Complicating the Rural in Oregon's Water Policymaking: Executive Summary

The state of Oregon is divided in important ways along rural and urban lines, including the way people make a living, individual and group relationships with the natural world, political ideologies, and personal values. This rural-urban divide has assisted policymakers in making decisions that balance the needs of Oregonians on either side. However, to simplify communities' differences in needs, preferences, and consequences in policymaking to the rural-urban divide alone misses important differences among rural places. This study uses water issues as a vehicle to gain a more nuanced understanding of the complexities of rural places in the state of Oregon (Figures 1 & 2).

The research question providing the foundation for the study was "How do water issues impact different rural communities differently around Oregon?", which I chose to help me understand first how rural communities differ from one another, and then how the state of Oregon might meet the needs of those diverse communities. To explore this question, I began by conducting an analysis of recent state water policies; I then interviewed professionals involved in water policy at the state level, both of which provided me with background to understand key issues impacting Oregon as a whole. I followed up with rural community case studies offered insight into the different experiences of three rural communities around the state. This brief focuses on results from the policy analysis and community case studies.

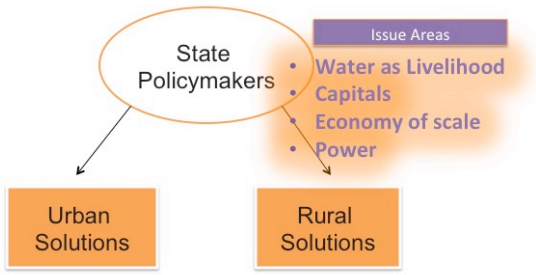

Figure 1. The Rural-Urban Divide as a Policymaking Tool

Instead of relying solely on the rural-urban divide for decisionmaking, I propose a more "complicated" system, which at once acknowledges common rural issues, while allowing for custom solutions to issues that differ by place.

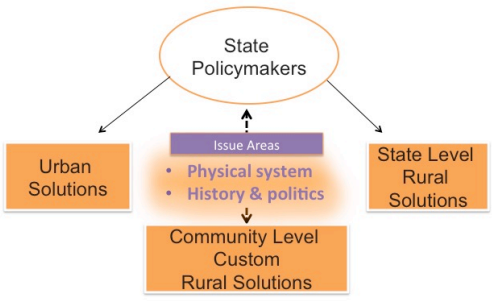

Figure 2. Custom Rural Solutions

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State Policy Analysis

First, to get a feel for recent water policies, I conducted an analysis of legislation related to water over the last ten years (2007-2016). Using two search engines available through the state legislature, I found all proposed bills relating to water and analyzed their content, concentrating on those that were signed into law.

I found a total of 148 measures proposed during this period that included water or irrigation in the "relating to" clause, a tag line at the start of a measure that indicates the subject of the measure. Other measures contained reference to water within the text, but because water was not the focus, they were not included in my count.

Of the 148 proposed measures, 42 were passed (Fig. 3). Many related to administrative fixes or to fees. Other common themes included water quantity or supply; water quality; and Western water law.

An interesting change occurred in 2009, when a move by diverse water interests to find common ground before submitting proposed legislation started to reduce the number of measures submitted, and increase the percent passed.

Four recent water measures passed by the legislature are particularly helpful in understanding the context of this research. Chronologically, they were passed in a different order; however, as all four bills are now in place, they are part of an ideally linear process that communities may use to address the full range of water-related issues facing them. I would like to highlight two of these.

The Integrated Water Resources Strategy (IWRS) was authorized by the state legislature as part of House Bill 3369 in 2009. The Strategy was developed with the help of a collaborative, "bottom up" visioning process where diverse stakeholders from around the state identified water goals for Oregon.

