



MEMORANDUM

EUGENE WATER & ELECTRIC BOARD

Rely on us.

TO: Commissioners Carlson, Mital, Helgeson, Schlossberg and Brown
FROM: Karl Morgenstern, Water Quality & Source Protection Supervisor
Karen Kelley, Water Division Manager
DATE: October 21, 2019
SUBJECT: Update on US Endowment Grant Funded Project/Pure Water Partners Program
OBJECTIVE: Information Only

Issue

On November 7, 2017 the Board approved EWEB accepting a \$143,000 grant from the US Endowment for Forests and Communities to fund development of a watershed conservation fund (Fund) and governance structure for the Pure Water Partners program. EWEB contracted with Cascade Pacific Resource Conservation & Development (CPRCD) to lead this effort as the fiscal manager of the Fund and Pure Water Partners program. This memo provides the Board an update as this work nears completion.

Background

EWEB's Drinking Water Source Protection 10-Year Strategic Plan (2018-2028) (SWP) recognizes the importance in investing in the protection of riparian and floodplain forests as effective natural systems for treatment of pollutants, mitigation of floods, reduction of sediment, and increasing fish habitat that benefits water treatment and electric generation. The Pure Water Partners (PWP) program is designed to reward good stewardship through incentives to landowners who maintain healthy riparian areas over the long term while facilitating restoration on degraded portions of their properties. Through this program, partner agencies conduct riparian health assessments to measure and identify riparian conditions on landowner properties that need restoration or which qualify for protection based on their current condition. EWEB enters into long-term agreements with interested landowners that outline allowable uses in a management plan, provide incentives/compensation to the landowner, and/or assist the landowner in finding funding for restoration work. The McKenzie Watershed Conservation Fund, managed by Cascade Pacific Resource Conservation & Development (dba Pure Water Partners), manages funding from multiple sources (EWEB, Metropolitan Wastewater Management Commission (MWMC), USFS Willamette National Forest, Oregon Watershed Enhancement Board, foundations, etc.) for protection and restoration actions on the ground.

The US Endowment grant EWEB received in November 2017 funds the development of the watershed conservation fund, creation of new funding sources, and developing a governance structure for the Pure Water Partners program to set priorities, collaborate on watershed work, and oversee and direct Fund management. This grant also funded the University of Oregon to conduct a survey of EWEB customer perceptions around the importance and urgency of watershed protection

actions, prioritization of watershed protection activities outlined in the SWP, and customer willingness to pay for this work.

Discussion

In November 2017, EWEB issued a contract to Cascade Pacific Resource Conservation & Development, a 501(c)3 fiscal management organization “doing business as” Pure Water Partners, to hire legal, accounting, and consulting expertise to assist with the design and development of a watershed conservation fund, governance structure, and develop fiscal agreements with PWP funders. CPRCD issued a request for proposals for this work and hired Willamette Partnership (facilitation/consultant), Moss Adams (accountants), and Cole Perkins (legal). EWEB contracted directly with the University of Oregon to conduct a survey of EWEB customers to gain better understanding of perceptions around the importance of watershed protection.

Fund and Governance Structure Development

The consultant team worked with PWP partners, consisting of CPRCD, EWEB, MWMC, USFS, Lane Council of Governments, McKenzie Watershed Council, Upper Willamette Soil & Water Conservation District, McKenzie River Trust, and The Freshwater Trust to develop a suite of products that all partners contributed to and support as the foundation for a watershed conservation fund, governance and accounting structure, and metrics/reporting to track how successful this collaborative effort is over time. These products include a Watershed Conservation Fund Handbook, PWP Program Memorandum of Agreement, and a Fund Implementation Plan.

PWP Partners agreed that a more informal network structure reflected the current collaborative relationships that have been so successful over the last 3-4 years, as opposed to a more formal organization with a Board of Directors. The more informal network structure means the PWP Committee (composed of current program partners) will direct the operations of the Fund per a Memorandum of Agreement (MOA) that stipulates which decisions the Committee has power over and the roles of each signatory to the MOA. The Willamette Partnership is currently working to finalize a Fund handbook that will outline how the PWP program and fund operates in more detail. This will make it easier to bring new partners on board and ensure that necessary processes are followed in the operation of the program. Moss Adams and Cole Perkins worked with CPRCD to audit current policies and procedures and develop an accounting structure that would meet the Fund goals and objectives captured in the MOA.

University of Oregon Survey

The University of Oregon Institute for Policy Research and Engagement (IPRE) selected 3,000 of the approximately 47,000 residential water customers to receive the survey. IPRE received a total of 815 valid responses yielding a response rate of 27.2%. The purpose of the survey was to explore ratepayer willingness to pay for EWEB’s drinking water source protection program. The survey explored a number of topics related to funding:

- Support for watershed protection
- Support for Pure Water Partners program
- Knowledge of EWEB’s source water protection program
- Willingness to pay for drinking water source protection efforts
- Support for funding options

The main take-away from the survey results are that the vast majority of EWEB ratepayers (80%)

place high value on the McKenzie Watershed and are strongly supportive of maintaining or improving water quality. In addition, 75% of ratepayers would pay more for drinking water source protection activities in addition to what they currently pay via water rates. Customers prefer the current structure of rates as the mechanism to fund source protection as opposed to instituting a watershed protection fee that would replace rates. Somewhat surprisingly to us, the majority of respondents were not familiar with EWEB’s source water protection program, which tells us that we need to do a better job of conveying our program and what we do to protect the river to the public (see Attachment A: U of O Final EWEB Customer Survey Report, 2018).

As far as rating the importance of elements identified in SWP, results suggest that ratepayers strongly support implementation of all the elements identified in the strategic plan.

Importance of Source Water Protection Program Elements

Source Water Protection Effort	Extremely important	Very important	Somewhat Important	Not Very Important	Not at all Important
Water Quality and Watershed Health Monitoring	60%	35%	5%	0%	0%
McKenzie Watershed Emergency Response System	55%	36%	9%	0%	0%
Urban Runoff Mitigation	43%	42%	14%	1%	0%
Riparian Forest Protection	44%	40%	15%	2%	0%
Septic System Assistance	46%	36%	15%	2%	1%
Healthy Farms Clean Water	49%	40%	10%	1%	0%
Healthy Forests Clean Water	47%	42%	10%	1%	0%

Source: 2018 EWEB Ratepayer Survey

Pure Water Partners Program Status and Longer Term Goals

EWEB and its PWP partner organizations rolled out the PWP program in early 2018 with a series of workshops and outreach to priority landowners. There are currently 65 McKenzie landowners in the PWP program pipeline, including those who have signed access agreements for initial site visits to those who have gone through the whole process and signed long-term PWP agreements with EWEB. Eight landowners have signed agreements for protection and/or restoration and 13 smaller landowners have signed more informal naturescaping agreements associated with riverfront residential properties. Staff are encouraged by the response and interest in the PWP program during this first year of full roll-out and some recent landowners indicated they heard of the program from their neighbors.

The concept of the PWP program is to eventually move landowners into permanent conservation easements if they are hesitant to do so initially. The long term goal is that 50% of our protected acres will eventually transition to permanent conservation easements (~1,500 acres). Of the current landowners who have signed PWP agreements since 2018, one has a conservation easement and a second is strongly considering moving in that direction.

Funding agreements for PWP activities that will flow through the Fund are in place or nearly finalized between CPRCD (fiscal manager) and the Willamette National Forest, Metropolitan Wastewater Management Commission, EWEB, and the Oregon Watershed Enhancement Board. Additional funding sources that are being worked on include an Upper Willamette SWCD tax base, urban green infrastructure investments with Springfield businesses, carbon sequestration off-set credits, and customer voluntary contributions.

Recommendation

This memo is for informational purposes only. The Board should note that the Cascade Pacific Resource Conservation & Development Consent Item is directly related to this memo and provides 5-years of implementation funding for the PWP program that will be administered through the McKenzie Watershed Conservation fund.

Requested Board Action

No formal action is requested at this time.

Funding Source Water Protection Programs: Results of a Survey of EWEB Ratepayers



May 2019

Final Report

Institute for Policy Research and Engagement

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Karl Morgenstern, Eugene Water & Electric Board

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Institute for Policy Research and Engagement Team

Robert Parker, Executive Director

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About the Institute for Policy Research and Engagement

The Institute for Policy Research and Engagement (IPRE) is a research center affiliated with the School of Planning, Public Policy, and Management at the University of Oregon. It is an interdisciplinary organization that assists Oregon communities by providing planning and technical assistance to help solve local issues and improve the quality of life for Oregon residents. The role of IPRE is to link the skills, expertise, and innovation of higher education with the transportation, economic development, and environmental needs of communities and regions in the State of Oregon, thereby providing service to Oregon and learning opportunities to the students involved.

This research was funded through a grant from the U.S. Endowment for Forests and Communities.



Table of Contents

EXECUTIVE SUMMARY	I
BACKGROUND	I
KEY FINDINGS.....	II
CONCLUSIONS	III
CHAPTER 1: INTRODUCTION.....	1
BACKGROUND	1
PURPOSE AND METHODS.....	2
ORGANIZATION OF THIS REPORT.....	2
CHAPTER 2: OVERVIEW OF THE EWEB SOURCE WATER PROTECTION PROGRAM.....	4
CHAPTER 3: RESULTS OF THE EWEB RATEPAYER SURVEY.....	7
SURVEY METHODS	7
CHARACTERISTICS OF SURVEY RESPONDENTS	8
KNOWLEDGE OF THE MCKENZIE RIVER WATERSHED	17
ENVIRONMENTAL CONSERVATION IN THE MCKENZIE RIVER WATERSHED	20
WILLINGNESS TO PAY FOR SOURCE WATER PROTECTION PROGRAMS	26
CHAPTER 4: CONCLUSIONS AND IMPLICATIONS	32
CONCLUSIONS	32
APPENDIX A: SURVEY METHODS	38
APPENDIX B: SURVEY INSTRUMENT	40
APPENDIX C: TRANSCRIPT OF WRITTEN SURVEY COMMENTS.....	52

Executive Summary

This report presents the results of a survey of EWEB ratepayers conducted as a part of a grant from the U.S. Endowment for Forests and Communities. The grant focuses on a broader effort to establish a McKenzie Watershed Conservation Fund. A subset of that broader effort is to gauge the support of Eugene Water & Electric Board (EWEB) ratepayers for funding EWEB's drinking water source protection efforts. This research included a survey of residential ratepayers in the Eugene Water & Electric Board service area.

Background

In 2000, the Eugene Water & Electric Board (EWEB) prepared a drinking water protection plan, which included a risk assessment of potential threats to Eugene's drinking water. To implement the plan, Eugene Water and Electric Board (EWEB) launched a DWSP program that sought to protect the water quality of the McKenzie River. The overall concept of source water protection is to measure the balance between watershed health and human use over time and implement actions that maintain a healthy balance for production of exceptional water quality.

Over the past several years, EWEB piloted the "Pure Water Partners" program, which provides payments to landowners who voluntarily participate in activities that enhance water quality. In 2017, EWEB received a grant from the Healthy Watersheds Consortium Grant Program sponsored by the U.S. Endowment for Forests and Communities, a nonprofit corporation, to establish a McKenzie Watershed Conservation Fund.

The purpose of the survey was to explore ratepayer willingness to pay for EWEB's drinking water source protection program. The survey explored a number of topics related to funding:

- Support for watershed protection
- Support for Pure Water Partners program
- Knowledge of EWEB's source water protection program
- Willingness to pay for drinking water source protection efforts
- Support for funding options

The Research Team used the Tailored Design Method (Dillman 2009) to survey a random sample of EWEB residential water customers (see Appendix A for a more detailed discussion of survey methods). The University of Oregon Institute for Policy Research and Engagement (IPRE) selected 3,000 of the approximately 47,000 residential water customers to receive the survey. IPRE received a total of 815 valid responses yielding a response rate of 27.2%. IPRE conducted extensive analysis of potential response bias; we discuss this issue in detail in the survey results (Chapter 3 and Appendix D).

Key Findings

- About 80% of respondents were aware that their drinking water comes from the McKenzie River Watershed; 74% of the respondents to the 2012 survey were aware of EWEB drinking water source. Moreover, the majority of 2018 survey respondents' view the McKenzie River Watershed as enhancing their quality of life. Thirty-six percent indicated it is critical to their quality of life and 40% indicated it greatly enhances their quality of life. This is an increase from the 2012 results and indicates that EWEB ratepayers place high value on the McKenzie River Watershed.
- Respondents overwhelmingly indicated that water quality is very important to them relative to other conservation efforts: 93% rated it as extremely important or very important relative to other conservation efforts. Drinking water quality was even more important to respondents: 98% indicated that the quality of drinking water from the McKenzie was either extremely or very important to them.
- The majority of survey respondents (76%) feel that implementing programs to maintain or restore water quality are either extremely urgent (46%) or very urgent (32%).
- Eighty-one percent of respondents agreed that climate change is a threat to water quality in the McKenzie River Watershed; 79% agreed that wildfire is a threat.
- Respondents reported higher levels of trust in EWEB than federal natural resource agencies, state natural resource agencies, local government, private landowners, local nonprofits, and national nonprofits. Respondents reported lower levels of trust in federal natural resource agencies, with private landowners being the least trusted.
- Respondents reported that collaboration builds both trust and produces better outcomes. Nearly 70% of respondents strongly agree or agree that government agencies are more trustworthy when they work together. Seventy-three percent strongly agree or agree that government agencies are more trustworthy when they partner with non-profit organizations.
- A majority of respondents (79%) were unaware of current EWEB source water protection program. However, a large majority of respondents indicated source water protection in the McKenzie River Watershed is important for them personally (92%), for EWEB ratepayers (89%), and for Lane County residents (89%).
- A large majority of respondents reported that all of the core elements outlined in the 10-year Drinking Water Source Protection Strategy were important. Ninety-five percent of respondents indicated water quality and watershed health monitoring was important. This validates the focus areas in the 10-year strategy.

