnership is already facing. Based on the responses to this question, it appears that funding and personnel turnover will continue to present barriers as the Partnership enters its next several years of work. Additional upcoming challenges include legislative reauthorization, maintaining an appropriate organizational mission or vision, and continuing to make progress on project implementation.

A: Reauthorization

RCW 90.92 expires on June 30, 2019; if the Partnership is to continue past this date, the legislature will need to reauthorize the enabling legislation. Ten interviewees discussed this reauthorization as an upcoming challenge, and all ten pointed out the legislature's importance to this process. Seven interviewees stressed the need for the Partnership to point to its accomplishments, as a means of demonstrating success (or at least progress) on its goals. These interviewees identified the state legislature as the key audience for this information, though other entities (including Ecology and groups within the Basin) will also have interests in the Partnership's achievements. One additional interviewee highlighted the importance of working closely with the legislature during the reauthorization conversation, though this person did not explicitly mention the need to demonstrate success. Two other interviewees also linked the reauthorization challenge to the turnover of key individuals in the legislature and Ecology, noting that the loss of key allies (such as Senator Hewitt and Jay Manning) could make reauthorization more difficult.

B: Funding

Interviewee responses suggest that funding will continue to be a challenge as the Partnership moves forward. This echoes statements in the Partnership's 2015 Report to the Legislature. A total of seven interviewees discussed funding as an upcoming challenge (two of which also mentioned funding as a *current challenge*). Four interviewees linked funding challenges to the turnover of key individuals at the state legislature and Ecology, with an emphasis on the loss of important allies at the legislature.

Four interviewees also spoke about the challenges of continuing to rely on the state as the main source of funding. Three interviewees commented on the challenges of finding funding given the post-Recession state budget context, with one interviewee predicting that the Partnership would be drawn into conflicts with other entities that are also seeking state support. Three interviewees also suggested that the Partnership should be looking for new, secure, long-term funding sources as alternatives to Ecology. One of these three highlighted the uncertainty associated with Ecology's biennial funding cycle, arguing that the Partnership's goals for long-term change would require stable long-term funding.

C: Progress on project implementation

Four interviewees spoke about the need to make additional progress on water management projects, with a particular emphasis on the Bi-State Flow Enhancement Study. A pair of interviewees

suggested that progress on the Study would be important for the Partnership's reauthorization efforts. The fourth interviewee cautioned that the projects associated with the Flow Study would be expensive and large-scale, which will necessitate a multi-party cooperative approach to planning and implementation.

D: Turnover

Seven interviewees characterized turnover as a challenge for the future, with several individuals linking personnel change to other challenges (as described in the previous paragraphs). Four interviewees suggested that turnover will drive future funding challenges, and three identified it as a barrier to reauthorization. Two additional interviewees talked about turnover in terms of its consequences within the Partnership; in the interviewees' words, turnover of key leaders can lead to changes in the goals and behaviors of participating entities, and this creates a challenge to governance.

E: Bi-state flow protection

Eight interviewees noted that the bi-state flow protection problem has either not changed or is currently a challenge. As interviewees describe it, there are concerns that any water left instream by Oregon irrigators can be legally withdrawn by Washington water users once that water crosses the state line. Several interviewees stated that this defeats the purpose of having the Oregon irrigators leave water instream for fish habitat purposes. This appears to have been a point of contention prior to the Partnership, and it has not yet been solved. Interviewees are also not clear on how best to solve this problem. However, a few individuals noted that some of the work within the Bi-State Flow Study may address this bi-state issue.

F: Vision, mission, and lingering points of contention

The project team identified several important themes regarding vision, mission, and ongoing tensions within the group. Three interviewees spoke about the need to resolve lingering points of contention regarding participants' goals, Partnership activities, and how participants view each other. An additional four individuals described the importance of maintaining an appropriate focus and direction as the Partnership continues its work. Each interviewee pointed to different concerns regarding vision, mission, or contention, and some of these points contracted each other.

As previously stated, the project team finds that the Partnership has built a robust and inclusive collaborative dialogue. However, any organization of this nature requires periodic maintenance, and there are opportunities to strengthen these interactions. As described under Recommendation 1 (page 51), it may be appropriate for Partnership participants (especially those on the Board) to revisit the Partnership's mission, vision, and goals, in order to determine opportunities for compromise among clashing goals, how the goals relate to what the Partnership is doing, and if (or how) the Partnership's organizational goals should change.

Participation and Board Governance

At the end of each interview, the project team asked interviewees to comment on the representativeness and inclusiveness of the Partnership. Specifically, the project team wanted to

know if interviewees thought any important or relevant interests (individuals or organizations) were absent from the Partnership's dialogue and processes. Due to various circumstances, the project team was only able to collect this answer from 19 interviewees, but it is still worthwhile to evaluate the responses. Upon analysis, the project team noted that interviewees from certain interest categories tended to note that all interests were involved, while interviewees from other interest categories tended to point out missing entities.

Overall, 11 (out of 19) interviewees stated that all relevant entities were participating and that there were no missing parties. Within this group of 11, four interviewees specifically commented on the inclusiveness of the Partnership's Board and advisory committees. Several also commented on the inclusiveness of watershed management efforts going back to the Initiative and the Watershed Alliance. Meanwhile, nine interviewees suggested making additions to the membership on the Board of Directors. These nine individuals made the following suggestions:

- Members of the Basin's delegation to the state legislature-2 interviewees
- An additional environmentally-focused nongovernmental group-3 interviewees
- Another representative from a smaller water user-1 interviewee
- Washington Department of Fish and Wildlife-3 interviewees
- Washington Department of Ecology-1 interviewee
- Other Washington state agencies-1 interviewee
- US Army Corps of Engineers-2 interviewees
- NOAA Fisheries-1 interviewee

Three interviewees presented their suggestions as opportunities to add more "fish or flow centric" representatives to the Board. These interviewees stated that the entities most interested in fish and flow are "outnumbered" on the Board, suggesting that the Partnership's actions and goals are reflective of the Board composition. Meanwhile, the two interviewees advocating the addition of state legislators pointed out that these individuals play an important role in advocating for the group at the state level, so it is important for them to know what is going on locally. Suggestions for the addition of agencies made similar points, noting that these agencies have important functions in Basin water management. However, two of these interviewees noted the tradeoff in adding agencies to the Board, pointing out that the omission of state agencies creates an important amount of distance and independence for the Partnership.

Upcoming Opportunities

A: The Basin-wide Flow Study

As previously noted in this section, interviewees characterize the Flow Study as an opportunity to make progress on challenges and an area where progress is needed in the near-term. Interviewees praise the Flow Study for its inclusiveness and its focus on bringing additional flows to the Walla Walla Basin. The Strategic Plan and Schedule for the Flow Study calls for a variety of actions throughout the remainder of 2016 and into 2017, with the goal of getting a package of projects

approved and funded by Ecology and the legislature.¹¹⁴ Several interviewees also suggested opportunities for coordination between Partnership activities and the Study's project package. Many members of the Study's bi-state steering committee are also affiliated with the Partnership, and the two groups' activities have the potential to be highly complementary with the appropriate coordination.

B: Learning from the Pilot Project

Recalling that the Partnership is part of a pilot water management effort, several interviewees also highlighted the opportunity to learn from the Partnership's experience. From this perspective, the work in the Walla Walla Basin can provide valuable lessons learned regarding the outputs and outcomes of a local management system built on flow from flexibility. Interviewees noted that the Partnership has been trying something new, and there is an opportunity for entities within and beyond the Basin to replicate what has worked well, while improving on what has been less successful. In particular, one individual noted that a key metric of success should be the amount of learning that results from this effort. However, these statements might need to be reconciled with the observation (made by several other interviewees) that the Partnership is addressing complicated problems that are going to take longer than ten years to solve.

C: The Water Center

Based on the interview findings, the project team concludes that the Water Center is likely to continue playing an important role in the Walla Walla Basin community. Interviewees point to the Water Center's contribution to multi-party interactions, along with its strong relationship with the Partnership. Four interviewees expressed their hope that the Water Center and the Partnership will continue to function well together, and there is no evidence from the interview feedback that this is likely to change (though several interviewees identify a potential future funding challenge for the Water Center).

Recommendations

1. Address conflicting viewpoints regarding goals, flow outcomes, and behaviors or strategies:
 - a. Partnership participants (members of the Board of Directors and possibly the Policy Advisory Group) should engage in conversations about the group's goals, accomplishments, vision, and mission. These dialogues should focus on collectively assessing progress towards current goals and determining appropriate next steps (including policy or strategy changes). These conversations should also explore whether the goals are still reflective of the members' own priorities, and whether or not the Partnership's goals, vision, or mission need to be changed.
 - b. These conversations should prioritize the status of stream flows (and appropriate next steps based on agreed-upon facts) since there appears to be disagreement about this important work area. It may be helpful if these conversations are informed by water rights experts and hydrologic data.

- c. Participants should try to ensure that their behavior towards the group appropriately conveys their organization's goals and strategies. Participants should also try to be receptive towards others' input regarding goals, strategies, and points of contention.
- d. Consider using post-meeting evaluation forms or periodic member surveys to gauge participants' satisfaction with the Partnership's processes and progress toward its goals.