The strategy stressed that specific actions to be taken toward these goals would be developed as bottom-up plans, led by communities to meet their specific needs,

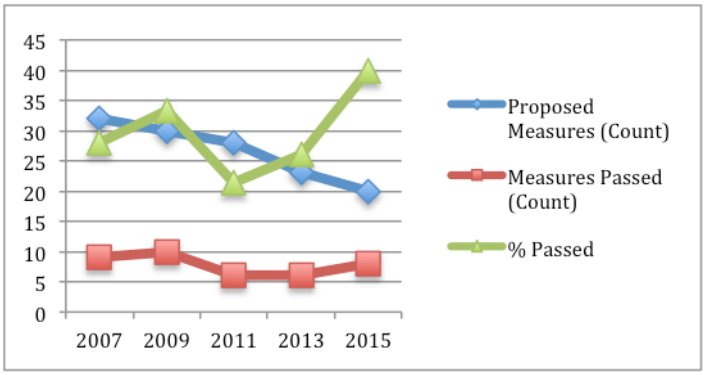

Figure 3. Number of Proposed, Passed State Legislative Water Measures, 2007-2016

and guided by principles in the strategy. This leads to the first step for communities: planning, through Senate Bill 266 (2015), which provided funding and authorization for the Place-Based Integrated Water Resources Planning Program.

Ideally, communities will come together, self-identifying as a collection of people and organizations with common interests in a shared water system. Applicants chosen through this program receive funding and assistance from the state, with some matching requirements. The goal is a collaborative process in which community partners identify their most pressing water problems and potential solutions. Next steps would include feasibility studies and implementation of proposed solutions, which are covered in the other measures (Fig. 4, below).

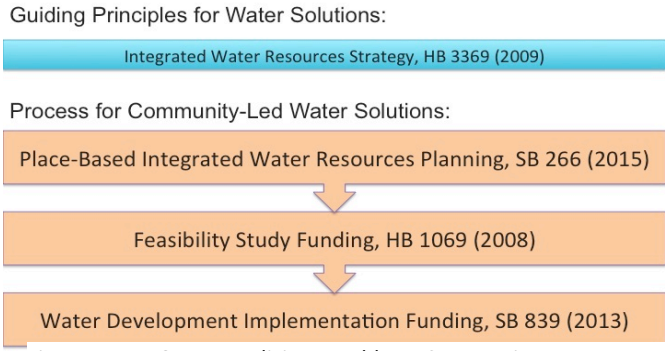

Figure 4. Key Oregon Policies to Address Community Water Problems

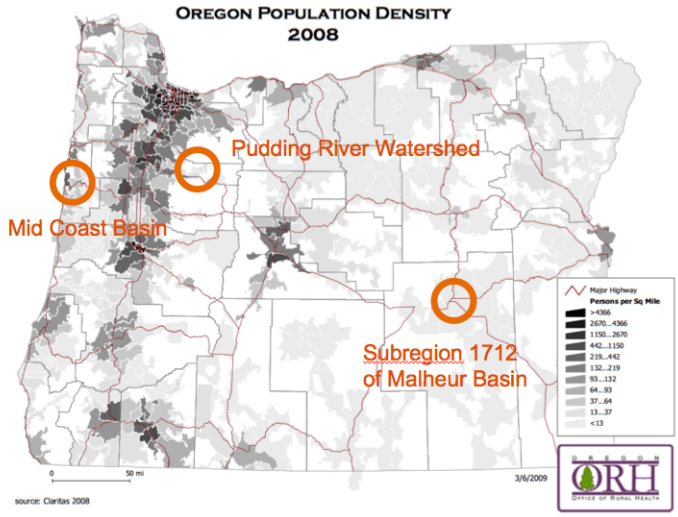

Figure 5. Location of Case Study Communities

Community Case Studies

I took a closer look at three rural communities around the state to illustrate how water issues affect each in different ways. I chose three communities that put forth applications for funding through the Oregon Water Resources Department's new Place-Based Integrated Water Resources Planning program, set out in Senate Bill 266 (2015). The first round of applications for funding through the program was submitted December 2015, at which time 16 self-identified water "communities" offered proposals. It is worth noting that of these 16 communities, 14 are rural.

The communities I chose were the Pudding River Watershed, Mid Coast Basin, and Subregion 1712 of Malheur Basin (which I will also call Harney County, taking my cue from stakeholders who identify themselves as Harney County in their application).