- Respondents support EWEB’s DWSP efforts with 92% indicated they support the program at current funding levels. Moreover, respondents support the current funding mechanism—77% of respondents prefer the current system of funds collection with fees being associated with water usage.
- Eighty percent of respondents are willing to pay more than the current average of \$13.32 a year for source water protection; 75% are willing to pay \$15 or more; 45% are willing to pay \$45 or more, and 26% are willing to pay \$50 or more.

Conclusions

EWEB ratepayers place high value on the McKenzie River Watershed. The vast majority of respondents (80%) were aware that their drinking water comes from the McKenzie River Watershed—a 6% increase over the 2012 survey.

Strong support exists for water quality and source water protection in the McKenzie River Watershed. Respondents overwhelmingly indicated that water quality is very important to them relative to other conservation efforts: 93% rated it as extremely important or very important relative to other conservation efforts. Drinking water quality was even more important to respondents: 98% indicated that the quality of drinking water from the McKenzie was either extremely or very important to them.

A majority of ratepayers perceive urgency around implementing actions to maintain or restore water quality in the McKenzie River Watershed. The majority, 78%, of survey respondents feel that programs to maintain or restore water quality are either extremely urgent (46%) or very urgent (32%).

Ratepayers perceive climate change, and to a lesser extent, wildfire as long-term threats to water quality. With respect to threats, 51% strongly agreed that climate change is a threat to water quality, and 30% agreed. This suggests a high level of concern among ratepayers about the potential impacts of climate change on drinking water quality. With respect to wildfire threats, 36% strongly agreed and 43% agreed that wildfires pose a threat to water quality in the McKenzie.

Ratepayers show strong support for efforts to collaborate and partner on conservation efforts—particularly those that focus on water quality and drinking source water protection. Eighty-nine percent of respondents strongly agreed or agreed that EWEB should established partnerships with state and federal agencies to maintain and enhance water quality. The results suggest ratepayers would broadly support the Pure Water Partners (<http://purewaterpartners.org>) program. Seventy-three percent strongly agree or agree that government agencies are more trustworthy when they partner with non-profit organizations. Respondents also agree (87%) that collaboration produces better outcomes.

Trust is important in building support for source water protection activities. EWEB was the overall most trusted organization with 16% of respondents stating they completely trust EWEB to implement programs that benefit or maintain the watershed and 48% trusting EWEB “a lot”.

Notably, private land owners were the least trusted with 30% stating they had “not much” trust in them. Four percent “completely” trusted private landowners, and 15% indicated “a lot” of trust. Federal natural resource agencies were the next least trusted with 26% stating they had “not much” trust in them, with 5% expressing “complete” trust and 20% trusting federal agencies “a lot.” This is in stark contrast to how landowners perceive themselves. The 2012 landowner survey results as well as input IPRE has received over the course of several projects, suggest that private landowners have a high level of trust in themselves and generally perceive themselves to be good stewards of the land. Forty-five percent of respondents to the 2012 McKenzie *landowner* survey indicated the greatest amount of trust (high or moderate trust) among private landowners in the watershed.

Most ratepayers are not aware of EWEB’s drinking source water protection efforts.

Notably, 79% of respondents indicated they were unaware of EWEB’s source water protection program prior to receiving the survey. The fact that so many ratepayers are unaware of EWEB’s DWSP should be concerning. This suggests opportunities to better inform ratepayers about EWEB’s drinking source water protection programs. Strategies to inform ratepayers should be structured consistent with survey responses related to communications—most respondents prefer relatively infrequent communications.

Ratepayers are strongly supportive of DSWP efforts. Nearly 92% of survey respondents indicated that EWEB’s DWSP was extremely or very important to them personally. Nearly 90% indicated that it was important to EWEB ratepayers, and 89% indicated it was important for Lane County residents. These results suggest overwhelming ratepayer support for the DWSP and validate investments EWEB is making to maintain and enhance water quality. Moreover, more than 80% of respondents indicated that all of the DSWP elements contained in the 2018 strategic plan are extremely or very important.

Ratepayers strongly support funding the DWSP through water fees. About 92% of respondents support the current system. The current system ties additional fees to water usage rates and charges \$0.12 per 1,000 gallons (Kgal). The average household in the EWEB service area consumes 9,000 gallons a month which equates to an average of \$1.11 a month (\$13.32 annually) per household. Seventy-seven percent of respondents indicated they preferred the current program over a flat or tiered fee structure.

Ratepayers are willing to pay more for DSWP activities—as long as they have tangible results. About 80% of respondents indicated they would be willing to pay more than the current amount, with 75% of all respondents indicating they would pay more than \$15 per year and 55% more than \$25 per year. For reference, about 11% of the respondents reported values less than the current \$13.32 per year.

Implications and Recommendations for Drinking Source Water Protection Programs

The purpose of the 2018 ratepayer survey was to better understand ratepayer perspectives around funding and implementation of EWEB’s drinking source water protection program. The findings validate both EWEB’s investment in the program as well as the core elements of the program as articulated in the 10-Year DWSP strategic plan. The survey results provide clear indication of what ratepayers are willing to support. We

understand that funding is a policy matter that the EWEB Board of Commissioners must address. Following is a summary of key implications of the study and our recommendations.

Water quality and watershed health are priorities for ratepayers

The survey results broadly suggest that ratepayers understand the connection between land use activities and water quality. Moreover, ratepayers show very strong support across all demographics for activities that protect drinking water quality. The implication is that EWEB should continue the current DWSP activities and consider expanding them focusing on targeted actions or threats.

Recommendations

- Continue or expand the DWSP program. The 10-year strategic plan indicates a strong commitment by the Board to continue DWSP activities. The plan indicates a range of funding for DWSP over the next 10-years from \$1 to \$1.5 million/year. Current funding levels are below the \$1 million/year level indicating opportunity for increased investment.
- Support and enhance the Pure Water Partners (PWP) collaborative. More than 80% of respondents indicated that partnerships are an important mechanism to achieve DWSP goals. The PWP is a collaboration between partnership with McKenzie Watershed Council, McKenzie River Trust, Upper Willamette Soil and Water Conservation District, Cascade Pacific RC&D, the US Forest Service, the University of Oregon and others.
- Continue efforts to engage private landowners in water quality efforts through PWP. The PWP program is an initiative that aims to protect the water quality of the McKenzie River by rewarding landowners who engage in the creation and maintenance of healthy riparian areas, with a secondary purpose to facilitate restoration for areas that need assistance. The program aligns funding and resources from multiple watershed partners, grants, and private organizations in order to provide technical and financial assistance for property owners engaging in positive land stewardship projects.

Funding is essential for drinking source water protection

EWEB has invested approximately \$7.5 million in the drinking water source protection program and has received nearly \$3 million in grant funds and partner contributions since May 2001. The current annual budget for the DWSP is approximately \$920,000. EWEB currently funds the DWSP program through water rates. The average household in the EWEB service area pays an average of \$1.11 a month (\$13.32 annually) for the DWSP program. About 75% of survey respondents expressed preference that EWEB continue the current rate-based funding structure. The implications of the survey are that a large majority of ratepayers support investments in DWSP and recognize that funding is essential.

Recommendations

- Continue the existing rate-based fee structure. The survey results are conclusive on this point – ratepayers prefer the current funding mechanism.
- Consider enhancing the DWSP program budget. A large majority of respondents – about 80% – indicated they would be willing to pay more than the current amount, with 75% of all respondents indicating they would pay more than \$15 per year and 55% more than \$25 per year. This suggests that ratepayers are willing to pay more for the DWSP program. We recognize funding is a policy matter and needs to consider more than ratepayer perspectives. If the EWEB Board is open to considering enhanced funding, staff should develop specific proposals for how the money would be spent and what return ratepayers can expect from those investments.
- Continue to leverage EWEB investments with external funding. DWPS staff have been successful in leveraging outside funding for DWSP. This is good for EWEB and good for EWEB ratepayers. We recommend this practice continue.

Increase the profile of the DWSP program

Survey results show that about 80 percent of ratepayers were unaware for EWEB’s DWSP program. This is somewhat surprising given the high level of support for DWSP and watershed enhancement efforts. The results are a strong indication that EWEB has not done a very good job of messaging around DWSP efforts.

Recommendations

- Develop better strategies to inform ratepayers. EWEB has a solid communications team that frequently makes public announcements regarding various utility matters. DWSP staff should work with EWEB’s communications/public relations team to develop a communication strategy around DWSP efforts. The objective should be to reverse the 2018 survey results so that 80% of respondents to a future survey indicate they are aware of EWEB’s DWSP efforts.
- “Right-size” communications. The survey results suggest that ratepayers value communication about the drinking water source protection program—but not too much communication. A majority of respondents indicated that regular communication, approximately monthly, was either very valuable (32%) or moderately valuable (37%). This indicates that ratepayers would like to be informed about programs and activities but do not necessarily require higher frequency communications to remain supportive.

Chapter 1: Introduction

This report presents the results of a survey of EWEB ratepayers conducted as a part of a grant from the U.S. Endowment for Forests and Communities. The grant focuses on a broader effort to establish a McKenzie Watershed Conservation Fund. A subset of that broader effort is to gauge the support of Eugene Water and Electric Board (EWEB) ratepayers for funding EWEB's drinking water source protection (DWSP) efforts. This research included a survey of residential ratepayers in the Eugene Water and Electric Board service area.

Background

In 2000, the Eugene Water and Electric Board (EWEB) prepared a drinking water protection plan, which included a risk assessment of potential threats to Eugene's drinking water. To implement the plan, Eugene Water and Electric Board (EWEB) launched a DWSP program that sought to protect the water quality of the McKenzie River. The overall concept of source water protection is to measure the balance between watershed health and human use over time and implement actions that maintain a healthy balance for production of exceptional water quality.

In 2011, Oregon State University (OSU) and the University of Oregon (UO) received grant funding from the National Institute of Food and Agriculture (NIFA) to investigate how public water districts/utilities and corporations might provide sufficient funding and incentives to pay for ecosystem services.¹ As part of the research project, the Research Team conducted two surveys: one survey of Eugene Water & Electric Board (EWEB) water ratepayers and another survey of McKenzie Watershed property owners. Responses to the ratepayer survey, referred to as the "Buyers Survey," and the property owners survey, referred to as the "Sellers Survey."

The purpose of the Buyers Survey was to learn more about the support and interest among EWEB ratepayers for a payment for ecosystem services program to protect the McKenzie Watershed. Survey questions inquired about customers' familiarity with the watershed, their knowledge of risks to watershed health, and what kinds of watershed protection programs they would be most supportive of (e.g. educational programs, incentive-based programs, regulation-based programs). Notably, the survey also asked whether respondents would be willing to have a small additional fee added to their monthly water bill for water quality improvement projects within the McKenzie Watershed, and how much they would be willing to pay each month.

Over the past several years, EWEB piloted the "Pure Water Partners" program, which provides payments to landowners who voluntarily participate in activities that enhance water quality. In 2017, EWEB received a grant from the Healthy Watersheds Consortium

¹ The project team included the Institute for Natural Resources at Oregon State University, the Institute for a Sustainable Environment at the University of Oregon, and the Community Service Center (now the Institute for Policy Research and Engagement) at the University of Oregon.

Grant Program sponsored by the U.S. Endowment for Forests and Communities, a nonprofit corporation to establish a McKenzie Watershed Conservation Fund.

A part of the project is gauging customer perspectives on the importance of source water protection and various options for funding source water protection. This report presents the results of a survey of 3,000 EWEB residential water customers.

Purpose and Methods

The purpose of the survey was to explore ratepayer willingness to pay for EWEB's drinking water source protection program. The survey explored a number of topics related to funding:

- Support for watershed protection
- Support for Pure Water Partners program
- Knowledge of EWEB's source water protection program
- Willingness to pay for drinking water source protection efforts
- Support for funding options

The Research Team used the Tailored Design Method (Dillman 2009) to survey a random sample of EWEB residential water customers (see Appendix A for a more detailed discussion of survey methods). The University of Oregon Institute for Policy Research and Engagement (IPRE) selected 3,000 of the approximately 47,000 residential water customers to receive the survey. IPRE received a total of 815 valid responses yielding a response rate of 27.2%.

A key concern of organizations that conduct surveys is statistical validity. Given the sample size and the size of the population (47,126 EWEB water customers), the sample is representative at a 95% confidence level with a $\pm 3.40\%$ margin of error. Stated a different way, if one were to assume that the sample was perfectly random *and* that there was no response bias, then the survey would have a margin of error of $\pm 3.40\%$ at the 95% confidence level. In simple terms, this means that if a survey were conducted 100 times, the results would end up within $\pm 3.40\%$ of those presented in this report.

Organization of this Report

The remainder of this report is organized as follows:

- **Chapter 2** presents an overview of EWEB Drinking Source Water Protection Program. This is provided for context because the survey focuses on funding sources for the program.
- **Chapter 3** describes the responses to the ratepayer survey including respondent's familiarity with the McKenzie Watershed, perceptions of risks to the watershed health, customer interest and support for watershed protection programs and willingness to pay for watershed protection.
- **Chapter 4** presents IPRE's conclusions and a discussion of the implications of the research findings.

This study also contains the following appendices:

- **Appendix A: Survey Methodology** describes the process the Research Team used to develop and administer the survey and the sampling methods.
- **Appendix B: Survey Instrument** presents a copy the survey instrument.
- **Appendix C: Transcript of Written Comments** presents respondent comments to open-ended survey questions.
- **Appendix D: Analysis of Potential Non-Response Bias** presents additional analysis conducted by IPRE to test the survey results for potential non-response bias.

Chapter 2: Overview of the EWEB Source Water Protection Program

The federal Safe Drinking Water Act requires states to assess source water to protect public drinking water sources. This assessment has three main parts:

1. Identify the area of land that provides water to a public water system.
2. List the main threats or possible sources of contamination that could affect the water system.
3. Rate these threats for the possible harm they could cause to public water supplies.