2. In regards to the Basin-wide Flow Enhancement Study (see page 39):

- a. Ecology's Office of Columbia River (OCR) and the State Legislature should give serious consideration to any project proposals that emerge from the Study's current scoping work.
- b. The members of the Partnership and the Study's Bi-state steering committees should continue looking for opportunities to coordinate Partnership actions with any products of this Study.

Conclusion

Overall, the project team finds that the Partnership has achieved a robust multi-party cooperative water management effort. Interviewees have identified a number of notable successes and accomplishments, along with challenges and opportunities for improvement. Key outcomes include improved communication, relationships, and coordination between entities, along with improved awareness or knowledge of water management topics and broader cultural and economic effects. Program implementation has included extensive use of a water bank, along with a number of LWPs, aquifer recharge projects, drought response efforts, irrigation improvements, and others.

Interviewees offered competing accounts of the Partnership's impacts on stream flows, and the project team does not have the capacity to independently validate these claims at this time. Nevertheless, some of these programs (especially the water bank) appear very popular within the Basin, with interviewees highlighting a variety of positive elements. Key challenges have included personnel turnover, funding, implementation difficulties, and minor tensions within Partnership participants. The OCR-funded Bi-State Flow Enhancement Study represents an opportunity to make additional flow improvements on a larger scale. Interviewees also highlighted the importance of the Water Center to the Basin's multi-party management effort.

Many of the themes emerging from these interviews have come up in studies of similar collaborative water management efforts in other jurisdictions. Scholars and practitioners have developed a sizable body of literature examining various aspects of collaborative environmental management, with collaborative watershed approaches as a particularly well-developed area of study. Themes relating to the Partnership's challenges are particularly well-echoed in the literature, and an examination of this material may reveal findings, trends, or coping strategies that are worthwhile for readers. This report is not an appropriate setting for an exhaustive literature review. However, the project team has compiled a short list of suggested readings that can provide a jumping-off point for anyone who is interested in exploring this body of work.

Suggested additional reading

Emerson, K. and Nabatchi, T. 2015. *Collaborative Governance Regimes*. Washington, D.C: Georgetown University Press.

Margerum, R.D. 2011. *Beyond Consensus: Improving Collaborative Planning and Management*. Cambridge, MA: The MIT Press.

McKinney, M. and Harmon, W. 2004. *The Western Confluence: A Guide to Governing Natural Resources*. Washington, D.C: Island Press.

Sabatier, P.A., Focht, W., Lubell, M., Trachtenberg, Z., Vedlitz, A, and Matlock, M. 2005. *Swimming Upstream: Collaborative Approaches to Watershed Management*. Cambridge, MA: The MIT Press.

Wondolleck, J.M and Yaffee, S.L. 2000. *Making Collaboration Work: Lessons from Innovation in Natural Resource Management*. Washington, D.C: Island Press.

Part V: Lessons Learned for Evaluation

This section serves as an “evaluation of the pilot evaluation.” In addition to the two study objectives described in the introduction, the Center is also interested in learning from the process itself. This project is a pilot for the Center’s new evaluation framework, and the insights gained from this effort can be applied toward future evaluation endeavors. In order to convey these lessons learned, the section is broken into three topics:

1. What worked well in this evaluation?
2. What did not work well?
3. How can the Center make funding for evaluation sustainable?

The project’s graduate student intern has prepared this section based on his own experiences conducting this project, with additional information from a literature review on general program evaluation and evaluating collaborative systems.

What worked well in this evaluation?

A: The setting and context

One of the strengths of this project was the choice of a subject. The Partnership in particular has a number of characteristics that made it a good fit for this pilot evaluation effort.

First, the Partnership has kept thorough records of its own program implementation activities, internal processes, and program outputs. On its website, the Partnership maintains an archive of the organization’s strategic plans, committee meeting materials (including agendas, minutes, and other pertinent documents), and files relating to the implementation of its various water management tools. The website also contains the Partnership’s annual reports from 2010-2012 and the two Reports to the Legislature; these reports contain data on program outputs and additional information on implementation processes.

The availability of these records was critical to the Center’s project because one of the Center’s evaluation objectives was to explore the outcomes, challenges, and opportunities that have arisen during the implementation of the Partnership. When gathering information about outcomes or impacts, it is important to also collect data on the inputs, activities, and outputs that were intended to lead to these outcomes/impacts.¹¹⁵ Without this information, an evaluator cannot reliably determine what led to the observed outcomes, or why the expected outcomes/impacts did or did not happen.¹¹⁶ It would also be difficult to generate any sort of meaningful “lessons learned” from the outcome or impact findings without knowing how they had come about.

In this respect, the easy availability of the Partnership’s archives helped the Center avoid a problematic “black box evaluation”¹¹⁷; the process and output data, combined with the results from the interviews, allowed the Center to provide meaningful and useful findings on outcomes, impacts, and expectations for the future. Additionally, for this particular project, the Center may not have had

the capacity to locate, compile, and synthesize this data on its own. The project team would like to commend the Partnership for keeping these detailed records and making them available to the public.

Another important characteristic was the pre-existing relationship between the Center and the Walla Walla community. One of the Center's Advisory Board members (Megan Clubb) is a well-known Walla Walla community leader who also played an important role in the Walla Walla Watershed Alliance and the Initiative. Ms. Clubb's personal experience and community connections made her an important key informant and advisor, particularly during the early stages of the project. The Center's prior involvement in the Basin was also an asset; a number of interviewees were highly complementary of the Center and its 2006-2007 project. Several others spoke positively of the Center due to its broader reputation in the state. Based on this feedback, the project team believes that the Center's strong standing with the community may have led to more positive interactions between the Center and the project interviewees. However, this is not to suggest that the Center should only evaluate projects where it is well-known and highly regarded.

The project also benefited from the easy accessibility to interviewees and the high level of community engagement in water management. This is a characteristic of the policy setting as a whole, not just the Initiative and Partnership. An evaluation project of this nature depends on feedback from a broad array of interests, both for building the legitimacy of the study and for getting a complete picture of the situation. During the course of this effort, the project team had a relatively easy time interacting with interviewees from a diversity of interest groups. A wide variety of relevant entities are actively involved in Walla Walla Basin water management, and the vast majority of prospective interviewees were amenable to participating in the study.

A related characteristic was the accessibility of interviewees who had interacted with the Initiative or Partnership at a variety of timeframes. In order to get multiple perspectives on the evaluation topics, it was helpful to speak with people who had different years of involvement with the Initiative, Partnership, or broader water management. It was particularly useful to get different perspectives on the integration of the Center's reports, as this gave a more complete picture of what the Center's involvement has meant to Basin entities. The project team identified four distinct participation timeframes among the interviewees:

1. Individuals who were involved with the Watershed Alliance and/or the Initiative and have continued to be heavily involved with the Partnership through to the present.
2. Individuals who were involved with the Watershed Alliance and/or the Initiative but have scaled back their involvement with water management in recent years.
3. Individuals who were involved at the start of the Partnership and continue to be involved at present, but did not interact with the Initiative or the Ruckelshaus Center's 2006-2007 project.
4. Individuals who were not involved with the Watershed Alliance, Initiative, or the beginning of the Partnership, but have a current perspective on the Partnership and on Walla Walla water issues.

This diversity in participation timeframes allowed the project team to detect several interesting time-based trends in interviewee perspectives (see Part III).

B: Project organization and methodology

Study design and question construction

The Center's evaluation process also had a number of positive characteristics. First, the decision to use qualitative, semi-structured interviewing as the data collection instrument was appropriate given the context of this study. Literature on program evaluation references a number of different instruments, each with its own strengths and weaknesses.^{118 119} Besides interviews, other common instruments include surveys/questionnaires and observation-based studies. The literature stresses that the choice of data collection instrument should arise from the purpose, context, and specific questions driving the evaluation.^{120 121}

Qualitative, semi-structured interviewing worked well for this project because it allowed the project team to collect rich, highly-detailed responses while still asking all interviewees the same set of core questions. If the project team had used fully open-ended interviews, the responses would have still been rich and highly detailed, but comparability across interviewees would have been difficult. In contrast, the use of fixed-response surveys or closed-ended interviews would have allowed for comparability, but at the cost of depth and detail.

The ability to make comparisons across interviewees was important for the rigor and consistency of the projects findings. For example, it would have been difficult (perhaps even dubious) to make conclusions about interviewee perceptions on outcomes or challenges if the data collector did not ask interviewees the same questions about those outcomes or challenges.

Meanwhile, the ability to collect rich, detailed, free-response data was crucial given the nature of the Center's questions and the status as a pilot project. For the questions about use and impact of the Center's reports, the project team did not know what kinds of responses to expect. This context called for an inductive and open-ended approach, rather than confining the interviewees to a set of pre-determined fixed response questions with multiple-choice or Likert-scale answers. The interview responses ultimately ended up being both detailed and diverse; while challenging to code, the approach allowed the Center to learn a great deal, and much of this detail might have been lost with a fixed-response format. As the Center conducts more evaluations, it may be able to start employing a set of fixed-response questions based on common themes emerging across multiple studies. A common set of questions might be useful for cross-case comparisons of similar projects, regardless of format. However, semi-structured interview questions will always play a valuable role in capturing detailed or unexpected insights on the relationship between the client and the Center.