I chose these communities because they represent a maximum variation of cases, demonstrating a more traditional definition of rural (low population count and density, and high geographic isolation) in Harney County; a medium population count and density but very near to an urban center in the Pudding River Watershed; and a relatively high population count, medium population density, and medium geographic isolation in the Mid Coast Basin. The communities are also located in different geographic areas around the state (Figures 5 & 6).

After reviewing the demographics of each community and familiarizing myself with key water concerns listed in the Place-Based Planning application, I went to each community and interviewed stakeholders to learn more.

Interviewees for each case were chosen in two ways: first, stakeholders listed as supporters or partners on the application were chosen as potential interviewees; and second, respondents were asked during the interview for names of any person I should not miss talking with about their community. Based on the size of the community and complexity of water issues facing it, I interviewed different numbers of people to achieve saturation, which was indicated when I found myself hearing the same information and not learning anything new. In the Pudding River Watershed, I interviewed nine stakeholders; in the Mid Coast Basin, I interviewed 12; and in Harney, I interviewed 14, for a total of 35 community-level interviews.

	Malheur Basin (Subregion 1712)	Pudding River Watershed	Mid-Coast Basin
Cities	Burns, Hines, Crane, Buchanan, Princeton, Diamond, Frenchglen, Riley	Aurora, Brooks, Gervais, Hubbard, Molalla, Mt. Angel, Silverton	Newport, Lincoln City, Toledo, Depoe Bay, Seal Rock
Convening City Population	Burns: 3,000 (non-core)	Silverton: 9,000 (non-core)	Newport: 10,000 (micropolitan)
Nearest County Population	Harney Co: 7,000 (frontier)	Marion Co: 326,000 (metropolitan)	Lincoln Co: 46,000 (rural)
County Pop Density	.7 people/sq mi	267 people/sq mi	47 people/sq mi
Geographic Isolation	High	Low	Medium
Miles to Metro	Bend: ~130 mi	Salem: ~15 mi	Corvallis: ~50 mi
Region	Southeast	Willamette Valley	Coast
Economic Drivers	Hay, cattle	Wet/irrigated agriculture, food processing	Tourism, fisheries

Figure 6. Case Study Communities, At a Glance

Pudding River Watershed

In the Pudding River Watershed, as in all three case study communities, water is livelihood for much of the population. The key economic driver in the area is wet or irrigated agriculture, including nursery crops, and food crops such as hazelnuts, blueberries/other berries, and grapes.

Critical issues facing the Pudding River Watershed (Fig. 7) include changing climate manifestations such as drought, low snowpack, and decreasing groundwater supplies; aging infrastructure in need of repair and replacement with few resources to pay for it; and drinking water quality concerns. The East Valley Irrigation District has been working for many years on developing a water supply project for growers.

	Pudding River Watershed
Rural Challenges	*Water as livelihood, water supply *Water quality *Infrastructure aging/failing *Economy of scale, capitals
Role of Leaders	*No champion *Drift Creek ≠ Place-Based Planning *Watershed Council history, new start *ASR starts & stops
Individualized Issues	*Drought, less snowpack to provide summer flows *Well/groundwater levels dropping in some areas *Fault line between Mt. Angel wells *Drift Creek & ASR projects
History & Political Baggage	*Internal struggles with siloed, reproduced structures *Jurisdictions all "okay" on own, exploring collab because of drought

Figure 7. Pudding River Themes, At a Glance

Respondents described a past history of goal setting led by the local watershed council that has been hampered by lack of funding to carry out projects and collaborative relationships that have been harmed by previous leadership. One respondent described a key leader as having burned bridges, especially with the Oregon Watershed Enhancement Board, which is an important source of grant funding for community water projects. Potential collaboration between Mt. Angel and Silverton to develop an aquifer storage and recovery project has also stopped short of completion.

Interviews revealed that while previous attempts to collaborate on projects in the watershed have not been successful, new leaders quickly and effectively came together to develop the community's Place-Based Planning application. These leaders, listed in the application, represent a variety of interests and organizations, and bring with them expertise and experience in collaborative decisionmaking from previous posts. The Pudding River Watershed did not receive grant funding through this first round of Place-Based Planning, and now leaders stand at a crossroads, where they might take advantage of the momentum developed through the application process and to engage with partners to develop long term goals for a variety of water users.

