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The Role of Social Exchange in Collaborative Watershed Management: A Case Study in the Nooksack River Watershed, Washington, USA

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By

Jocelyn Leroux

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Jocelyn Leroux
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A Thesis
Presented to
The Faculty of
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ABSTRACT

Rising concerns over water availability and population growth in the state of Washington led to the passage of the 1998 Watershed Management Act. The Act provides a framework for the collaborative development of watershed management plans (WMPs) by the 62 watersheds, known as Water Resource Inventory Areas (WRIAs). The State Legislature revived this collaborative framework in Engrossed Substitute Senate Bill (ESSB) 6091, passed on January 19, 2018. ESSB 6091 mandated the watershed planning entities for the Nooksack River watershed, located largely in Whatcom County, Washington known as WRIA 1, to amend an existing watershed plan by February 1, 2019. The involved planning entities include a mix of government and non-government stakeholders. Through semi-structured interviews and public meeting attendance and observation, this thesis utilizes a qualitative approach to explore the social exchange dynamics in the WRIA 1 planning entities during the ESSB 6091 WMP amendment process. Collaborative watershed management is most successful with the presence of adequate time, trust, committed participation, a well-defined process, adequate technical understanding, an appropriate scope of activities, and a skilled facilitator/coordinator. During the ESSB 6091 process, WRIA 1 planning entity participants described a lack of trust, questions over committed participation, contention over process and structure, and an inappropriate scope of activities. Reflecting these obstacles, the WRIA 1 planning entities were unable to finalize a plan amendment by the legislatively mandated deadline. Participants did express dedication to continuing work on watershed issues, indicating that collaboration may have longer-term benefits that extend beyond the inability to reach agreement.

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LIST OF ACRONYMS

ADR…Alternative Dispute Resolution

DIP…Detailed Implementation Plan

DOE…Washington State Department of Ecology

ESSB…Engrossed Substitute Senate Bill

GMA…Growth Management Act

MOA…Memorandum of Agreement

MPP…Mandatory Participatory Planning

PUD…Public Utility District

RCW…Revised Code of Washington

WMB…Watershed Management Board

WMP…Watershed Management Plan

WRIA…Water Resource Inventory Area

CHAPTER 1: INTRODUCTION

Western Washington, known for its cloud cover and rainforests, does not appear to have a water shortage. However, due to overallocation, illegal water use, and most important, the fact that peak water withdrawal coincides with the time of least rainfall, much of Western Washington experiences water shortage issues during the dry summer months.

These water shortages have long threatened fish populations, including Washington's iconic salmon species. In response, a series of attempts to address streamflow depletion started in 1955, with the state's recognition that stream flows must support fish populations (1955 Wash Sess). In 1969, the state authorized the Department of Ecology (DOE) to protect instream flows for fish and wildlife habitat, recreation and aesthetic purposes, and water quality (1969 Wash. Sess.). Finally, in 1971, the state required the protection of instream flows, stating that rivers and streams "shall" maintain "flows necessary to provide for preservation of wildlife, fish, scenic, aesthetic and other environmental values, and navigational values." (Water Resources, 90.54(3)(a)).

The passage of subsequent laws addressing elements of water quantity, such as the 1998 Watershed Management Act, provided Washington State with a framework for collaborative watershed management, an approach to watershed management that has been gaining traction since the 1990s (Kenney, 1999, Sabatier et al., 2005). The Watershed Management Act established voluntary local participation processes for the 62 watersheds in Washington. These watersheds, called Water Resource Inventory Areas (WRIAs) were delineated by DOE in 1976. The Watershed Management Act called upon the WRIAs to plan collaboratively for water quantity in river basins statewide. The Act established required criteria for those watershed planning groups that received state funding. Specifically, it tasked WRIAs with addressing: how

much water is physically available, how much water is currently being used, how much water is allocated through existing water rights, and how much water is needed for future uses. Along with quantity, WRIAs are encouraged to address water quality, instream flows, and fish habitat. The goal was to include broad stakeholder representation to address water issues at a local level (Ryan & Klug, 2005).

The collaborative process outlined by the Watershed Management Act brought a wide range of stakeholders into the process. This was intended to achieve the benefits of having local input regarding management of local water resources. However, along with the benefits of local representation and agreement, some argue that collaboration is heavy on process and light on outcomes, particularly in the absence of standards and resources that lead to success in collaborative watershed management groups (Kenney, 2000, Huffman, 2009). This thesis follows WRIA 1, the Nooksack River Watershed (Figure 1), during a revival of this collaborative process following a lawsuit to address permit-exempt groundwater withdrawals. In January 2018 the Washington State legislature passed Engrossed Substitute Senate Bill (ESSB) 6091, mandating that seven WRIAs statewide amend their watershed management plans (WMP) to address instream resources and watershed functions by identifying projects and conservation measures that would offset the water use from permit-exempt groundwater withdrawals. WRIA 1 was one of two WRIAs required to complete a WMP amendment by February 1, 2019.

Due to a variety of factors, the WRIA 1 planning entities were unable to approve a WMP amendment in the amount of time allotted by ESSB 6091. The legislation stated that if the WRIA 1 planning entities were unable to produce a WMP amendment by the deadline, DOE would take over rule-making for the watershed. Although participants expressed a desire to maintain local control and not let the rule-making process devolve to DOE, they were unable to do so.

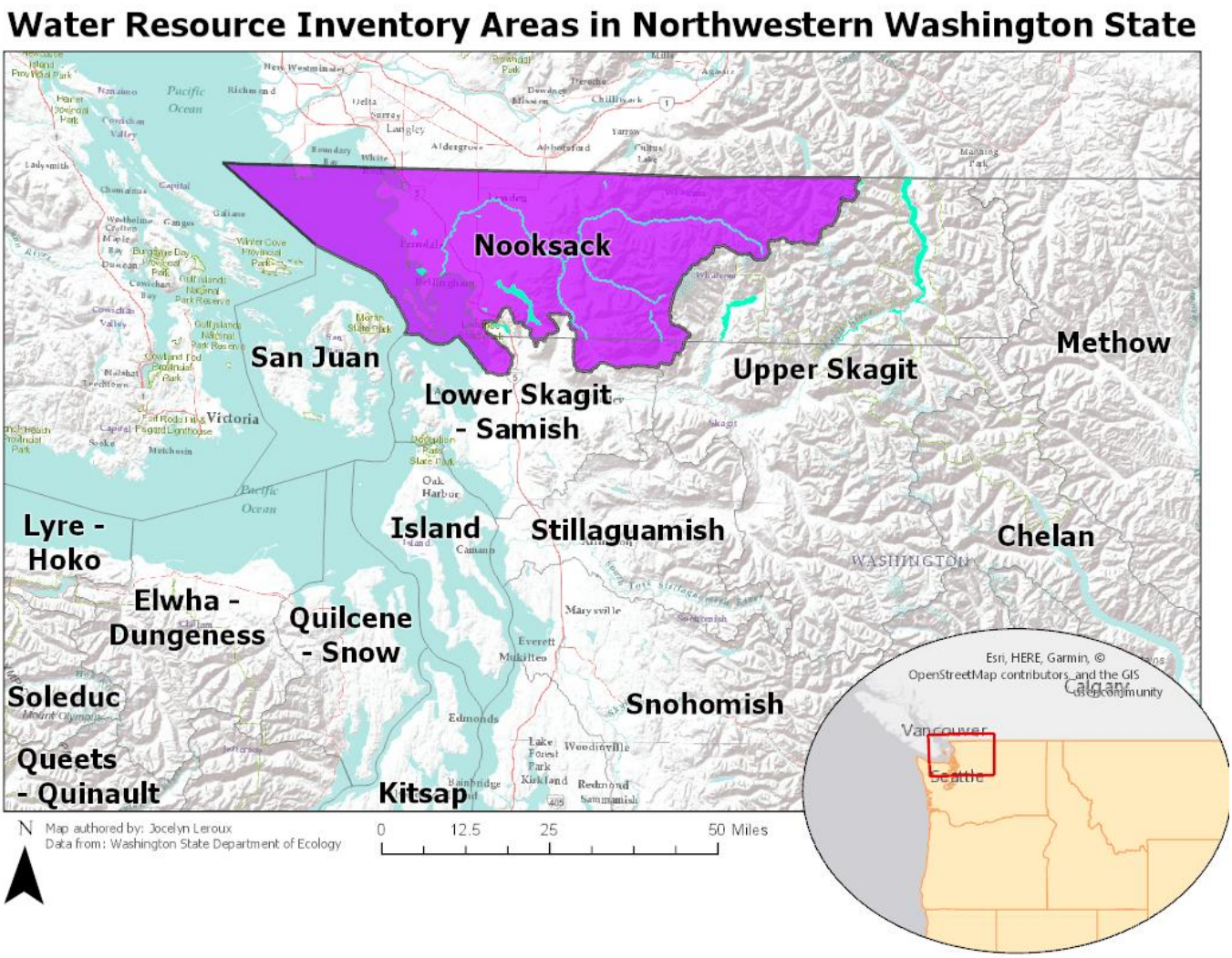

Figure 1. WRIAs in Northwestern Washington State. WRIA 1, the Nooksack River Watershed, is shown in purple.

Participants described a lack of trust, lack of reciprocity, a short timeline, and flawed legislation as roadblocks to their success in creating a WMP amendment. Using an inductive, open-ended approach, this thesis describes the social exchange dynamics present in WRIA 1 during the yearlong WMP amendment process mandated by ESSB 6091 from January 19, 2018 to February 1, 2019.

CHAPTER 2: BACKGROUND

Collaborations in natural resource management have been defined as processes outlined by agreements that take place between a diverse set of stakeholders, working in a face-to-face information sharing setting, to solve a problem outside of a more typical top-down, command-and-control, ecosystem management style (Sabatier et al., 2005, Kenney, 1999). In watershed management, collaboration-based decision-making has been on the rise since the 1990s (Sabatier et al., 2005), leading to scholarly research on the factors leading to success. Collaborative watershed management groups share many social and political characteristics; however, each instance of collaborative ecosystem management is different because of the unique interactions between attributes of institutions, attributes of the resource, and attributes of the community (Ananda & Proctor, 2012, Ostrom, 1990). Thus, a thorough investigation of these qualities is necessary to understand the context of the WRIA 1 WMP amendment process.

The attributes of the institutions, resources, and communities in WRIA 1 have developed through many years to produce the distinct context for the WRIA 1 WMP amendment process. The communities of Whatcom County have been influenced by historical settlement patterns giving rise to an urban-rural sociopolitical divide present in much of the United States. Settlement patterns have also been influenced by the presence of the two federally recognized Native American Tribes in Whatcom County, the Lummi Nation and the Nooksack Tribe, as discussed further below. Water resources in Whatcom County have been influenced by Western water law and the prior appropriation system, as well as subsequent laws specific to water allocation and management in Washington State. In addition, water resources in Whatcom County are heavily influenced by the geology and ecology of the area.

Finally, the structure of the WRIA 1 planning entities and their role in watershed planning, which began in 1998, produced a plan in 2005 that was decided by true consensus. However, the separation between government and citizen caucuses in decision-making has grown through the years and has exacerbated pre-existing ideological divides. Thus, an understanding of the region's history is necessary to inform the current context and participant perceptions of the WRIA 1 WMP amendment process and to attempt to understand why the WRIA 1 planning entities were unsuccessful in adopting a WMP amendment.

Attributes of the Community: Whatcom County History, Demographics, and Tribes

Whatcom County was established in 1854. White settlers first came to the region in search of furs, timber, coal, gold, and other resources. Following several boom and bust cycles of industry, mining, and logging, the current political economy of Whatcom County evolved. Rural life and the prevalence of agriculture contributes to the sociocultural dynamics in the county, with fishing, tourism, and the variety of higher education institutions contributing to the sociocultural dynamics in the urban center and county seat of Bellingham (Oakley, 2005). This divide in industry and culture has contributed to an urban-rural political divide that is common in much of the United States (Gimpel & Karnes, 2006), as exhibited in election patterns. In the most recent November 2018 election cycle, Democratic candidates won only 39 of 115 Whatcom County voter precincts, whereas 66 of 67 City of Bellingham precincts voted for Democratic candidates (Figure 2). This political divide contributes to differing perspectives relating to the trustworthiness of government, and the relationship of water and property rights—a key factor in the WRIA 1 decision-making process.

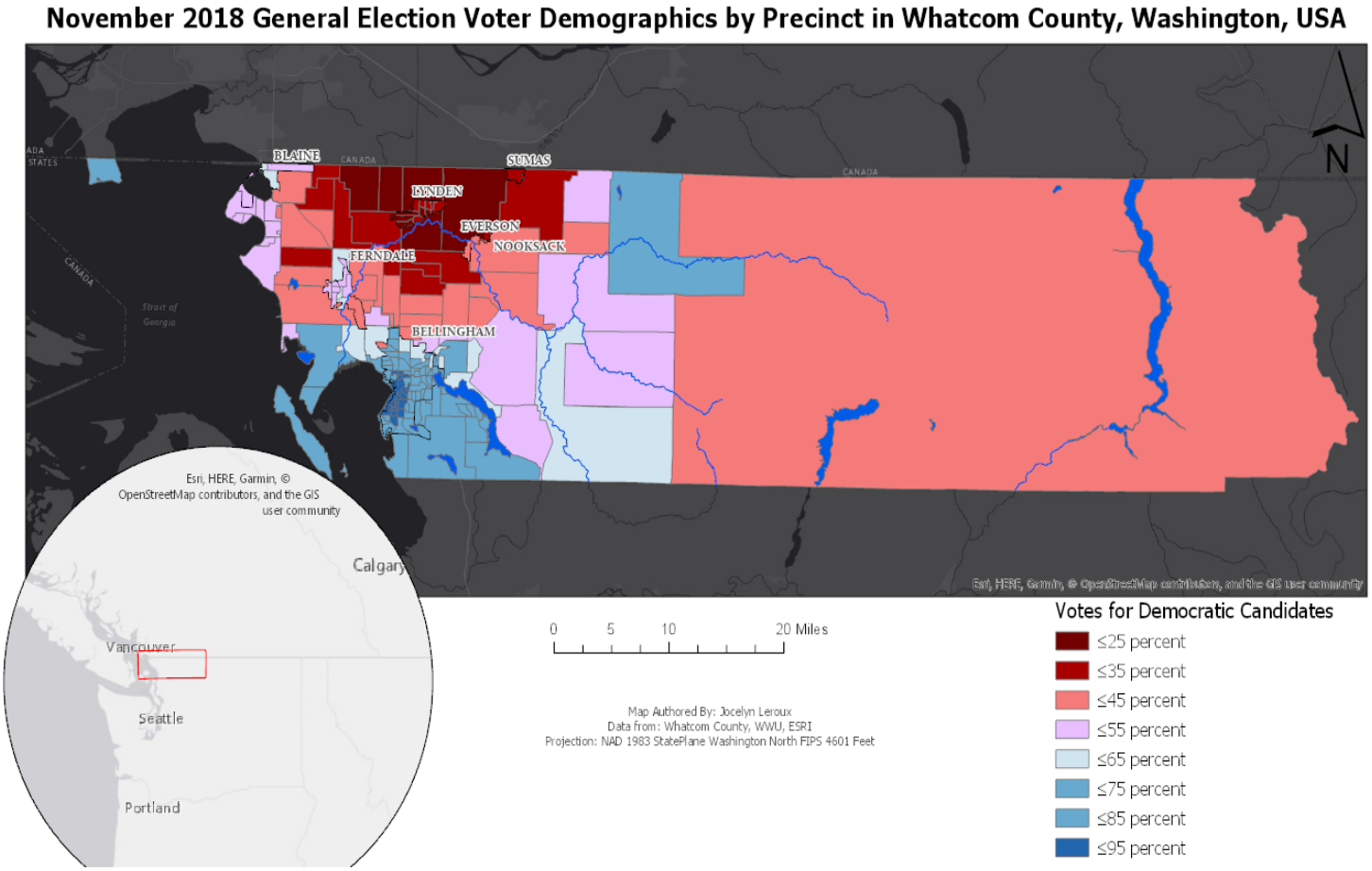

Figure 2. Voter demographics by precinct in Whatcom County, Washington during the November 2018 general election. Darkest red represents the highest percentage of voters who cast votes for Republican candidates, and darkest blue represents the highest percentage of voters who voted for Democratic candidates.

Native American Tribes play a key role in water resource management in Western Washington. Coastal, Salish-speaking peoples have lived in Whatcom County from time immemorial, and two federally recognized Tribes, the Lummi Nation and Nooksack Tribe, now have reservations within the County. In 1855, both Tribes ceded vast quantities of land to the United States government through the Treaty of Point Elliott, in return for reservations, sovereignty, and guarantees of access to usual and accustomed fishing grounds and the right to take fish “in common with” settlers (Treaty, 1855; Zaferatos, 35, 2015). However, the passage of the 1887 General Allotment Act (GAA) served to reduce reservation lands and increase Indian

distrust of the federal government (Pevar, 9, 2012). In Whatcom County, the GAA led to non-Indian settlement of the Lummi reservation, despite a provision in the Point Elliot Treaty stating that no "white man [shall] be permitted to reside upon the same without permission of the said Tribes or bands, and of the superintendent or agent" (1855). This has led to an extended and public legal battle between several Whatcom County officials and the Lummi Nation, highlighting contemporary conflicts over tribal rights and sovereignty in Whatcom County (McAllister, 1996, Whatcom County Council, 2013). Property and water rights are central to many conflicts between Tribes and those who do not believe tribal sovereignty should be recognized (Bruyneel, 2006)

On many occasions, the Supreme Court has ruled that Tribes have inherent powers of self-government and that treaties establish that they were treated as, and remain, sovereign nations (Pevar, 81-82, 2012). This means that Tribes enjoy a government-to-government negotiation relationship with the Federal government, despite some non-tribal citizens' arguments that Tribes should not have the right of self-government or government-to-government status (Bruyneel, 2006). In Washington State, this controversy often arises in negotiations and disputes over water rights. The prior appropriation doctrine, which governs water rights in much of the Western United States, favors Indian water rights due to two rules that have been repeatedly upheld in the courts: the *Winters* doctrine, or reserved water rights, and historical use or time immemorial (Pevar 207-209, 2012). The *Winters* doctrine applies to new uses of water for on-reservation use and establishes a priority date as of the establishment of a reservation, or 1855 for Lummi and Nooksack. Time immemorial refers to historic uses of water prior to reservation creation. The priority date of "time immemorial," recognizes that Tribes have

been using water long before any European settlers came to the United States and started using water (Pevar, 208, 2012).