The questions about the outcomes, challenges, and other topics for the Initiative and Partnership were also inductive and free-response. Again, this was appropriate given the context of the study. The Center's questions on these topics asked interviewees to describe, for example, Partnership accomplishments, the greatest successes and challenges, and other non-water impacts. This free-response format allowed the project team to gather a large volume of detailed data on all of these questions. Again, much of this detail would have been missed if the Center had asked closed-ended questions about specific accomplishments, outcomes, or challenges.

For outcome evaluations, the literature also discusses the merits of asking about specific goals, objectives, or other outcome-related items in the subject's logic model.^{122 123} For this project, this approach would have involved questions about specific accomplishments and outcomes in the Partnership's strategic plans (for example, asking interviewees to describe the Partnership's impacts on stream flows). The Center did not take this approach for this project; this alternate strategy may have worked well, but the research team is confident that its chosen method was appropriate for two critical reasons. First, the construction of the questions allowed the project team to hear about items that were not explicitly referenced in the Partnership's logic model; these items would have been overlooked if more specific questions had been used. Second, many interviews ultimately contained information on the Partnership's overtly stated goals and objectives, even without any prompting to discuss those specific items.

The Project Team

Another important component of the Center's project approach was the composition of the project team. The graduate intern benefited from the support of Michael Kern and Molly Stenovec, and several other members of the Center's staff provided helpful advice during the project. Additionally, the input from Dr. Thomas and Dr. Sero was very helpful during question design, data analysis, report editing, and for other incidental issues throughout the evaluation. One of the Center's overall objectives is to use university expertise to assist complex public policy challenges. University involvement can take many forms, and this project is a good example of an effort that benefited from having faculty members act as mentors and project advisors.

Qualitative Software

A final note on the Center's project strategy is the benefit of using qualitative analysis software. The graduate intern used Nvivo 11 Pro to assist with the coding and analysis of the interview data, and this software was tremendously helpful. Nvivo 11 Pro contains a number of functions that are useful for this kind of work, including:

- Organization and display of text linked to specific code(s).
- Assistance organizing the codes, including hierarchical arrangements.
- Ability to work with multiple media sources (including Word documents, Excel spreadsheets, images, video files, and audio files).
- A variety of graphical mapping tools for exploring linkages between interviewees, codes, or concepts. Also helpful for generating images for presentation of results.
- Searches functions (queries) for words, codes, and other components of the data, using Boolean commands.

This type of qualitative software was a major asset for data analysis and management, and the project team recommends that the Center explore using this software on subsequent projects of this nature.

C: Timing positives

There were positives and negatives about the timing of this evaluation project. The timing worked well for exploring the Initiative and Partnership's accomplishments, outcomes, and challenges. However, the timing also created difficulties for the assessment of the Center's previous Walla Walla project. See below for a discussion of the negatives.

In terms of positives, the timing allowed the Center to produce a report that was appropriately matched to the research questions and relevant to Partnership participants. The Initiative started more than ten years ago, and the Partnership has been in formal existence for the last seven years; this has allowed adequate time for the effort to convene participants, organize itself, and then spend a number of years working on program implementation. From the researcher's perspective, sufficient time has elapsed for the Partnership (and the Center) to begin asking meaningful questions about outcomes and impacts, even with the recognition that the Partnership is working on hard problems that will take many years to fully address. In other words, the "maturity" of the Partnership is well-aligned with the Center's research question about tangible impacts. In general, matching timing to research objectives is a critical task when designing an evaluation.¹²⁴

The Partnership is also approaching an important reauthorization milestone, with ten interviewees referencing concerns or potential challenges relating to reauthorization. Many of the Center's findings (especially those related to accomplishments, successes, challenges, and impacts) can be useful for Partnership participants or other entities as the reauthorization conversation unfolds. In this respect, the evaluation is very well-timed in terms of being relevant to the clients.

What did not work well?

A: Timing negatives

While the maturity of the Partnership created a good opportunity to study impacts, it also complicated the Center's efforts to evaluate itself. It has been ten years since the Center carried out its first Walla Walla project, and the passage of time may have inhibited the project team's ability to collect detailed data on this topic. Many of the responses regarding the use of the Center's reports were broad or vague, and a number of respondents mentioned that they could not remember specific details. The lack of specificity could be indicative of the long-term contribution of the Center's project, independent of time (see pages 29-30). However, it could also indicate that interviewees simply do not remember how the reports were used by the Initiative and the Partnership.

There may not be a single "ideal" timespan for the Center to return to a project and conduct this sort of self-evaluation; as with other aspects of evaluation, it is important to match purpose, methods, and timing to the specific context and needs of the parties involved. However, regardless of timing, any project of this nature will have to deal with fading individual and institutional memories. In this particular situation, it may have been more useful to ask about the Center's contribution soon after the submission of Ecology's 2008 Proposal to the Legislature, or within 1-2 years of the formation of the Partnership.

Another timing negative relates to the Center's decision to conduct data collection during the summer of 2016. A key interest group for this evaluation was the Walla Walla farming community. Unfortunately, the summer is a busy time for farmers (particularly the harvest period in August-early September), and this scheduling conflict made it difficult to connect with several key interviewees. The project team ultimately made contact with the appropriate individuals, but for future efforts, it will be important to plan ahead for these scheduling constraints. If constraints exist, it may be important to design an appropriate coping strategy ahead of time. Whenever possible, the Center should try to avoid these types of predictable scheduling conflicts when it plans its projects.

B: Pre-project communication strategy

As noted in the previous sub-section, the project team encountered a few problems contacting and making arrangements with interviewees from specific interest groups. The problems were not prohibitive, but they did cause minor delays during the data collection phase of the project. In future efforts, the project team could proactively alleviate these problems by developing a communication strategy prior to beginning data collection. The general steps for developing this strategy would be:

1. Tentatively identify major interest groups that the project will likely need to contact.
2. Project team members brainstorm any potential barriers to communicating or making interview arrangements with entities in these interest groups. Barriers could include scheduling conflicts, legal issues, or social/cultural norms. Project team members should draw on their own knowledge and the expertise of other Center staff or faculty.
3. Based on these identified barriers, project team members develop a strategy for contacting and scheduling interviews with these interest groups, including: identifying who will make contact, when to send initial communication, how contact will be established, and any other pertinent information that project staff will need to consider when interacting with these interest groups.

Again, the communication and scheduling issues associated with this project were minor and did not affect the quality of the team's findings. However, the effort would have benefited from a more focused and strategic ex-ante approach to identifying and coping with these types of barriers.

C: Suggested improvements for asking interviewees about accomplishments and goal alignment

The data collector asked every interviewee to describe the Partnership's tangible, on-the-ground water management accomplishments, followed by a discussion of the alignment between these accomplishments and the goals of the Partnership and the interviewee. The structure of the three-part question was (reprinted in Appendix B):

5. *What do you think the Partnership has accomplished in terms of tangible or on-the-ground water management?*

Probes:

- a. *How do you think these accomplishments align with the Partnership's goals for itself?*
- b. *How do these accomplishments align with your goals for the Partnership?*

These questions generated a great deal of interesting information on interviewees' goals, perceptions of Partnership goals, and alignment between these goals and the group's accomplishments. However, the fully open-ended nature of these questions presented challenges in data analysis and interpretation, and the project team recommends taking a different approach if goal alignment is a subject in future evaluations.

The project team recommends two alternative approaches for asking this question; the choice of an approach should arise from each project's objectives. The first approach is to ask each interviewee to explicitly articulate their own goals and their understanding of the Partnership's goals, and to then describe the alignment between accomplishments and these goals. The data collector found that slightly less than half of the interviewees explicitly articulated their goals and/or Partnership goals as part of their answer; this information was interesting for the analysis, and it would have been helpful if all interviewees had provided this feedback.

The second approach is to identify organizational goals in strategic plans or other documents, and to then ask interviewees how accomplishments have aligned with each goal. These questions could be open-ended or it could be paired with some kind of Likert Scale, and interviewees could also be asked to explain *why* they think this alignment has occurred. This approach could help strengthen an outcome/impact evaluation because it pulls from the subject's logic model and explicitly asks about performance relative to each articulated goal. It may also be appropriate to pose an open-ended question after asking about each goal, in order to solicit feedback on other goals that might not explicitly appear in the logic model.

D: Evaluating environmental collaboratives-Data complexities and the limitations of this project

Koontz and Thomas (2006) argue that the evaluation of outcomes for environmental collaboratives is a critical but underdeveloped and challenging area of study.¹²⁵ There are numerous normative arguments in favor of collaborative environmental management, so it becomes important for researchers and practitioners to also have appropriate outcome-based evidence. Many evaluation studies and frameworks focus on assessing collaborative processes and outputs; while important, these features are not always good proxies for environmental outcomes.¹²⁶ Unfortunately, it is also very difficult to obtain concrete evidence of environmental outcomes due to data limitations, complexities in environmental systems, and the long timeframe often necessary to show these outcomes.¹²⁷ Data is a particular challenge for outcome evaluation due to the need to show both ex-ante and ex-post conditions, and to then isolate the influence of the collaborative in question from the influence of other confounding factors.^{128 129} These issues echo the broader challenges facing the Center and its peers regarding the ability to evaluate projects of any type.