This is not without challenges; this type of collaborative process is time and resource intensive with no guarantee of success, and communities are "okay" in the short run. As one respondent put it, "…we've got a few changes…some upgrades [but] we don't need to be a part of this effort, we are pretty stand alone…"

But success for partners would include producing economies of scale by pooling resources to address infrastructure problems and provide enough water for agricultural, municipal, and conservation interests into the future.

My recommendation is for the Pudding River Watershed stakeholders to continue to be brave for the sake of developing long term water solutions for the community. I suggest using the momentum of the Place-Based application process to overcome siloes, reach out to potential partners listed in the application, and to work on developing the relationships and trust needed to share economies of scale, especially with respect to infrastructure and institutions.

Mid Coast Basin

The Mid Coast Basin was described by two respondents as "a collection of microbasins" along the central coast, spanning from Lincoln City in the north to Yachats in the south, and inland to include Siletz and Toledo in the east. A crucial issue faced by the Mid Coast Basin is having what one respondent called "too much or not enough" water at different times of the year, which impacts not only residents, but key economic industries of tourism and fisheries (Fig. 8).

Mid-Coast Basin	
Rural Challenges	*Water as livelihood, water supply *Water quality *Infrastructure *Economy of scale, capitals
Role of Leaders	*Water champion, Newport Public Works Director *Looking for neutral facilitation *Rocky Creek starts & stops
Individualized Issues	*Drought (no snowpack), longer dry seasons, heavier winter storms *Too much or not enough *Siletz River overallocated
History & Political Baggage	*Lincoln City detached *Newport has more capital than others *Collabs based on personal relationships, turnover = lost momentum *Proactive/reactive communities

Figure 8. Mid Coast Basin Themes, At a Glance

Respondents described historical baggage of communities taking proactive and reactive approaches to infrastructure, where some communities have budgeted and invested steadily along the way to maintain and repair infrastructure so they would be ready for the day water treatment and delivery systems reached the end of their useful lives. At the same time, other communities have not invested over time and now that infrastructure repair and replacement is reaching crisis level, the price tag is much higher.

Power dynamics mimicking the rural-urban divide at the state level can be seen in the relationship between the micro-urban center of Newport and the rest of the more traditionally rural communities, as well as between Lincoln City and the rest of the basin. One respondent said, "Cape Foulweather is like a wall" separating Depoe Bay and Lincoln City from the rest of the Basin. A Newport resident said, "I very seldom get to Lincoln City or do anything there…why go to Lincoln City when I can come [to Newport] to get whatever I need?" Legacies of conflicting goals or priorities between Lincoln City and Newport can be seen in the starts and stops related to a water storage proposal at Rocky Creek which Newport leaders are suggesting as part of the place-based planning process.

In the case of the Mid Coast Basin, a water planning champion in the form of the Newport Public Works Director has catalyzed the Place-Based Planning process, for which the Mid Coast Basin has received approval for planning assistance. The process offers a chance to pool human and financial capital in the area to ensure stable water supply, as well as infrastructure repair and replacement around the basin. A challenge facing leaders of this effort is to work intentionally and quickly to find facilitation that does not represent Newport and allows Newport to be a participant in their own right. This is important for two reasons: first, to balance power dynamics that may lead to Newport's needs and preferences overshadowing other communities or lead to smaller communities refusing to participate; and second, because the needs and preferences of Newport are also important and deserve to be represented in the conversation as well.

The potential results of a successful collaboration in the Mid Coast Basin include creating more efficient economies of scale to provide a stable water source and water treatment and delivery, as well as repairing and replacing infrastructure.

My policy recommendation for the Mid Coast Basin is to not only seek a neutral facilitator for the planning process, but also for leadership to engage with partners from Yachats in the south to Lincoln City in the north, and east to include Siletz and Toledo, to ensure the greatest possible participation and full understanding of diverse regional needs.