A series of court decisions interpreting Washington State treaties, often referred to, in shorthand, as the Boldt decision, confirmed off-reservation tribal fishery rights. In 1974, District Court Judge George Boldt held that Tribes have the right to a 50 percent allocation of the harvestable number of fish at their "usual and accustomed" fishing grounds, based on treaty language granting them the right to fish "in common with" all other citizens of the state (*United States v. Washington*, 384 F.Supp. 312, 331 (W.D. Wash. 1974), Pevar, 196, 2012). Judge Boldt also held that the treaty right required the state to avoid degrading salmon habitat that interferes with the Tribes' right to a "moderate living" from fish. The Ninth Circuit ultimately vacated this aspect of the Boldt decision, finding that it would be inappropriate to grant an "environmental right" that would be "imprecise in definition and uncertain in dimension." The Ninth Circuit concluded that "the measure of the State's obligation will depend for its precise legal formulation on all of the facts presented by a particular dispute," thereby ensuring that tribal rights to ensure that salmon habitat was not despoiled would need to be determined on a case-by-case basis (United States v. Washington, 759 F.2d 1353, 1357 (9th Cir. 1985)).

The environmental right was tested for the first time in a case involving the effects of culverts on fish populations. The Ninth Circuit found that the state of Washington violated treaty rights by building and maintaining culverts, which block streams suitable for salmon habitat and prevented Tribes from making a "moderate living" from fishing. (Morisset & Summers, 2009, Washington v. United States, 584 U.S. ___ (2018)). The Supreme Court upheld this ruling without comment, in a 4-4 decision; with Justice Kennedy abstaining. The tie in the Court's vote upheld the decision of the lower court.

While the culverts cases reinforce the assertion that tribal fishing rights include a state obligation to ensure that salmon streams can support fish, they do not directly establish that Tribes are entitled to water rights sufficient to support off-reservation fisheries rights. Tribal water rights have not been quantified in most watersheds in Washington, including the Nooksack watershed, and Tribal interests therefore are not directly enforceable. To address the need for adequate fish habitat, Washington State has adopted instream flow laws, which require DOE to set instream flow rules. This has created a complex system of water allocation in Washington State, and a complex history from which to begin a collaborative process.

Tensions over settlement patterns, water rights, and access to salmon have been ongoing in Whatcom County since the days of early European colonization. Although many of these issues have been addressed by the courts, the complex history of water rights and water use in the area influences the composition of stakeholder groups and the values brought to the table by WRIA 1 planning entity participants.

Attributes of the Resource: Washington State Water Law

In 1890, Washington, like most other Western states, generally adopted prior appropriation as the state standard for water use (Washington, 2006). The prior appropriation doctrine bases water rights not on the water user's location near or above a water source, but on the date on which water was put to 'beneficial use.' This prioritizes water users that claim a right first and is commonly described as "first in time, first in right."

The State of Washington passed the first Water Code in 1917, stating that all unclaimed water belonged to the public, that prior appropriation was the exclusive doctrine, and that a single centralized water administrator would be created to oversee the implementation of water regulations, giving rise to what is now the DOE. The Water Code also provided that a system of

adjudication should be implemented, in order to create a system for recording water rights, including quantity and seniority (Water Code, 90.03). The Water Code states that a new water right must meet four criteria: it must be for beneficial use, water must be available to fill the right, the right must not impair existing rights, and the right must not be detrimental to the public interest (Water Code, 90.03).

Although this was an important first step in creating a water regulation system, the 1917 Water Code only applied to surface water rights, regulating diversions from lakes, streams, and rivers. However, this is only a small portion of available water, as much of the state's water supply exists in underground aquifers that can be accessed using wells. The Groundwater Code was passed in 1945 to address groundwater use due to the increasing number of people that were drilling wells to access water (Regulation of Public Groundwaters, 90.44). The Groundwater Code makes groundwater subject to the doctrine of prior appropriation, including requiring the issuance of water right permits for groundwater use.

While the Groundwater Code applies all of the state's water right provisions to groundwater, including the doctrine of prior appropriation, it includes four exemptions from the requirement to get a permit from DOE: providing water for livestock, watering a non-commercial lawn or garden ½ an acre or less, domestic water uses of 5,000 gallons/day or less, and water for industrial purposes of 5,000 gallons/day or less (Regulation of Public Groundwaters, 90.44). These permit-exempt wells have since become the subject of controversy due to timing of water scarcity in Western Washington and the modern understanding of connectivity of groundwater and surface water.

The connectivity of surface water and groundwater, or hydraulic continuity, has been researched in Washington for some time, and there has been scientific evidence describing the

extent and existence of this phenomenon at some level in every basin in Washington since the 1960s (Osborn, 2010). This connection means that, when water is diverted from groundwater sources, it impacts connected surface water sources. This can affect senior water users and the ecological system. The continued development of water sources in basins where surface water had been fully allocated spurred the passage of the 1969 Minimum Water Flows and Levels Act, to provide a system for protecting instream flows. Then, in 1971, the passage of the Water Resources Act implemented a system for instream flows to become adjudicated rights, just like any other water right established by an individual (Water Resources, 90.54). The 1971 law requires DOE to establish "base flows necessary [to preserve] wildlife, fish, scenic, aesthetic and other environmental values, and navigational values." (RCW 90.54.020(3)(a). This is the state's primary approach to keeping water in the streams for salmon habitat, to effectuate the off-reservation fishing rights of the Pacific Northwest Tribes agreed upon in the Stevens Treaties (Osborn, 2010). In its earliest round of instream flow rules, DOE adopted the "Nooksack Rule" in 1985, establishing instream flows for the Nooksack River (Washington Administrative Code, 1985).

Attributes of the Resource: Washington State Laws Related to Water Supply and Protection

Washington State Watershed Management Act

Recognizing that prior efforts to address instream flows were not adequate, the Washington State legislature opted for a different approach in the 1998 Watershed Management Act. The Act incorporated the inclusive and growing trend of multi-stakeholder collaboration to address natural resource decision-making (Ryan & Klug, 2004). The Watershed Management Act established watershed-specific planning groups that were charged with addressing four

issues: “1) how much water is physically available; 2) how much water is currently being used; 3) how much water is allocated through existing water rights; and 4) how much water is needed for future uses” (Ryan & Klug, 2004). The watershed-specific planning groups, working within state-delineated WRIAs, rely on groups of local stakeholders to encourage action and collaboration through a localized approach in each watershed plan. Under the Act, a planning group must address water quantity to receive funding, but WRIAs were also encouraged to address water quality, fish habitat, and instream flows (Ryan & Klug, 2004).

The Act provides a framework and funding for local collaboration to address water issues within a distinct watershed. To ensure collaboration, the Act provides that one government official from each county in the WRIA must be part of the planning project, as well as one official from the largest city and largest water provider. Although Tribes are not legally required to be a part of the process, they often choose to participate, as they have in WRIA 1, as their interests in fisheries and water supplies may not otherwise be recognized in the watershed plans (Ryan & Klug, 2004). The legislation further encourages participation by citizen stakeholder groups. In WRIA 1 these stakeholder groups are the Agriculture, Private Well Owner, Non-Government Water Systems, Fishers, Forestry, Environmental, and Land Use caucuses. Following the adoption of a WMP, WRIAs share responsibility with the lead agency for implementing these plans under the Act (Ryan & Klug, 2004).

Water rights can be a particularly contentious topic, especially in areas of water scarcity. Although Western Washington appears to have plenty of water, timing of withdrawal and seasonal droughts impact the resource greatly. Kenney (1999) notes that addressing such contentious issues of water quantity may not be appropriate topics for collaborative processes due to the nature of prior appropriation and the strong ideologies surrounding water and property

rights. In Washington state and Whatcom County in particular, the urban-rural political divide, along with settlement and water use patterns, has led to a long history of conflict and litigation regarding water supply and rights (Ryan & Klug, 2005). This history, in conjunction with a lack of incentives for water conservation by senior water users in a prior appropriation system, contribute to a challenging context from which to begin a collaborative process.

Attributes of the Institutions: WRIA 1 Watershed Management Project

WRIA 1 is the geographic area of the Nooksack River basin and several smaller adjoining watersheds, including the coastal drainages of Dakota and California Creeks, and the Lake Whatcom Watershed, as defined by the DOE in 1976 (Blake & Peterson, 2005). The WRIA 1 planning process began with work on addressing water quantity, quality, instream flows, and fish habitat in 1998. The decision-making structure of the WRIA 1 planning entities has shifted several times, leading to confusion and contention over the power differential between government representatives and non-government caucuses, which was often discussed by WRIA 1 planning participants. The structure is important to understand as it informs the approval process of any WMP, or plan updates. Following is a description of the structure of the WRIA 1 planning entities as well as a timeline (Figure 3) of notable agreements and events.

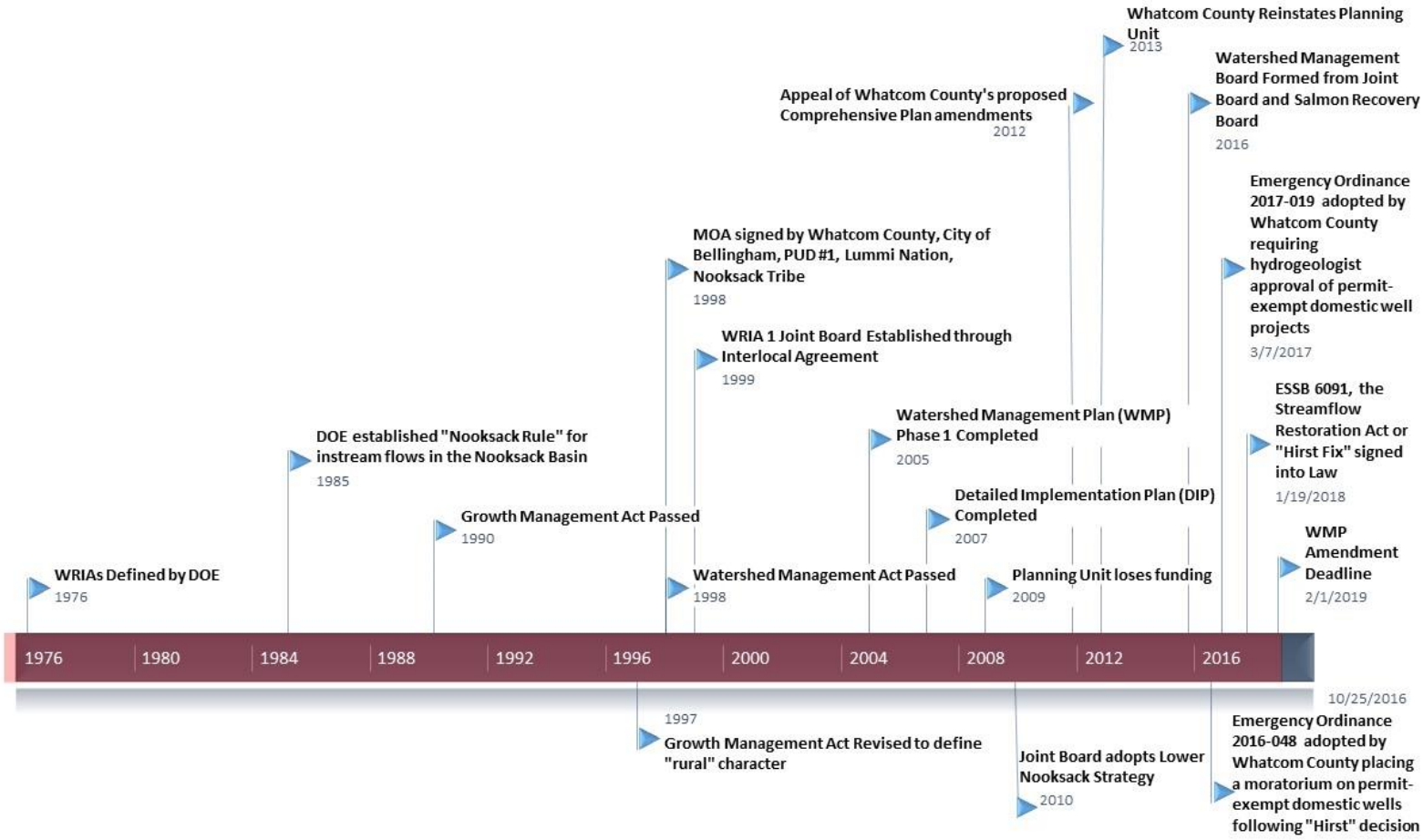

Figure 3. Timeline of activities for the WRIA 1 planning entities from the definition of WRIAs to the WMP amendment deadline outlined for WRIA 1 in ESSB 6091.

Initiating Governments and Planning Unit

The Watershed Management Act required entities within WRIA 1 to formalize a multiparty process in order to qualify for funding under the Act (Blake & Peterson, 2006). Thus, Whatcom County, the City of Bellingham (the largest city in the watershed), Public Utility District (PUD) #1 (the largest water provider in the watershed), and the Lummi Nation signed a memorandum of agreement (MOA) formalizing the WRIA 1 Project partnership in 1998 (Blake & Peterson, 2006). The Nooksack Tribe joined slightly later through a letter of agreement (Whatcom County, 2016). These entities, designated as the Initiating Governments, then worked with other local governments to establish a Planning Unit, originally consisting of 18

governmental and non-governmental entities: Whatcom County, City of Bellingham, PUD #1, Lummi Nation, Nooksack Tribe, Small Cities, Water Districts, Non-Government Water Systems, Agriculture, Diking and Drainage, Fishers, Environmental, Private Well Owners, Land Use/Development, Port of Bellingham, Forestry, State Government/DOE, and the Federal Government. The Federal Government, Lummi Nation, and Nooksack Tribe chose not to participate in the Planning Unit, however, leaving 15 stakeholder representatives.

Joint Board/Joint Policy Board and the Watershed Management Board

In 1999, an Interlocal Agreement established the WRIA 1 Joint Board as a separate planning entity to ensure tribal participation in the process, as the Lummi Nation and Nooksack Tribe chose not to participate at the Planning Unit. The Joint Board was developed to recognize the government-to-government relationship granted to federal Tribes in their treaties and consists of a representative from each of the Initiating Governments. The Joint Board managed administrative functions of the WRIA 1 Project (Whatcom County, 2016).

The Joint Policy Board consisted of representatives from the Joint Board and the Salmon Recovery Board. The Salmon Recovery Board included representatives from each of the Initiating Governments, mayors of the Small Cities of Whatcom County, and the regional Director of the Washington Department of Fish and Wildlife (Whatcom County, 2016). In December 2016, the Joint Board and Salmon Recovery Board were merged into the Watershed Management Board (WMB) through the execution of an Interlocal Agreement (Figure 4) (WRIA 1 Watershed Management Board, 2018). The WMB, consisting of government representatives, meets separately from the Planning Unit, exacerbating a perception of separation of government and citizen stakeholders.

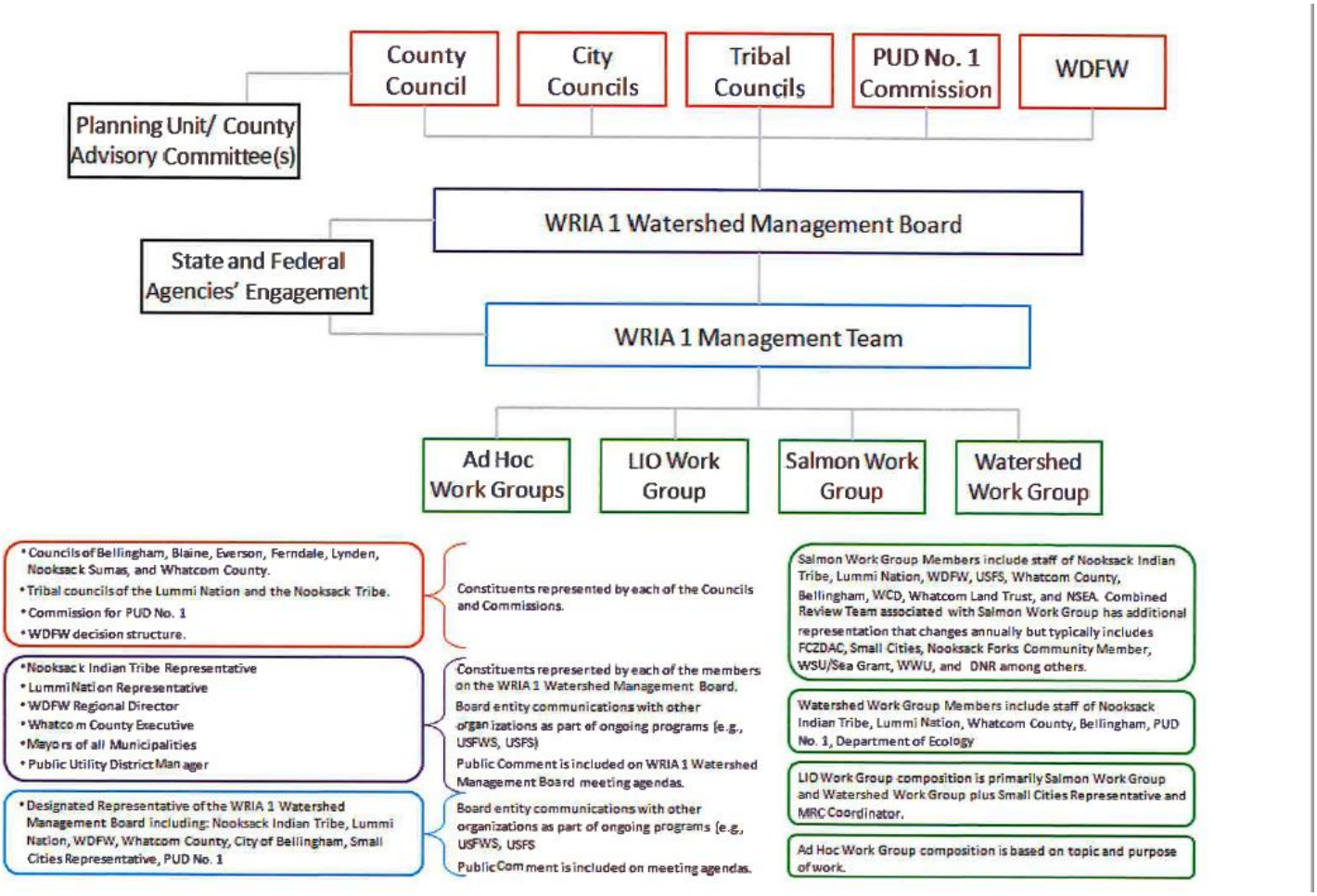

Figure 4. Structure of the WRIA 1 planning entities as outlined in the 2016 Interlocal Agreement. The Planning Unit is defined as advisory to the County Council, with the majority of decision-making and analysis tasked to WRIA 1 government entities

Watershed Management Plan (WMP)-Phase 1

In 2005, the WRIA 1 planning entities completed the WMP, which laid out a plan to address water quantity, water quality, instream flow, and fish habitat challenges (Blake & Peterson, 2005). The Planning Unit approved the plan by consensus in March 2005, and the plan was subsequently submitted to and approved by the Initiating Governments (Blake & Peterson, 2005). Specifically, the plan focused on a two-year implementation timeline and sought to ensure adequate water supplies for a diverse set of needs. (Whatcom County, 2016, Blake & Peterson, 2005).