With this context in mind, this pilot evaluation contributes to an important (and underdeveloped) field of research for academics and practitioners alike. This pilot evaluation attempts to explore the outcomes associated with the Initiative and the subsequent Partnership, among many other related topics. As previously described, this project is particularly relevant given the pending reauthorization of the Partnership and the ongoing interest in innovative approaches to water management in the western United States.

However, it is important to discuss the methodological limitations of the Center's approach. Koontz and Thomas note the extensive data requirements that are necessary for a highly rigorous evaluation

of collaborative environmental outcomes. The authors also talk about the constraints to obtaining and using this data, and these constraints were highly relevant for this pilot evaluation. For this particular situation, the Center was not able to generate, acquire, or analyze the kind of highly detailed ex-ante and ex-post environmental or socio-economic data that can lead to conclusive findings from an academic standpoint.

Instead, the project team's investigation relied on interviewee perceptions of the Partnership, and this reliance on perceptions has positives and negatives when thinking about outcome evaluation. On the positive side, the project benefited from the firsthand experiences of individuals who are highly knowledgeable about the subject; these insights are critical because the Center did not have the capacity to conduct a multi-year, data intensive analysis of conditions in the Walla Walla Basin. On the other hand, perceptions are vulnerable to the "halo effect" where interviewees' perceptions of collaborative environmental outcomes are positively skewed due to favorable opinions of the effort.^{130 131}

These observations are not necessarily a negative, but rather an acknowledgement the realities of the project. Indeed, other studies facing similar constraints have used the same types of methods with effectiveness.^{132 133} A more data-intensive evaluation was not needed nor asked for here, and the project team's approach was appropriate given the Center's objectives and constraints. This report's findings are sufficient for:

- Informing interested entities about key developments in the Walla Walla Basin
- Catalyzing conversations within the Partnership regarding accomplishments and areas needing attention
- Summarizing what the participants and others think about the status of the effort
- Highlighting the Center's previous contributions
- Supporting the development of the evaluation framework

As the following section describes, an important part of evaluation is aligning evaluation needs, objectives, questions, and methods, and this evaluation project has done all of this quite effectively.

How can the Center fund evaluations and make this work a regular part of its programming?

A: Making the evaluation relevant for multiple entities

The project yields some interesting lessons about how the Center can make evaluation a more regular part of its work. Perhaps the biggest takeaway is the importance of making the evaluation useful for the Center *and* for its sponsors and/or involved parties. For the evaluation of the Initiative, the Center was wise to use a twin-objective approach. As stated in the introduction, the Center's two objectives in this project were to (1) investigate the effectiveness and applicability of the Ruckelshaus Center's previous contributions to the development of the Walla Walla Watershed Management Partnership and (2) explore the outcomes, challenges and opportunities that have emerged during the implementation of this Partnership. By pursuing both objectives, this evaluation project put itself in a position to provide useful information both for the Center and for the entities

within the Walla Walla Basin. Ultimately, the final product of the evaluation (this report) was able to fulfill both objectives, thereby attracting participation and funding from diverse parties in the Walla Walla Basin.

The Center should consider applying this same twin-objective, multi-audience approach to future evaluation projects. An evaluation project of this nature depends on participation from relevant entities and accessibility to sufficient funding. In terms of participation, relevant entities will be more likely to take part if the evaluation results will be useful to the wider community or policy setting. In terms of funding, the Center must be able to demonstrate the usefulness of the evaluation to either a project sponsor/participant or a foundation with interests in the community, region, or policy issue. The concept of “utilization-focused evaluation” relates to this theme, with authors such as Michael Quinn Patton stressing the importance of building evaluations so they will be useful (and therefore *used*) by the groups that are participating.¹³⁴

One method of creating a useful evaluation is to take a “participatory” approach to the effort. A participatory approach refers to the involvement of relevant external entities in project design, implementation, and/or interpretation of the evaluation results. Some of the higher levels of participation may be inappropriate given the Center’s status as a neutral third party. However, consultation with relevant entities during the project design stage can yield helpful insights on the evaluation context and the entities’ needs without compromising the neutrality of the undertaking. In this pilot effort, members of the project team had early conversations with Megan Clubb and several other key informants in order to get a better understanding of the Initiative, Partnership, water management context, and what kinds of topics would be useful or interesting to Walla Walla entities. These early conversations helped the project team create an evaluation that met the Center’s twin objectives while maintaining the appropriate neutral posture.

B: Match objectives, design, and specific questions to the context and the needs of both the Center and other relevant entities

In order to make an evaluation project useful for itself and for other relevant entities, the Center should match the evaluation objectives, research design, and specific questions to the project context and to the needs of the entities that will be participating and/or funding the effort. Within this theme, the evaluation literature suggests identifying objectives first, matching questions to objectives, and then matching design/methods to those questions (with context and needs playing a role throughout).^{135 136} The pre-project consultative approach described in the previous section can help the Center acquire the necessary information for this task without compromising its neutrality. Many factors will likely affect the objectives, design, and questions; specific considerations include (but are not limited to):

- The nature of the Center’s involvement in the policy setting:
 - Project type
 - Duration of involvement
 - Relationship with relevant entities
 - Ability to leverage networks with Advisory Board members, staff, affiliated universities, or peer institutions

- Characteristics of the policy setting and the specific initiative or effort of interest:
 - Status of the issue(s)
 - Location
 - Number of entities involved
 - Involved entities' goals, metrics, and definitions of success
- The types of information that the Center and relevant entities want to learn about:
 - Effectiveness and applicability of the Center's involvement
 - Participant satisfaction with the Center, with the implementation of a collaborative process, or with collaborative outcomes
 - Opportunities for mid-point process changes
 - Outputs, outcomes, or impacts of a collaborative effort arising from the Center's involvement
 - Lessons learned for future efforts
- Timing of the evaluation:
 - Time elapsed since Center's involvement (if applicable)
 - Location in the lifecycle of the project or the collaborative process
- The Center's own needs:
 - The type of information that the Center wants to learn about itself
 - What the Center plans to do with the evaluation results
 - The Center's own goals, metrics, and definitions of success

A key takeaway is that no two evaluation projects will be identical. Therefore, in developing its evaluation framework, the Center should balance replicability with flexibility. The Center can (and should) develop a consistent framework that allows for cross-case comparisons while still allowing for adaptation to each situation. Every project will be responding to unique needs and situations, which will necessitate slightly different approaches. The literature on evaluation offers extensive advice on how to align objectives, questions, design, needs and context, so this report will not go into great depth here. For more information on these topics, please see the suggested reading list on page 18.

C: Data for the evaluation

Evaluation is often a data-intensive process, whether that data is qualitative or quantitative, perception-based or rooted in field measurements. Specific needs depend on the type of information that the Center wants to collect. This pilot evaluation looked at outcomes/impacts, accomplishments and challenges, which necessitated access to information on processes and outputs (in addition to the interview data on the actual questions). Having ex-ante and ex-post data is useful for outcome or impact evaluation, while an evaluation looking at activities or outputs requires information on this subjects. Despite the importance of data, the Center may not always have the capacity to collect all of the information for the evaluation. In recognition of this, the project team makes the following suggestions for future evaluations and other types of projects:

- *Develop an evaluation plan at the front-end of new projects:* In situations where the Center has a sustained relationship with a project and its sponsor(s), the Center should conduct pre/post or midpoint evaluations, in addition to the post-project format of the pilot. Collecting data at the start and end of a project (pre and post) can help the Center make stronger conclusions about the outcomes of its involvement or the outcomes of the overall effort. Periodic mid-point evaluations can help the Center, the sponsor(s), and the participants identify deficiencies and make appropriate corrections. This will require the Center and its clients to agree on an evaluation plan at the front end of a project, and the Center will need to ensure that it has the capacity to follow-through on this plan during the course of its involvement.
- *Encourage project sponsors or participants to collect process, output, or outcome data:* In situations where the Center conducts a project and moves on relatively quickly (such as the 2006-2007 Walla Walla effort), the Center should encourage project sponsors and participants to collect data on their own activities, outputs, and outcomes after the Center leaves. The availability of this data will be useful if the Center returns to conduct a post-project evaluation, or if the sponsor/participants wish to evaluate themselves. This recommendation is also applicable for longer-term projects, since the Center may not have the capacity to do all the data collection itself.
- *Offer evaluation capacity-building as a component of fee-for-service projects:* Project sponsors and participants may not know how to conduct their own evaluations or may not see the purpose of doing so. Therefore, the Center should consider incorporating evaluation capacity-building into its services for sponsors. By equipping sponsors to conduct their own data collection and evaluation, the Center is ultimately aiding itself and those sponsors. This is an excellent opportunity to leverage the expertise of the UW Evans School and WSU Extension. Evaluation scholars and practitioners refer to the concept of “empowerment evaluations” as evaluation efforts with the specific goal of teaching entities how to become familiar with the practice of evaluation.¹³⁷

D: Suggested Reading

Emerson, K. and Nabatchi, T. 2015. *Collaborative Governance Regimes*. Washington, D.C: Georgetown University Press. [specifically the chapter on evaluating collaborative governance regimes]

Foster, Alan. June 2011. *Evaluating Alternative Dispute Resolution Projects: Review and Recommendations for the William D. Ruckelshaus Center*. Prepared for the William D. Ruckelshaus Center.