In 2000, the Eugene Water and Electric Board (EWEB) prepared a drinking water protection plan, which included a risk assessment of potential threats to Eugene's drinking water. To implement the plan, Eugene Water and Electric Board (EWEB) launched a DWSP program that sought to protect the water quality of the McKenzie River. The overall concept of source water protection is to measure the balance between watershed health and human use over time and implement actions that maintain a healthy balance for production of exceptional water quality.²

The 2000 Plan identified a range of threats to water quality in the McKenzie River Basin. These included:

- Stormwater outfalls
- Urbanized contamination
- Hazardous material transportation
- Industrial and commercial facilities
- Road vegetation management
- Agricultural activities
- Forest practices
- Recreation (and golf courses)
- Fish hatcheries
- Dams and powerhouses

After Board approval, EWEB began implementing the DWSP in May 2001 to protect the McKenzie River as the sole source of drinking water for the nearly 200,000 people EWEB serves. The primary goal of EWEB's DWSP program is to "measure the balance between watershed health and human use over time and implement actions that maintain exceptional water quality for current and future generations."³ To achieve this goal, program has two primary objectives: (1) prevent, minimize and mitigate activities that have known or potentially harmful impacts on source water quality; and (2) promote public awareness and stewardship of a healthy watershed in partnership with others.

² <http://www.eweb.org/Documents/source-protection/drinking-water-protection-plan-2000.pdf>

³ <http://www.eweb.org/Documents/source-protection/eweb-dwsp-technical-report-2017.pdf>

Because EWEB owns very little land in the McKenzie River Basin and does not have any authority over other landowners, it has pursued a variety of partnerships with local, state, and federal agencies and organizations in order to protect water quality and the overall health of the watershed.

According to EWEB's 2017 "Strategic Planning Technical Report Drinking Water Source Protection Program (2018-2028)" EWEB has invested approximately \$7.5 million in the drinking water source protection program and has received nearly \$3 million in grant funds and partner contributions since May 2001. The technical report concludes, the highest priority threats to water quality in the McKenzie Watershed include:

- Hazardous material spills from transportation accidents and releases from commercial and industrial facilities.
- Pollution runoff from east Springfield's urban stormwater system, which has five outfalls immediately upstream of EWEB's Hayden Bridge intake.
- Cumulative impacts associated with development along the river (septic systems, chemical use, vegetation removal in riparian areas, and loss of agricultural and forest lands to future development).
- Agricultural impacts associated with pesticide and fertilizer use, livestock access to waterways, and vegetation removal in riparian areas.
- Climate change impacts that may result in larger and more frequent flooding events, longer dry seasons, more frequent and severe wildfires, and increasingly volatile weather patterns.⁴

Thus, EWEB has focused on a shorter list of key threats in its more recent DWSP efforts. The 2017 work also supports this effort:

This technical report supports the strategic planning effort and outlines the programs and actions EWEB will continue to support in close collaboration with partners in the McKenzie Watershed, as well as estimating the level of investment needed to sustain these efforts over the next ten years. The technical report also assesses logical funding mechanisms that, when combined with partner contributions, will provide adequate funding and resources to protect these critical sources of clean and abundant drinking water for long-term community health, resiliency, and economic prosperity.⁵

The potential for a watershed protection fee is clearly identified in the 2017 technical report. The concept is to establish a watershed protection fee as a line item on EWEB's bill and reduce water and electric rates that are currently used to fund the program. Such

⁴ <http://www.eweb.org/Documents/source-protection/eweb-dwsp-technical-report-2017.pdf>

⁵ EWEB DWSP Technical Report, Page 8.

a fee would provide transparency regarding the amount of funding dedicated to water quality and source protection.

The 2017 Technical Report proposes a \$1/month charge based on both needed budget as well as willingness to pay results from a 2013 UO study.⁶ The technical report concludes that this fee would generate sufficient revenue to fund identified future program costs. This survey explores ratepayer willingness to fund EWEBs DWSP, preferred funding mechanisms, as well as ratepayer priorities for the DWSP.

⁶ Note that this study was conducted by IPRE under its former name “Community Service Center.”

Chapter 3: Results of the EWEB Ratepayer Survey

This chapter presents a summary of the 2018 Eugene Water & Electric Board (EWEB) Ratepayer Survey. The survey consisted of 30 questions and was distributed to a random sample of 3,000 ratepaying households within the EWEB residential water service area and roughly equally distributed across EWEB Commissioner Wards. Distribution was multi-modal with 1,800 being delivered electronically via e-mail to a registered billing e-mail address and 1,200 being sent by regular physical mail to a registered physical billing address. Of the 3,000 delivered surveys we received 815 responses, or a 27% response rate. Not all respondents completed every question on the survey. The sample size is reported with each question for reference (sample sizes are reported as n=XXX). Appendix A provides a more detailed discussion of the survey methodology.

This chapter explores the results by describing the following; respondent characteristics, knowledge of and values surrounding drinking water quality, perception of threats to drinking water quality, priorities for actions to protect drinking water quality, knowledge of existing EWEB drinking source water protection programs, and willingness to pay for additional collaborative source water protection programs/actions. Appendix B presents the survey instrument; Appendix C provides a transcript of written survey comments.

Survey Methods

Population sample based survey results require a discussion of the characteristics of the sample examined. Part of this discussion should include comparison of the sample characteristics to that of the larger population of the survey area to identify potential bias and abnormalities in the response population. The sample size of 815 responses and the size of the total population (47,126 residential water customers) yields a margin of error $\pm 3.40\%$ at a 95% confidence interval. In simple terms, this means that if the survey were conducted 100 times, the results would come with $\pm 3.40\%$ of the reported values 95 of 100 times.

Analysis of the demographic characteristics of respondents indicates that responses under-represent several groups (see Characteristics of Survey Respondents section below):

- Households with annual incomes of less than \$50,000
- Individuals under age 40
- Individuals with less than a bachelor's degree

A key concern is whether the under-represented groups have different perspectives than over-represented groups. In short, do the responses bias the results?

IPRE used simple statistical methods to test whether the hypothesis of “do the under-represented groups have different perspectives than other groups?” Crosstab tables and chi-square analysis are statistical procedures that allow a determination of whether there is a significant difference between the expected frequencies and the observed frequencies in one or more categories. For the purpose of this analysis, we consider

variables to be dependent if the p-value is <0.05 (in other words, there is a 95+ percent probability the variables are related).

Because the key focus of the survey was willingness to pay for EWEB's DWSP, we focused our efforts on questions related to funding sources and willingness to pay. Following is a summary of the key findings of the analysis; the detailed results are presented in Appendix D.

- Income is statistically associated with payment type ($p=0.000$) with lower income respondents (<\$35,000 annually) showing a slightly stronger affinity for a flat fee than higher income respondents. Education is also statistically associated with payment type ($p=0.000$) with respondents with lower educational attainment more supportive of the current payment method.
- Income, age, and educational attainment are not statistically associated with support for funding the DWSP. Results show a high level of support across all income categories.
- Income and educational attainment are statistically associated with willingness to pay. Individuals with lower income or educational attainment are less willing to pay for DWSP.

Additional analysis of how key respondent characteristics influence (or do not influence) responses to willingness to pay is presented in the analysis of the willingness to pay questions.

Characteristics of Survey Respondents

This section describes the individual characteristics of survey recipients as self-reported in the survey responses. Where appropriate this report compares characteristics to the most recently available U.S. Census data taken from the American Community Survey (ACS) 2013-2017 Five-Year Estimates, and other applicable data sources. For ease of comparison, data for the city of Eugene is used. The primary EWEB residential water service area is found within the city of Eugene and the proportion found outside of those bounds is small enough to be negligible for analysis purposes.

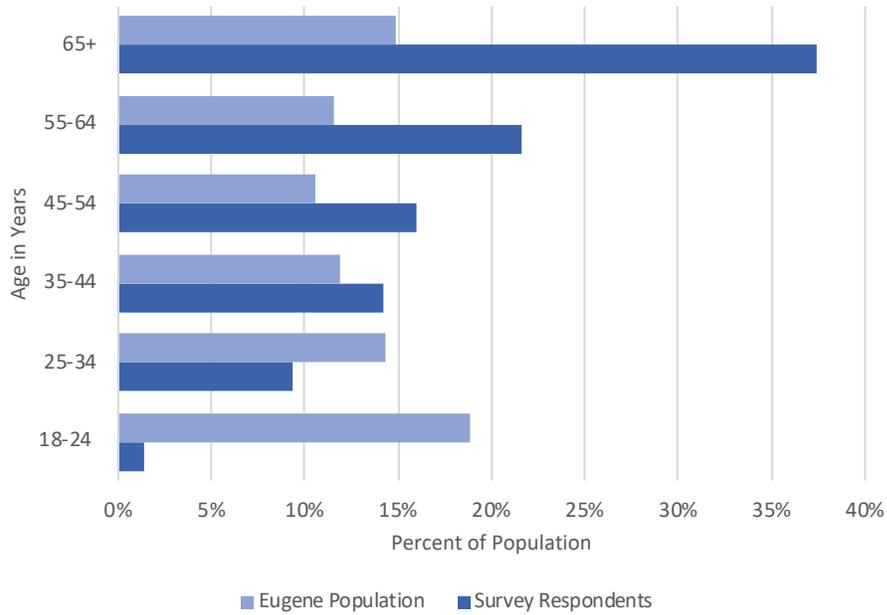
Figure 3-1 shows the age distribution of survey respondents in comparison to the general population of the EWEB service area (Eugene). Thirty-seven percent of respondents were 65 years or older with an additional 22% falling between 55 and 65 years of age. Thirty percent of respondents were between 35 and 55 years old. Individuals under the age of 35 made up 11% of the responses, and those between the age of 18 and 24 made up about 1% of the responses.

A comparison of survey responses to ACS data for Eugene shows that survey sample has much higher representation of individuals 65 and over. This suggests older individuals are over-represented in the sample, and younger individuals are underrepresented. We note that we are using ACS data for Eugene as a proxy to represent EWEB ratepayers because we do not know the actual age distribution of EWEB ratepayers.

These results may be explained in part because the survey was sent to the registered bill payer for each ratepayer household. Some renters do not pay for water service, in this

case the landlord would have received the survey rather than the renter. Homeowner populations tend to skew older and those 18-24 are much more likely to rent. We discuss the implications of response bias in more detail at the end of this section.

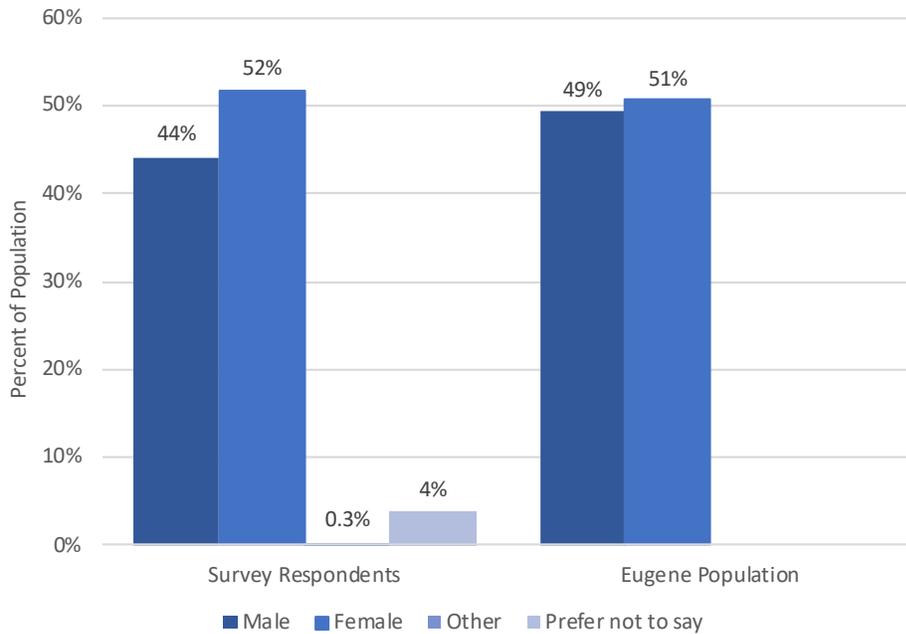
Figure 3-1. Age of Survey Respondents and Eugene Residents (n=703)



Source 2018 Ratepayer Survey, 2013-2017 U.S. Census American Community Survey 5-Year Estimate

Figure 3-2 shows the gender of survey respondents compared to ACS data for Eugene. The survey responses were about 52% female, 44% male, with about 4% preferring not to say or indicating “other.” A comparison to ACS data for Eugene shows that individuals who identify as female are slightly over represented in the survey response. Individuals who identify as “Other” neither male nor female and those who preferred not to state made up 4.3% of the survey responses.

Figure 3-2. Gender of Survey Respondents and Eugene Population (n=702)

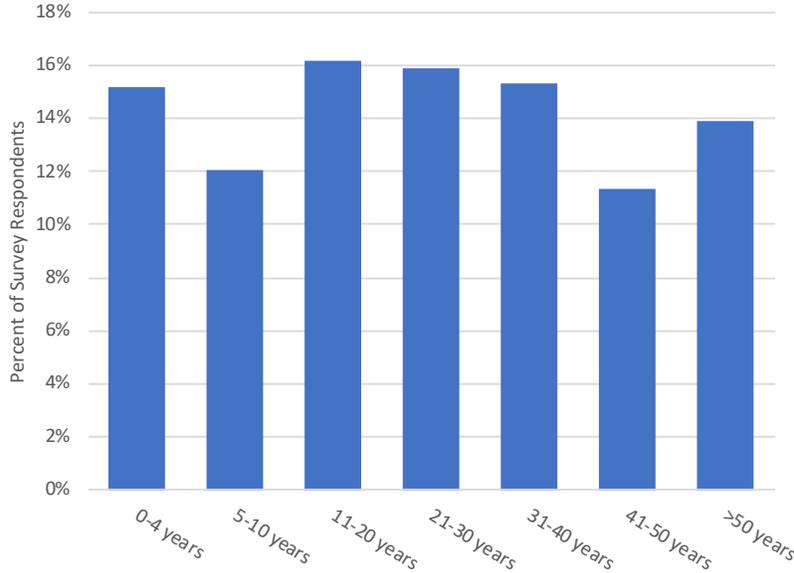


Source 2018 Ratepayer Survey, 2013-2017 U.S. Census American Community Survey 5-Year Estimate

Figure 3-3 shows the number of years survey respondents have lived in the Eugene-Springfield Metro Area. On average respondents have lived in the area for 27 years with a median of 25. The majority of respondents, 32%, have lived in the area for between 11 and 30 years. Twenty-seven percent of respondents reported living in the area 10 or fewer years, and 41% more than 30 years.