Detailed Implementation Plan (DIP)

Based on the actions and strategies outlined in the 2005 WMP, the 2007 DIP was developed to meet the requirements to receive implementation grant funding from the DOE. The DIP was intended to be a living document updated on an ongoing basis and in congruence with adaptive management strategies to address water for agriculture, commercial uses, industrial uses, residential uses, and instream flows (Geneva Consulting, 2007). Through many years of hard work and the help of skilled neutral facilitators, both the 2005 WMP and 2007 DIP were approved by consensus of all stakeholders involved in the WRIA 1 planning entities.

The Lower Nooksack Strategy

In 2009, the County eliminated funding for the Planning Unit (P/U rep 4). In 2010, the Joint Board adopted the Lower Nooksack Strategy, which was intended to implement adaptive management measures of water resources for agriculture, commercial uses, residential uses, industrial uses, and instream flows. The Lower Nooksack Strategy was developed by the Initiating Governments in the Joint Board without Planning Unit involvement. The continuation of work without the involvement of the Planning Unit during this time was a contributing factor to lack of official trust expressed by several Planning Unit members during subsequent interviews.

Reinstatement of the Planning Unit

In January 2013, following pressure from several citizen stakeholders, the Whatcom County Council, the lead agency in WRIA 1, began to discuss the possibility of funding a reinstated Planning Unit. Several councilmembers stated that the role of the Planning Unit and its broad citizen representation was essential to addressing water issues in Whatcom County (Whatcom County Council, 2013). Shortly thereafter, the Planning Unit was reinstated and

began meeting again to discuss what actions outlined in the 2005 WMP and 2007 DIP had been taken, and what steps needed to be taken next. At this time, Planning Unit representation consisted of several participants that had been involved in the process for a number of years as well as new participants. Thus, after several years without meeting, Planning Unit members who had been involved longer took the lead on bringing the newer members up to speed on the intricacies of the WMP, DIP, and Lower Nooksack Strategy before they began discussing the next steps (P/U rep 4).

Attributes of the Institutions: A Catalyst for Watershed Collaboration

In January 2018, the Washington State Legislature passed ESSB 6091, which incorporated the possibility of devolving a limited range of watershed management decisions to the Planning Unit. The bill was spearheaded and passed in response to a Whatcom County lawsuit that had resulted in a moratorium on drilling new permit-exempt domestic wells, as discussed further below. While watershed planning in Whatcom County has a long history, collaborative processes are often set in motion based on a specific need and often a government mandate. After several years of relative inactivity, the need for collaboration arose due to the legislative response to Whatcom County's failure to adequately implement provisions of the Washington State Growth Management Act (GMA) to protect and conserve groundwater resources.

Growth Management Act and Whatcom County

The Washington State legislature adopted the GMA (RCW 36.70A) in 1990 to guide development and comprehensive planning for cities and counties (Growth Management, 1990). The goals of the GMA address a wide range of issues, including reducing sprawl, encouraging urban growth, preserving open space, and protecting the environment—specifically including

water quality and the availability of water. Counties have the laboring oar under the GMA, adopting growth projections and determining how much future population each city must accommodate. The law requires counties to focus development in urban areas and to protect agricultural land. The requirements of a third land use category, "rural" land, reflect the fact that the land is neither urban nor agricultural (Growth Management, 1990). The state has long grappled with planning requirements for "rural" areas, which are required to protect "rural character" – a quality that is not clearly defined (Melious, 2017).

The GMA does not contain any automatic oversight or enforcement mechanism. Local land use plans are presumed valid upon adoption, and automatically become law – whether or not they conform to the letter or spirit of the law – unless they are challenged. If a stakeholder challenges a GMA plan or provision as not in compliance with the GMA, the Growth Management Hearings Board, a specialized administrative agency, decides the challenge in the first instance. The Board's decisions can then be appealed to state court.

In 1997, the GMA was revised to provide additional guidance on the definition of "rural" land and, in particular, what defines "rural" character. Whatcom County's failure to comply with these provisions resulted in a 2009 Washington Supreme Court decision, *Gold Star Resorts v. Futurewise*, that required the County to comply with the GMA's "rural" planning requirements (Melious, 2017). The County's planning measures in response to the state supreme court decision were also challenged, by citizens and by Futurewise, a statewide smart growth organization.

The last of these challenges responded to Ordinance No. 2012-032, which the County adopted in August 2012. Unlike previous appeals, this case addressed the GMA's requirements

to protect groundwater, surface water, and water quantity in rural areas and was the impetus for ESSB 6091 and the subsequent WRIA 1 WMP amendment process (Melious, 2017).

Hirst

The 2012 appeal of the County's proposed amendment to its Comprehensive Plan addressed the relationship between land use planning and water use, an issue that had recently been addressed by the Washington State Supreme Court. In *Kittitas County v. Eastern Washington Growth Management Hearings Board*, a case that involved building permits for new subdivisions, the court observed:

> [S]everal relevant statutes indicate that the County must regulate to some extent to assure that land use is not inconsistent with available water resources. The GMA directs that the rural and land use elements of a county's plan include measures that protect groundwater resources (Growth Management, 36.70A.070 (1), *Kittitas Cty. v. Eastern Wash. Growth Mgmt*, 2011).

Based on evidence that the County had planned for substantial development in rural areas where no new year-round water supply was available, four Whatcom County residents, including Eric Hirst, and the statewide smart growth organization Futurewise filed appeals with the Growth Management Hearings Board, raising the issue of rural water availability. They argued that rural development would occur at levels inconsistent with the GMA requirement to preserve rural character, which the GMA defines to include protection of water quantity and fish habitat. The appeal was based on evidence that Whatcom County's Comprehensive Plan allowed substantial new development that would rely on permit-exempt wells in basins closed to new withdrawals and where instream flow requirements regularly are not met. (*Whatcom Cnty. v. Hirst*, 2016).

The Western Washington Regional Growth Management Hearings Board upheld Hirst and Futurewise's appeal, finding that Whatcom County's comprehensive plan did not adequately protect surface and groundwater, and thus was not in compliance with the GMA (*Whatcom Cnty. v. Hirst*, 2016). Whatcom County appealed the decision, which ultimately was heard by the Washington State Supreme Court. The court agreed with the Growth Management Hearings Board that the County's comprehensive plan and zoning code were not in compliance with the GMA's requirement to ensure adequate water supply before issuing a building permit or subdivision application (*Whatcom Cnty. v. Hirst*, 2016). Because of hydrologic connectivity of ground and surface water, the state supreme court ruled that it cannot be assumed that a permit-exempt well would not impair instream flows or existing senior water rights (Hirst, 2018). The court held that the GMA requirements to protect water availability place a burden on the counties to assure physical and legal availability of water before the issuance of building permits, and that in solely relying on DOE's "Nooksack Rule," Whatcom County had failed to comply with this requirement (*Whatcom County v. W. Wash. Growth Mgmt. Hr'gs Bd*, 2015).

In response to the state supreme court decision, which was generally referred to as the "Hirst" decision, the Whatcom County Council adopted Emergency Ordinance 2016-048 on October 25, 2016. This Ordinance placed an immediate moratorium on all filing, acceptance, and processing of new project permits that would rely on permit-exempt well withdrawals for water supply on properties located in a closed or partially closed basin as outlined in the DOE Nooksack Rule (Historical Exempt, n.d.). This moratorium was replaced by a series of ordinances, with the final interim ordinance (Ordinance 2017-019) adopted on March 7, 2017. This ordinance stated that project permits were required to include a study prepared by a

qualified hydrogeologist that showed the proposed well would not impact instream flows or other senior water rights holders (Historical Exempt, n.d.).

***"Hirst* Fix" (ESSB 6091)**

The specter of restrictions on permit-exempt wells was controversial in Whatcom County and in other rural counties across the state. In response, the Washington legislature adopted ESSB 6091, intended to eliminate the requirement to consider the effects of permit-exempt wells during the land use planning process. In much of the state, the new law replaced the GMA focus on protecting rural water resources with a blanket permission to drill permit-exempt wells upon payment of a small fee. In watersheds with instream flow rules, including the Nooksack watershed in Whatcom County, the law also stated that mitigation should be provided for the water that permit-exempt wells removed from closed watersheds. In Whatcom County, this mitigation requirement was proposed to be implemented through a watershed planning process, if the process could be completed in the course of a year.

On January 19, 2018, Governor Jay Inslee signed ESSB 6091, which its proponents refer to as the "*Hirst* fix," into law. In response, Whatcom County adopted Emergency Ordinance 2018-001, which immediately enacted the provisions of ESSB 6091 for WRIA 1 (Exempt Well/Water Information, n.d.). These provisions allowed the issuance of project permits for projects relying on permit-exempt wells, so long as they adhered to several conditions, including a 3,000 gallon-per-day per connection annual average and payment of a $500 project permit fee to the County (Washington State Senate, 2018). Under section 202 of ESSB 6091, seven WRIAs, including WRIA 1, were required to amend their existing watershed management plans. The legislature contemplated that DOE would work alongside the Initiating Governments and Planning Units established under the Watershed Management Act of 1998 (Washington State

Senate, 2018). Two watersheds, WRIAs 1 and 11 (the Nisqually watershed), were mandated to complete amended plans meeting the requirements of ESSB 6091 by February 1, 2019 (Washington State Senate, 2018).

ESSB 6091 reinvigorated the WRIA 1 collaborative management project by providing a specific goal, funding, and a timeline. The law tasked the WRIA 1 planning entities with amending the 2005 WMP to address the use of permit-exempt domestic wells. Specifically, they were to identify projects that would offset water use from new permit-exempt domestic wells, identify conservation measures to offset this water use, and agree upon a gallon-per-day annual average and project fee (Washington State Senate, 2018).

Historical settlement patterns, water law, and the history of WRIA 1 watershed planning have created a unique context from which the WRIA 1 WMP amendment process began. Collaboration is dependent on stakeholders working together toward a common outcome. As the watershed where *Hirst* originated, however, stakeholders in Whatcom County were already divided at the beginning of the revived collaborative process outlined in ESSB 6091. The division of interests from the outset of the WMP amendment process was a major factor contributing to the roadblocks in Planning Unit discussions regarding the challenging and contentious policy topics of limiting water use and imposing fees.

CHAPTER 3: LITERATURE REVIEW

Collaborative Ecosystem Management

Collaborative watershed management is a partnership between private interest groups, local public agencies, and state and/or federal agencies that meet as a group to discuss or negotiate public policy approaches to a defined area (Leach, Pelkey, & Sabatier, 2002). It is a broad and emerging process due to the increasing complexity and conflict in water resources management (Sabatier et al., 2005). Historically, a top-down command-and-control approach to natural resource management has been applied directly from government agencies, but the top-down approach has been questioned on the theory that it may lead to further loss of ecosystem resilience (Kenney, 2000, Holling & Meffe, 1996). This theory suggests that the often-unilateral focus of command-and-control management does not necessarily incorporate the need for continued monitoring of the impacts of management on the ecosystem. Historically, this absence of adaptive management has decreased ecosystems' sustainability (Holling & Meffe, 1996). Residents are often the first to see the negative impacts of command-and-control, which leads to further skepticism and push-back from those that experience a disconnect between how they believe the resource would be best managed and government mandates (Kenney, 2000, Breslow, 2015).

The perceived flaws in command-and-control natural resource management have led to increasing criticism and calls for reform of natural resource management (Sabatier et al., 2005, Kenney, 2000). In response, collaborative resource management has expanded, particularly in watershed management. Because a watershed has a distinct physical boundary that often does not match the scale of political boundaries of states, counties, and municipalities a collaborative

approach can consider issues across the entire watershed from a variety of perspectives while encouraging decision-making at a local level (Sabatier et al., 2005, Koontz & Thomas, 2006).

Diverse perspectives on how a resource should be managed create a broad reach for stakeholder partnerships to be able to define a problem, plan and implement the solution, and assess outcomes (Leach, Pelkey, & Sabatier, 2002). Scholars have identified this broad reach and more inclusive process as an important and comprehensive alternative to command-and-control approaches to watershed management (Lubell, 2004). However, some researchers have raised the concern that including all stakeholder perspectives on an even playing field when participants have few or no shared interests will lead to failure of collaborative processes to produce results (Kenney, 2000, Huffman, 2009). Specifically, researchers have challenged the validity of the idea that individuals and groups with competing interests will be able to put aside these interests for the greater good (Huffman, 2009). This critique highlights the need for stakeholders to be willing to seek common interests. The literature suggests that social exchange, measured through trust and reciprocity, is necessary for collaborative processes to define common interests and be successful. Scholars of collaborative processes suggest that lack of social exchange in these processes could lead to limited citizen engagement or stalemate, which could lead to failure and dissolution of collaborative efforts and could yield a process more reflective of command-and-control if the players left at the table are government agencies (Lubell, 2004, Hardy & Koontz, 2009, Steiger-Meister & Becker, 2012, Levesque et al., 2017, Huffman, 2009).

The WRIA 1 collaborative management project first began during the era of increased collaboration in natural resource management. Washington State was attempting to move away from command-and-control for watershed management, and thus the legislature chose to incorporate citizen perspectives in an attempt to address water quantity issues statewide.

However, when the Planning Unit dissolved in 2009, participants experienced a process reflective of command-and-control, as the WRIA 1 government entities were placed in charge of plan implementation. The literature of collaborative watershed management indicates that this is a common result when adequate social exchange is lacking ((Lubell, 2004, Hardy & Koontz, 2009, Steiger-Meister & Becker, 2012, Levesque et al., 2017, Huffman, 2009).

Mixed Participation Collaborative Watershed Management Frameworks

A disconnect between government agencies and local stakeholders in water resource management led to the widespread acceptance of the collaborative watershed management approach. This approach has been seen all over the United States, as well as in Europe (Hardy & Koontz, 2009, Kenney, 2000, Koontz & Newig, 2014). According to Koontz and Thomas, stakeholders were concerned that their water and land-use rights would not be adequately considered when government agencies, who were farther removed from these concerns, created watershed management plans. Thus, collaborative processes that would include the voices of on-the-ground stakeholders in decisions regarding watershed management plans gained popularity.

In watershed management, collaborative efforts often started as citizen-led groups that saw a water quality or quantity issue, organized and then received government funding. What followed was a diversification of collaborative group types (2006). The most common framework in collaborative watershed management is mixed participation, in which participants from governments, organizations, and private interests are instrumental (Hardy & Koontz, 2009, Kenney, 2000). Mixed participation frameworks often give government and non-government stakeholders equal voting and decision-making power in the collaborative processes, which can encourage citizen stakeholder participation, as they feel their input and local knowledge is valued

(Hardy & Koontz, 2009, Kenney, 2000). All frameworks discussed below, including the WRIA 1 planning entities, fall into the category of a mixed participation model.

Since the emergence of collaboration as a focus for resource management, government agencies have been grappling with how to best implement these processes. The literature notes that each instance of collaborative management is different because of the interaction between attributes of institutions, attributes of the resource, and attributes of the community which creates the unique context for each instance of collaborative management (Ananda & Proctor, 2012). Although there are several best practices that contribute to the success of a collaborative process, the way each attribute contributes to the context may alter which best practice should be emphasized. Each watershed must identify a framework that will work best for its purposes.

Because of pre-existing rules and power dynamics in many watershed partnerships (Hardy & Koontz, 2009, Ananda & Proctor, 2012), some researchers identify a need for a tool to share power between stakeholders to overcome challenges that may arise due to contentious history over water rights in a region, a lack of social exchange, a lack of leadership, or a lack of funding. Scholars have identified co-management as a power-sharing mechanism that is beneficial in institution building, building trust, and building social capital. Co-management evenly distributes power between stakeholders by establishing a knowledge sharing and voting structure that equally considers each stakeholder. Kerkes (2008) identifies co-management as a management mechanism that can generate knowledge and bridge governance gaps that often exist due to historical command-and-control approaches. In theory, this would lead to informed, impartial discussions between government and citizen stakeholders regarding management approaches. However, this can be a challenging or even impossible dynamic to create. Existing water law, tribal water rights, and instream flow rules present in WRIA 1 introduce a power

differential that may influence negotiations in a multi-stakeholder group if sufficient steps are not taken to reduce this differential.

Bridging the gap between levels of governance is not sufficient for a collaborative group to come to an agreement on a watershed plan that will meet the collective goals of the group. Huitema et al., discuss the integration of adaptive management and co-management as a solution to this problem. These approaches combine the learning and structured experimentation aspects of adaptive management and the linkage between different levels of government and citizens present in co-management (2009). Continued learning along the way is essential for the implementation of watershed plans. A structure that supports learning and continued generation of knowledge can build collective trust in a group setting and potentially lead to a stronger outcome. However, this is challenging to maintain in practice and thus rarely seen long-term (Huitema et al., 2009).

Mandatory Participatory Planning

In some instances, the need for a new approach to resource management is strong enough that citizens form a collaborative partnership to address resource management with strong leadership and little outside influence aside from funding (Bentrup, 2001). However, in other cases scholars have found a financial or legal incentive necessary to encourage citizen engagement (Steiger-Meister & Becker, 2012, Newig & Koontz, 2014, Kenney 1999). This approach has specifically been seen in government mandated collaboration as an emerging concept described as ‘mandatory participatory planning’ (MPP).

MPP is a directive from the federal or state government for on-the-ground players to create a governance plan in conjunction with government officials, as is specifically seen in the language of the Watershed Management Act and in ESSB 6091. MPP is a combination of multi-

level governance, policy implementation, and participatory governance and has been found to enhance implementation and citizen engagement as well as democratic environmental management (Newig & Koontz, 2014, Wagenet & Pfeffer, 2007). Since several studies have identified citizen engagement as necessary for the adoption of plans pursuant to watershed collaborations, a framework that is designed to enhance citizen engagement would seem to be highly beneficial. Additionally, citizens often do not engage or do not know how to engage in the complex water management process unless a clear process is provided for their participation (Steiger-Meister & Becker, 2012).

MPP is emerging to encourage broad stakeholder participation, and in 1998, with the passage of the Watershed Management Act and the subsequent passage of ESSB 6091 in 2018, Washington State chose to utilize MPP to attempt to conserve and manage strained water resources. However, in a comparison between MPP and citizen-created watershed collaboration, Koontz and Newig found that the citizen-created watershed group was more successful in watershed plan adoption (2014). This could potentially be due to the fact that citizen-led collaborations come about when relevant actors share a sense of need (Bentrup, 2001), thus creating more buy-in and willingness to collaborate and find shared interests and broadly beneficial solutions. The potential advantages and disadvantages of MPP are particularly relevant to this research, as the WRIA 1 WMP amendment process is an example of MPP.

Defining and Measuring Success of Mixed Participation Frameworks

Collaboration has been on the rise in resource management, but it is important for governments and citizens considering putting time, knowledge, and money into such processes to understand how successful collaborative watershed management is likely to be and what leads to success (Koontz & Thomas, 2006). Researchers, managers, and participants have struggled to

define success in both mixed and non-mixed participation frameworks of collaborative watershed management (Kenney, 2000). This thesis focuses on an instance of mixed participation; however, the literature definitions of success are used across all frameworks of collaborative watershed management.