Orr, P.J., Emerson, K., and Keyes, D.L. 2008. Environmental conflict resolution practice and performance: An evaluation framework. *Conflict Resolution Quarterly*, 25(3), 283-301.

Patton, M.Q. 2012. *Essentials of Utilization-Focused Evaluation*. Thousand Oaks, CA: Sage Publishing.

Rossi, P.H., Lipsey, M.W., and Freeman, H.E. 2007. *Evaluation: A Systematic Approach*, 7th Edition. Thousand Oaks, CA: Sage Publications.

Taylor-Powell, E., Rossing, B., and Geran, J. July 1998. *Evaluating Collaboratives: Reaching the Potential*. University of Wisconsin Cooperative Extension. Madison, WI.

Appendix A: Timeline of Water Management Milestones, 1970-present

1977: The Washington Department of Ecology adopts the first iteration of the Water Resources Program Rule for the Washington side of the Basin.

June 10, 1998: The U.S. Fish & Wildlife Service lists the bull trout (*Salvelinus confluentus*) as threatened under the Endangered Species Act (ESA).

March 25, 1999: The U.S. National Marine Fisheries Service (NMFS) lists the Middle Columbia River summer steelhead (*Oncorhynchus mykiss*) as threatened under the ESA.

January 2000: The U.S. Fish & Wildlife Service serves notice to irrigation districts in the Walla Walla Basin regarding potential ESA violations due to the districts' otherwise legal diversions of irrigation water from the Walla Walla River in 1998 and 1999. These potential ESA violations involve the taking of listed bull trout.

June 2000: Three of the Basin's irrigation districts (Gardena Farms Irrigation District #13, Hudson Bay District Improvement Company, and Walla Walla River Irrigation District) enter into a settlement agreement with the Fish & Wildlife Service. The settlement agreement provides a mechanism for addressing the irrigators' potential civil liability for the take of bull trout. Under the agreement, irrigators agree leave up to 25% of their allocated water in the river while also making a number of changes to irrigation practices. The settlement agreement is supported by the CTUIR and local environmental groups.

May 2004: The WRIA 32 Planning Unit, Walla Walla Basin Watershed Council, and Northwest Power and Conservation Council complete the *Walla Walla Subbasin Plan*, with an emphasis on aquatic and terrestrial habitat concerns and mitigation actions for hydropower development.

May 2005: The WRIA 32 Planning Unit completes the *Walla Walla Watershed Management Plan*. This planning process is carried out under the state's Watershed Planning Act (RCW 90.82) with funding from the Washington State Department of Ecology. The Plan specifies management actions to addresses water quantity, water quality, aquatic habitat, and instream flows (WA side of the Basin only).

August 2005: The Oregon Department of Environmental Quality completes the *Walla Walla Subbasin Stream Temperature Total Maximum Daily Load [TMDL] and Water Quality Management Plan*. The objective of this document is to address elevated water temperature in the Walla Walla River (and several tributaries) on the Oregon side of the Basin. The TMDL and associated plan are prepared under Section 303(d) of the federal Clean Water Act, and a number of federal, state, and local Basin entities contribute to the effort.

Late 2005-early 2006: After a dialogue between Ecology and a group of Walla Walla stakeholders, Ecology Director Jay Manning makes an offer to the Walla Walla community to "partner with the Department of Ecology to explore a new concept for managing water resources at the watershed level" (Ecology, 2008). This new concept would involve Ecology seeking the needed authority (from the state Legislature) to allow for a greater degree of local water management in the Walla Walla

Basin. Manning articulated this offer at a public meeting of Walla Walla water stakeholders on January 25, 2006. Basin stakeholders ultimately accept Manning's offer, and formal work begins.

2006:

- The Washington State legislature provides \$150,000 in Ecology's Supplemental Capital Budget for the agency to "support the development and demonstration of water management measures in the Walla Walla Water Basin" (Ecology, 2006). The budget allocation carries an expectation that DOE will report its progress and significant findings to the Legislature.
- Ecology holds workshops, in-field forums, and site visits in the Walla Walla area. During these events, the agency speaks with in-basin and out-of-basin organizations in order to share plans for the WMI, solicit feedback, and obtain commitments of support. Meanwhile, WA and OR leaders hold discussions to "identify interstate issues and barriers" relating to the Water Management Initiative (Ecology, 2006).

June 15, 2006: A *Working Draft Walla Walla Water Management Initiative* is published.

October 18, 2006: The Walla Walla Watershed Alliance, Walla Walla Community College, and Walla Walla Watershed Management Council cosponsor a Community Action & Innovation for Watershed Sustainability Conference in Walla Walla. One day of the Conference is devoted to discussing and presenting the Walla Walla Water Management Initiative including a presentation by Director Manning.

December 2006: The Snake River Salmon Recovery Board completes the *S Snake River Salmon Recovery Plan for SE Washington*. This plan covers the Walla Walla and Snake River Basins, addressing a range of issues relating to salmon recovery, including habitat, hatcheries, hydropower, and harvesting.

2007: The William A. Grant Water & Environmental Center opens at Walla Walla Community College. This 10,758 ft² facility includes meeting spaces for community events as well as offices for WWCC educational programs and co-locating organizations.

January & June 2007: The Ruckelshaus Center completes two reports in connection with its contract with Ecology to assist the Water Management Initiative.

August 2007: Ecology adopts amendments to the *Water Resources Program for the Walla Walla River Basin* (Chapter 173-532), addressing issues such as instream flows, closures, mitigation requirements, and high flow approval procedures. These amendments are the result of over a year of negotiated rulemaking and public participation processes involving Basin stakeholders and Ecology.

2008: The Washington State Legislature provides Ecology with \$195,000 for fiscal year 2009, "solely to support a collaborative process to design a proposed comprehensive water management structure for the Walla Walla River Basin" (Ecology, 2008). DOE is also expected to file a report with the Governor and Legislature "outlining the proposed governance and water management structure" by 11-15-2008 (Ecology, 2008). The requirements are outlined by a proviso in Section 302 (29) of the 2008 Supplemental budget.

December 2008:

- Ecology and Walla Walla County submit *A Proposal for a Pilot Local Water Management Program in the Walla Walla Basin* to the Governor and the State Legislature.
- Ecology completes the *Walla Walla Watershed PCBs, Chlorinated Pesticides, Fecal Coliform, Temperature, pH, and Dissolved Oxygen TMDL & Water Quality Implementation Plan* for the Washington side of the Basin. This is the Washington equivalent of Oregon's TMDL. Over a dozen Basin entities participated in this planning process and committed to taking action under the TMDL.

January 23, 2009: HB 1580-*Establishing a pilot local water management program in one qualified jurisdiction* is first read in the state House of Representatives.

April 2009: The second substitute HB 1580 passes the House and Senate on April 18 and 19, respectively. The bill is delivered to Governor Gregoire on April 20 and signed into law on April 23. The bill is classified under Chapter 183, Laws of 2009, (RCW 90.92). The provisions of this bill enable the creation of a pilot local water management program on the Washington side of the Walla Walla Basin

July 24, 2009: The initiating entities in the Walla Walla Basin collectively submit a petition to Ecology requesting establishment of the Walla Walla Watershed Management Partnership as a local water management board under the enabling legislation.

August 11, 2009: The Walla Walla Watershed Management Partnership is established with the approval of the Ecology. The Partnership begins implementing its water management tools and programs soon after this date.

2011: Work concludes on a 15,998 ft² expansion of the WWCC Water and Environmental Center. This new wing includes laboratories, classrooms, and additional office space.

December 2012: The Partnership submits an *Interim Progress Report* to the Washington State Legislature, as required by the Partnership's enabling legislation. This report summarizes the Partnership's activities and accomplishments between its start date and November 30, 2012.

January 2013: The U.S. Army Corps of Engineers publishes a *No Action Report* in connection to its Walla Walla River Ecosystem Restoration Feasibility Study (jointly implemented with the CTUIR). The report identified two water exchange and irrigation efficiency alternatives that "were cost effective" and "could reasonably maximize benefits that could be realized from this project" (USACE, 2013). However, the report does not make a recommendation, and no action is pursued at this time, due to "the inability to secure instream flows" necessary for the project (USACE, 2013). The CTUIR Board of Trustees had previously endorsed the No Action decision in December 2012.

2014: The Partnership and the Walla Walla Basin Watershed Council (WWBWC) begin work on a new *Walla Walla Basin Integrated Flow Enhancement Study*. The effort involves a number of other Basin entities working through a variety of committees, and receives grant funding from the Department of Ecology's Office of Columbia River.

December 2016

July 20, 2015: The Partnership and WWBWC submit an Interim Progress Report for the Walla Walla Basin Integrated Flow Enhancement Study. The Report identifies large scale surface water storage or a Columbia River pump exchange as two potential strategies to meet long-term instream flow targets.