Harney County

As in all three case studies, water is intricately tied to livelihood in Harney County. Yet in Harney County, there is imminent concern about availability of water for current and future economic development that is more pronounced than the other two case studies. Key economic drivers in the community include cattle ranching and hay production. The area relies on snow melts that flood the basin, providing irrigation and habitat for migrating birds and wildlife. Irrigation using some surface water, mostly groundwater, supplements snowmelts for agricultural purposes. The area is experiencing concerns about groundwater supply in some areas, as well as water quality issues including intermittent pockets of arsenic, boron, and other contaminants (Fig. 9).

Harney County	
Rural Challenges	*Water as livelihood, supply *Water quality *Geographically remote
Role of Leaders	*Community networks & trust well-developed, rebuilding *Residents v. outside interests *Balancing water uses
Individualized Issues	*Drought, earlier snow melt, longer dry season *Well/groundwater levels dropping in some areas *Juniper encroachment, forest mgmt impacting availability *Need for scientific study on aquifer(s), surface/groundwater interactions
History & Political Baggage	*Surge in permits, ag *Groundwater permit moratorium *History of outside interests intervening *History of successful community collaboration

Figure 9. Harney County Themes, At a Glance

Harney County's Place-Based Planning application was catalyzed by a moratorium on groundwater permits that was put into place by the Oregon Water Resources Department in response to concerns about a surge in groundwater wells for agricultural irrigation over the last decade. One of the primary influences was Water Watch, whose Oregon headquarters are in Portland, with a regional branch in Bend; the organization was particularly concerned about reports of groundwater wells dropping in the area. The Farm Bureau was similarly concerned that new development was impacting senior water rights holders.

Harney County carries a legacy of outside interests impacting policies in their area. Recent examples include a move to list the sage grouse as an endangered species, which would have likely changed the way the land could be used; an effort to designate local Steens Mountain as a national monument, which would also have impacted local activities; and most recently the Malheur Wildlife Refuge occupation, which involved protesters taking over a federal facility. Respondents voiced frustration with this, and one person said, "There's no question there are issues we need to address, but not like this."

Another result of this legacy is that community members have a history of strong collaboration, and are ready to engage and work together on water issues.

Harney County partners have been awarded Place-Based Planning grant funds.

In the dire situation of the recent groundwater permit moratorium, community leaders are hoping to partner with the state on a thorough and state-of-the-art study of water in the basin, particularly if these data are to set a baseline for the next nearly 50 years, as the 1968 data have for today. As one respondent mentioned, no one wants Harney County to run out of water. Looking forward 50 years, stakeholders from myriad perspectives can agree that the goal is to have a healthy basin with abundant, clean water. The difficulty lies in disagreement about how to get there. An opportunity exists for the community to be strategic about involving potential opponents to local planning early to avoid problems later in the policy process.

My policy recommendations for Harney County stakeholders are to consider investing in a liaison to develop relationships with state decisionmakers, facilitate interactions, and travel to Salem to represent Harney County's interests face-to-face. Also, I suggest engaging with environmental interests and senior water rights holders to address concerns about groundwater depletion in a way that makes sense for the community.

Community Case Study Themes

In addition to analyzing findings for the individual case study communities, I would like to offer some insights as to patterns present in the combined cases. I have grouped findings into two categories: themes that suggest state level rural solutions, the kind that show that the rural-urban divide remains important in state decisionmaking; and themes that suggest complicating the rural by tailoring solutions to the individual needs of communities (Fig. 10).