Although the most meaningful measure of success would be to determine whether the collaboration improved ecological conditions within the watershed, such data are limited and therefore rarely used as a measurement (Leach, Pelkey, & Sabatier, 2002, Koontz & Thomas, 2006). The complex nature of watersheds and the substantial data requirements to measure the varying aspects create significant challenges for researchers trying to establish a causal link between collaborative watershed plans and environmental changes (Robinson, 2016). Although this understanding is crucial for understanding the appropriate policy approaches, the challenges have deterred many researchers and thus, the focus of success has been on the procedural aspects of collaboration.

Because measuring an environmental change cannot easily be linked to a management action or policy choice, assessing participant perceptions of the effect of the partnership on community and relationships provides researchers with a different way to measure success in all types of collaborative relationships (Koontz & Thomas, 2006, Leach & Pelkey, 2001, Stedman 2009). In a literature review of watershed partnerships, Leach & Pelkey found that the partnerships defined success as the adoption or implementation of watershed plans, projects, or policies (2001). These line up with objective criteria that researchers have used to define a successful plan creation: adoption of a plan, project, or policy, as well as monitoring, education, and outreach projects (Leach et al., 2002).

Measuring whether a plan has been adopted or a policy has been implemented is simple and objective. However, it is too simplistic to state that, since a plan has been adopted, the process was successful. This does not allow for any analysis of the plan's components, and how successful it will be in addressing the challenges facing the watershed. Thus, many researchers focus on identifying what factors influenced the outcome of the collaborative process. The goal of many collaborative groups is to adopt and implement a watershed plan that addresses watershed issues. Therefore, understanding how to get to this end point is crucial.

Previous research has identified several components that are necessary for groups to be successful in reaching and/or implementing a plan. One of the most consistent themes identified across the literature is the presence of social exchange. (Leach et al., 2002, Wagenet & Pfeffer, 2007, Steiger-Meister & Becker, 2012, Bentrup, 2001, Lubell, 2004). Social exchange is measured through the presence of trust and reciprocity, both of which have been identified as essential to successful collaboration (Leach & Sabatier, 2005). Other contributors to success consistently identified were the presence of strong leadership, sufficient time, and funding (Leach et al., 2002, Wagenet & Pfeffer, 2007, Steiger-Meister & Becker, 2012, Bentrup, 2001). Funding is often more consistent in government-based and mixed groups, potentially leading to higher success rates in groups that follow this model (Koehler & Koontz, 2008).

Because social exchange, measured through trust and reciprocity, was identified in numerous case studies as essential for successful collaboration (Leach & Sabatier, 2005, Leach et al., 2002, Wagenet & Pfeffer, 2007, Steiger-Meister & Becker, 2012, Bentrup, 2001, Lubell, 2004), this thesis seeks to describe the presence of trust and reciprocity during the ESSB 6091 WMP amendment process in WRIA 1.

Social Exchange in Watershed Management

Social exchange, defined as *exchanges between individuals in a group or society which requires trust and reciprocity*, has been identified as an essential aspect to successful collaborative watershed planning (Buchan, Croson, & Daws, 2002, Maiter et al., 2008, Lubell, 2004). Reciprocity is a *personalized form of exchange where there is an expectation of return that serves to strengthen a bond* (Maiter et al., 2008). This idea is increasingly prevalent in successful collaborative watershed management because of the presence and fear of free riders. A common barrier to collective action, the free rider problem occurs when participants believe that some members of the group are benefitting without putting in effort and can thus reduce the effort put forth by all group members. (Steiger-Meister & Becker, 2012, Lubell, 2004, Levesque et al., 2017).

Lubell describes social exchange as supported by an attitude of trust and the belief that other parties will fulfill their commitments. This further engages participants and can, in the end, lead to the development of a more comprehensive and successful plan (2004). When participants perceive that the benefits of participation will outweigh the costs in a collaborative relationship, as is often the case when there are high levels of social exchange, they are more likely to engage fully (Hardy & Koontz, 2009). Additionally, as discussed by Lubell et al., length of partnership was an identifying factor in the success of collaborative partnerships. The continued sharing of ideas and resources builds trust over time, which more often leads to the development of a watershed plan (2002).

Social Exchange in Organizational Settings

One requirement of social exchange is trust (Buchan, Croson, & Dawes, 2002). Scholars across many disciplines have described the importance of trust, defined as *an individual's*

behavioral reliance on another person under a condition of risk, to social relationships (Mayer, Davis, & Schoorman, 1995, Currall & Judge, 1995). Although complicated and multifaceted, researchers found trust to be manifested in the presence of trusting behavior, including open and honest communication, entering informal agreements, and the coordination of tasks, as well as the absence of non-trusting behavior, such as maintaining surveillance or constant 'checking in' (Currall & Judge, 1995).

Open and honest communication occurs when individuals in an exchange are perceived to be and are in fact acting with integrity (Mayer, Davis, & Schoorman, 1995, Gabarro, 1987). Informal agreements take place when two or more individuals or parties agree upon some action without the presence of a contract. When individuals choose to enter into informal agreements, they are expressing trusting behavior because they are choosing to believe that other parties or individuals will fulfill their obligations even if it is not explicitly contracted (Currall & Judge, 1995). Additionally, a high level of cooperation is necessary in the absence of contracts or documents (Fehr, Fischbacher, & Gachter, 2002). Task coordination occurs when two or more individuals or parties work together to reach a common goal, which requires coordination between parties or individuals and the integration of resources and effort (Currall & Judge, 1995). Finally, presence of surveillance signifies lack of trust and in some cases even breeds further distrust (Currall & Judge, 1995, Strickland, 1958). Surveillance does not necessarily have to be electronic surveillance, but if individuals or parties are constantly checking-in on one another, it can be extrapolated that trust is not present (Currall & Judge, 1995). Additionally, when an individual or party insists on overseeing or observing all actions taken by another, trust is not present (Gabarro, 1987).

These four dimensions of trust can be used to describe trust between representative members in an organizational setting, such as the MPP setting (Currall & Judge, 1995). However, trust is just one aspect of social exchange. The other, reciprocity, is analyzed by examining the depth of communication and amount of resource sharing present between parties. Depth of communication is the presence of civility and cooperation between parties, and the absence of retaliation and selfish acts that would not support the information exchange necessary to support norms of reciprocity (Fehr, Fischbacher, & Gachter, 2002). Resource sharing has been described as representative of reciprocity and committed participation (Fehr, Fischbacher, & Gachter, 2002). Resources commonly shared in institutional and organizational settings include money, time, personnel, effort, and information (Cremer, 2003).

Challenges in Collaborative Watershed Management

As collaborative environmental management has become more broadly practiced, concerns and criticisms of the practice have also emerged (Kenney, 2000). Although often celebrated as an inclusive alternative to command-and-control natural resource management, collaboration is also criticized as heavy on process, light on outcomes (Huffman, 2009). Due to the diverse and at-times opposing interests of represented parties, meaningful solutions often evade collaborative watershed groups, and the challenges addressed are instead the "low hanging fruit" (Kenney, 2000). Researchers describe that collaborative watershed management efforts rarely take place if the resource to be managed is not in scarcity. Water resources can be particularly divisive due to the ideological and economic attachment that many have to this resource. Thus, when water is already in scarcity, prior interests are often enhanced, leading to ineffective collaboration (Huffman, 2009).

Some scholars of collaboration have raised concerns about the appropriate weighting of the rights of stakeholders. When each stakeholder is given equal voting and veto power, there may not be any incentive to give on closely held interests, making agreements more challenging to reach and often extending the process. Stakeholders may feel less inclined to compromise their interests knowing that anyone in the group can veto, leading to a more positional approach (Huffman, 2009). Additionally, scholars have said that collaborative management processes may give stakeholders a sense of entitlement, believing that each of their interests should be met in any agreement that is reached. This sense of entitlement comes from being given equal power with government entities, which have historically held all decision-making power in natural resource management. Often, stakeholders lack the expertise held by government representatives, but because the collaborative process gives each participant equal say, this expertise can be undervalued or lost amongst expressions of stakeholder interests. As a result, stakeholder entitlement may further increase the likelihood of a stand-still in decision-making (Huffman, 2009).

One potential remedy is to establish a structure that gives some stakeholders more power than others. The WRIA 1 collaborative management project has a power differential that was written into the Watershed Management Act. The structure of the WRIA 1 planning entities is unique in that the Planning Unit, consisting of all participating stakeholders, meets separately from the WMB, which consists of the Initiating Governments. This separation highlights a split in power between citizen and government caucuses and implements the language in the Watershed Management Act, which provides that decisions must be made by consensus *or* through a consensus of all of the government caucuses, plus a simple majority of the non-government caucuses (Watershed Planning, 1998). The government caucuses, defined in the

2016 Planning Unit Process and Procedures agreement to include Whatcom County, the City of Bellingham, PUD #1, Lummi Nation, Nooksack Tribe, Diking and Drainage, Small Cities, the Port of Bellingham and Water Districts (Whatcom WRIA 1 Planning Unit, 2016), thus are each given veto power over any plan agreed upon by the Planning Unit, while the views of the other stakeholders are given a lower priority through the lack of a consensus requirement with respect to their votes. The power differential, although beneficial in moving beyond stalemate between citizen stakeholders, can lead to other challenges regarding trust in officials, which can further de-rail collaboration.

Conclusion

Collaboration has become increasingly prevalent in natural resource management, but it cannot happen successfully without social exchange between participating parties (Leach & Sabatier, 2005). When the parties include a mixture of government agencies, non-profits, and non-affiliated private interests, there is a diverse set of values, as well as institutional and personal history, which contributes to the specific context of the collaboration. One unifying trait identified by Leach et al. is that most participants in collaborative watershed management processes are genuinely interested in improving watershed characteristics (2002). Building on this, governments have put in place frameworks to encourage participation (Newig & Koontz, 2014, Steiger-Meister & Becker, 2012).

However, even if their participation is mandated, participants are not likely to engage fully if they do not believe that social exchange is occurring. Citizen participants are key to successful collaboration processes because they are the grassroots stakeholders that have a large stake in the management decisions made (Lubell, 2004, Koehler & Koontz, 2008). In an MPP framework with mixed participation, citizens are less likely to engage in the absence of social

exchange. Lacking citizen engagement, the process becomes less broadly collaborative and returns to historical processes that more closely reflect traditional command-and-control approaches to resource management. This dynamic is unlikely to lead to plan development through collaborative means. The WRIA 1 watershed management project, an MPP process, has a diverse set of stakeholders and a structure and mandate that enhances historical power differentials. This context, the challenges, and best practices outlined in the literature provide background for understanding participant perceptions of social exchange in the WRIA 1 watershed management project during the ESSB 6091 WMP amendment process.

CHAPTER 4: METHODS

Qualitative Method

This thesis used a qualitative approach to analyze the WRIA 1 management project collaborative process, focusing particularly on two aspects of social exchange: trust and reciprocity. This descriptive approach is necessary to accurately capture the complexity and dynamism of the WRIA 1 plan amendment process. Findings are based on semi-structured interviews conducted with stakeholders participating in the WRIA 1 WMP amendment process, personal observation during meeting attendance, and public e-mail correspondence between WRIA 1 caucuses. Interview questions were open-ended to allow participants to describe their experience in a rich, highly detailed manner without the confines of a specific research framework (Maxwell, 1996).[1]

Interview Design

Participant Selection

Participants were selected based on participation in the WRIA 1 Planning Unit or WMB. All individuals that were contacted were representatives for their caucus at the Planning Unit or on the WMB. WRIA 1's Planning Unit is the recommending body for any draft WMP amendments. The Planning Unit is comprised of one representative from each of 18 caucuses, although four of the caucuses are not currently represented (Klein, R. personal communication). The Planning Unit recommends any plan that it develops to the Management Board, which consists of members from each of the Initiating Governments: Lummi Nation, Nooksack Tribe, City of Bellingham, Whatcom County, and PUD #1. Each Initiating Government represented on the Management Board has veto power over the plan. Whatcom County and PUD #1 are also

[1] Application approved by the Western Washington University Internal Review Board on June 5, 2018

members of the Planning Unit, creating a power differential between Planning Unit members with and without veto power.

The Planning Unit is composed of government and non-government stakeholders representing broad and varied interests. The current participating caucuses are: Agriculture, Diking and Drainage, Land Use, Private Well Owners, Small Cities, State Government (represented by DOE), Whatcom County, Environmental, Fishers, Forestry, Non-Government Water Systems, Water Districts, Port of Bellingham, and PUD #1. Each caucus represents distinct interests in the watershed.

These similarities and differences in interests create significant complexity that enhances the applicability of an inductive, open-ended research approach. Data sources should arise from the purpose of the evaluation and the specific context of the research (Maxwell, 1996). Archival records, personal observation, and public documentation provided essential background information that helped to inform further research, including the interview process. To get a representative picture of the social exchange dynamics present in WRIA 1, interviews with each caucus representative on the Planning Unit and each member of the WMB were sought. Having the perspectives of each participant would allow the collection of rich, highly detailed responses that more fully inform the description of social exchange in the WRIA 1 planning entities.

During initial outreach in June 2018, 12 representatives agreed to be interviewed. The representatives from the PUD #1, Diking and Drainage Districts Caucus, Lummi Nation, Private Well Owners Caucus, State, and Non-Government Water Systems Caucus either did not respond to interview requests or declined to be interviewed. This gave a sample size of 12 individuals for the first phase of interviews, which took place in June and July 2018. For consistency of perspective and to better analyze whether a shift in dynamics or perceptions had taken place

during the WMP amendment process, a second round of interviews was conducted in October 2018 with the same participants. Due to scheduling challenges, the representative from the Fishers caucus did not participate in the second round of interviews.

To encourage candid participation, participants were ensured that their names would not be associated with what they said during interviews. Interviewees and Planning Unit members who were not interviewed, but participated at Planning Unit meetings, were given unique numerical pseudonyms for analysis and discussion.

Question Development

Question development drew from classic grounded theory to allow the in-depth and potentially unanticipated answers from participants to guide conversations during round one interviews, and to inform the development of questions during round two interviews (Holton & Walsh, 2017). This approach was crucial to accurately describing participants' perceptions of the process, rather than to trying to fit their responses into a pre-determined framework (Robinson, 2016).

Round One Interviews

While participants' responses helped to guide the interview process, to maintain direction, questions were developed that specifically related to social exchange in the WRIA 1 WMP amendment process (Appendix A). Thus, the first round of interviews incorporated questions relating to the two most prevalent components of social exchange: trust and reciprocity (Currall & Judge, 1995, Mayer, Davis, & Schoorman, 1995, Gabarro, 1987, Godfrey-Smith & Martinez, 2013, Fehr, Fischbacher, & Gachter, 2002, Kramer & Tyler, 1996, Cremer, 2003). Additional questions to describe interactions with specific Planning Unit members, WMB members, or caucuses were also included, with several broad questions regarding participants'

overall experience. Not all questions were asked in each interview, as it is crucial to follow the conversation and allow the participant's perceptions guide the discussion when using an inductive approach.

Round Two Interviews

Following the completion of analysis on the first round of interviews and all personal observation from meeting attendance to that point, a second round of interview questions was developed to further explore the main themes that had emerged (Appendix B). These questions more deeply explored specific aspects of social exchange and other social and political dynamics that were prevalent during the first round of interviews. These questions were focused on eliciting the greatest understanding of the five main themes that emerged from previous interviews and observations: leadership, technical knowledge, power differentials between government and non-government caucuses, Planning Unit purpose, and community trust. Although more focused, the questions remained open-ended to allow specific and differing interpretation by each interviewee. In addition to these questions, participants were asked to describe any changes in dynamics on the Planning Unit or Management Board they had witnessed or experienced as the process came closer to the end.

In addition to interviews, detailed notes from public meetings were taken to supplement the information gained from interviews. All interviews were recorded with the permission of participants. Following each interview, the recording was transcribed using the online transcription software Temi, and then coded into broader themes by hand. Notes and interview transcripts were stored in a Microsoft Word Document and then were transferred into the qualitative analysis software program Weft QDA to facilitate analysis and quote grouping (Maxwell, 1996, p.79).

Analysis

The analysis of interview results, supplemented by archival research and public meeting attendance, originally focused on the fundamental aspects of social exchange, including trust and reciprocity. Because a qualitative approach captures highly detailed substantive and procedural information, additional themes emerged and were given equal representation and attention in follow-up interviews (Maxwell, 1996, pp. 78-79, Robinson, 2016, Holton & Walsh, 2017). This methodological approach was especially appropriate in the context of the lengthy historical context of WRIA 1 to avoid applying too narrow a lens and risk missing themes that participants view as relevant.

Coding

Coding procedures were guided by a mixture of classic grounded theory (Holton & Walsh, 2017) and other theory-based qualitative research methods (Maxwell, 1996). Maxwell describes using a list of codes established based on the study design, research questions, and existing literature (1996). Holton & Walsh describe allowing codes to emerge through a series of observations, analyses, and line-by-line transcript read-throughs. To begin, interview transcripts and meeting notes were read carefully several times, line by line, to produce a list of themes. Next, a general list of themes from the collaboration literature was established. The lists were then compared and overlapping themes were combined (Appendix C). The 12 transcripts from the first round of interviews were then uploaded into the qualitative analysis software Weft QDA and thematically coded. The themes that were mentioned most frequently or needed the most clarification were then used to create interview questions for the second- round of interviews.

Following the second round of interviews, the same process was followed, using the same codes as the first, and adding any emerging themes following a thorough, line by line read-

through of all transcripts. After each transcript was thematically coded, the results were transferred into an excel document. Finally, quotes that had been highlighted in Weft QDA were grouped by theme in the excel spreadsheet and labeled with interviewee pseudonyms.

CHAPTER 5: RESULTS AND ANALYSIS

Overview

A variety of factors and themes emerged from participant descriptions of the social exchange dynamics in WRIA 1 (Table 1). The most common factors to emerge were trust,

Factor	*Theme*	*Brief Description Based on Transcripts*
Trust	Social Trust	Concerns about caucus representatives reflecting caucus views; rigidity in positions; people have agendas; people are worried about 'losing'; changes in caucus representation
	Official Trust	Perception that governments do not see value in the Planning Unit; ideological distrust of government; lack of support from the County Council; desire for Planning Unit autonomy
	History	Concern that the Planning Unit had been dissolved and minimized; prior success with consensus decision-making; disputes/ questions relating to Planning Unit revival
Committed Participation	Lack of Local Government Participation	Lack of participation by City of Bellingham
	Tribal Participation	Lack of tribal representation; questions about reasons for lack of tribal participation
	Caucus Commitment	Commitment to creating plan to address watershed issue
Time	Process is slow	Comments with "all process"; circular discussions about process; caucus system is slow
	6091 Timeline	Observations that one year is not enough time
Scope of Activities	Narrow	Perception that the scope of activities is too narrow and not addressing broad watershed concerns
Leadership/Facilitation	Need for Facilitation	Lack of facilitator; lack of leadership
Technical Understanding	Need for understanding	Perception that a general level of watershed knowledge is necessary; concern that a lack of technical knowledge requires trust of staff
	Staff team not trusted	Perception that staff were "leading"; concerns about technical expertise of staff
Well-defined Process	Complex structure	Concerns with the power differentials in the voting structure; observations that not having all participants in the room together leads to frustration and distrust;
	Process is disputed	Disagreements over the separation of Planning Unit and Initiating Governments and the Planning Unit function

Table 1. Description of factors and associated themes present in WRIA 1

reciprocity, leadership, the need for a well-defined process, the need for technical understanding, time, and an appropriate scope of activities, all of which are prevalent in collaboration literature as a set of best practices that contribute to successful collaboration. (Sabatier et al., 2005, Leach & Pelkey 2001, Leach et al., 2002, Wagenet & Pfeffer, 2007, Steiger-Meister & Becker, 2012, Bentrup, 2001, Lubell, 2004). Several of these themes were more prevalent in discussions with WRIA 1 planning entity participants and thus will receive their own category in the following presentation of results.