December 2015: The Partnership submits its second *Interim Progress Report* to the Washington State Legislature. This report summarizes the Partnership's activities and accomplishments between December 2012 and November 2015.

Appendix B: List of Interview Questions

Part 1: Introductory Questions

1. What was your affiliation during your time interacting with the Partnership?
2. Could you describe your role within the Partnership?

Part 2: Core Evaluation Questions

1. Could you briefly describe how water resources were governed in the Walla Walla Basin prior to the beginning of the Partnership's work?
2. How have the water resource governance capacities within the Walla Walla Basin changed in the time since the Partnership began its work?
 - a. *Initial prompt:* How has this management situation changed in the time since the Partnership began its work?
3. In your view, what factors have contributed to these changes? Why?
4. What aspects of water resource governance have not changed since the Partnership began its work? Why?
5. What do you think the Partnership has accomplished in terms of tangible or on-the-ground water management?
 - a. How do you think these accomplishments align with the Partnership's goals for itself?
 - b. How do these accomplishments align with *your* goals for the Partnership?
6. What do you see as being the greatest success or successes of the Partnership?
7. On the other hand, what do you believe have been the greatest challenges that the Partnership has faced?
 - a. How have these challenges been addressed?

8. Moving beyond water management, can you think of any other notable impacts that have come about as a result of the Partnership?
9. Looking ahead to the future, can you think of any challenges that the Partnership will need to address in the next few years?
10. Now, changing subjects slightly, how do you think the Ruckelshaus Center's involvement contributed to the ongoing work of the Partnership?
 - a. How did the Partnership incorporate the Center's contributions into its work?
 - b. Can you think of any specific findings, recommendations, or other components of the Center's contributions that were particularly helpful for the Partnership? If so, please describe them.
 - c. Can you think of any parts of the Center's contribution that did not work out in practice? If so, please describe them.
11. Based on your experience working with the Ruckelshaus Center, what could the Center do to make its services more helpful and relevant for future clients?

Part 3: Wrap-up questions

1. Who do you think it is important we talk to as part of our evaluation?
2. What should I have asked you today that I did not?

Appendix C: List of Interviewees

Reader's note: Inclusion on this list was voluntary

Name	Affiliation(s)
Hedia Adelsman	WA Department of Ecology (retired)
Jerry Anhorn	Walla Walla Community College
Jim Barrow	Walla Walla City Council (Mayor Pro Tem)
Ron Brown	Walla Walla River Irrigation District, Watermill Winery
Edward Chvatal, Jr.	Walla Walla County Conservation District, Chvatal Farms
Megan Clubb	Baker Boyer Bank, L'Ecole No. 41 Winery
Perry Dozier	Walla Walla County Commissioners
Gov't agency staff	Confederated Tribes of the Umatilla Indian Reservation
Renee Hadley	Walla Walla County Conservation District
Eric Hartwig	WA Department of Ecology (Walla Walla)
Chris Hyland	Walla Walla Watershed Management Partnership
Judith Johnson	Kooskooskie Commons
Steve Martin	Snake River Salmon Recovery Board
Rob McDaniel	Washington State University Extension
Frank Nicholson	City of Walla Walla Public Utilities Department
Grant Pfeifer	WA Department of Ecology (Spokane Regional Office)
Teresa Kilmer	Walla Walla River Irrigation District
Bob Ruper	Nelson Irrigation Company
Cathy Schaeffer	Walla Walla Watershed Management Partnership (fmr.)
Kevin Scribner	Vinea, Salmon-Safe
Hal Thomas	City of Walla Walla Public Utilities Department (fmr.)
Steven VanAusdle	Walla Walla Community College (retired)
Mark Wagoner	Gardena Farms Irrigation District 13
Brian Wolcott	Walla Walla Basin Watershed Council

Appendix D: References

¹ Foster, Alan. June 2011. *Evaluating Alternative Dispute Resolution Projects: Review and Recommendations for the William D. Ruckelshaus Center*. Prepared for the William D. Ruckelshaus Center.

² Ruckelshaus Center. January 2007. *The Walla Walla Water Management Initiative: Insights on Design and Implementation from Innovative Water Management Efforts*. The William D. Ruckelshaus Center. Washington State University and the University of Washington.

³ Siemann, Dan and Martin, Steve. July 2007. *Managing Many Waters: An Assessment of Capacities for Implementing Water and Fish Improvements in the Walla Walla Basin*. The William D. Ruckelshaus Center. Washington State University and the University of Washington.

⁴ Chapter 90.92 RCW. Pilot Local Water Management Program. 2009 c 183.

⁵ Siemann, Dan and Martin, Steve. *Managing Many Waters: An Assessment of Capacities for Implementing Water and Fish Improvements in the Walla Walla Basin*. The William D. Ruckelshaus Center. Washington State University and the University of Washington. July 2007.

⁶ Ibid

⁷ Walla Walla Basin Watershed Council. April 2004. *Walla Walla Subbasin Plan-Appendix B: Walla Walla Subbasin Assessment: General Overview Components*. Prepared for the Northwest Power & Conservation Council. https://www.nwcouncil.org/media/22817/AppB_WW_Sub_Assmt.pdf.

⁸ Ibid

⁹ Childs, Allen B. *Sponsor Report Narrative Fiscal Year 2010-2012: Rainwater Wildlife Area (Project #200002600)*. Confederated Tribes of the Umatilla Indian Reservation. <https://www.nwcouncil.org/media/2010wildlife/1003.pdf>.

¹⁰ "Quick Facts: Walla Walla (City)." 2015. United States Census Bureau. <http://www.census.gov/quickfacts/table/PST045215/5375775,53071>.

¹¹ Ruckelshaus Center. January 2007. *The Walla Walla Water Management Initiative: Insights on Design and Implementation from Innovative Water Management Efforts*. The William D. Ruckelshaus Center. Washington State University and the University of Washington.

¹² Ibid

¹³ Ibid

¹⁴ Ibid

¹⁵ Ibid

¹⁶ Ibid

¹⁷ Ibid

¹⁸ Marti, Pamela B. August 2005. *Assessment of surface water and groundwater interchange in the Walla Walla River Watershed*. Washington State Department of Ecology. Waterbody Report No. WA-32-1010. Publication No. 05-03-020. <https://fortress.wa.gov/ecy/publications/documents/0503020.pdf>.

¹⁹ Ibid

²⁰ Ibid

²¹ Marti, Pamela B. August 2005. *Assessment of surface water and groundwater interchange in the Walla Walla River Watershed*. Washington State Department of Ecology. Waterbody Report No. WA-32-1010. Publication No. 05-03-020. <https://fortress.wa.gov/ecy/publications/documents/0503020.pdf>.

²² Watershed Strategies, LLC. July 2015. *Walla Walla Bi-state Stream Flow Enhancement Study Interim Progress Report*. Prepared for the Walla Walla Watershed Management Partnership & the Walla Walla Basin Watershed Council. https://www.oregon.gov/owrd/docs/Place/NC_07_05_WallaWalla_OWRDPBPLIOIAttach_120715.pdf.

²³ Marti, Pamela B. August 2005. *Assessment of surface water and groundwater interchange in the Walla Walla River Watershed*. Washington State Department of Ecology. Waterbody Report No. WA-32-1010. Publication No. 05-03-020. <https://fortress.wa.gov/ecy/publications/documents/0503020.pdf>.

²⁴ Watershed Strategies, LLC. July 2015. *Walla Walla Bi-state Stream Flow Enhancement Study Interim Progress Report*. Prepared for the Walla Walla Watershed Management Partnership & the Walla Walla Basin Watershed Council. https://www.oregon.gov/owrd/docs/Place/NC_07_05_WallaWalla_OWRDPBPLIOIAttach_120715.pdf.

²⁵ Marti, Pamela B. August 2005. *Assessment of surface water and groundwater interchange in the Walla Walla River Watershed*. Washington State Department of Ecology. Waterbody Report No. WA-32-1010. Publication No. 05-03-020. <https://fortress.wa.gov/ecy/publications/documents/0503020.pdf>.

²⁶ Ibid

²⁷ Ibid

²⁸ Pacific Groundwater Group, Northwest Hydraulic Consultants, Inc. May 1995. *Draft Initial Watershed Assessment: Water Resources Inventory Area 32: Walla Walla River Watershed*. Prepared for Washington Department of Ecology. Open-File Technical Report 95-11. <https://fortress.wa.gov/ecy/publications/documents/95011.pdf>.

²⁹ Ibid

³⁰ Walla Walla Basin Watershed Council. April 2004. *Walla Walla Subbasin Plan-Appendix B: Walla Walla Subbasin Assessment: General Overview Components*. Prepared for the Northwest Power & Conservation Council. https://www.nwcouncil.org/media/22817/AppB_WW_Sub_Assmt.pdf.

³¹ Ibid

³² Ibid

³³ Pacific Groundwater Group, Northwest Hydraulic Consultants, Inc. May 1995. *Draft Initial Watershed Assessment: Water Resources Inventory Area 32: Walla Walla River Watershed*. Prepared for Washington Department of Ecology. Open-File Technical Report 95-11. <https://fortress.wa.gov/ecy/publications/documents/95011.pdf>.