Ninety-four percent of respondents indicated that they consider the Eugene-Springfield metro area to be their permanent home.

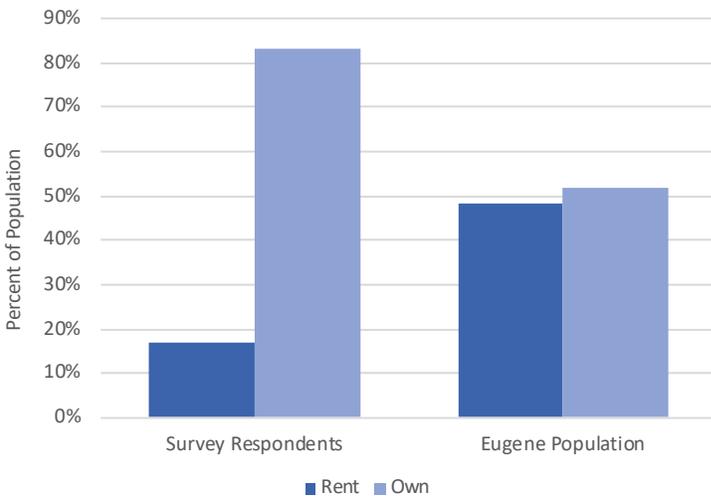
Figure 3-3. Length of Time Lived in the Eugene-Springfield Metro Area, in Years (n=702)



Source 2018 EWEB Ratepayer Survey

Figure 3-4 shows home ownership rates of survey respondents and Eugene. A large majority (83%) of survey respondents were homeowners with 83%. ACS data for Eugene shows that 48% are homeowners and 52% renters. Again, we use the ACS data for comparison, but it is unknown what percentage of renters pay utility bills in the EWEB service area.

Figure 3-4. Homeownership Survey Respondents and Eugene Population (n=703)



Source 2018 Ratepayer Survey, 2013-2017 U.S. Census American Community Survey 5-Year Estimate

Table 3-1 shows the household size of survey respondents. The average household size of respondents was 2.7 persons and the median household size was 2.0 persons. This is slightly higher than the average household size of 2.24 as reported by the 2013-17 ACS. The difference is explained by a lower percentage of single-person households in the survey sample (14%) than in the ACS (32%). Again, because we do not know the household size and composition of EWEB ratepayers, it is difficult to determine if this suggests response bias, and if it does, the degree of bias.

Table 3-1. Number of Individuals in Household Reported by Respondents (n=558)

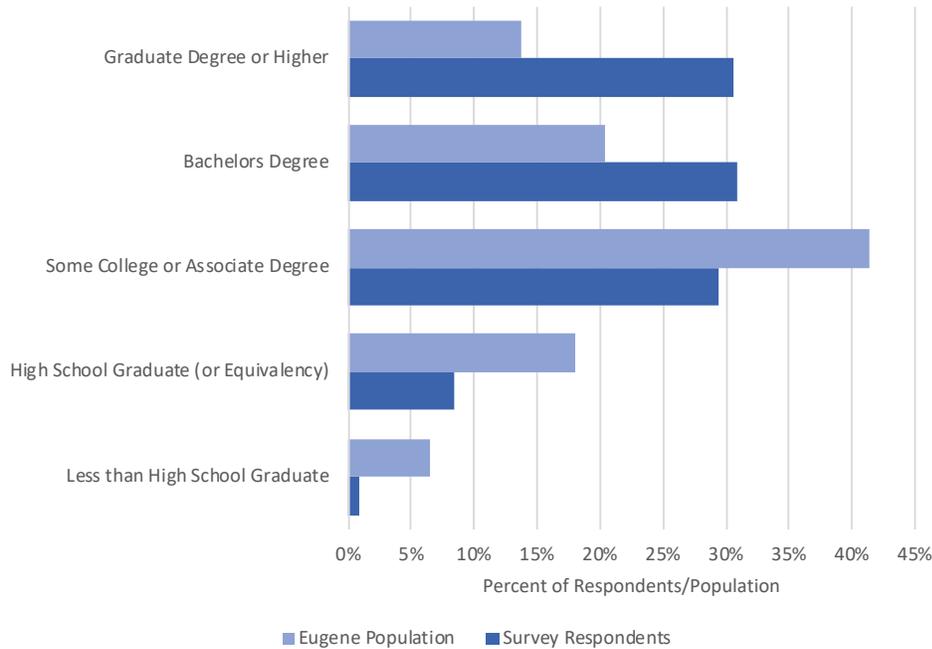
Household Size	Number of Respondents	Percent of Respondents
1	79	14%
2	224	40%
3	95	17%
4	112	20%
5	36	6%
6	9	2%
7 or more	3	1%
Total	558	100%

Source 2018 Ratepayer Survey

The survey also asked respondents to indicate the number of individuals under 18 in their household. About 27% of the survey respondents reported having individuals under 18 in their households. This is slightly higher than the ACS figure of 24%.

Figure 3-5 compares of educational attainment of survey respondents with 2013-17 ACS data for Eugene. The general conclusion is that survey respondents were more educated than the general population. Sixty-two percent of survey respondents had a bachelors or a master’s degree while only 34% of the general population had the same. This indicates the survey responses over samples more highly educated individuals/households.

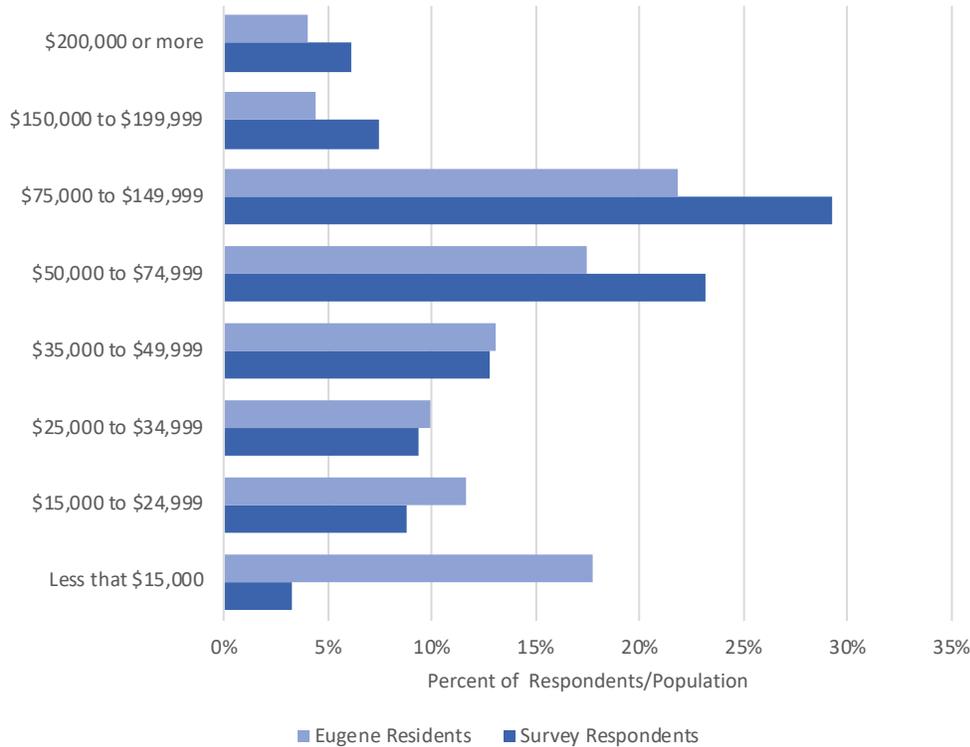
Figure 3-5. Educational Attainment of Survey Respondents and Eugene Residents (n=704)



Source 2018 Ratepayer Survey, 2013-2017 U.S. Census American Community Survey 5-Year Estimate

Figure 3-6 shows the household income of survey respondents compared to that of ACS data for Eugene. Twenty-three percent of respondents reported household incomes fall between \$50,000 and \$74,999 per year, and 29% of respondents reported annual incomes of \$75,000 to \$149,999. Of the general population of Eugene 17% of households have an income of \$50,000 to \$74,999 and 22% have incomes of \$75,000 to \$149,999. The survey data show a much lower percentage of responses in the less than \$15,000 category than the ACS data. This may be a result of fewer very low-income households paying water bills, under-representation of low income households, or a combination of both. Overall, the results show a more survey responses in higher income categories than the ACS data for Eugene.

Figure 3-6. Household Income (2017) of Survey Respondents and Eugene Population (n=674)



Source 2018 Ratepayer Survey, 2013-2017 U.S. Census American Community Survey 5-Year Estimate

Table 3-2 shows race/ethnicity as reported by survey respondents and the 2013-17 ACS for Eugene. The majority of respondents, 81%, identified as white a percentage similar to that of the Eugene population at 79%. Of the survey respondents that did not identify as white 11% indicated that they preferred not to identify as a particular race or ethnic identity.

Table 3-2. Racial and Ethnic Identity of Survey Respondents and Eugene Residents (n=703)

Race/Ethnicity	Survey Respondents	Eugene Residents
White	81%	79%
Black, African American	0.1%	2%
Native Hawaiian, Other Pacific Islander	0.1%	0.3%
Latino/Hispanic	2%	10%
American Indian, Alaska Native	1%	1%
Asian	2%	4%
Prefer Not to Identify	11%	X
Other	3%	5%

Source 2018 Ratepayer Survey, 2013-2017 U.S. Census American Community Survey 5-Year Estimate

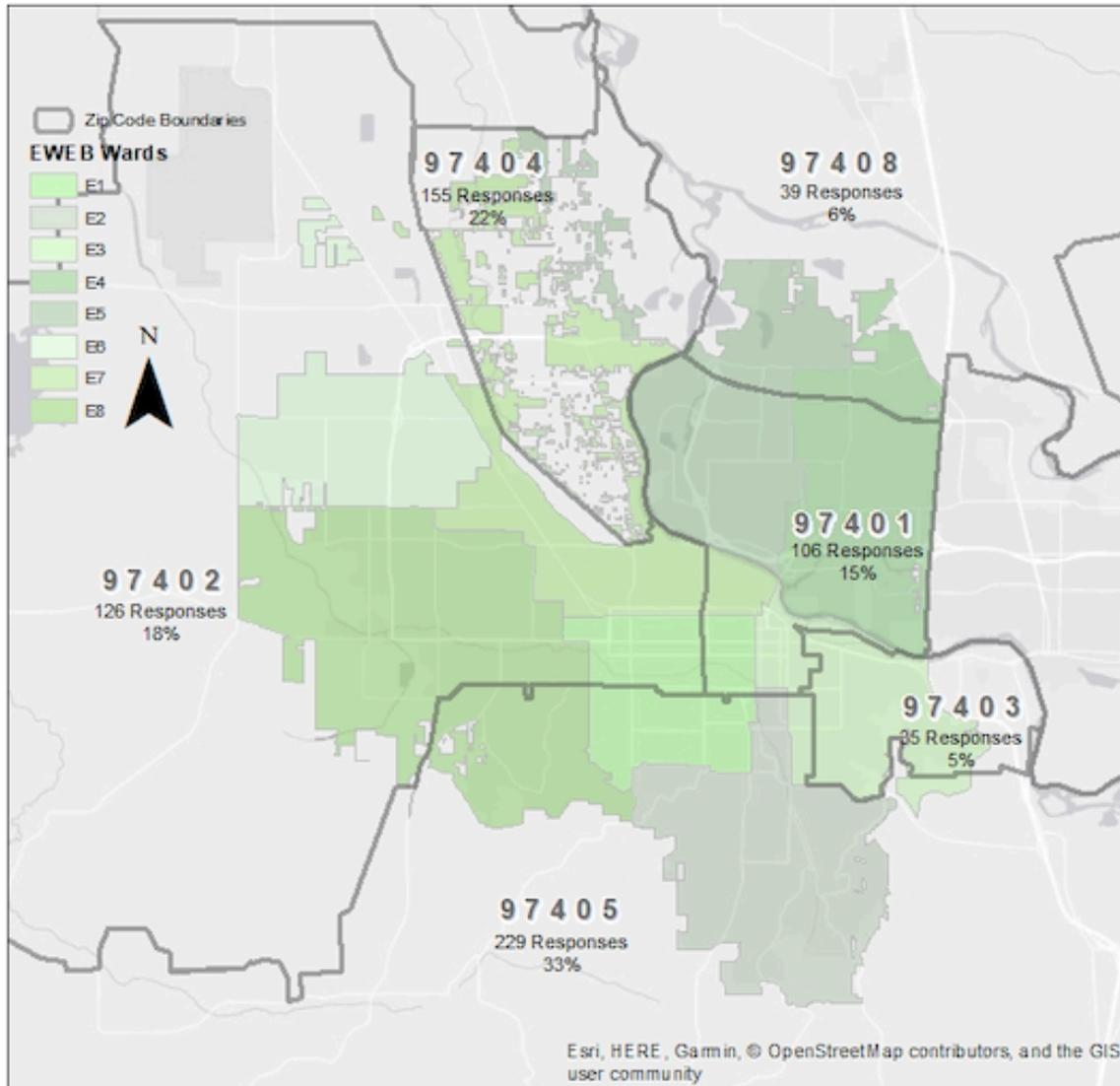
The survey also asked about political engagement of the survey respondent population. Ninety-six percent of survey respondents indicated they registered to vote in the state of Oregon. Moreover, 94% of respondents indicated they voted in the 2018 midterm election. These results suggest a high degree of political involvement among survey respondents. For comparison the Lane County voter turnout rate was 57%.⁷

Map 3-1 shows the geographic distribution of the survey responses based on self-reported five-digit postal zip code referenced by EWEB Commission Ward. The majority of responses originated from within the city of Eugene, the primary EWEB service area. Other responses, approximately 1%, originated from out of the region. This may be a result of non-resident ownership such as a landlord living out of region or respondent mistake.