The next sections will discuss the main factors prevalent in WRIA 1. First will be a description of participant perceptions of social exchange dynamics and how these varied between caucus representatives and how far along the process was. This will be followed by a description of the specific legislative challenges presented by ESSB 6091. The analysis will conclude with a discussion of several other emergent best practices in collaboration, including the leadership, the need for technical understanding, and the importance of having a well-defined process, and how they relate to WRIA 1.

When ESSB 6091 was passed, the WRIA 1 planning entities were conflicted on what steps to take next. The legislation took a narrow focus and one participant pointed out that it "centered discussions on the most contentious caucus [the Private Well Owners]" (Interviewee 1). Planning Unit representatives who had been working since 2013 to build trust and to educate newer caucus representatives found themselves in a new environment of conflict. Some representatives, concerned that the *Hirst* case and ESSB 6091 legislation threatened the ability for prospective builders in Whatcom County to use permit-exempt domestic wells for water supply, viewed the ESSB 6091 requirements as a direct threat to their property rights. The interpolation of the ESSB 6091 requirements into the planning process thus created a contentious

start to the WRIA 1 WMP amendment process. Several participants recognized the potential challenges posed by attempting to address permit-exempt domestic well use and considered suggesting that the Planning Unit let DOE take on rulemaking from the start. They believed that this would have allowed the Planning Unit to continue building trust and focusing on larger issues in the watershed (Interviewee 1, Interviewee 10).

Despite many challenges and frustrations facing the development of a plan, once the process began, most participants were still highly committed to the overall goal of watershed improvement. As one interviewee said, "now that 6091 has come around, we now have a clear focus and participation actually ramped up… So, yeah, I would say since then everybody seems to be pretty…every single caucus seems to be pretty focused on trying to get something done" (Interviewee 3).

Social Exchange

Trust

Scholars have defined two types of trust: social and official. Trachtenberg and Focht define social trust as *stakeholders' tendency to accept the judgments of other stakeholders*, and official trust as *stakeholders' willingness to defer to policy officials' policy judgments* (2005). Conversely, Trachtenberg and Focht describe states of social distrust, where stakeholders are less inclined to cooperate with each other, and official distrust where stakeholders assume an enhanced role due to thinking that officials are incompetent and/or irresponsible (2005).

In the context of WRIA 1, participants made it clear that history plays a major role in both social and official trust. For the WRIA 1 collaborative process, therefore, the history of the WRIA 1 planning process has been included as its own theme.

Social Trust

Trust was the most commonly discussed theme, with 123 unique passages referencing trust. Of the three components of trust, social trust was the most discussed, with 78 unique passages. Social trust is key to quick, smooth decision making (Trachtenberg & Focht, 2005), as most WRIA 1 participants recognized: “we don't get to really hard decisions without at least having some personal connection to each other” (Interviewee 1). However, getting to the point of personal connection takes time, as one participant noted: “at the beginning you know, you don't know who that person is. You don't have a trust level, so it's a little bit iffy, scary” (Interviewee 11).

At the beginning of the WRIA 1 WMP amendment process, several caucuses and caucus representatives had been meeting since 2013 or even before. However, there were at least five caucus representatives who took on the caucus representative role right at the start of the WMP amendment process, requiring them to begin the challenging ESSB 6091 process with no basis of trust or understanding of positions. When asked whether they trusted other members of the Planning Unit, one participant who had been involved with the process for several years stated that: “We don't have that trust with [newer caucus representatives]” (Interviewee 10). This presented a unique challenge for the participants in the WRIA 1 Planning Unit. Time for building relationships is key to the success of collaborative watershed management groups (Leach et al., 2002, Wagenet & Pfeffer, 2007, Steiger-Meister & Becker, 2012, Bentrup, 2001, Lubell, 2004). However, with only one year to finalize a plan and new representatives, the WRIA 1 planning entities were at a disadvantage.

Despite this disadvantage, participants were hopeful at the beginning of the WMP amendment process that they would be able to work through the challenges. One participant

stated with cautious optimism: “I don't see any backdoor things going on. I think everything, everybody's above board…I think there's some trust there” (Interviewee 12). Another participant, who had been involved with the Planning Unit since before the WMP amendment process began, was also cautiously optimistic about the amount of trust present at five months into the process: “I think it's improving… I think for the time being, people are generally feeling more trusting of the people around the table than they have at other times” (Interviewee 6). This representative was realistic about the importance of trust and how it could impact the process. They stated that “trust creates efficiency and lack of trust goes the opposite direction. I think I see a developing rapport among the Planning Unit members and so in that sense, I think the more we see that, the more trust, the more that kind of engenders trust” (Interviewee 6).

Participants in the first round of interviews expressed varying levels of trust, but all seemed to believe that there was enough trust present to support finishing a plan. At the five-month point in the process however, the Planning Unit members were still in the process of collecting data from consultants hired to create population projections. These population projections were then used to create estimates for consumptive water use. Once these estimates were finalized, the WRIA 1 planning entities were required to set water use limits for new wells along with a fee amount for new wells. Although these issues were not directly identified in the first round of interviews, several participants eluded to the fact that more challenging policy discussions were coming, and that they were fearful that these discussions might de-rail the progress that the Planning Unit had made towards a unified group dynamic.

The change in group dynamics was clear from the onset of the second round of interviews. Although the interviews took place only three months later, participants expressed that there was either an overall lack of trust between caucus representatives or that they had

observed that any trust that had been there had dissolved due to the inflexible positions of some caucus representatives. It was at this point that participants began to express concerns about reaching a resolution due to the lack of social trust: “There's no clear path to how, how we get there because there's not a lot of trust now. And there's maybe even less trust now” (Interviewee 1). Participants expressed that the level of trust between Planning Unit members in October and November was less than in June and July, creating uncertainty moving forward: “Right, and you can see that there's not a lot. I mean it's not completely gone, but there's, nobody's, people aren't sure. And there's not a lot of certainty” (Interviewee 3). The WMP amendment process began with a group of people, some new and some of whom had been working together for years. The process started building trust, but because of the short timeline outlined by ESSB 6091, the challenging policy discussions regarding water allocation and fee amounts had to begin before a solid level of trust could be established.

Trachtenberg & Focht note that lack of social trust often plays out as participants acting defensively. Participants will participate in the process but refuse to cooperate or collaborate (2005). Once the policy discussions began, this lack of social trust became apparent to many Planning Unit members. Several caucus representatives recognized that other representatives were “scared and their values, they feel like their values are being attacked so they're not really interested in what we put on the table. They're just interested in getting things off of the table.” (Interviewee 1). This dynamic was frustrating and disappointing to other caucus representatives because, to reach a consensus and finalize a plan amendment by the February 1, 2019 deadline, a certain amount of give and take was required of all stakeholders. One representative stated that they were “a little dismayed by certain caucus’s unwillingness to discuss things, and some of the overt suspicion of the process. … I guess I like to think that when you come into something like

this and agree to sit at the table, you sort of agree to put some of that behind you" (Interviewee 4). Critics of collaborative watershed management have found that collaborative processes focused on water quantity issues can be more contentious than discussing water quality or habitat issues because some stakeholders may stand to lose water (Kenney, 2000), and the increasing contention in the WMP amendment process may reflect that dynamic. In the WRIA 1 WMP amendment process, the group that stood to potentially lose access to water was the Private Well Owners, which was the group often referenced as being unwilling to discuss options. As is often seen in alternative dispute resolution (ADR) literature, if negotiators feel that their values are being attacked, they are unlikely to engage in discussions about creative solutions (Fisher, Ury, & Patton, 2011, Carpenter & Kennedy, 1988). During the WRIA WMP amendment process, this dynamic was prevalent when the planning entities were trying to agree on water use policies. Those whose values and interests would not be directly impacted by a reduction in daily water usage, a well fee, and well metering were more interested in discussing creative variations than the representatives whose caucus members would be more directly impacted.

The question of caucus representation was also a point of contention that led to a decrease in social trust between some caucus representatives. The non-governmental caucus representatives are often self-appointed in the WRIA 1 management project, thus leading to many questions about the legitimacy of caucus representation and concerns about adequate communication with caucus members. This was expressed as a lack of trust in, or an uncertainty of, the positions of certain caucus representatives. One caucus representative stated: "I don't know who that is, I don't know who or what they represent and I think that, if you, if we were to really look closely, we would find out that a bunch of those caucuses never meet, and that individuals in fact are kind of molding, you know, their own interest into the caucus"

(Interviewee 6). One participant pointed out the difference between trusting individuals and overall social trust. This distinction was important when considering whether the individuals were representing their caucus:

> "I guess for the most part, and my contemplation here is that you can come to trust the people that are there, but did I trust that they were representing their constituents, the caucus? Not so much, there were quite a few times when I felt like it was just a personal opinion that was not steeped in discussions with other caucus members or meetings with the broader segment of the caucus. So, then the concern was if we move ahead with this position from this, from this representative and it's not representing the caucus and we come out with a work product that then gets slammed in the public for some reason. It's a waste of time." (Interviewee 2).

Several Planning Unit members had expressed along the way in interviews and during meetings that they did not feel that the Planning Unit was being taken seriously by the Whatcom County Council or by the public. This concern regarding caucus representation gets right to that issue. If caucus representation is not honest or holistic, the work product can never be truly collaborative, leading to a plan that may still be challenged by some members of the public or agency representatives.

The differing conversations regarding social trust point to how multifaceted trust in a collaborative process can be. Trust takes time to build and can easily be lost. Participants overwhelmingly expressed skepticism about trust being present in the WRIA 1 WMP amendment process, especially as the ESSB 6091 process progressed. Concerns such as changes in representation, whether representation was legitimate, and whether people were willing to act collaboratively were consistently discussed. While some participants expressed hope for collaboration, most seemed to find that the dramatic differences in represented interests led to reduced trust that could not be built and fostered in the amount of time provided by ESSB 6091. Participants observed that it would require a much longer timeline, such as the seven-year period needed to create the 2005 WMP by consensus. In reference to the 2005 WMP, one representative

said that “there was some pretty tough relationships back then, but eventually that brought us to the point where we could actually produce a plan, but it took five years, six years, you know, to do that. That's a long time” (Interviewee 8).

Official Trust

Trachtenberg & Focht state that official distrust can occur when officials are seen as incompetent and/or irresponsible. This can be combated if officials give stakeholders shared power in decision-making (2005). Several Planning Unit participants did not feel that they were given a shared voice in decision-making. One participant noted that “County staff hates the Planning Unit as far as I understand. They would like to see us go away so that they can do their thing. We're a thorn in their side” (Interviewee 11). This feeling of not being valued by Whatcom County, the lead agency, was expressed by another participant as well: “But I think I feel like we get kind of minimized by especially at the county executive level” (Interviewee 1). The feeling of being minimized and undervalued seemed to largely stem from the 2009 dissolution of the Planning Unit. Although Whatcom County eventually re-instated the Planning Unit, four representatives expressed directly that they felt they were still minimized and undervalued because they represented the citizen voices of Whatcom County. This seemed to enhance some Planning Unit representatives’ desire for autonomy in decision-making, rather than being incorporated into Whatcom County decision-making. One participant observed: “My sense is that they [representatives who desire autonomy] see a lot more power in the Planning Unit than I do and that they maybe are frustrated by a lot of the elected governments that they had that represent them” (Interviewee 8).

Collaborative watershed management often arises in the context of governmental failure to manage the resource adequately. One Planning Unit representative explicitly called this out

when they said, “We have nothing like that [adequate water resource management] and that's the failure of the county because they're the lead agency, so hopefully we can help guide that process and understand what's going on” (Interviewee 8). Often, the desire for autonomy and a larger citizen role can come from citizen stakeholders not thinking that officials have adequately addressed issues in the watershed (Trachtenberg & Focht, 2005). Many participants felt that “the County has just failed at water resource management. And that Ecology has failed, and you know, since, since whenever, but definitely since the 2005 watershed management plan was approved” (Interviewee 1). When participants discussed the failure of Whatcom County and DOE to adequately manage water resources, they seemed frustrated that planning was not moving along more quickly but were also motivated to take on a larger role.

In some cases, the desire for autonomy and a larger stakeholder role came instead from an overall distrust in government. These discussions get at a larger issue in watershed management. Distrust of government can lead to distrust in government-produced data, debates regarding the baseline of the problem, and the inability to accept a solution proposed by a governmental agency. Several caucus representatives noted these attitudes in other Planning Unit caucus representatives. One participant observed that “some of the caucus members are antigovernment and have a lot of animosity towards, you know, government staff and stuff” (Interviewee 9). When government staff are responsible for producing the data from which decisions are made, this can lead to disagreement about the nature of the problem to be solved, which was discussed by another participant: “Like I was saying about agreeing on what the problem is. The problem I think for some caucuses, maybe Non-Governmental Water Systems, maybe Private Well Owners, maybe Land Development as well. The problem is government,

right? The problem is regulation and wastefulness and big government trying to tell us what to do" (Interviewee 1).

With the requirement that government agencies and citizen stakeholders work together to produce a plan, official distrust highlights challenges in decision-making. If citizen stakeholders do not trust the governmental representatives, the chances of reaching a collaborative solution are minimal. One last aspect of trust that contributes to both social and official trust is the history of Whatcom County and the WRIA 1 Watershed management project. Specifics of this are discussed below.

History

The WRIA 1 planning entities have been working on creating, implementing, and updating a WMP for just over twenty years. Not many Planning Unit members have been involved since the beginning, but many are aware of the lengthy history of the Planning Unit and how that influences trust today. Several participants pointed to the trust building in the first several years of the process, and how that was essential to reaching consensus on the 2005 WMP. When reflecting on the ESSB 6091 process and the amount of time allotted to build trust and create a plan, one participant pointed to the success at the beginning of the WRIA 1 Watershed Management Project: "And again, we had that two or three years where we were kind of building trust and whatnot and the majority of what we did then was all consensus" (Interviewee 10). Having the time to build trust with consistent caucus representatives was crucial to creating a plan by consensus in 2005, as another participant described: "Well, in the beginning five years we came up with our plan, watershed plan. That was really productive, and it was very collaborative too. Everybody was working together and so that was really nice. And then, you know, things started wavering there" (Interviewee 11). Having this historical

perspective on what worked in the beginning of the process highlighted some of the challenges imposed by the short timeline of ESSB 6091. Furthermore, because the WRIA 1 planning entities were not starting from square one, they had a contentious history to overcome.

One frequently discussed aspect of this contentious history was the disintegration of the Planning Unit following the creation of the 2005 WMP and 2007 DIP. One participant conjectured that Whatcom County found the Planning Unit frustrating and therefore, "at one point had considered disbanding the Planning Unit because it was such a diverse group of individuals and it was more frustrating than productive" (Interviewee 7). This representative and several others expressed that Whatcom County would rather not go through the collaborative channels for watershed plan implementation because of the slow and at times circular discussions at the Planning Unit. One participant described the disintegration of the Planning Unit as a set of disagreements in the collaboration:

> "I think it was 2010 they came out with a five-year Lower Nooksack Strategy and that was a much smaller document, and there were some disagreements in the collaboration at that point and they actually quit having meetings of the Planning Unit and basically said we are now implementing. And so, we don't need the Planning Unit, take a look at implementation if we make any progress on some of the amount of water type of things that negotiations with the Tribes and we'll come back to the Planning Unit. But there was basically like four years that the Planning Unit did not meet" (Interviewee 10).

It was clear from these discussions that citizen caucus representatives felt that they had been let down by Whatcom County during this time. Many felt that they should have maintained an advisory role even during the implementation of the WMP and DIP and that they were unfairly cut out of the process. This was one of the single biggest factors contributing to official distrust as well as social distrust. It seems that this disintegration and the later revival split the planning entities into various 'factions' with regards to how they viewed the role of the Planning Unit. One citizen caucus representative described the revival process: "People from the Planning

Unit, put some political pressure on County Council and started meeting again, and it was one group of people that had the viewpoint we're implementing, and we don't need the Planning Unit and the Planning Unit meeting" (Interviewee 10). Another citizen caucus representative described this time as creating a stronger and more unified Planning Unit: "And then you know, people trying to get rid of the Planning Unit, those types of things happened. But the Planning Unit stuck together through thick and thin and we became tighter and stronger doing that" (Interviewee 11).

This preference for Planning Unit autonomy was off-putting to other representatives, however, particularly some of the Initiating Government representatives. One Initiating Government representative stated:

> "the planning was done and there was, we, we, the community had moved on to implementation and that governments were taking the lead on that so that when you say the Management Board, a lot of those entities were still meeting and still moving forward on implementing but the planning was done. There were a few caucuses that started to become worried that the Planning Unit was being left out or no longer part of the water conversation" (Interviewee 3).

Another Initiating Government representative even stated that:

> "It's created quite a bit of a little bit of an angst particularly on our part because we felt that we could not implement the watershed management plan very effectively with the Planning Unit being heavily involved because they're political. We're just implementing a plan that was adopted through the Planning Unit effort in the past. They don't need to be involved anymore and we kind of felt like they were trying to become the dominant entity in watershed planning in the Nooksack, in WRIA 1, and we thought that was inappropriate" (Interviewee 9).

These disparate perspectives regarding the Planning Unit and its role were presented as roadblocks to building trust during the WMP amendment process, combining with distrust from past disagreements to prevent consensus in the WMP amendment process. When asked about trust of other caucus representatives, one participant stated: "I'm not sure I do, you know, I'm not sure I really trust I mean. There has been some backstabbing in the past that you don't -- it's hard

to get over it, let's put it that way" (Interviewee 8). Others pointed to longer and broader issues in the history of Whatcom County as important to how the ESSB 6091 process was being addressed: "Well and, again it's more than just the history of the WRIA. It's the history of the salmon issue, it's the history of Lummis and the Nooksack in this area. You know it's all that history that's coming together" (Interviewee 5).