³⁴ Ruckelshaus Center. January 2007. *The Walla Walla Water Management Initiative: Insights on Design and Implementation from Innovative Water Management Efforts*. The William D. Ruckelshaus Center. Washington State University and the University of Washington.

³⁵ Siemann, Dan and Martin, Steve. July 2007. *Managing Many Waters: An Assessment of Capacities for Implementing Water and Fish Improvements in the Walla Walla Basin*. The William D. Ruckelshaus Center. Washington State University and the University of Washington.

³⁶ "First Foods and Life Cycles." Confederated Tribes of the Umatilla Indian Reservation. <http://ctuir.org/history-culture/first-foods>.

³⁷ Ibid

³⁸ “History of CTUIR.” Confederated Tribes of the Umatilla Indian Reservation. <http://ctuir.org/history-culture/history-ctuir>.

³⁹ Ibid

⁴⁰ Walla Walla Basin Watershed Council. April 2004. *Walla Walla Subbasin Plan-Appendix B: Walla Walla Subbasin Assessment: General Overview Components*. Prepared for the Northwest Power & Conservation Council. https://www.nwcouncil.org/media/22817/AppB_WW_Sub_Assmt.pdf.

⁴¹ Kershner, Jim. November 2013. “Irrigation in the Walla Walla River Valley.” *HistoryLink.org*. Essay 10660. <http://www.historylink.org/File/10660>.

⁴² Siemann, Dan and Martin, Steve. July 2007. *Managing Many Waters: An Assessment of Capacities for Implementing Water and Fish Improvements in the Walla Walla Basin*. The William D. Ruckelshaus Center. Washington State University and the University of Washington.

⁴³ Ibid

⁴⁴ Ruckelshaus Center. January 2007. *The Walla Walla Water Management Initiative: Insights on Design and Implementation from Innovative Water Management Efforts*. The William D. Ruckelshaus Center. Washington State University and the University of Washington.

⁴⁵ Marti, Pamela B. August 2005. *Assessment of surface water and groundwater interchange in the Walla Walla River Watershed*. Washington State Department of Ecology. Waterbody Report No. WA-32-1010. Publication No. 05-03-020. <https://fortress.wa.gov/ecy/publications/documents/0503020.pdf>.

⁴⁶ Walla Walla Basin Watershed Council. April 2004. *Walla Walla Subbasin Plan-Appendix B: Walla Walla Subbasin Assessment: General Overview Components*. Prepared for the Northwest Power & Conservation Council. https://www.nwcouncil.org/media/22817/AppB_WW_Sub_Assmt.pdf.

⁴⁷ Ibid

⁴⁸ Ibid

⁴⁹ Ruckelshaus Center. January 2007. *The Walla Walla Water Management Initiative: Insights on Design and Implementation from Innovative Water Management Efforts*. The William D. Ruckelshaus Center. Washington State University and the University of Washington.

⁵⁰ Walla Walla Basin Watershed Council. April 2004. *Walla Walla Subbasin Plan-Appendix B: Walla Walla Subbasin Assessment: General Overview Components*. Prepared for the Northwest Power & Conservation Council. https://www.nwcouncil.org/media/22817/AppB_WW_Sub_Assmt.pdf.

⁵¹ Siemann, Dan and Martin, Steve. July 2007. *Managing Many Waters: An Assessment of Capacities for Implementing Water and Fish Improvements in the Walla Walla Basin*. The William D. Ruckelshaus Center. Washington State University and the University of Washington.

⁵² Walla Walla Basin Watershed Council. April 2004. *Walla Walla Subbasin Plan-Appendix B: Walla Walla Subbasin Assessment: General Overview Components*. Prepared for the Northwest Power & Conservation Council. https://www.nwcouncil.org/media/22817/AppB_WW_Sub_Assmt.pdf.

⁵³ Ibid

⁵⁴ Siemann, Dan and Martin, Steve. July 2007. *Managing Many Waters: An Assessment of Capacities for Implementing Water and Fish Improvements in the Walla Walla Basin*. The William D. Ruckelshaus Center. Washington State University and the University of Washington.

-
- ⁵⁵ EMSI. 2011. *Revisiting the Economic Impacts of the Walla Walla Wine Cluster*. Economic Modeling Specialists, Inc. Moscow, ID. https://www.wvcc.edu/CMS/fileadmin/wine/DOCS/Revisiting_the_Economic_Impacts_of_the_Walla_Walla_Wine_Cluster_EMSI.pdf.
- ⁵⁶ “Walla Walla Wineries, Wine County, and Wines.” 2016. *Wines Northwest*. <http://www.winesnw.com/walla.html>.
- ⁵⁷ “Public Works Department: Water.” 2016. *City of Walla Walla*. <http://www.wallawallawa.gov/depts/publicworks/water>.
- ⁵⁸ Ibid
- ⁵⁹ Ibid
- ⁶⁰ Siemann, Dan and Martin, Steve. July 2007. *Managing Many Waters: An Assessment of Capacities for Implementing Water and Fish Improvements in the Walla Walla Basin*. The William D. Ruckelshaus Center. Washington State University and the University of Washington.
- ⁶¹ Ibid.
- ⁶² Walla Walla Basin Watershed Council. April 2004. *Walla Walla Subbasin Plan-Appendix B: Walla Walla Subbasin Assessment: General Overview Components*. Prepared for the Northwest Power & Conservation Council. https://www.nwcouncil.org/media/22817/AppB_WW_Sub_Assmt.pdf.
- ⁶³ Marti, Pamela B. August 2005. *Assessment of surface water and groundwater interchange in the Walla Walla River Watershed*. Washington State Department of Ecology. Waterbody Report No. WA-32-1010. Publication No. 05-03-020. <https://fortress.wa.gov/ecy/publications/documents/0503020.pdf>.
- ⁶⁴ Washington Department of Ecology. November 2006. *Overview of the Walla Walla (WRLA 32) Water Resources Program Rule*. Washington State Department of Ecology. Publication No. 06-11-042. <https://fortress.wa.gov/ecy/publications/publications/0611042.pdf>.
- ⁶⁵ Ibid
- ⁶⁶ “First Foods and Life Cycles.” Confederated Tribes of the Umatilla Indian Reservation. <http://ctuir.org/history-culture/first-foods>.
- ⁶⁷ Walla Walla Basin Watershed Council. April 2004. *Walla Walla Subbasin Plan-Appendix B: Walla Walla Subbasin Assessment: General Overview Components*. Prepared for the Northwest Power & Conservation Council. https://www.nwcouncil.org/media/22817/AppB_WW_Sub_Assmt.pdf.
- ⁶⁸ “History of CTUIR.” Confederated Tribes of the Umatilla Indian Reservation. <http://ctuir.org/history-culture/history-ctuir>.
- ⁶⁹ Siemann, Dan and Martin, Steve. July 2007. *Managing Many Waters: An Assessment of Capacities for Implementing Water and Fish Improvements in the Walla Walla Basin*. The William D. Ruckelshaus Center. Washington State University and the University of Washington.
- ⁷⁰ Washington Department of Ecology. October 2006. Adjudication List of Active, Completed, and Incomplete Adjudications; Areas Petitioned for Adjudication. http://www.ecy.wa.gov/programs/wr/rights/Images/pdf/adj_complete_inc_petioned.pdf.
- ⁷¹ “Water Right Adjudications.” Washington Department of Ecology. <http://www.ecy.wa.gov/programs/wr/rights/adjhome.html>.

⁷² Siemann, Dan and Martin, Steve. July 2007. *Managing Many Waters: An Assessment of Capacities for Implementing Water and Fish Improvements in the Walla Walla Basin*. The William D. Ruckelshaus Center. Washington State University and the University of Washington.

⁷³ Washington Department of Ecology. November 2006. *Overview of the Walla Walla (WRLA 32) Water Resources Program Rule*. Washington State Department of Ecology. Publication No. 06-11-042.
<https://fortress.wa.gov/ecy/publications/publications/0611042.pdf>.

⁷⁴ Ibid

⁷⁵ Ibid

⁷⁶ Siemann, Dan and Martin, Steve. July 2007. *Managing Many Waters: An Assessment of Capacities for Implementing Water and Fish Improvements in the Walla Walla Basin*. The William D. Ruckelshaus Center. Washington State University and the University of Washington.

⁷⁷ Ibid

⁷⁸ Ibid

⁷⁹ Kershner, Jim. November 2013. "Irrigation in the Walla Walla River Valley." *HistoryLink.org*. Essay 10660.
<http://www.historylink.org/File/10660>.

⁸⁰ "Gardena Farms Irrigation District 2800 & North Lateral Pipeline." n.d. Gardena Farms Irrigation District #13.
<http://www.wvccd.net/district-projects/gfid-2800-and-north-pipeline>.

⁸¹ Columbia River Inter-Tribal Fish Commission. 2012. *Walla Walla River Spring Chinook Reintroduction: A Tribal Success Story*. <http://critfc.org/wp-content/uploads/2012/11/success-walla-walla.pdf>.

⁸² Siemann, Dan and Martin, Steve. July 2007. *Managing Many Waters: An Assessment of Capacities for Implementing Water and Fish Improvements in the Walla Walla Basin*. The William D. Ruckelshaus Center. Washington State University and the University of Washington.