Of the zip codes that encompass Eugene the most responses were received from 97405, South Eugene, which includes all or part of EWEB Wards 2, 1, and 8. The next highest response rate, 22%, originated from zip code 97404, the Santa Clara area which includes part of EWEB Ward 7. Zip code 97401 produced 15% of responses which includes all or part of EWEB Wards 5 and 4. Zip code 97402 produced 18% of responses which includes all or part of EWEB Ward 6. Zip code 97408 produced 6% of responses and includes the northern parts of EWEB Ward 5 and 4, and zip code 97403 produced 5% of responses and includes EWEB Ward 3.

⁷ Lane County, "Ballot Returns/Voter Turnout"
https://lanecounty.org/UserFiles/Servers/Server_3585797/File/Government/County%20Departments/County%20Administration/Operations/County%20Clerk/Elections/November%206,%202018/Ballot%20Returns%20Voter%20Turnout%20for%20Web.pdf accessed February 2019

Map 3-1. Survey Response by Zip Code



Source 2018 Ratepayer Survey, ESRI, EWEB

Table 3-3 shows all survey responses by zip code. The results show that about 26% of the responses were from 97405, 25% from 97408, 17% from 97404, 13% from 97402, 10% from 97401 and 9% from all other zip codes.

Table 3-3. Survey Response by Zip Code

Zip Code	Number of Responses	Percent of Responses
97405	199	25.7%
97408	198	25.5%
97404	130	16.8%
97402	104	13.4%
97401	77	9.9%
97403	34	4.4%
97448	25	3.2%
97478	2	0.3%
94702	1	0.1%
97208	1	0.1%
97430	1	0.1%
97470	1	0.1%
97505	1	0.1%
98006	1	0.1%
Total	775	100.0%

Source 2018 Ratepayer Survey

Knowledge of the McKenzie River Watershed

The first section of the survey posed a series of questions about respondents' knowledge and familiarity with the McKenzie River watershed, how frequently they visit the watershed, and their opinions regarding its effects on their quality of life. These questions were intentionally the same as questions we posed in the 2012 ratepayer survey.

Table 3-4 shows the percentage of survey respondents who are aware that their drinking water supplied by EWEB is drawn from the McKenzie River. The 2012 survey found that 74% of respondents were aware that their drinking water comes from the McKenzie River. This percentage increased to 80% in the 2018 survey.

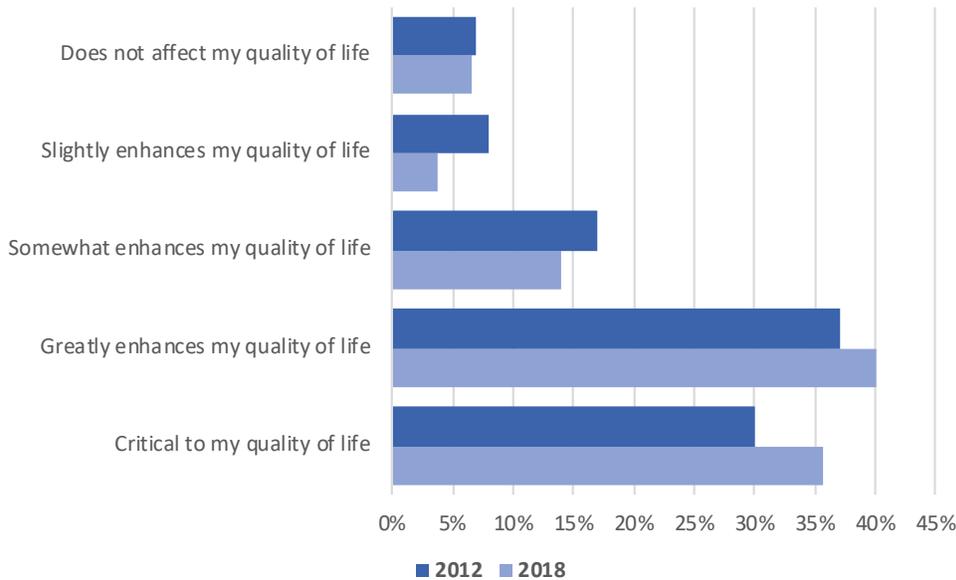
Table 3-4. Survey Respondent Awareness of Drinking Water Source, 2012 and 2018

Response	2018 Survey		2012 Survey	
	Percent of respondents	Number of Responses	Percent of respondents	Number of Responses
Yes	80%	638	74%	284
No	20%	155	26%	98
Total	100%	793	100%	382

Source 2018 EWEB Ratepayer Survey

Figure 3-7 shows that the majority of 2018 survey respondents' view the McKenzie River Watershed as critical to their quality of life (36%) and 40% indicated it greatly enhances their quality of life. This is an increase from the 2012 results and indicates that EWEB ratepayers place high value on the McKenzie River Watershed.

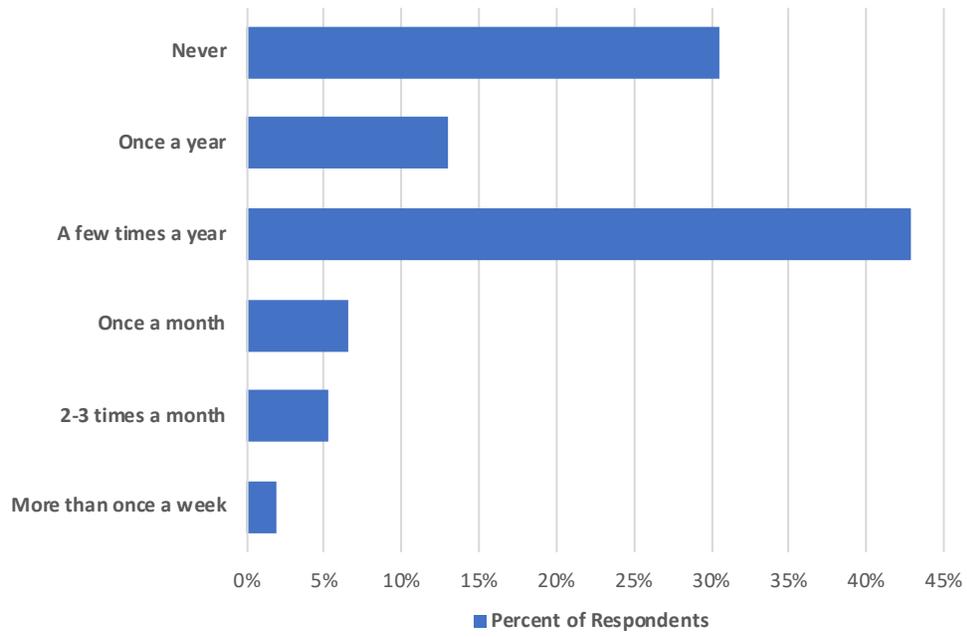
Figure 3-7 Respondent Evaluation of Effects on Quality of Life Associated with the McKenzie River Watershed (n=



Source 2018 EWEB Ratepayer Survey

Figure 3-8 shows how frequently survey respondents reported visiting the McKenzie River Watershed in the previous 12 months. The most frequently selected response, “a few times a year” was selected by 43% of respondents. Thirty-one percent indicated that they had not visited the Watershed in the previous 12 months, and 13% had visited once in the previous 12 months.

Figure 3-8. Frequency of Visitation by Survey Respondents in the Previous 12 Months



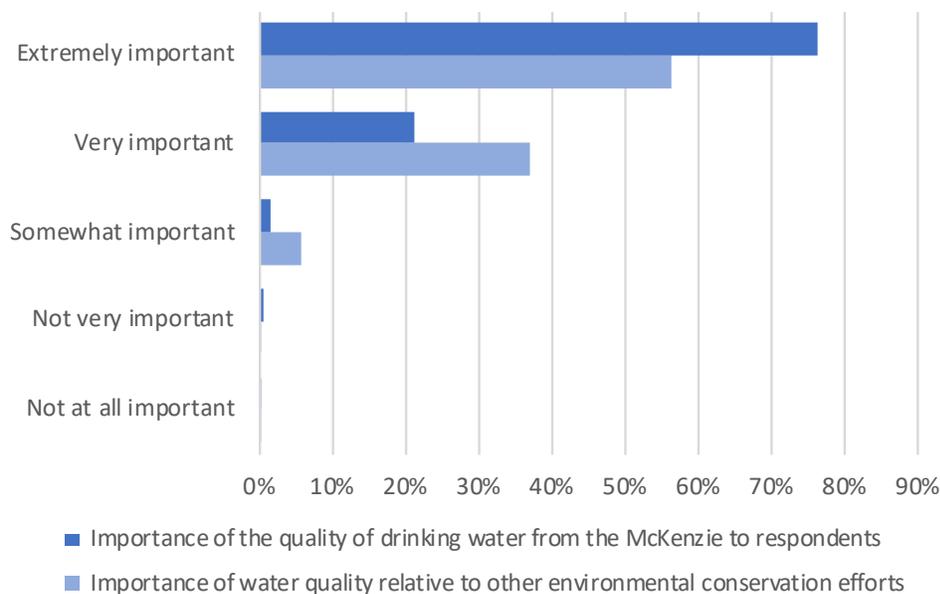
Source 2018 EWEB Ratepayer Survey

Environmental Conservation in the McKenzie River Watershed

This section discusses respondents' opinions of support for conservation and protection programs, the importance of maintaining water quality in the McKenzie River, and perceptions of threats to drinking water quality and the McKenzie River Watershed.

Figure 3-9 shows the importance of both water quality relative to other conservation efforts and drinking water quality from the McKenzie River Watershed. Respondents indicated that both were extremely important by a sizeable majority. However, drinking water quality is of greater importance than water quality relative to other conservation efforts such as habitat restoration or air quality. Respondents overwhelmingly indicated that water quality is very important to them relative to other conservation efforts: 93% rated it as extremely important or very important relative to other conservation efforts. Drinking water quality was even more important to respondents: 98% indicated that the quality of drinking water from the McKenzie was either extremely or very important to them.

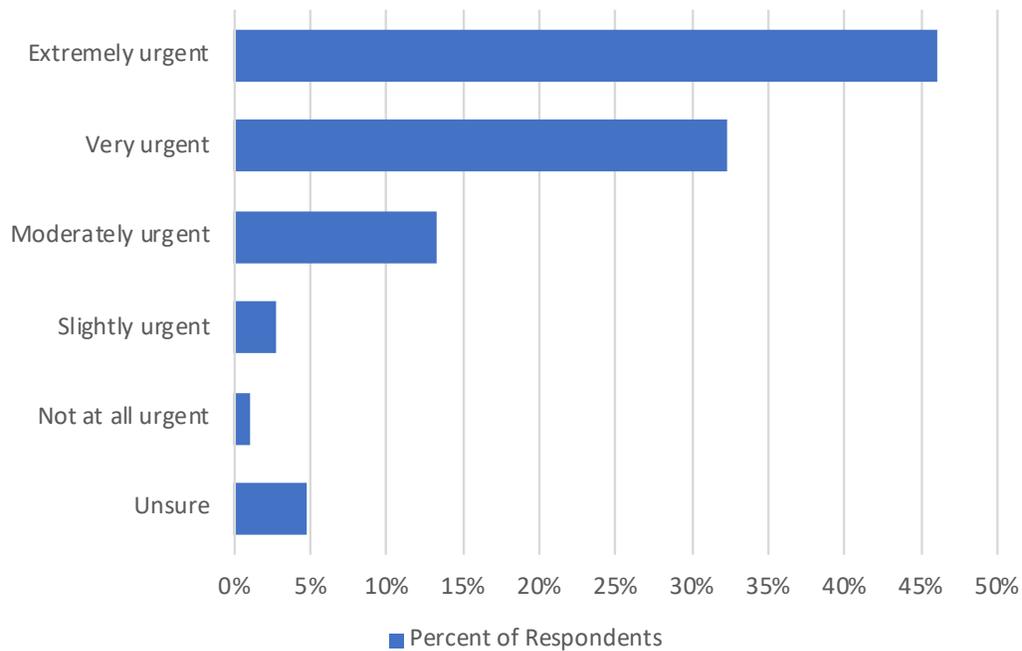
Figure 3-9 Importance of Water Quality Relative to other Environmental Conservation Efforts and Importance of Drinking Water Quality from the McKenzie River Watershed



Source 2018 EWEB Ratepayer Survey

Figure 3-10 shows how urgent survey respondents feel it is for EWEB to implement programs and actions to maintain or restore the water quality of the McKenzie River Watershed before drinking water is delivered to households. The majority, 78%, of survey respondents feel that programs to maintain or restore water quality are either extremely urgent (46%) or very urgent (32%).

Figure 3-10. Urgency of implementing actions to maintain or restore the water quality of the McKenzie River Watershed



Source: 2018 EWEB Ratepayer Survey

Table 3-5 shows respondents’ level of agreement with a number of statements describing threats to the McKenzie River Watershed and programs aimed at addressing these threats. As a general observation, a large majority (78% to 89%) agreed or strongly agreed with all of the statements. With respect to threats, 51% strongly agreed that climate change is a threat to water quality, and 30% agreed. This suggests a high level of concern among ratepayers about the potential impacts of climate change on drinking water quality. With respect to wildfire threats, 36% strongly agreed and 43% agreed that wildfires pose a threat to water quality in the McKenzie.