Committed Participation (Reciprocity)

Participants' perceptions of the planning process revealed three components of the concept of committed participation: commitment from local government officials, Tribal participation, and overall caucus commitment, with an emphasis on citizen caucus commitment. Although the Lummi Nation and Nooksack Tribe are Initiating Governments, they have never participated on the Planning Unit. Many participants viewed Tribal participation as a critical component of the process. With Lummi Nation and Nooksack Tribe having veto power, yet not participating at the Planning Unit, their involvement in the WRIA 1 process required its own category to accurately describe how this impacted participant perspectives of the process.

Commitment from Local Governments

When discussing trust and participation, participants often brought up the lack of commitment from some government officials. Many Planning Unit representatives believed that the City of Bellingham should participate to demonstrate commitment to creating a collaborative solution. Most participants indicated that the City of Bellingham's lack of participation at the Planning Unit contributed to feelings of frustration. In a reciprocal process, all entities are equally involved, and many participants felt that their efforts were not reciprocated since the City of Bellingham chose to not participate at the Planning Unit. One participant directly stated that, "there's a lot of reasons why the city should be plugged into the process. That's frustrating [that

they aren't]" (Interviewee 1). One participant "wonder[ed] about the city of Bellingham wanting to wield their power, I guess is one way of saying it, but you know, they don't even show up at the Planning Unit. So, it's, where you can almost say they're not interested in that public opinion" (Interviewee 10). This perceived lack of interest in public opinion created an unequal dynamic because in a reciprocal exchange there is an expectation of return to strengthen a bond. With no return of effort, the bond remained weak or broken. This led one participant to ask, "are they going to come out in the 11th hour?" (Interviewee 11). This uncertainty made it hard for many caucus representatives to focus on the task at hand as they were often distracted by not knowing what the City of Bellingham or the Tribes wanted.

Discussion of lack of participation from local governments was prevalent at Planning Unit meetings. To finalize a plan amendment, the Planning Unit's proposal would also need to be approved by the Initiating Governments and WMB. However, many participants expressed frustration over the policy positions held by the WMB and their lack of interest in meeting with the Planning Unit to attempt to reconcile their differences in positions. Participants expressed varying levels of frustration: "You would think that if the WMB had actually wanted to see this thing through, they would have spent the lousy couple of hours every couple of weeks and actually showed up" (P/U Representative 2). The lack of participation by the City of Bellingham left participants feeling that their efforts were not matched or appreciated and further exacerbated the power differential between citizen caucuses and the Initiating Governments.

Tribal Participation

The lack of tribal involvement at the Planning Unit was discussed in each participant interview in several different ways. Overall, participants described the Tribes not participating at the Planning Unit level as something that contributed to challenges in decision-making. One

participant stated that they sometimes “feel like we're a little bit in the dark. The tribal input is so important … you know, they, they don't participate in the Planning Unit. So, it'd be nice to know more what they would support” (Interviewee 10). As Lummi Nation and Nooksack Tribe both had veto power over any plan and have potentially large unquantified water rights in the Nooksack River Basin related to their off-reservation fishing rights, Planning Unit members viewed their participation as essential to developing a plan. One participant stated that “you got to have the Tribes here” (Interviewee 12) and another wondered “how do we know what their interests are and that we're meeting their goals, needs?” (Interviewee 5).

The Tribes’ decision not to participate in the Planning Unit process, presenting their perspectives alongside other stakeholders, frustrated many participants. However, those that understand the history and rights of the Tribes to maintain government-to-government relationships seemed less frustrated by this perceived lack of reciprocity than the City of Bellingham’s lack of participation. In fact, several participants observed that both Tribes were still choosing to participate meaningfully in the process “starting at a higher level. So even though the tribal perspective per se is lacking from the Planning Unit, there is a lot of input from the Tribes when it comes to the management unit [WMB] and above” (Interviewee 7). Another participant, after mentioning the government-to-government relationship, said that “the only reason they even really negotiate with the county government is because they've made exceptions to do that. So usually they don't negotiate below the state level. So, the fact that, um, they're still in this process I think says a lot” (Interviewee 1).

However, this perspective was not shared by all, because as one participant pointed out:

> “[A] lot of folks feel stymied because of the voice not in the room are the first nations [Tribes], you know, they believe that they should be having their dealings of a government-to-government level, and, but still anything that comes out of that room is

> subject to be vetoed by the first nations, particularly the Lummis. So, it, it's kind of hamstrung from that perspective" (Interviewee 6).

Although trying to be understanding of the right for government-to-government communications, many Planning Unit representatives still felt as if their efforts were not being met by the Tribes. While trying to move forward with planning, participants were often distracted by concerns that tribal interests would not be addressed until the very end when there was no longer time to amend the WMP. A common sentiment expressed by Planning Unit members was: "it's that 11th hour thing and then it's the people who weren't at the table that concern me, the Tribes and the city of Bellingham" (Interviewee 11).

Caucus Commitment

In contrast to frustrations regarding the absence of several Initiating Governments from Planning Unit meetings, participants overwhelmingly described overall caucus commitment as very high: "Every single caucus seems to be pretty focused on trying to get something done" (Interviewee 3). It was stated on many occasions that "everybody involved is very committed" (Interviewee 9). Caucus commitment was the portion of the process that was described in the most positive way throughout both rounds of interviews. One participant described the Planning Unit as "a group of highly dedicated, passionate people that truly want to find a solution" (Interviewee 7). Another representative observed that, "you only have to be at a meeting for a short time to see how invested people are" (Interviewee 4).

Lubell et al. (2002) describe a commitment finding watershed solutions as an overwhelming factor in the success of collaborative watershed processes. Although many other factors of trust and reciprocity were missing in the WRIA 1 WMP amendment process, this dedication to finding a solution for management of the Nooksack watershed was not lacking.

Legislative Challenges

Time

Researchers have repeatedly found adequate time to be an important factor in successful collaborations (Leach & Pelkey, 2001, Sabatier et al., 2005, Leach et al., 2002). This factor was discussed by all WRIA 1 participants. The two main points of discussion relating to time were the length of time required for and taken by this process, and the short amount of time provided by ESSB 6091 for a plan amendment to be adopted.

Process

Participants discussed adequate time being essential because "the timeframe of getting stuff done through a caucus system is forever" (Interviewee 10). Representatives on the Planning Unit are tasked with accurately representing the position of their caucus, rather than just their personal opinion. So, for a caucus system to work, the representative must take major decisions to a vote in a caucus meeting before participating in a vote at the Planning Unit. This can lead to seemingly simple decisions taking weeks or even months to sort out, depending on how often the Planning Unit is meeting. Add a short, legislatively-mandated timeline and this usual series of events can cause significant frustration because the most time-consuming part of decision-making was then "process. That's my most frustrating part is it's all process. I look at it and I'm like, gosh, it's mind boggling" (Interviewee 11). This was expressed by many citizen caucus representatives, but also by government representatives in relation to why they were at times frustrated with the role of the Planning Unit in the watershed management process. One participant said, "I find that there's an incredible amount of focus on administrative process as compared to actually doing something on the ground" (Interviewee 9). In a scenario where action needs to be taken quickly to protect a resource, such an intense focus on process can lead the

overall process to be viewed negatively. As one participant stated: “I really don't like being a negative voice, but I also don't like coming to meetings and doing nothing, you know, and we're arguing about process and process isn't leading us anywhere” (Interviewee 8).

The arguments over process were particularly frustrating to participants because of the short timeline allotted in ESSB 6091. Participants discussed this one-year timeline differently in the first and second round of interviews. In the first round of interviews, participants described the timeline as a motivating factor that was increasing participation and focus. One participant observed that: “If there's a two- or three-year horizon to it people might not be quite as engaged. But given the franticness of the February 1st date, I think it causes people to, you know, to focus a little bit more” (Interviewee 9). Additionally, the threat of DOE taking over the decision-making process encouraged all of the caucuses “to be pretty focused on trying to get something done in this timeline since we have such a short timeline” (Interviewee 3). Participants were interested in maintaining local control of the decision-making and were excited to focus and put in the work to ensuring that this could happen.

During the second round of interviews in October and November, there was a dramatic shift in how participants described the timeline, as there had been with the descriptions of trust. In October and November, participants overwhelmingly described the timeline as being too short, and one participant claimed that “there's absolutely no hope of getting it done by February” (Interviewee 5). Another admitted that, although a lot of really good work had been accomplished, “since the last interview we did, the enemy of the process is the timeframe” (Interviewee 9),

During the second round of interviews, concerns were also expressed that the short timeline would lead to a rushed product that may not adequately address water concerns in the

WRIA. One participant stated that they were “concerned about the fear that might drive people to, the fear of [the] State taking over this process that might drive people to make crappy decisions and put together something that is unworkable just to meet the deadline” (Interviewee 2). Where in the beginning of the process, the fear of DOE taking over the process was driving people to work together, in the end it was driving participants to avoid thinking of the big picture of the watershed. One participant described this phenomenon by saying “I just feel like we're hyper-focused on this legislation and we're not seeing that there might be unintended consequences for these projects that we're picking because of the deadline” (Interviewee 1).

The stress of the timeline was apparent in Planning Unit meetings from November 2018 until the end of the process in February 2019. Several caucuses put together draft plan amendments, some without inclusion of elements necessary for approval by DOE. In January 2019, one caucus presented a plan that it proposed would go directly to the Whatcom County Council for approval, rather than the previously agreed-upon avenue for plan amendment approval (Figure 5). This sparked disagreement about the process and led several caucus members to express a desire to approve the plan “so [they] can say [they] did something” in the time that was allotted (P/U Representative 2, 5, Interviewee 10, 11).

The short timeline affected both the policy process and the development of trust. A one-year timeframe was not adequate for participants to develop the level of trust necessary to agree on policy outcomes, leading to a more divided Planning Unit at the end of the process than the beginning.

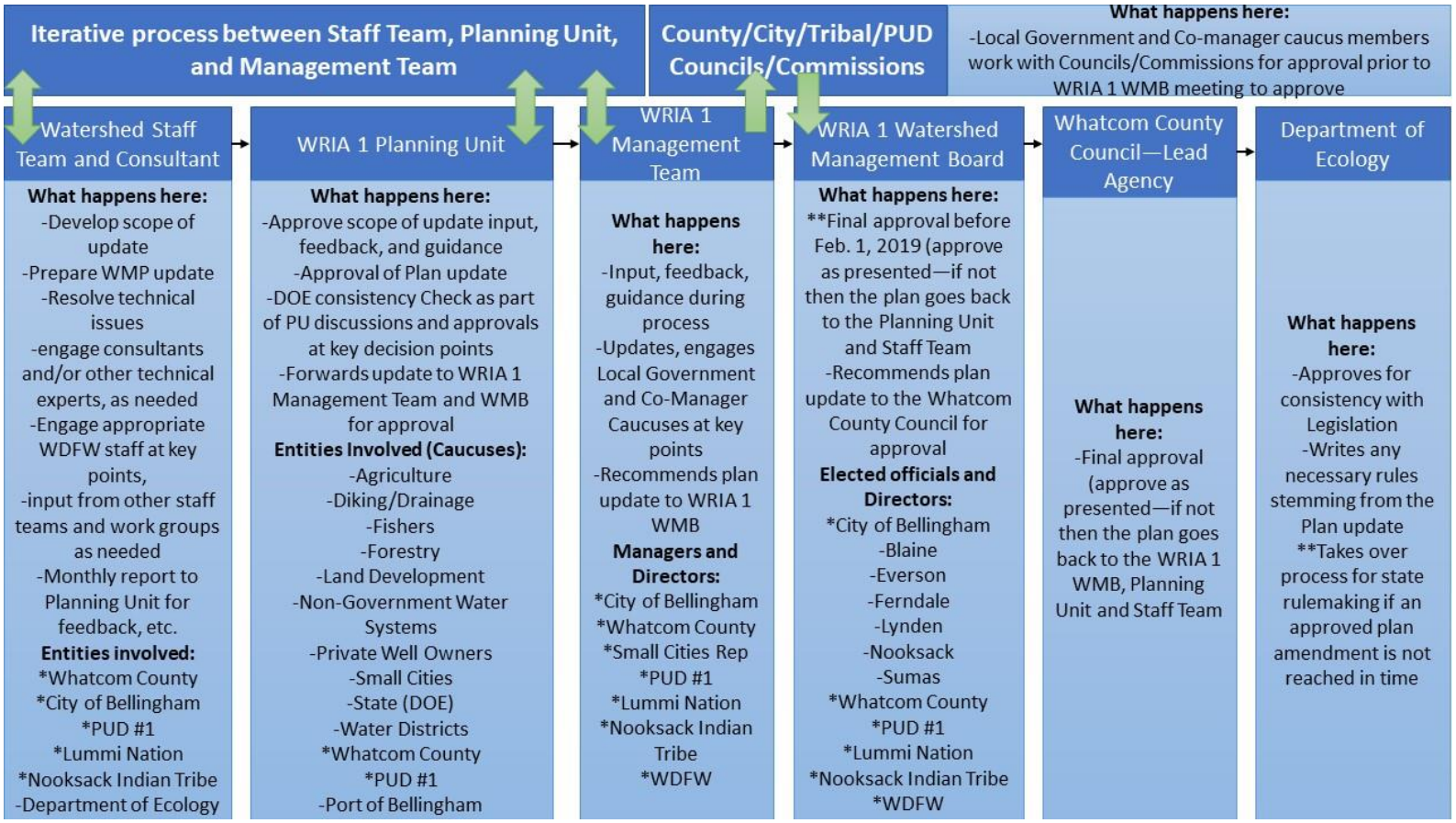

Figure 5. WMP amendment approval process including each step and who is involved in each step

Scope

Leach & Pelkey describe having an adequate scope of activities as important to success in collaborative watershed management. What this meant to participants varied depending on the partnership (2001). The scope of activities in the ESSB 6091 process was a common topic for WRIA 1 participants. One participant expressed that the narrow scope of ESSB 6091 was "not going to do anything to speak of for the needs that we have… it is a step" (Interviewee 8). Many participants were frustrated by this because they already believed that Whatcom County and DOE had failed to adequately manage water in WRIA 1. One participant stated: "we pass this legislation and now we're focused in on this one issue and we're going to maybe solve water problems for this really small, you know, and it's like, nothing's really going to change" (Interviewee 1). This tone of frustration was more pronounced during the second round of

interviews in October and November. In the beginning of the WMP amendment process, participants expressed hopefulness that they would be able to address larger water issues as well as the narrow issues discussed in ESSB 6091. However, closer to the end of the process, many participants recognized that, “some of these things take many years to deal with or to address and it's outside of the time frame and scope of [ESSB] 6091” (Interviewee 9).

In addition to the narrow scope of the bill, several participants expressed frustrations with the construction and terms of ESSB 6091. These frustrations were only expressed during the second round of interviews. During the interviews in October and November, participants stated that, “[T]he terms of the Senate bill are not realistic” (Interviewee 9), but that Planning Unit’s “response has been admirable. I think the, the ground rules were just ill thought out. I think the legislation is flawed” (Interviewee 2). One participant even stated that, “this last iteration has been really a struggle for me to understand what exactly we're trying to do” (Interviewee 8).

This type of reaction is unique to an MPP framework of collaborative watershed management. When collaborative watershed groups self-form out of a recognized need for change, they outline the scope of their own activities. However, in an MPP framework such as the ESSB 6091 process, the legislation specifies the collaborative watershed management group’s charge. This can lead to challenges if the scope is either too large or too small. In the case of ESSB 6091, participants felt the scope was too narrow and that the legislation was poorly constructed, both of which contributed to the eventual failure of the group to come up with a watershed management plan amendment by the legislatively mandated deadline.

Best Practices

Other elements for success in collaborative watershed management that were commonly discussed by WRIA 1 participants are the presence of a good coordinator or facilitator, having

adequate technical understanding or access to staff that have this understanding, and having a well-defined process (Leach & Pelkey, 2001, Sabatier et al., 2005). These factors are discussed below in the context of the WRIA 1 WMP amendment process.

Leadership/Facilitation

WRIA 1 planning entity participants discussed leadership and facilitation during both rounds of interviews. Although participants agreed that there was a lack of leadership at the Planning Unit and within the WRIA 1 management project, there were disparate views about how to address this problem. Leadership was described as important and necessary, but not present. One participant related the lack of leadership to the challenges that they were having in reaching a solution: "So, I would say going into this whole thing, process, there was kind of a leadership vacuum and that has exacerbated the roadblocks that we keep hitting" (Interviewee 1). Planning Unit representatives were repeatedly getting hung up on the disagreements surrounding the challenging policy discussions, and without a leader to help them come to consensus, the discussions were unable to progress in a productive manner.

Several participants recognized this as a lack of formal leadership, perhaps contributing to no one stepping up to be a leader: "Somebody's got to be a leader here. There are no leaders. Absolutely. There might be some leaders, but there's nobody leading" (Interviewee 11). Another participant stated that, "leadership is always very important. And how that manifests itself with the Planning Unit is, I think there's, we don't really have formal leadership there, which is sometimes maybe a problem" (Interviewee 8). This lack of formal leadership was clear when attending Planning Unit meetings. The Planning Unit set up a system of self-facilitation by having a revolving chair. However, there was no one person that representatives could look towards to assist with moving forward the policy discussions. Because of this, the policy

discussions lasted several months, and consensus regarding water use limits, well fees, and metering was never reached.

In response to this lack of leadership, several participants indicated that having a professional facilitator would be helpful in creating trust and consensus. Collaboration literature often points to the benefit of having a skilled, third-party facilitator to lead meetings. Instead, as one participant stated, "one of the perhaps flaws with the Planning Unit's structure is that the County representative is also the meeting facilitator and, I know when I was, during my facilitation training back a long time ago, you tried to separate the facilitator from a position" (Interviewee 2). Other participants also recognized the challenges associated with the Whatcom County Planning Unit representative acting as the meeting facilitator:

> "DOE and the County have been trying to act a little bit like facilitators, but trying to not overstep that, like looking like [they're] trying to push something or, because the Planning Unit is supposed to be facilitating itself. And so, I do think that not having a facilitator and not having clear leadership otherwise is a problem. I do think it's a problem" (Interviewee 3).

Whatcom County is the lead agency, and thus the natural facilitator in the absence of an outside facilitator. However, having the lead agency representative as the facilitator could also contribute to the existing power differential between government and non-government caucuses. One participant suggested that "it would be really great if we had someone from Whatcom Dispute Resolution Center come in and really break it down" (Interviewee 1). Third-party facilitators can keep discussions moving, while acknowledging the interests of all involved parties (Carpenter & Kennedy, 1988), whereas a facilitator that also has a position and interest likely will not be viewed as neutral, diminishing trust in the process. They may be seen as moving discussions in a direction that solely benefits them, or, if they attempt to appear neutral, may end up not adequately representing the interests of their own party.