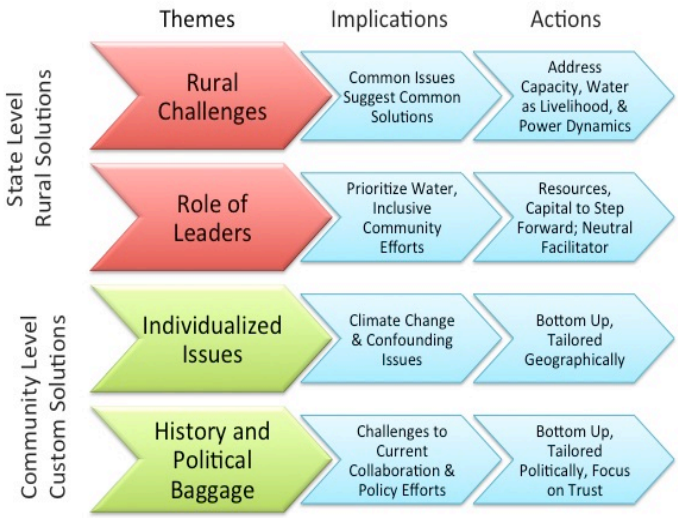

Figure 10. Community Level Themes

With respect to common rural challenges, I argue that common issues suggest common solutions. Three areas I recommend developing a streamlined approach to supporting rural communities in meeting their water needs are assessing, building and maintaining capacity; evaluating impacts of water issues on rural economic systems; and developing awareness of, and tools to address, power dynamics in state/community decsionmaking and within the community. Two areas I suggest considering power dynamics are being intentional about inclusion of rural voices in state decisionmaking, especially where discussions are held or decisions made geographically distant from communities, and acknowledging that power in decisionmaking also comes from how we measure success and what data is considered legitimate for making choices.

The role of leadership was also common across the rural communities, and findings suggest that leaders help tremendously to prioritize water and focus community efforts. I recommend that to the extent possible, the state consider supporting local leaders with limited capacity by providing resources to serve in such a role, in addition to other duties in the community. Where leaders liaise between the community and the state, consider supporting remote participation, occasional travel for face-to-face meetings, and supporting state staff to travel to communities. Another possible solution would be to develop a system that supported neutral water facilitators in communities around the state; this could even the playing field for some communities that do not have non-profit, non-governmental, or other neutral leadership with capacity to lead.

Some issues facing rural communities are different and require individual consideration.

These include individualized issues and history and political baggage, which suggest tailored solutions.

With respect to individualized issues, top water needs differ from community to community, especially due to the complex problems of climate change and confounding local circumstances. I recommend that these solutions be bottom up and locally driven, involving the community in defining its most important water issues. Solutions that are tailored geographically and respond to diverse situations are critical.

However, history and political baggage, unique to each community, poses challenges to collaboration within the community and between the community and the state. I recommend that addressing this aspect of policy is critical to the success of collaborative efforts and guidance by community concerns would provide a bottom up style process. Solutions may be tailored politically to the individual situation, and the outcome desired is to build and maintain the trust that is the foundation of successful collaboration.

Semi-Custom Built Rural Solutions

Ultimately, each community's water solutions will be as unique as the communities themselves. Yet there will be common elements as well. It may be helpful to think of these solutions as semi-custom built, like a home that starts with a basic floor plan (Fig. 11) offered by a contractor to meet common needs, but which has custom elements (Fig. 12) selected for the distinctive needs and preferences of those who live there and will be using the home everyday.