The question also included a number of statements about partnerships. While more than 80% of respondents agreed or strongly agreed with all of the statements, partnerships with state and federal agencies received the highest level of agreement (89%). This suggests respondents are aware of the role that state and federal land management agencies play in the McKenzie River Watershed. Taken together, the results indicate strong support for partnering as a strategy to address threats or improve water quality. While the question did not specifically ask respondents to comment on the Pure Water

Partners program, the results suggest that respondents would broadly support the program.

Table 3-5. Level of Agreement with Statements of Threats to the Watershed and Partnership Programs to Address and/or Reduce Threats or Improve Water Quality

Statement	Strongly Agree	Agree	Neither		Strongly Disagree	Number of Responses
			Agree Nor Disagree	Disagree		
Wildfire is a threat to water quality in the McKenzie	36%	43%	16%	4%	2%	776
Climate change is a threat to water quality in the McKenzie	51%	30%	14%	3%	2%	774
EWEB should partner with land management agencies to encourage forest treatments such as thinning and controlled burns to reduce the risk of wildfire	40%	41%	15%	2%	1%	777
EWEB should partner with nonprofit organizations to maintain and enhance water quality	42%	41%	14%	2%	1%	774
EWEB should partner with state and federal agencies to maintain and enhance water quality	44%	45%	9%	2%	1%	777
EWEB should partner with private landowners to maintain and enhance water quality	40%	44%	14%	1%	1%	775

Source 2018 EWEB Ratepayer Survey

The next series of survey questions asked respondents about trust in institutions that are engaged in water quality or restoration programs in the McKenzie River Watershed, the value and worth of collaborative programs, and the importance of and feelings around communication of water quality activities.

Table 3-6 shows respondents’ level of trust in natural resource management agencies and organizations. Consistent with the 2012 survey, EWEB was a highly trusted organization: 16% stating they completely trust EWEB to implement programs that benefit or maintain the watershed and 48% trust EWEB “a lot.” Local non-profit organizations were also highly trusted by respondents, with 17% indicating complete trust and 42% stating they trust them “a lot.” Private land owners and Federal natural resource agencies were the least trusted entities. Thirty percent of respondents indicated their trust level of private landowners in the watershed was “not much,” and 45% “somewhat.” This is a significant finding given the amount of private land held in the watershed. Federal natural resource agencies did not fare much better: 26% of respondents indicated their trust level was “not much” and 44% “somewhat.”

Table 3-6. Rankings of Trust Given to Different Institutions that could Implement Programs to Support Natural Resource Health in the McKenzie River Watershed

Institution	Level of trust in organizations to support natural resource health					Number of Respondents (n)
	Completely	A lot	Somewhat	Not much	Unsure	
Federal natural resource agencies	5%	20%	44%	26%	4%	749
State natural resource agencies	8%	41%	41%	7%	3%	749
Local Government	7%	39%	39%	13%	2%	746
Eugene Water & Electric Board	16%	48%	28%	5%	2%	744
Private landowners in the watershed	4%	15%	45%	30%	7%	747
Local Non-Profit Organizations	17%	42%	29%	7%	6%	747
National Non-Profit Organizations	10%	35%	35%	13%	7%	747

Source 2018 EWEB Ratepayer Survey

Table 3-7 shows level of agreement with a series of statements about collaboration and communication. The results suggest that respondents value collaboration and being informed. Nearly 70% of respondents strongly agree or agree that government agencies are more trustworthy when they work together. Seventy-three percent strongly agree or agree that government agencies are more trustworthy when they partner with non-profit organizations. Respondents also agree (87%) that collaboration produces better outcomes and 90% of respondents agree that they feel better about programs when they are informed.

Table 3-7. Level of Agreement with Statements Regarding Collaboration and Communication

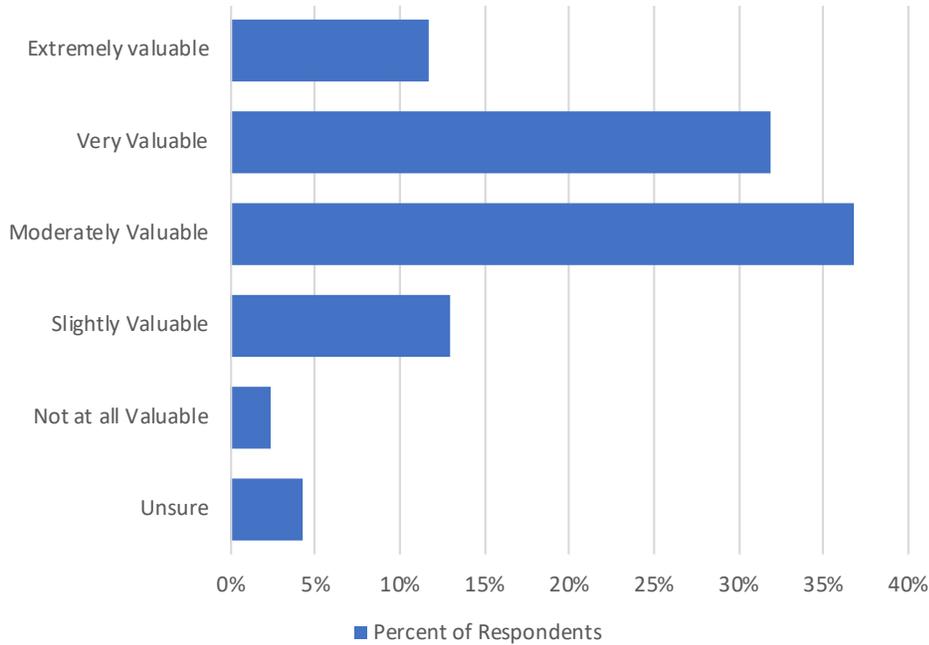
Statement	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree	Number of Respondents (n)
I am more likely to trust government agencies when they work together	18%	51%	25%	5%	1%	751
I am more likely to trust government agencies when they partner with non-profit organizations	23%	50%	22%	4%	1%	752
Collaboration and partnerships produce better outcomes	38%	49%	12%	1%	0%	750
I feel better about programs and projects when I feel informed	32%	58%	9%	1%	0%	751

Source 2018 EWEB Ratepayer Survey

Figure 3-11 provides value levels placed on regular communication about activities affecting the McKenzie River Watershed. Thirty-seven percent of respondents rated regular communication as moderately valuable, while 32% of respondents rated regular communication as very valuable, and 12% extremely valuable. This indicates that

ratepayers value communication about activities in the watershed, but communications should be limited and targeted in nature.

Figure 3-11. Value Placed on Regular Communication (approximately monthly) Regarding Activities Affecting the McKenzie River Watershed by Survey Respondents



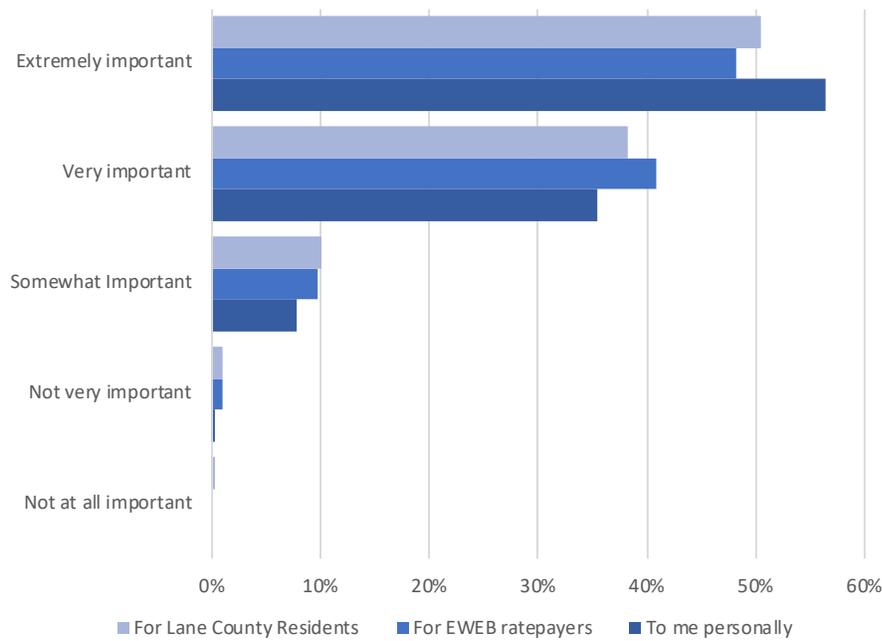
Source 2018 EWEB Ratepayer Survey

Awareness of Drinking Source Water Protection in the McKenzie Watershed

This section explores respondent’s awareness of current EWEB source water protection programs, their opinion of the importance of implementing source water protection programs, and their perceptions of actions outlined in EWEB’s 10-Year Source Water Protection Strategic Plan. **Notably, 79% of respondents indicated they were unaware of EWEB’s source water protection program that prior to receiving the survey.** This suggests opportunities to better inform ratepayers about EWEB’s drinking source water protection programs.

Figure 3-12 shows respondent’s importance rankings of source water protection for different populations. Respondents indicated that source water protection is important for all tested populations with personal importance being ranked the highest.

Figure 3-12. Importance of Source Water Protection for Select Populations



Source 2018 EWEB Ratepayer Survey

Table 3-8 shows survey respondent rating of the importance of elements identified in Source Water Protection Strategic Plan. Respondents indicated that it was important to that that EWEB implement all of the actions listed. Respondents rated water quality and watershed health monitoring most important (95% of respondents indicated it was extremely important or important). The second most important program was the McKenzie Watershed emergency response system (91%). The lowest ranked program was septic systems assistance (82%). The results suggest that ratepayers strongly support implementation of all the elements identified in the DWSP.

Table 3-8. Importance of Source Water Protection Program Elements

Source Water Protection Effort	Extremely important	Very important	Somewhat Important	Not Very Important	Not at all Important
Water Quality and Watershed Health Monitoring	60%	35%	5%	0%	0%
McKenzie Watershed Emergency Response System	55%	36%	9%	0%	0%
Urban Runoff Mitigation	43%	42%	14%	1%	0%
Riparian Forest Protection	44%	40%	15%	2%	0%
Septic System Assistance	46%	36%	15%	2%	1%
Healthy Farms Clean Water	49%	40%	10%	1%	0%
Healthy Forests Clean Water	47%	42%	10%	1%	0%

Source 2018 EWEB Ratepayer Survey

Willingness to Pay for Source Water Protection Programs

A core objective of the 2018 survey was to gather input on funding source water protection programs. The 2018 EWEB Ratepayer survey asked recipients a series of questions related to payment for drinking source water protection programs and preferred methods of payment.

Funding source water protection programs is an issue identified in the 10-year strategic plan. The 2017 technical report identifies the possibility of establishing a “watershed protection fee.” The concept is to establish a watershed protection fee as a line item on EWEB’s bill and reduce water and electric rates that are currently used to fund the program. Such a fee would provide transparency regarding the amount of funding dedicated to water quality and source protection.

The 2017 Technical Report proposes a \$1 per month charge based on both needed budget as well as willingness to pay results from the 2013 UO study (e.g., the 2012 survey).⁸ The technical report concludes that this fee would generate sufficient revenue to fund identified future program costs. This survey explores ratepayer willingness to fund EWEB’s DWSP, preferred funding mechanisms, as well as ratepayer priorities for the DWSP.

The 2012 survey found broad support for a small additional monthly payment for programs to improve the water quality of the McKenzie River. Fifty-five percent of the 2012 survey respondents said “definitely yes” to a \$0.50 per month increase to their monthly water bill for programs to improve water quality for the McKenzie River and 43% of survey respondents said “definitely yes” that a \$1 per month increase. Respondents were split over a \$3 monthly increase for projects in the McKenzie River corridor; 39% of respondents answered affirmatively, while 42% of respondents answered negatively. The conclusion of the 2012 survey was that ratepayers would support increases of up to a dollar and potentially more.

The 2018 Ratepayer Survey revisited these results and explores additional options for fund collection to support expanded and new drinking source water protection and watershed health programs. The 2018 Ratepayer survey explores preferred fund collection methods, a more exact preferred payment amount (both monthly and annualized), and support for additional voluntary contributions and other programs.

The first topic of inquiry was around fee collection structures. EWEB currently funds the source water protection program primarily out of water rates and to a lesser degree electricity rates. The survey explored other options, including variations on a flat fee. The rationale for exploring other options is that maintaining water quality is not directly tied to water consumption. The current system ties additional fees to water usage rates and charges \$0.12 per 1,000 gallons (Kgal). The average household in the EWEB service area consumes 9,000 gallons a month which equates to an average of \$1.11 a month (\$13.32 annually) per household.⁹

⁸ Note that this study was conducted by IPRE under its former name “Community Service Center.”

⁹ Note that this is an overall average. Customers who use more water pay more.

Table 3-9 shows respondent preferences for different fee collection systems. Seventy-seven percent of respondents indicated that they prefer the current method tied to usage rates. This suggests strong support among ratepayers to continue the current system.

Table 3-9. Respondent Preference for Fee Collection Options

System	Percent of Respondents	Number of Respondents
The current program, customers who consume more water should pay more	77%	533
A flat fee assessed on all residential water customers (Appears as a separate line item fee on your monthly bill)	4%	25
A flat fee assessed on all (residential and commercial) EWEB water customers (Appears as a separate line item fee on your monthly bill)	7%	49
A tiered fee based on size of pipe (users with higher volumes have larger pipes; Appears as a separate line item fee on your monthly bill)	13%	89
Total	100%	696

Source: 2018 EWEB Ratepayer Survey

Statistical analysis shows that preference for fee payment options is significantly correlated with age, income and educational attainment. The results, however, do not show any consistent pattern across the three variables. Because a large majority (>60%) in nearly every class in all three of the respondent characteristics expressed a preference for the current program we conclude, with considerable confidence, that a majority of all ratepayers prefer the current fee program.