Finally, several participants noted that other members of the Planning Unit had a disinterest in third-party facilitation and a desire for autonomy and self-facilitation, with one participant noting: “They've [The Planning Unit] kind of often bristled, no, we don't have one because they don't want one, they didn't think it was, the ones we had they didn't like, and so yeah. So, I think a little bit of that. So, we don't have a facilitator” (Interviewee 3). Several participants that recognized how a facilitator might benefit the Planning Unit expressed frustrations about the group’s decision to not use a facilitator: “That group, like many with disparate viewpoints, can benefit from a facilitator. But that group made a decision prior to my joining it, to absolutely not have a facilitator” (Interviewee 4).

Interestingly, Planning Unit representatives that had been involved since the original formation of the group in 1998 recognized that having skilled facilitators had assisted them in creating the 2005 WMP by consensus. However, potentially due to changes in caucus representation or perhaps the lack of social and official trust, “there are a number of people who wouldn't accept leadership no matter how well focused or how informed it was. I mean, this ridiculous notion where you have to have a revolving chair, It's silly” (Interviewee 6). Skilled facilitation can be particularly beneficial in scenarios where there is low social and official trust (Trachtenberg & Focht, 2005). However, a scenario where participants are unwilling to accept this type of outside facilitation might point to severe dysfunction and distrust among participants, which presents additional challenges to overcome.

Technical Staff

Several participants expressed the belief that, in a collaborative process, specific technical understanding was not necessary if access to technical understanding was available. These participants asserted that the goal of representing broad interests is more important at the

Planning Unit than each representative maintaining an adequate technical foundation: “I think that, if the purpose of this group is to democratize the process, if this is the point where the average person gets to kind of plug into the process, then you can make a strong argument that technical knowledge [from Planning Unit members] doesn't have any place” (Interviewee 6). If the purpose of a mixed participation collaborative management process is to include diverse perspectives, this argument makes sense. The argument can be made that the role of the Planning Unit was to provide input from diverse viewpoints, and that sufficient technical understanding could be provided by professionals outside of the Planning Unit. The WRIA 1 planning entity management structure includes a watershed staff team. This staff team is made up of professionals from each of the Initiating Governments. The Planning Unit also had the occasion to hire outside professionals to provide analysis. One participant stated: “I wish they [Planning Unit representatives] knew it a heck of a lot better than what some of them do know it. [On] the other hand, that's what our technical experts are there for. That's why DOE is at the table. That's why we hired RH2 [environmental engineering company hired to provide water use estimates], and we don't have to know it that well” (Interviewee 10).

Conversely, some participants pointed to a need for fundamental technical understanding:

> “I think a fundamental understanding is really kind of essential and if you don't understand how groundwater withdrawal or at least understand that it does and how it could impact streamflow, if you don't understand at least the factors that affect fish. Then you're going to have a hard time seeing, one, where the problem is, and two, where the solution is” (Interviewee 3).

Although some participants indicated that technical staff should provide technical understanding to Planning Unit members, many participants also indicated that technical understanding of water and watershed processes was essential if participants did not trust the technical experts:

> "I think it's the, a foundation for the process. And so, what I'm thinking about is, does everybody need to have that same foundation? Does everybody have to have the same knowledge. No, they don't if there's trust. If I can say that I understand that you have, you know more about something more about some issue than I do, but I trust your representation of that issue and that you're not biasing it in your presentation then, not everybody needs to know all the technical stuff with all the water, all the legal stuff, all the water rights" (Interviewee 2).

This presented a challenging dichotomy, as several participants indicated varying levels of trust in the staff team and the technical analysis and recommendations they were providing. Several participants indicated that they or other Planning Unit members felt that the staff team was leading them to advance an agenda. This dynamic relates back to the importance of trust in collaborative processes, and the lack of trust present in the WRIA 1 planning entities. Because the staff team was made up of technical experts from the government agencies, some participants thought, "staff doesn't see it that way and they're kind of driving the conversation." (Interviewee 5). If participants do not trust officials, they are also unlikely to trust the science presented by the experts associated with those officials, even when the technical experts are providing information directly asked for by the Planning Unit: "[Some representatives think] the staff team is trying to lead us into something. But this is the technical memo that we told them that we wanted" (Interviewee 1).

Several participants questioned the technical competence of staff and related it to whether they trusted the technical information being presented by the staff team. One participant stated: "I question the ability of the county staff to be technically astute other than process. You know, knowing what to do to make water quality, quantity and habitat [better]. I don't think they could do it. They really don't understand the inter-workings of that. Or else we would be doing things differently" (Interviewee 11). Participants that are unable or unwilling to trust the technical expertise of staff can then become defensive and think that their own research can substitute the

research presented by the staff. One participant expressed frustration that they, “don't ever get to just sit and discuss the policy and have the debate instead what we've got is, you know, 50 to 75 pages of new material that is presented in a summary form. So, if you're not believing it or thinking it's true, you have to go back and do your own research” (Interviewee 5). This is problematic in several ways; because of the short timeline, there is not enough time for each caucus representative to go back and do their own research regarding water use estimates. But, if they cannot trust the estimates presented by the staff team, then they will not be able to reach a consensus decision with individuals that do trust the products presented by the staff.

Several Planning Unit members recognized this mindset as being detrimental to the process, as one participant reflected:

> “The interesting thing to me in this whole process is how distrusted professional staff is and that is a real problem and you know, there's always this kind of lurking idea that somebody's agenda is being advanced or whatever, whether it's DOE or the county or whatever it happens to be, and that I think is very detrimental to the effectiveness of the group. If you can't trust your experts, then you're in serious trouble because those people, as much as they may want to think that they understand, they don't, we don't, I don't, you know” (Interviewee 6).

Interestingly, the question of technical competency returned to the overall discussion of trust. While some participants argued that technical knowledge was not essential, it became clear that this was only the case if those individuals less fluent in watershed science and water law also trusted the information being presented by the technical experts. In the absence of trust, individual technical understanding is essential.

Well-Defined Process

Having a well-defined process has been noted as a critical component of success in collaborative watershed management. A well-defined process and structure for decision-making can minimize arguments over process as everyone has agreed to a set of ground-rules (Carpenter

& Kennedy, 1988). The WRIA 1 management project has a complex structure with multiple levels of decision makers, leading to an unclear structure for decision-making: "Having the watershed management board for policy, then having the county council involved and then having the WRIA structure, which is the management group, the staff teams and the Planning Unit and the back and forth of decision-making in that group" (Interviewee 2). The required dialogue between caucuses and caucus representatives on the Planning Unit adds an initial layer of challenges in the decision-making process, and the additional consultation between the staff team, the Planning Unit, and the WMB further increased the opportunities for misunderstandings and delays during the process.

Several participants indicated that the divide in decision-making groups has led to challenges moving forward in the process, as not all voting entities are in the room at the same time. One participant expressed that at times it is "very difficult to know at any one time how [the Initiating Governments] are acting. Are they acting as the Initiating Governments? Are they acting as the Salmon Recovery Board? Are they acting as the, you know, whatever other functions they have" (Interviewee 5). This comment recognizes the fact that the WRIA 1 management process is not well defined. Due to the separation of planning entities, a process that is thorough and understood by all is essential, particularly when considering the lack of participation by some governments at the Planning Unit.

Further, the complexity of the WRIA 1 management project structure has contributed to misunderstandings and disagreements regarding process, as well as the role of the Planning Unit in decision-making and watershed plan implementation. The disagreements regarding the role of the Planning Unit may have arisen from the lack of official trust held by many Planning Unit members. When asked what the role of the Planning Unit was, there were two distinct answers.

A commonly held idea from government representatives was that “the Planning Unit is pretty much an advisory board to the county council” (Interviewee 8), which accurately reflects the Planning Unit’s role under the 2016 Interlocal Agreement. As expressed by another participant: “The Interlocal Agreement removed the Planning Unit from active involvement in the WRIA 1 process except as being advisory to county council” (Interviewee 9).

However, contrary to the terms of the 2016 Interlocal Agreement, several participants from citizen caucuses claimed that the Planning Unit has more than just an advisory role. One participant stated that, “I've seen a huge shift in the Planning Unit. I think that was triggered by a reluctant acceptance by the management unit [WMB] and the elected officials that, like it or not, the Planning Unit is there by law and you can't just blow them off or stick them in a room and not care about what they say” (Interviewee 7). Thus, some participants believe that the Planning Unit serves as a decision-making body and must be incorporated in watershed planning in WRIA 1. In support of this view, one participant argued that “there's only supposed to be a County water board once the Planning Unit has been dissolved. So how do we get to a something that is only supposed to exist after a condition precedent occurs when that condition hasn't occurred” (Interviewee 5). These disparate views regarding the purpose of the Planning Unit further contribute to the divide in decision-making power and trust

Overall, participants expressed frustration and even confusion regarding the necessary steps in the process. Disagreements occurred in relation to voting procedures and the process for final plan amendment. Some participants asserted that the WMB and Initiating Governments were not included in the legislation and should not be participating during the WRIA 1 WMP amendment process, and that the Planning Unit should be a more final voice because it “represents rural Whatcom County” (P/U Representative 3). These debates slowed the process

and created deeper rifts between and among caucuses, pointing to the importance of having a well-defined process from the start.

CHAPTER 6: DISCUSSION

This study aimed to describe the social exchange dynamics present in WRIA 1 during the ESSB 6091 WMP amendment process. The findings in this study align with the themes that the collaborative watershed literature has identified as important to the success of collaborative management, as well as with the challenges discussed by proponents and critics of collaborative watershed management (Leach & Pelkey, 2001, Sabatier et al., 2005, Ostrom, 1990, Kenney, 2000).The results of this study highlight the importance of trust and reciprocity in a multi-stakeholder collaborative management group. Additionally, this study calls attention to the benefit of involving a skilled coordinator or facilitator in multi-stakeholder groups where trust may be lacking. Finally, this study found that, despite the challenges and frustrations experienced by WRIA 1 participants prior to and during the ESSB 6091 plan amendment process, participants are committed to finding long term solutions to recurrent controversies in the watershed.

Collaboration Themes

Social exchange was defined specifically as the presence of trust and reciprocity for the purpose of this study. Both trust and reciprocity were widely discussed by participants in WRIA 1. Almost all major factors found in this study can be related back to levels of trust and reciprocity. There were three distinct factors of trust apparent: social trust, official trust, and history.

Social trust was the most prevalent theme in this case study. Social trust is the extent to which participants trust that everyone is being open, honest, and working in good faith (Currall & Judge, 1995, Trachtenberg & Focht, 2005). Trachtenberg & Focht describe social distrust as instances where participants are suspicious of each other's motives and thus participate

defensively. They also describe participants as unwilling to cooperate when policy issues that are in opposition of their values are being discussed (2005). Several WRIA 1 management project participants indicated that multiple caucus representatives were acting defensively by not considering alternative views to their own during policy discussions. This was apparent between the first and second round of interviews. Although participants were generally positive about trust and being able to work together early on in the ESSB 6091 process, that positive perspective seemed to dissipate as the process continued. Once the challenging policy discussions started, participants perceived that several other participants began acting defensively and with an unwillingness to discuss creative options, or sometimes any options at all.

Carpenter & Kennedy describe the importance of trust in negotiations, not to build lasting friendships, but to trust that participants will act as they have said they will. Developing trust can be challenging for a number of reasons, including history, newer relationships, and incomplete or misleading information (1988). WRIA 1 management project participants explicitly identified or otherwise described challenges relating to all of these factors, potentially leading to the relatively rapid departure from cooperation once policy discussions began.

Trachtenberg and Focht suggest that the proper participation strategy when social trust is not present is to focus on building consensus on policy effectiveness rather than policy ends (2005). One way to build consensus between disparate viewpoints is to employ well-established ADR practices, such as the assistance of a skilled facilitator (Trachtenberg & Focht, 2005, Leach & Pelkey, 2001, Kenney, 2000). However, several WRIA 1 participants indicated that the desire for autonomy from Planning Unit members was so high that they were disinterested in hiring an outside facilitator and instead chose to rely on self-facilitation.

This desire for autonomy is consistent with the findings of this study that many participants have a low level of official trust. In fact, the findings of this study illustrate what Trachtenberg and Focht describe as official distrust. When stakeholders do not trust officials to adequately represent their interests, they often assume a much more involved role (2005). Planning Unit members' desire for autonomy and distrust of technical expert's recommendations and reports exemplifies this official distrust. Trachtenberg & Focht suggest that one way to enhance official trust is for officials to grant greater decision-making power to all stakeholders (2005). A challenge with this approach, however, is that citizen stakeholders often do not have the technical understanding that government officials have. Additionally, in the absence of a technical basis for decision-making, citizen stakeholders may develop solutions based primarily on the protection of their existing interests, rather than focusing on means to achieve the long-term public interest goals generally incorporated in watershed legislation. Thus, granting equal decision-making power may instead decrease the likelihood that water quantity issues can be solved.

An additional challenge to increasing official trust through power sharing is time. ESSB 6091 only allocated one year for a plan amendment to be approved by all involved parties. However, starting the one-year process with minimal social and official trust due to values, positions, and historical interactions created a challenging environment for specific and controversial policy discussions. Policy discussions affecting water rights and the potential removal of these rights from specific groups of people requires addressing serious underlying values and economic interests, which if not addressed appropriately can lead to defensiveness, and even a complete roadblock of the process (Carpenter & Kennedy, 1988). In the WRIA 1 WMP amendment process, the planning entities were tasked with mitigating the use of permit-

exempt domestic wells. To achieve this goal, participants had to discuss the use of a fee on new permit-exempt domestic wells, daily water limits, and the use of metering. Policy discussions that may reduce water allotments or impose a fee may be inflammatory, depending on an individual's economic stake and ideology.

Trachtenberg and Focht suggest that, in cases of low social and official trust, third party negotiation by someone separate from the issues and trained in negotiation is beneficial. The negotiator should be accepted by all participants, and technical analysis should be performed by a neutral third party as well (2005). Past facilitation experiences and a desire for autonomy lead the Planning Unit to decide on a model of self-facilitation. As this was a structure for running meetings, the Planning Unit missed an opportunity to follow an interest-based negotiation framework that outlines each stakeholder's interests, (Fisher, Ury, & Patton, 2011), encompassing wants, needs, hopes, and fears. ADR literature outlines a general structure for designing a strategy that includes defining the problem, identifying external constraints, establishing a goal, defining roles, and considering other process issues (Carpenter & Kennedy, 1988). This dispute resolution structure helps to ensure that participants are on the same page and that everyone feels as if they are heard, and that their values are important from the very beginning of the process. Values that are not adequately acknowledged from the beginning can be one of the greatest hindrances of any public negotiation or multistakeholder decision-making process (Carpenter & Kennedy, 1988).

Discussions regarding water and property rights spotlight deep financial and ideological divides that are particularly apparent in the urban-rural divide. Rural property owners may have a direct financial stake in the cost and availability of groundwater, while urban dwellers may be concerned with the attributes associated with the public interest in water, including fish and

wildlife habitat, aesthetics, and recreational uses. Thus, the benefit of utilizing a third-party facilitator is heightened in a process surrounding these conversations, particularly one steeped in so much history. Having value disputes emerge late in the process can be detrimental, particularly when the process is on a timeline. During the WRIA 1 WMP amendment process, value disputes regarding water withdrawal limits and metering emerged later in the process effectively bringing it to a standstill and ensuring that a plan amendment would not be agreed upon by the February 1, 2019 deadline.

The structure and process of the WRIA 1 planning entities also contributed to participant perceptions of trust and reciprocity. The separation of the Initiating Governments from the Planning Unit increased official distrust, as is apparent from participants' discussion of the lack of dedicated involvement from the City of Bellingham and the Tribes at the Planning Unit level. The Tribes and City of Bellingham chose only to participate at the watershed staff team and management board levels. Many participants felt that this showed a lack of commitment to finding a common solution to the WRIA 1 watershed's problems. The City and Tribes' participation in staff team, but not Planning Unit, meetings may have increased the distrust of the staff team and their technical expertise that was expressed by several Planning Unit members during participant interviews. Several interviewees expressed that they felt that all stakeholders should be having a conversation in the same room, and at times were hesitant to trust a position or statement that came from individuals that actively chose to not be in the same room as the Planning Unit.

Overall, by the end of the process, WRIA 1 participants described minimal social and official trust, concerns regarding committed participation, and frustrations regarding the scope and timeline of ESSB 6091. However, along with these concerns, participants also expressed a

desire to work collaboratively to reach a local solution. The benefit ascribed to collaborative partnerships is that including input from local stakeholders can avoid a command-and-control approach to ecosystem management that can leave local stakeholders feeling that the government solutions and mandates do not meet their needs (Sabatier et al., 2005, Lubell, 2004, Hardy & Koontz, 2009, Steiger-Meister & Becker, 2012). Many participants expressed this desire to create a local solution to a local problem so that they could have more ownership over the solutions implemented in their watershed.

Prospective Concerns and Considerations

Although collaboration has been widely celebrated as an inclusive approach to watershed management, there are several areas of concern to consider (Kenney, 1999). Critiques of collaborative watershed management include concerns that it is heavy on process, light on outcomes, and that meaningful solutions can evade watershed groups as they try to accommodate all interests represented (Kenney, 2000, Huffman, 2009). In the WRIA 1 management project, participants often discussed the emphasis on process and how these discussions slowed down, and at times impeded, more substantial and technical discussions. Participants also indicated that, after twenty years of collaborative watershed planning, WRIA 1 still has the "same problems [they] had twenty years ago" (Interviewee 10).

Researchers have also indicated that water shortage issues, which can be particularly divisive, are not often appropriate to address in a collaborative process (Kenney, 1999). The Western water system of prior appropriation provides little incentive for senior water rights users to limit use to help provide water for newcomers (Kenney, 1999). This problem is exacerbated by the fact that many people – including many property owners – do not understand the water rights system. The common misperception that land ownership ensures legal water rights helped

to encourage the backlash against *Hirst* (Melious, 2018), and the ESSB 6091 process was a product of that backlash. It is possible that WRIAs have been mandated to address the more divisive issue of water quantity because historical and sociopolitical challenges related to water rights are so difficult. It is worth considering whether governments delegate their most difficult resource management decisions to collaborative processes in order to avoid the backlash from environmental regulation that threatens the economic status quo.

Finally, collaborative watershed literature often defines success as the creation of an agreed upon outcome or plan. Many researchers have critiqued this approach, because it does not measure the impacts of the collaboration on the watershed (Leach, Pelkey, & Sabatier, 2002, Koontz & Thomas, 2006). To more holistically understand collaborative watershed management, a thorough investigation into the watershed outcomes of successful watershed management groups is necessary. However, because collaborative processes are often critiqued for being heavy on process, light on outcomes, that type of data is scarcer and so the overall benefit of collaborative watershed management is still largely unknown. Thus, the larger question as to the appropriateness of collaborative watershed management remains. If collaborative groups do not create plans that substantively protect and restore water resources and ecosystem functions, should the decision-making be delegated to them, or left to the government agencies tasked with protecting our natural resources?