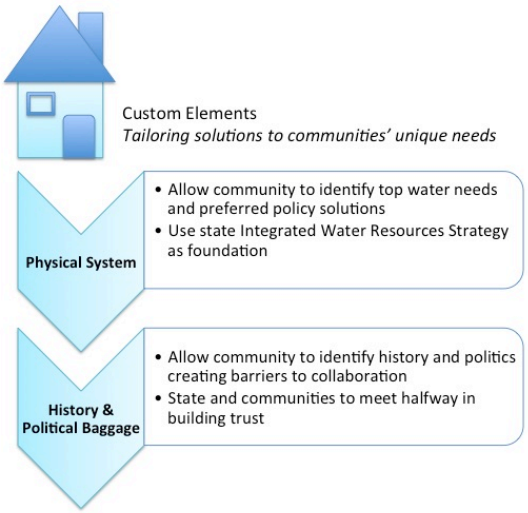

Figure 12. Example Custom Elements for Rural Policymaking

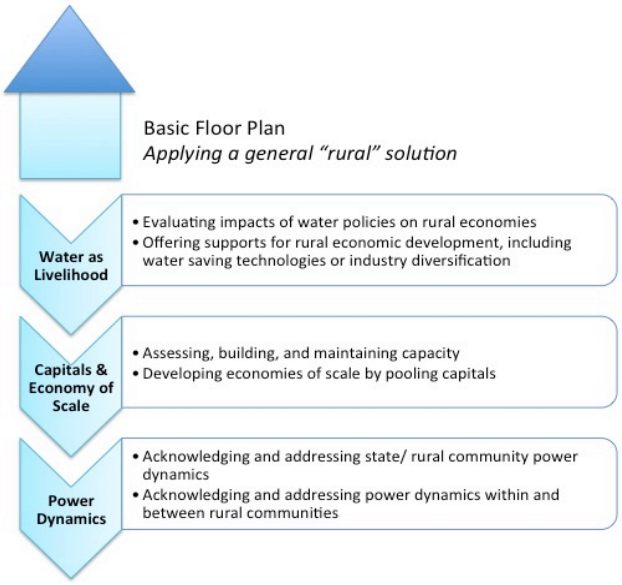

Figure 11. Example Basic Floor Plan for Rural Policymaking

The Basic Floor Plan accounts for three essential shared rural challenges present in the community case studies. These include reliance on water for livelihood, challenges of capacity, and power dynamics.

Custom Elements take into account the differences in the physical system, as well as the history and political baggage that make each rural place different and in need of tailored solutions.

Concluding Remarks

Water policy in the state of Oregon offers a timely opportunity to study the rural-urban divide as a tool for decisionmakers. The results of studying three diverse rural communities within Oregon illustrate that the rural-urban divide is still a useful tool for policymakers considering problems and potential solutions at the state level. This is because rural communities do share certain challenges that continue to be relevant. Among these, the most salient are: that water is livelihood in many rural places, including my three cases, where irrigated agriculture, tourism, fisheries, and cattle ranching are some of the key economic drivers; the challenge of capacity, in the form of human and financial capital, which makes provision of public services more difficult and expensive per capita than for a larger community; and relatedly, reproduced and siloed infrastructures and institutions, rather than efficiency of economies of scale, which can cause difficulty in rural places. Power dynamics between urban and rural Oregon, as well as within and between rural places, are another challenge for rural communities.

However, a more nuanced method is necessary to address the individual concerns of diverse rural communities throughout the state. Rural communities' top water problems often do not fit with the state's top water priorities, and also do not fit with the top water priorities of other rural communities. Particularly with the differentiated effects of drought, decreased snowpack, and changed timing and volume of winter flows, creating solutions that take into account geography, water availability, and other factors is critical to meeting rural needs. Additionally, history and politics leave legacies that influence communities' trust in one another and state partners, and impact their ability to collaborate to solve water problems.

Author's Statement

My interest in rural communities was influenced by my upbringing. I grew up in the agricultural San Joaquin Valley of California, with the smell of dairy cows and the gentle waft of tomatoes from the nearby food processing plant. I come from a family that packed fruit in the summers and advised farmers on pest control and crop nutrition. I grew up going hunting and fishing, and visiting places like Yosemite National Park, near our home. When I was older, I lived and worked in a very rural and remote area in central California (Mariposa), where I saw how state and federal policies were developed with urban, rather than rural, communities in mind. I also saw that solutions for rural communities, when available, came in a one-size-fits-all that did not necessarily meet the needs of my community.

My experience was not all rural, though. I also grew up in the city in the midst of a rural place, going to schools that taught me from a young age the importance of the environment from a different perspective. I studied environmental politics at UC Santa Cruz, and then in graduate school at Oregon State University, in my Rural Studies minor, I found myself learning about the importance of natural resources and environmental issues to rural communities in Oregon. I also served as staff to several legislative committees related to these issues in the Oregon state legislature. It was during this time that I determined water policy would be an excellent and timely vehicle to study rural decisionmaking.

The personal goal I set for my research was to give voice to the varied needs of rural communities. In Oregon, outcomes for rural and urban dwellers is, on average different, and rural communities are becoming an increasingly marginalized group. What I hope to accomplish is to bring tools to policymakers to think about and address that imbalance.

This project would not have been possible without the willingness of rural residents to share their experiences with me. I am so appreciative of the time you have given me and for trusting me with your story.

The research contained in this summary is part of my doctoral dissertation in the School of Public Policy at Oregon State University. The entire manuscript can be found online at:

http://ir.library.oregonstate.edu/xmlui/handle/1957/59143

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