The 2018 Ratepayer survey found that there is broad support for additional payments for source water protection programs **Table 3-10** shows that 92% of respondents support the current annual average collection.

Table 3-10. Support for Current Program -- this program would maintain or improve drinking water quality for EWEB customers now and in the future. If it cost your household \$13.32 each year would you support this program?

Response	Number of Respondents	Percent of Respondents
Yes	646	92%
No	53	8%
Total	699	100%

Source 2018 EWEB Ratepayer Survey

Support for the current program is not statistically correlated with age, income, or educational attainment.

Over 90% of survey respondents support the current program which collects an average of \$13.32 a year tied to metered water usage. We used a contingent valuation

methodology to assess respondents' willingness to pay for source water protection. The question was worded as follows:

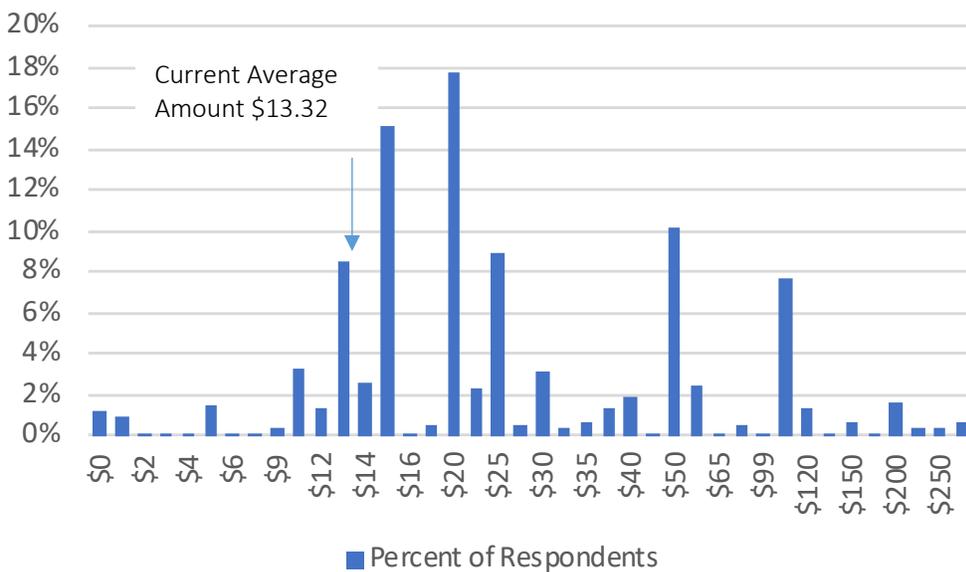
What is the maximum your household would pay each year for the EWEB Source Water Protection Program that would maintain or improve drinking water quality for EWEB customers now and in the future?

Respondents were prompted to enter a dollar amount per year. The wording of the question was intentional – we wanted to provide respondents the opportunity to write in values less than what they currently pay, the same, or more.

We received 607 responses that ranged from \$0 to \$3000 per year. To improve data quality, we do not include the five responses that were more than \$300/year in the analysis yielding a sample of 602 responses. Our concern is those respondents that indicated more than \$300 per year made a data entry error or did not fully comprehend the question.

Figure 3-13 shows the distribution of responses by dollar amount. The results show some clear clusters of responses: 15% of the respondents indicated they would pay \$15 per year; 18% would pay \$20; 9% would pay \$25; 10% would pay \$50, and 8% would pay \$100. For reference, about 11% of the respondents reported values less than the current \$13.32 per year. An additional 9% indicated the maximum they would pay is the current amount of \$13.32 per year, and 80% indicated they would be willing to pay more than the current amount.

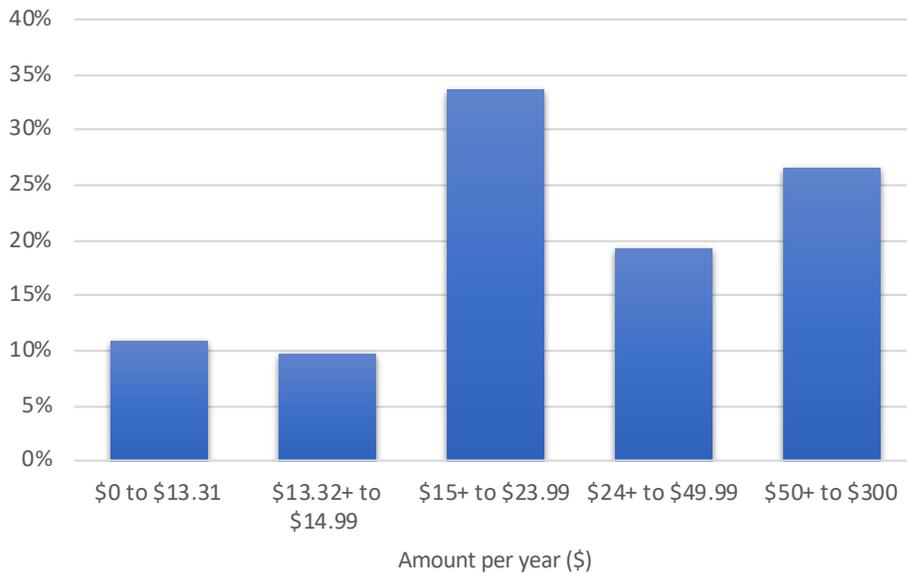
Figure 3-13. Maximum Respondents' Household Would Pay Each Year for the EWEB Source Water Protection Program



Source 2018 EWEB Ratepayer Survey

Figure 3-14 shows the distribution of payment amounts grouped into quintiles—a simplified visualization of Figure 3-13. The results show that about one-third of respondents are willing to pay a maximum of \$15-\$23.99, while more than a quarter of respondents are willing to pay \$50 or more.

Figure 3-14. Distribution of Amounts Respondents are Willing to Pay by Quintile



Source 2018 EWEB Ratepayer Survey

When asked how much **more** they would be willing to pay, by asking what the is the maximum yearly amount they would be willing to pay, 75% of respondents indicated they are willing to pay more than \$15 yearly with the average over all responses being between \$20 and \$25 dollars annually with additional flexibility up to \$30 annually. 57% of respondents indicated they are willing to provide voluntary contributions above collected amounts, and 41% of respondents indicating they are willing to pay for carbon offsets and 25% willing contingent on factors like; amount, program clarity and communication, and the articulated benefits of the program.

In summary, the average amount respondents were willing to pay was \$38.57 per year (or \$3.21 per month). The median (the value with 50% of the responses below it and 50% above it) amount was \$20 per year (or \$1.67 per month). The mode (the most frequently selected response) was also \$20 per year. These results show that a large majority (~80%) of survey respondents are willing to pay more to fund source water protection programs.

Statistical analysis shows that age, income, and educational attainment are correlated with willingness to pay. Since more than 90% of respondents indicated support for paying for DWSP through utility fees, the relationships are subtle. With respect to age, the age group the percentage of respondents willing to pay less than \$13.32 ranged from a low of 10% for the 35-44 and 65 and over groups, to a high of 15% for the 45-54 age group. For higher amounts, the results show a lot of variation across age groups for the amount they are willing to pay (see Appendix D). For example, 57% of individuals 18-24

indicated they are willing to pay between \$15.00 and \$23.99 annually, while 31% of individuals aged 45-54 are willing to pay a similar amount. A higher percentage of respondents in the 45-54 age group indicated they are willing to pay \$24 or more annual.

Educational attainment shows a clearer pattern – higher educational attainment seems to indicate willingness to pay more. This is not unexpected—educational attainment is highly correlated with income. Income also shows a clearer pattern: respondents with higher incomes are willing to pay more.

These results are intuitive, but do not undermine the overall conclusion that ratepayers are willing to pay for EWEB’s DWSP and that they are willing to pay more than they do now on average. It does underscore a key consideration: the payment system should be sensitive to income. This concern may already be partially addressed if lower income households consume less water.

Support for Additional Payments and Programs

Table 3-14 shows support for additional voluntary payments beyond the amount that supports source water protection. These funds could be used for additional programs such as land acquisition and green infrastructure. Fifty-seven percent of respondents indicated that they would be willing to do so. 24% indicated they would not be willing to do so and 19% said “it depends.”

Table 3-14 Support for Additional Voluntary Payment for Source Water Protection Program

Response	Percent	Response
Yes	57%	401
No	24%	171
It Depends	19%	130
Total	100%	702

Source 2018 EWEB Ratepayer Survey

Many respondents noted that they were willing to pay an additional amount if it was truly voluntary and used for specific programs. Some were concerned that money would eventually not be used for source water protection programs indicating a need for specific earmarked funds and well-defined programs. Many others stated that it depended on amount and their budget at the time of asking. Of most concern was that any additional collected, or voluntarily contributed money, be spent specifically on conservation and source water protection and not used for any other purpose.

Table 3-15 shows support for payment for carbon offsets if they provide a funding stream for source water protection. Forty-one percent of respondents indicated they would be willing to support carbon offsets, 33% indicated they would not, and 25% said “it depends.”

Table 3-15 Willingness to Pay for Carbon Offsets

Response	Percent	Response
Yes	41%	286
No	33%	229
It Depends	25%	175
Total	100%	690

Source 2018 EWEB Ratepayer Survey

With respect to the 25% of respondents that selected “it depends,” many respondents indicated they did not understand what carbon offsets in this context mean or how the program would work. Others indicated that it would depend on the specific program and what funds would be used for, indicating that clarity in communication would be necessary. Some respondents indicated that it would depend on the relative cost versus the benefits of the program and/or it would depend on their personal financial situation.

Chapter 4: Conclusions and Implications

This chapter summarizes key conclusions and implications from the 2018 Ratepayer Survey. The results are intended to inform implementation of the 2018 Drinking Source Water Protection Strategic Plan, EWEB communication strategies around source water protection, and funding mechanisms for the program.

IPRE received 815 responses to the survey for a response rate of 27%. The sample size of 815 responses and the size of the total population (47,126 residential water customers) yields a margin of error $\pm 3.40\%$ at a 95% confidence interval. In simple terms, this means that if the survey were conducted 100 times, the results would come with $\pm 3.40\%$ of the reported values 95 of 100 times.

Conclusions

- **EWEB ratepayers place high value on the McKenzie River Watershed.** The vast majority of respondents (80%) were aware that their drinking water comes from the McKenzie River Watershed—a 6% increase over the 2012 survey. While most respondents do not visit the McKenzie River Watershed frequently (86% visit a few times a year or less; 31% reported they never visit the watershed), many find it to be critical to their quality of life (36%) or greatly enhance their quality of life (40%).
- **Strong support exists for water quality and source water protection in the McKenzie River Watershed.** Respondents overwhelmingly indicated that water quality is very important to them relative to other conservation efforts: 93% rated it as extremely important or very important relative to other conservation efforts. Drinking water quality was even more important to respondents: 98% indicated that the quality of drinking water from the McKenzie was either extremely or very important to them.
- **A majority of ratepayers perceive urgency around implementing actions to maintain or restore water quality in the McKenzie River Watershed.** The majority, 78%, of survey respondents feel that programs to maintain or restore water quality are either extremely urgent (46%) or very urgent (32%).
- **Ratepayers perceive climate change, and to a lesser extent, wildfire as long-term threats to water quality.** With respect to threats, 51% strongly agreed that climate change is a threat to water quality, and 30% agreed. This suggests a high level of concern among ratepayers about the potential impacts of climate change on drinking water quality. With respect to wildfire threats, 36% strongly agreed and 43% agreed that wildfires pose a threat to water quality in the McKenzie.
- **Ratepayers show strong support for efforts to collaborate and partner on conservation efforts—particularly those that focus on water quality and drinking source water protection.** Eighty-nine percent of respondents strongly agreed or agreed that EWEB should establish partnerships with state and federal agencies

to maintain and enhance water quality. This suggests respondents are aware of the role that state and federal land management agencies play in the McKenzie River Watershed. Taken together, the results indicate strong support for partnering as a strategy to address threats or improve water quality. While the question did not specifically ask respondents to comment on the Pure Water Partners program, the results suggest that respondents would broadly support the program.

- **Trust is important in building support for source water protection activities.** EWEB was the overall most trusted with 16% stating they completely trust EWEB to implement programs that benefit or maintain the watershed and 48% trusting EWEB “a lot”. The next most trusted entities were local non-profit organizations with 17% complete trust and 42% stating they trust them “a lot.”

Notably, private land owners were the least trusted with 30% stating they had “not much” trust in them, 4% “complete” trust, and 15% “a lot” of trust. Federal natural resource agencies were the next least trusted with 26% stating they had “not much” trust in them, 5% “complete” trust, and 20% “a lot” of trust. This is in stark contrast to how landowners perceive themselves. The 2012 landowner survey results as well as input IPRE has received over the course of several projects, suggest that private landowners have a high level of trust in themselves and generally perceive themselves to be good stewards of the land. Forty-five percent of respondents to the 2012 McKenzie landowner survey indicated the greatest amount of trust (high or moderate trust) among private landowners in the watershed.

These differences in perceptions suggest an opportunity to provide better information about conservation activities in the basin, with a particular emphasis on private landowners. We note that we did not specifically differentiate between corporate landowners and individual landowners. It is possible that ratepayer perceptions are more influenced by their perceptions of corporate landowners and their land management activities.

The 2018 survey results also suggest that ratepayers strongly support collaboration among various entities. Nearly 70% of respondents strongly agree or agree that government agencies are more trustworthy when they work together. Seventy-three percent strongly agree or agree that government agencies are more trustworthy when they partner with non-profit organizations. Respondents also agree (87%) that collaboration produces better outcomes.