Limitations

Due to constraints of time and resources, this study was limited to one WRIA in Washington State. The collaborative process occurred in the watershed that was the subject of the *Hirst* litigation, and it took place under a statutory regime that applied to only two watersheds. Therefore, the WRIA 1 WMP amendment process may not reflect watershed

processes in other parts of the state. In addition, not all caucus representatives responded to requests to be interviewed, leaving the interview results potentially skewed because they lacked the perspective of those participants.

As described above, collaborative watershed management research is often limited to the social and political dynamics of the groups, rather than the groups' impacts on the watershed. This study was similarly limited. If success is defined as a group's ability to create a plan, collaboration in WRIA 1 was unsuccessful. In the future, DOE will adopt measures applicable to the WRIA 1 watershed, and the effects of the collaborative process on the implementation of these measures are unknown.

CHAPTER 7: CONCLUSION

This study provides a qualitative description of social exchange in a collaborative watershed management group. In this case, the collaborative process failed to result in adoption of a plan. Interviews with participants in the process show that, without adequate social trust, official trust, and committed participation, participants are left with uncertainty, which often leads to spiraling discussions over process. In addition, this study emphasizes the importance of several other best practices in collaborative watershed management.

Collaborations, particularly using a representative caucus system, take a long time, as adequate representation requires caucus representatives to return to their caucus for discussion and advice prior to making an important decision. Thus, several meetings may occur before decisions are reached. In a context of historical distrust and power differentials between government and citizen participants, the decision-making process can be even more challenging, as not all participants trust that their values are being represented. These diverse challenges could be partially addressed through the incorporation of a skilled neutral facilitator that is agreed on by all parties. Facilitation can ensure all party's values are known from the beginning, help participants to stick to productive conversations, and ensure that process is agreed upon at the beginning to avoid circular discussions along this topic. The disagreement in the WRIA 1 planning entities about the benefit of a facilitator points to severe disfunction that would likely benefit from a neutral facilitator.

This study supports many findings in collaborative watershed literature regarding the need for adequate time, a well-defined process, committed participation, trust, an adequate scope of activities, and adequate technical understanding or access to technical experts. Although funding was discussed minimally by participants in the WRIA 1 management project because the

WMP amendment process was adequately funded by Washington State, the need for adequate funding is also generally considered important for the success of these groups.

Suggestions for Future Research

The WRIA 1 planning entities were unable to finalize a WMP amendment in the time allotted in ESSB 6091. However, WRIA 11 (the Nisqually watershed), the only other WRIA mandated to complete a plan amendment by February 1, 2019, was able to finalize a plan amendment by the deadline. As each watershed collaboration is different based on historical and sociopolitical aspects (Ananda & Proctor, 2012, Ostrom, 1990, Kenney, 1999), a review of WRIA 11's process, structure, history, and social exchange dynamics would provide an interesting comparison across WRIAs. In addition, a broader comparison across WRIAs in Washington State could provide insight for future watershed management activities across the state.

Because the WRIA 1 planning entities were unable to amend the plan by the deadline DOE has taken over rulemaking for WRIA 1. The data collected by the WRIA 1 planning entities will be used by DOE during rulemaking. The development and implementation of this plan amendment thus provides an opportunity to research the impact of the WRIA 1 collaborative planning process on the Nooksack River Watershed.

Finally, research efforts to date have not assessed the physical and environmental impacts of collaborative watershed management on watersheds. To more adequately and holistically describe the relevance of these groups, watershed outcomes would need to be measured. This would require developing methods that would be able to establish a causal link between collaboration and water quality, water quantity, and habitat outcomes.

REFERENCES

1955 Washington Session Laws 42 (codifies as amended as WASH. STAT. RCW 77.57.020 (2018)) *Swinomish,* 178 Wash. 2d at 592, 311 P. 3d at 16.

1969 Washington Session Laws 2790 (codifies as amended as WASH. STAT. RCW 90.22.010 (2018)) *Swinomish,* 178 Wash. 2d at 592, 311 P. 3d at 16.

Ananda, J. & Proctor, W. (2012). Collaborative approaches to water management and planning: An institutional perspective. *Ecological Economics* 86(2013):97-106. http://dx.doi.org/10.1016/j.ecolecon.2012.10.018.

Bentrup, G. (2001). Evaluation of a collaborative model: A case study analysis of watershed planning in the intermountain west. *Environmental Management.* 27(5): 739-748. DOI: 10.1007/s002670010184.

Blake, S. & Peterson, B. (2005). *WRIA 1 Watershed Management Plan—Phase 1.* Retrieved from https://fortress.wa.gov/ecy/publications/documents/0511043.pdf.

Blau, P.M. (1964). *Exchange & Power in Social Life.* New Brunswick: Transaction Publishers.

Breslow, S. J., Governors' Association, W., & Olympia, W. A. (2015). Tribal science and farmer's resistance: Restoring nature, culture, and power in the American Northwest. *Unpublished manuscript. Western Governors' Association.*

Bruyneel, K. (2006). The colonizer demands its "fair share," and more: Contemporary American anti-tribalism from Arnold Schwarzenegger to the extreme right. *New Political Science, 28*(3), 297–321. https://doi.org/10.1080/07393140600856052

Buchan, N.R., Croson, R.T.A., Dawes, R.M. (2002). Swift neighbors and persistent strangers: A cross-cultural investigation of trust and reciprocity in social exchange. *American Journal of Sociology, 108*(1):168-206.

Carpenter, S.L. & Kennedy, W.J.D. (1988). *Managing Public Disputes.* San Francisco: Jossey-Bass Inc., Publishers.

Cremer, D. (2003). How self-conception may lead to inequality: effect of hierarchical roles on the equality rule in organizational resource-sharing tasks. *Group and Organization Management, 28*(2): 282-302. https://doi.org/10.1177/1059601103028002005.

Currall, S.C. & Judge, T.A. (1995). Measuring trust between organizational boundary role persons. *Organizational Behavior and Human Decision Processes, 64*(2): 151-170.

Exempt Well/Water Information. (n.d.). *Whatcom County Planning & Development Services.* Retrieved from https://www.whatcomcounty.us/2487/Exempt-WellWater-Information

Fehr, E., Fischbacher, U., & Gachter, S. Strong reciprocity, human cooperation, and the enforcement of social norms. *Human Nature, 13*(1):1-25.

Fisher, R., Ury, W., & Patton, B. (2011). *Getting to Yes: Negotiation Agreement Without Giving In.* London: Penguin Books, Ltd.

Gabarro, J.J. (1987). *The Dynamics of Taking Charge.* Boston: Harvard Business School Press.

Geneva Consulting (2007). *WRIA 1 Detailed Implementation Plan.* Retrieved from https://fortress.wa.gov/ecy/publications/documents/0711053.pdf

Gimpel, J. G., & Karnes, K. A. (2006). The rural side of the urban-rural gap. *PS: Political Science & Politics, 39*(03), 467–472. https://doi.org/10.1017/S1049096506060859

Gold Star Resorts, Inc. v. Futurewise, 222 P.3d 791, 167 Wash. 2d 723 (2009).

Godfrey-Smith, P. & Martinez, M. (2013). Communication and common interest. *PLOS Computational Biology, 9*(11). https://doi.org/10.1371/journal.pcbi.1003282.

Growth Management—Planning by Selected Counties and Cities, WASH. STAT. RCW 36.70A (1990).

Hardy, S.D. & Koontz, T.M. (2009). Rules for collaboration: Institutional analysis of group membership and levels of action in watershed partnerships. *The Policy Studies Journal.* 37(3):393-414.

Hirst Decision. (2018). Retrieved from Washington State Department of Ecology: https://ecology.wa.gov/Water-Shorelines/Water-supply/Water-rights/Case-law/Hirst-decision

Historical Exempt Well Water Information. (n.d.). *Whatcom County Planning & Development Services.* Retrieved from http://www.whatcomcounty.us/2788/Historical-Exempt-Well-Water-Information

Holling, C.S. & Meffe, G.K. (1996). Command and control and the pathology of natural resource management. *Conservation Biology.* 10(2): 328-337.

Holton, J. A., & Walsh, I. (2016). *Classic grounded theory: Applications with qualitative and quantitative data*. Sage Publications.

Huffman, J. L. (2009). Comprehensive river basin management: The limits of collaborative, stakeholder-based, water governance, *Natural Resources Journal, 49:* 117-149 http://digitalrepository.unm.edu/nrj/vol49/iss1/4

Kenney, D. S. (2000). Arguing about consensus: Examining the case against western watershed initiatives and other collaborative groups active in natural resources management. *Colorado Law Scholarly Commons.* Boulder: Natural Resources Law Center.

Kerkes, F. (2008). Evolution of co-management: Role of knowledge generation, bridging organizations and social learning. *Journal of Environmental Management.* 90:1692-1702. doi:10.1016/j.jenvman.2008.12.001

Kittitas County v. Eastern Washington Growth Management Hearings Board, 172 Wash. 2d 144,256 P.3d1193 (2011).

Koehler, B. & Koontz, T.M. (2008). Citizen participation in collaborative watershed partnerships. *Environmental Management.* 41:143-154. DOI 10.1007/s00267-007-9040-z

Koontz, T.M. & Newig, J. (2014). From planning to implementation: Top-down and bottom-up approaches for collaborative watershed management. *Policy Studies Journal.* 42(3): 416-442.

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

Kramer, R.M. & Tyler, T.R. (1996). *Trust in Organizations: Frontiers of Theory and Research.* Thousand Oaks: SAGE Publications.

Leach, W.D. & Pelkey, N.W. (2001). Making watershed partnerships work: A review of the empirical literature. *Journal of Water Resources Planning and Management.* 127(6):378-385.

Leach, W.D., Pelkey, N.W., Sabatier, P.A. (2002). Stakeholder partnerships as collaborative policymaking: Evaluation criteria applied to watershed management in California and Washington. *Journal of Policy Analysis and Management.* 21(4): 645-670. DOI: 10.1002/pam.10079.

Levesque, V.R., Calhoun, A.J.K., Bell, K.P. & Johnson, T.R. (2017). Turning contention into collaboration: Engaging power, trust, and learning in collaborative networks. *Society and Natural Resources.* 30(2): 245-260. https://doi.org/10.1080/08941920.2016.1180726

Lubell, M. (2004). Collaborative watershed management: A view from the grassroots. *The Policy Studies Journal.* 32(3): 341-361.

Maiter, S., Simich, L., Jacobson, N. & Wise, J. (2008). Reciprocity: An ethic for community-based participatory action research. *Action Research.* 6(3): 305-325. DOI: 10.1177/1476750307083720

Mayer, R.C., Davis, J.H., & Schoorman, F.D. (1995) An integrative model of organizational trust. *The Academy of Management Review, 20*(3):709-734.

Maxwell, J. A. (2012). *Qualitative research design: An interactive approach* (Vol. 41). Sage publications.

McAllister, B. (1996). A battle of rights on the reservation. *The Washington Post.*

Melious, J. O. (2017). Laissez-faire water appropriation meets land use planning in Washington's Hirst decision. *Gonzaga Law Review* 53, 117.

Melious, J. O. (2018). The controversy over permit-exempt wells in Washington. *Seattle Journal of Environmental Law*, *8*(1), 6.

Morisset, M. D., & Summers, C. A. (2009). Clear passage: The culvert case decision as a foundation for habitat protection and preservation. *Bellwether: The Seattle Journal of Environmental Law and Policy*, *1*, 29.

Newig, J. & Koontz, T.M. (2014). Multi-level governance, policy implementation and participation: the EU's mandated participatory planning approach to implementing environmental policy. *Journal of European Public Policy.* 21(2): 248-267 http://dx.doi.org/10.1080/13501763.2013.834070.

Oakley, J. (2005) Whatcom County—Thumbnail History. *History Link.org*

Osborn, R. P. (2010). Hydraulic Continuity in Washington Water Law, 47 Idaho L. Rev. 23,50.

Ostrom, E. (1990) *Governing the Commons: The Evolution of Institutions for Collective Action.* Cambridge: Cambridge University Press.

Petition for Review, Whatcom County v. Hirst, No. 70796-5-I (Washington Court of Appeals, Division 1, 2015).

Pevar, S. L. (2012). *The Rights of Indians and Tribes.* New York: Oxford University Press.

Regulation of Public Groundwaters. WASH. STAT. RCW 90.44 (1945).
Ryan, C. M. & Klug, J. S. (2004). Collaborative Watershed Planning in Washington State: Implementing the Watershed Planning Act. Journal of Environmental Planning and Management 48(4): 491-506

Robinson, T. (2016). Revisiting Many Waters: An Evaluation of the Walla Walla Water Management Initiative. *William D. Ruckelshaus Center.*

Sabatier, P. A., Focht, W., Lubell, M., Trachtenberg, Z., Vedlitz, A., & Matlock, M. (2005). Swimming Upstream: Collaborative Approaches to Watershed Management. The MIT Press: Cambridge, Massachusetts.

Stedman, R., Lee, B., Brasier, K., Weigle, J. L., & Higdon, F. (2009). Cleaning up water? Or building rural community? Community watershed organizations in Pennsylvania. *Rural Sociology*, *74*(2), 178-200.

Strickland, L. H. (1958). Surveillance and trust. *Journal of personality*, *26*(2), 200-215.

Trachtenberg, Z. & Focht, W. (2005). Legitimacy of watershed collaboration. In Sabatier, P. A. et al. (Eds), *Swimming Upstream: Collaborative Approaches to Watershed Management.* (pp. 51-82) Cambridge: MIT Press.

Treaty of Point Elliot. US-Puget Sound Tribes. (1855).

United States v. Washington., 759 F.2d 1353 (9th Cir. 1985).

United States v. Washington, 423 U.S. 1086, 96 S. Ct. 877, 47 L. Ed. 2d 97 (Supreme Court 1976).

Wagenet, L.P. & Pfeffer, M.J. (2007). Organizing citizen engagement for democratic environmental planning. *Society and Natural Resources.* 20:801-813. DOI: 10.1080/08941920701216578.

Washington v. United States, 584 U.S. ___ (2018)

Washington Administrative Code (1988). *Instream Resources Protection Program—Nooksack Water Resource Inventory Area (WRIA) 1.* (Chapter 173-501 WAC). Retrieved from http://leg.wa.gov/CodeReviser/WACArchive/Documents/2013/WAC-173-501-CHAPTER.pdf.

Washington State Department of Ecology. (2006). *Washington State Water Law: A Primer* (Publication # WR 98-152).

Washington State Senate. (2018). *Engrossed Substitute Senate Bill 6091.* (65th Legislature 2018 Regular Session). Olympia, WA.

Water Code, WASH. STAT. RCW 90.03. (1917).

Watershed Planning, WASH. STAT. RCW 90.92. (1998).

Water Resources Act of 1971, WASH. STAT. RCW 90.54. (1971).

Whatcom County Council (2013). *Special Surface Water Work Session.* Retrieved from http://documents.whatcomcounty.us/weblink8/0/doc/3329385/Page1.aspx?searchid=bc254e21-05e1-4928-be2a-e01800f0107c

Whatcom County Council (2014). *June 2014 Council Surface Water Work Session.* Retrieved from https://www.whatcomcounty.us/DocumentCenter/View/24775/Surface-Water-Work-Session-June-24-2014

Whatcom County Council (2014). *Special Surface Water Work Session.* Retrieved from http://documents.whatcomcounty.us/weblink8/0/doc/3328588/Page1.aspx?searchid=decb4d77-0bf7-427d-849a-e54c53a690aa

Whatcom County (2016). *Appendix G—Water Resources and Salmon Recovery Programs.* (Planning Commission Recommended Draft Comprehensive Plan). Retrieved from https://www.whatcomcounty.us/DocumentCenter/View/15163/Appendix-G---Water-Resouce-and-Salmon-Recovery-Programs---PC-approved?bidId=.

Whatcom County v. Western Washington Growth Management Hearings Board, 344 P.3d 1256, 186 Wash. App. 32 (Ct. App. 2015).

Whatcom County v. Western Washington Growth Management Hearings Board, 186 Wash. 2d 648, 381 P.3d 1, (2016).

Whatcom WRIA 1 Planning Unit. (2016). *WRIA 1 Watershed Management Project Planning Unit: Process and Procedural Agreement.* Retrieved from https://drive.google.com/file/d/1drmaB6zWuAPMLgLNAZn6tgKgghG5CENh/view.

WRIA 1 Watershed Management Board. (2018). *2018-20123 Implementation Plan and Funding Strategy*. Retrieved from http://www.commonthreadsnw.org/wp-content/uploads/2018/05/2018-0503-Watershed-Mngmnt-Board-DRAFTWRIA-1-Implementation-Plan_Intro-SectionI.pdf

Zaferatos, N. C. (2015). *Planning the American Indian Reservation: From Theory to Empowerment.* Syracuse: Syracuse University Press.

APPENDIX A: Round One Interview Questions

Can you describe your experience on the Planning Unit/Management Board?

How often do you communicate with other Planning Unit/Management Board members?
-How would you characterize this communication?

Do you have any unwritten agreements with other members of the Planning Unit/Management Board?

Do you work with other members of the Planning Unit/Management Board to complete tasks?

Do you check-in on other members of the Planning Unit/Management Board?

Describe any resources you share with other members of the Planning Unit/Management Board.
-If you don't share resources, why not?
-If you do share resources, why?

Why do you choose to communicate (or to not communicate) with other members of the Planning Unit/Management Board outside of meetings?

Can you describe your relationships with other individuals on the Planning Unit/Management Board?

What has been the most challenging aspect of participation on the Planning Unit/Management Board?

What has been the most productive part of the Planning Unit/Management Board?

What specific interests do you represent on the Planning Unit/Management Board?

Are there caucuses that you align with in interests more than others?
-How would you describe your communication with these caucuses vs. the others that you don't align with as much?

Is trusting other members of the Planning Unit/Management Board important for you full engagement/participation?

Clarifying Questions:

Why or why not?

Can you please explain that more?

Can you elaborate on that?

APPENDIX B: Round Two Interview Questions

First, can you just tell me how you think that things have been going?

Have you noticed a shift in group dynamics since we last spoke?

What, in your opinion is the purpose of the Planning Unit?

On the Planning Unit there are governmental and non-governmental caucuses. Do you think that influences interactions on the Planning Unit?

How important do you think that technical knowledge of watersheds and watershed processes is to participation in this process?

There was some mention of leadership at the Planning Unit level. Do you think leadership is important?

It seems like this process has built trust between the individuals at the table, but do you think that extends beyond into trust between organizations and general community building?

Clarifying Questions:

Can you elaborate?

In what way?

APPENDIX C: Interview Codes

- Leadership/Facilitation
    - The need for facilitation
    - How facilitation could help
- Committed Participation
    - Lack of commitment from local governments
    - Tribal participation
    - Citizen caucus commitment
- Trust
    - Official trust
    - Social trust
    - History
- Technical Staff
    - The need for technical understanding
    - Watershed staff not trusted
- Time
    - Process
    - The ESSB 6091 timeline
- Well-defined process
    - Complex structure
    - Process and structure disputes
- Scope of activities
    - Narrow scope