⁸³ "Walla Walla Basin Habitat Conservation Plan-Project Year: 2001 to 2008." 2014. Walla Walla Basin Watershed Council. <http://www.wwbwc.org/assessment/55-ww-hcp.html>.

⁸⁴ Oregon DEQ. August 2005. *Walla Walla Subbasin: Stream Temperature Total Maximum Daily Load and Water Quality Management Plan*. State of Oregon Department of Environmental Quality. Pendleton, OR.
<http://www.deq.state.or.us/wQ/tmdls/docs/umatillabasin/wallawalla/tmdlwqmp.pdf>.

⁸⁵ Baldwin, K., Gray, D., and Jones, J. December 2008. *Walla Walla Watershed PCBs, Chlorinated Pesticides, Fecal Coliform, Temperature, pH & Dissolved Oxygen Total Maximum Daily Load Water Quality Implementation Plan*. Washington State Department of Ecology. Publication No. 08-10-094. Olympia, WA.
<https://fortress.wa.gov/ecy/publications/documents/0810094.pdf>.

⁸⁶ USACE. January 2013. *Walla Walla River Basin No Action Report [Draft]*. United States Army Corps of Engineers Walla Walla District. http://www.wwbwc.org/images/Projects/Assessments/USACE_Study/1-WWGI_DraftNoActionReport_Jan2013.pdf.

⁸⁷ Ibid

⁸⁸ Washington Department of Ecology. November 2006. *Overview of the Walla Walla (WRLA 32) Water Resources Program Rule*. Washington State Department of Ecology. Publication No. 06-11-042.
<https://fortress.wa.gov/ecy/publications/publications/0611042.pdf>.

⁸⁹ Siemann, Dan and Martin, Steve. July 2007. *Managing Many Waters: An Assessment of Capacities for Implementing Water and Fish Improvements in the Walla Walla Basin*. The William D. Ruckelshaus Center. Washington State University and the University of Washington.

⁹⁰ Ibid

⁹¹ Columbia River Inter-Tribal Fish Commission. 2012. *Walla Walla River Spring Chinook Reintroduction: A Tribal Success Story*. <http://critfc.org/wp-content/uploads/2012/11/success-walla-walla.pdf>.

⁹² Ibid

⁹³ Ibid

⁹⁴ “Walla Walla Basin Spring Chinook Hatchery Program (DOE/EIS-0495).” 2016. Bonneville Power Administration. https://www.bpa.gov/efw/Analysis/NEPADocuments/Pages/Walla_Walla_Hatchery_Basin_Spring_Chinook_Hatchery.aspx.

⁹⁵ Fritsch, M. 2013. *Decision Memorandum: Step 1 Review of Walla Walla Spring Chinook Hatchery Master Plan*. Northwest Power and Conservation Council. <https://www.nwcouncil.org/media/meetings/2013/10/f2.pdf>.

⁹⁶ Adelsman, Hedia and Geller, Lynne. January 2007. *2006 Report to the Legislature: Walla Walla Water Management Initiative*. Washington State Department of Ecology. Publication No. 07-11-001.

⁹⁷ Ruckelshaus Center. January 2007. *The Walla Walla Water Management Initiative: Insights on Design and Implementation from Innovative Water Management Efforts*. The William D. Ruckelshaus Center. Washington State University and the University of Washington.

⁹⁸ Adelsman, Hedia and Geller, Lynne. January 2007. *2006 Report to the Legislature: Walla Walla Water Management Initiative*. Washington State Department of Ecology. Publication No. 07-11-001.

⁹⁹ Washington State Department of Ecology and Walla Walla County. December 2008. *Walla Walla Watershed Management Partnership: A Proposal for a Pilot Local Water Management Program in the Walla Walla Basin*. Washington State Department of Ecology. Publication No. 08-11-061.

¹⁰⁰ Walla Walla Watershed Management Partnership. 2011. *2010 Annual Report: Walla Walla Watershed Management Partnership*.

¹⁰¹ Ibid

¹⁰² Walla Walla Watershed Management Partnership. October 2012. *Strategic Plan Update 2012-2015*.

¹⁰³ Walla Walla Watershed Management Partnership and Washington State Department of Ecology. December 2012. *Interim Progress Report: Walla Walla Pilot Local Water Management Program*.

¹⁰⁴ Schwartz, A., Kocian, M., Fletcher, A. 2014. *The Economic and Environmental Impact of the William A. Grant Water & Environmental Center at Walla Walla Community College*. Earth Economics, Tacoma, WA.

¹⁰⁵ “History: Water and Environmental Center.” n.d. *Walla Walla Community College*. <http://watereducationcenter.org/about-us/history/history/>.

¹⁰⁶ Ibid

¹⁰⁷ Schwartz, A., Kocian, M., Fletcher, A. 2014. *The Economic and Environmental Impact of the William A. Grant Water & Environmental Center at Walla Walla Community College*. Earth Economics, Tacoma, WA.

¹⁰⁸ WSU-UW Policy Consensus Center [former name of William D. Ruckelshaus Center]. *Scope of Work for Walla Walla Water Management Initiative*. 2006.

¹⁰⁹ Washington Department of Ecology. November 2006. *Overview of the Walla Walla (WRLA 32) Water Resources Program Rule*. Washington State Department of Ecology. Publication No. 06-11-042.
<https://fortress.wa.gov/ecy/publications/publications/0611042.pdf>.

¹¹⁰ Schwartz, A., Kocian, M., Fletcher, A. 2014. The Economic and Environmental Impact of the William A. Grant Water & Environmental Center at Walla Walla Community College. Earth Economics, Tacoma, WA.

¹¹¹ “Walla Walla Basin Integrated Instream Flow Enhancement Study.” 2016. *Walla Walla Basin Watershed Council*.
<http://www.wwbwc.org/assessment/57-wwflow.html>.

¹¹² Ibid

¹¹³ “Walla Walla Basin Bi-state Flow Study Strategic Plan and Schedule.” April 2016. *Walla Walla Basin Watershed Council*.
http://www.wwbwc.org/images/Projects/Assessments/WWFLow/Phase2/2016_04_15_StrategicPlanSchedule.pdf.

¹¹⁴ Ibid

¹¹⁵ Taylor-Powell, E., Rossing, B., and Geran, J. July 1998. *Evaluating Collaboratives: Reaching the Potential*. University of Wisconsin Cooperative Extension. Madison, WI.

¹¹⁶ Ibid

¹¹⁷ Ibid

¹¹⁸ Ibid

¹¹⁹ Foster, Alan. June 2011. *Evaluating Alternative Dispute Resolution Projects: Review and Recommendations for the William D. Ruckelshaus Center*. Prepared for the William D. Ruckelshaus Center.

¹²⁰ Ibid

¹²¹ Patton, M.Q. 2012. *Essentials of Utilization-Focused Evaluation*. Thousand Oaks, CA: Sage Publishing.

¹²² Ibid

¹²³ Taylor-Powell, E., Rossing, B., and Geran, J. July 1998. *Evaluating Collaboratives: Reaching the Potential*. University of Wisconsin Cooperative Extension. Madison, WI.

¹²⁴ Ibid

¹²⁵ Koontz, T.M and Thomas, C.W. 2006. What do we know and need to know about the environmental outcomes of collaborative management. *Public Administration Review*, 66(Supplement), 111-121.

¹²⁶ Ibid

¹²⁷ Ibid

¹²⁸ Ibid

¹²⁹ Rossi, P.H., Lipsey, M.W., and Freeman, H.E. 2007. *Evaluation: A Systematic Approach*, 7th Edition. Thousand Oaks, CA: Sage Publications.

¹³⁰ Koontz, T.M and Thomas, C.W. 2006. What do we know and need to know about the environmental outcomes of collaborative management. *Public Administration Review*, 66(Supplement), 111-121.

¹³¹ Koontz, T.M. and Newig, J. 2015. From planning to implementation: top-down and bottom-up approaches for collaborative watershed management. *Policy Studies Journal*, 42(3), 416-442.

¹³² Ibid

¹³³ Leach, W.D. and P.A. Sabatier. 2005. Are Trust and Social Capital the Keys to Success? Watershed Partnerships in California and Washington. In *Swimming Upstream: Collaborative Approaches to Watershed Management*, edited by Paul A. Sabatier, Will Focht, Mark Lubell, Zev Trachtenberg, Arnold Vedlitz, and Marty Matlock, 233-258. Cambridge, MA: MIT Press.

¹³⁴ Patton, M.Q. 2012. *Essentials of Utilization-Focused Evaluation*. Thousand Oaks, CA: Sage Publishing.

¹³⁵ Rossi, P.H., Lipsey, M.W., and Freeman, H.E. 2007. *Evaluation: A Systematic Approach*, 7th Edition. Thousand Oaks, CA: Sage Publications.

¹³⁶ Taylor-Powell, E., Rossing, B., and Geran, J. July 1998. *Evaluating Collaboratives: Reaching the Potential*. University of Wisconsin Cooperative Extension. Madison, WI.

¹³⁷ Rossi, P.H., Lipsey, M.W., and Freeman, H.E. 2007. *Evaluation: A Systematic Approach*, 7th Edition. Thousand Oaks, CA: Sage Publications.