- **Communication is essential but must be carefully implemented.** Thirty-seven percent of respondents rated regular communication as moderately valuable, while 32% of respondents rated regular communication as very valuable, and 12% extremely valuable. This indicates that ratepayers value communication about activities in the watershed, but communications should be limited and targeted in nature.
- **Most ratepayers are not aware of EWEB’s drinking source water protection efforts.** Notably, 79% of respondents indicated they were unaware of EWEB’s

source water protection program that prior to receiving the survey. The fact that so many ratepayers are unaware of EWEB’s DWSP should be concerning. This suggests opportunities to better inform ratepayers about EWEB’s drinking source water protection programs. Strategies to inform ratepayers should be structured consistent with survey responses related to communications—most respondents prefer relatively infrequent communications.

- **Ratepayers are strongly supportive of DSWP efforts.** Nearly 92% of survey respondents indicated that EWEB’s DWSP was extremely or very important to them personally. Nearly 90% indicated that it was important to EWEB ratepayers, and 89% indicated it was important for Lane County residents. These results suggest overwhelming ratepayer support for the DWSP and validate investments EWEB is making to maintain and enhance water quality. Moreover, more than 80% of respondents indicated that all of the DSWP elements are extremely or very important. Water quality and watershed health monitoring was most highly rated: 95% of respondents indicated it was extremely or very important.
- **Ratepayers strongly support funding the DWSP through water fees.** About 92% of respondents support the current system. The current system ties additional fees to water usage rates and charges \$0.12 per 1,000 gallons (Kgal). The average household in the EWEB service area consumes 9,000 gallons a month which equates to an average of \$1.11 a month (\$13.32 annually) per household. Seventy-seven percent of respondents indicated they preferred the current program over a flat or tiered fee structure.
- **Ratepayers are willing to pay more for DSWP activities—as long as they have tangible results.** About 80% of respondents indicated they would be willing to pay more than the current amount, with 75% of all respondents indicating they would pay more than \$15 per year and 55% more than \$25 per year. For reference, about 11% of the respondents reported values less than the current \$13.32 per year.
- **Ratepayers might support additional voluntary payments for land acquisition, green infrastructure, or other activities.** Fifty-seven percent of respondents indicated that they would be willing to do so. 24% indicated they would not be willing to do so and 19% said “it depends.” Many respondents noted that they were willing to pay an additional amount if it was truly voluntary and used for specific programs. Some were concerned that money would eventually not be used for source water protection programs indicating a need for specific earmarked funds and well-defined programs. Many others stated that it depended on amount and their budget at the time of asking. Of most concern was that any additional collected, or voluntarily contributed money, be spent specifically on conservation and source water protection and not used for any other purpose.
- **Fewer ratepayers indicated a willingness to pay for carbon offsets.** Forty-one percent of respondents indicated they would be willing to support carbon offsets, 33% indicated they would not, and 25% said “it depends.” With respect to the 25% of respondents that selected “it depends,” many respondents

indicated they did not understand what carbon offsets in this context mean or how the program would work. Others indicated that it would depend on the specific program and what funds would be used for, indicating that clarity in communication would be necessary. Some respondents indicated that it would depend on the relative cost versus the benefits of the program and/or it would depend on their personal financial situation.

Implications and Recommendations for Drinking Source Water Protection Programs

The purpose of the 2018 ratepayer survey was to better understand ratepayer perspectives around funding and implementation of EWEB's drinking source water protection program. The findings validate both EWEB's investment in the program as well as the core elements of the program as articulated in the 10-Year DWSP. The survey results provide clear indication of what ratepayers are willing to support. We understand that funding is a policy matter that the EWEB Board of Commissioners must address. Following is a summary of key implications of the study and our recommendations.

Water quality and watershed health are priorities for ratepayers

The survey results broadly suggest that ratepayers understand the connection between land use activities and water quality. Moreover, ratepayers show very strong support across all demographics for activities that protect drinking water quality. The implication is that EWEB should continue the current DWSP activities and consider expanding them focusing on targeted actions or threats.

Recommendations

- Continue or expand the DWSP program. The 10-year strategic plan indicates a strong commitment by the Board to continue DWSP activities. The plan indicates a range of funding for DWSP over the next 10-years from \$1 to \$1.5 million/year. Current funding levels are below the \$1 million/year level indicating opportunity for increased investment.
- Support and enhance the Pure Water Partners (PWP) collaborative. More than 80% of respondents indicated that partnerships are an important mechanism to achieve DWSP goals. The PWP is a collaboration between partnership with McKenzie Watershed Council, McKenzie River Trust, and Upper Willamette Soil and Water Conservation District, Cascade Pacific RC&D, federal land management agencies (U.S. Forest Service), the University of Oregon and others.
- Continue efforts to engage private landowners in water quality efforts through PWP. The PWP program is an initiative that aims to protect the water quality of the McKenzie River by rewarding landowners who engage in the creation and maintenance of healthy riparian areas, with a secondary purpose to facilitate restoration for areas that need assistance. The program aligns funding and resources from multiple watershed partners, grants, and private organizations in

order to provide technical and financial assistance for property owners engaging in positive land stewardship projects.

Funding is essential for drinking source water protection

EWEB has invested approximately \$7.5 million in the drinking water source protection program and has received nearly \$3 million in grant funds and partner contributions since May 2001. The annual budget for the DWSP is approximately \$920,000. EWEB current funds the DWSP program through water rates. The average household in the EWEB service area pays an average of \$1.11 a month (\$13.32 annually) for the DWSP program. About 75% of survey respondents expressed preference that EWEB continue the current rate-based funding structure. This, the implications of the survey are that a large majority of ratepayers support investments in DWSP and recognize that funding is essential.

Recommendations

- Continue the existing rate-based fee structure. The survey results are conclusive on this point – ratepayers prefer the current funding mechanism.
- Consider enhancing the DWSP program budget. A large majority of respondents – about 80% – indicated they would be willing to pay more than the current amount, with 75% of all respondents indicating they would pay more than \$15 per year and 55% more than \$25 per year. This suggests that ratepayers are willing to pay more for the DWSP program. We recognize funding is a policy matter and needs to consider more than ratepayer perspectives. If the EWEB Board is open to considering enhanced funding, staff should develop specific proposals for how the money would be spent and what return ratepayers can expect from those investments.
- Continue to leverage EWEB investments with external funding. DWSP staff have been successful in leveraging outside funding for DWSP. This is good for EWEB and good for EWEB ratepayers. We recommend this practice continue.

Increase the profile of the DWSP program

Survey results show that about 80 percent of ratepayers were unaware for EWEB's DWSP program. This is somewhat surprising given the high level of support for DWSP and watershed enhancement efforts. The results are a strong indication that EWEB has not done a very good job of messaging around DWSP efforts.

Recommendations

- Develop better strategies to inform ratepayers. EWEB has a solid communications team that frequently makes public announcements regarding various utility matters. DWSP staff should work with EWEB's communications/public relations team to develop a communication strategy around DWSP efforts. The objective should be to reverse the 2018 survey results so that 80% of respondents to a future survey indicate they are aware of EWEB's DWSP efforts.

“Right-size” communications. The survey results suggest that ratepayers value communications, but not too much communications.

Appendix A: Survey Methods

This appendix describes the methods used to develop and administer the survey of EWEB ratepayers. The survey sample was pulled from the population of residential water ratepayers in the EWEB service territory (primarily the City of Eugene). Of an estimated 47,000 residential water ratepayers in the City, the research team surveyed a stratified random sample of 3,000 individuals. The sample frame was EWEB's residential utility billing list—which includes all residential ratepayers that receive bills.¹⁰

Approximately 30% of the sample received emails with a link to an online survey while the rest of the sample received a survey via first-class mail. The mail survey instrument was an 8-page, black and white, printed booklet that consisted of 30 questions, about half of which were multi-item questions with Likert scale responses. The online survey was a replica of the hard copy survey administered through the online research software, Qualtrics.

IPRE used a mixed-mode method to distribute the surveys. Of the sample of 3,000, 1,861 were sent by email to ratepayers that had email addresses on file. Of the 1,861 emails sent, 1,821 were successful and 40 were undeliverable. We received 661 responses to the online survey for a response rate of 36.3%.

The remaining 1,139 surveys were sent by mail. Three surveys were returned as non-deliverable by the post office. This is a very low return rate for a mailed survey and is related to EWEB's need to keep billing information current. Therefore, the final mailed sample size was 1,136. Ratepayers in the sample were contacted a total of three times: first, an introductory postcard with the website address for the online survey version; second, with a survey packet as described above; and third, with a reminder postcard. That portion of the sample that was selected for web-participation were contacted via email address up to seven times over the course of six weeks. IPRE received 166 surveys returned by mail yielding a 14.6% response rate. Thus, the response rate for the mailed survey was less than half the response rate for the online survey (36.3%).

The full sample size was 2,960 and IPRE received 815 responses. A key concern of organizations that conduct surveys is statistical validity. If one were to assume that the 2018 sample was perfectly random and that there was no response bias, then the survey would have a margin of error of ± 3.4 at the 95% confidence level. In simple terms, this means that if a survey were conducted 100 times, the results would end up within ± 3.4 of those presented in this report.

One limitation of the study's methodology is potential non-response bias. Survey respondents represented higher percentages of registered voters, homeowners, and households with higher incomes than reported by the 2013-17 American Community Survey. Despite these areas of potential response bias, our assessment is that the results provide an accurate representation of the attitudes and opinions of EWEB water ratepayers in 2018. This assessment is validated through review of chi-square statistics

¹⁰ A small percentage of renters have their water bills included in their rent.

on key demographic characteristics against key survey questions. Those analyses found no statistically significant differences in responses by age, income, or education—three of the variables where the sample was under-represented by specific elements of the population.

Appendix B: Survey Instrument

EWEB Source Water Protection Ratepayer Survey

This survey should take you about 10 to 15 minutes to complete. As an incentive, we will randomly select four participants to win \$50 gift cards. To enter to win, provide your contact information at the end of the survey. Your contact information will not be connected to your answers. You do not have to complete the survey to enter the raffle.

This survey was developed by the University of Oregon's Institute for Policy Research and Engagement (IPRE) in partnership with the University of Oregon and funded through the Eugene Water & Electric Board (EWEB) by a Healthy Watersheds Grant from the U.S. Endowment for Forestry and Communities.

Your answers are and will be completely confidential. Any personally identifying information will not be tied to any product this research produces. We will not share or sell your personally identifying information. By completing and returning this survey you provide consent in allowing the IPRE to use these findings for research. You may choose not to participate in this survey without penalty. If you have any questions, please contact Robert Parker, IPRE Director (541.346.3801 or rgp@uoregon.edu).

Survey Number (Top of Survey) _____

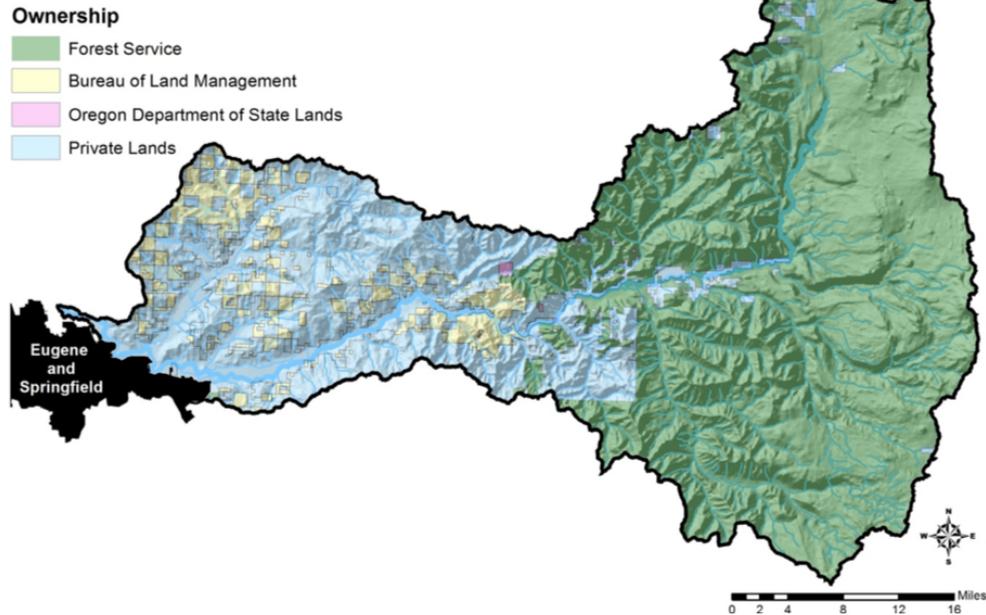
Do you wish to continue to the survey?

(By doing so you are providing consent to the IPRE to collect and use this information for research)

- Yes
- No

First, we would like to ask some questions about the McKenzie River Watershed.

McKenzie River Watershed



Q1 Do you know your drinking water comes from the McKenzie River?

- Yes
- No

Q2 In the past year, how often did you visit the McKenzie River Watershed?

- More than once a week
- 2-3 times a month
- Once a month
- A few times a year
- Once a year
- Never

Q3 How much does the McKenzie River Watershed enhance your quality of life?

- The McKenzie River Watershed is critical to my quality of life.
- The McKenzie River Watershed greatly enhances my quality of life.
- The McKenzie River Watershed somewhat enhances my quality of life.
- The McKenzie River Watershed slightly enhances my quality of life.
- The McKenzie River Watershed does not affect my quality of life.

Next, we would like to ask some questions about environmental conservation in the McKenzie River Watershed

Q4 How important is water quality to you relative to other environmental conservation efforts (for example: salmon habitat, air quality, forest management, organic farming, etc.)?

- Extremely important
- Very important
- Somewhat important
- Not very important
- Not at all important

Q5 How important is the quality of drinking water from the McKenzie to you?

- Extremely important
- Very important
- Somewhat important
- Not very important
- Not at all important

Q6 How urgent do you think it is for EWEB to put into action programs that maintain or restore the water quality of the McKenzie River Watershed before drinking water comes to your tap?

- Extremely urgent
- Very urgent
- Moderately urgent
- Slightly urgent
- Not at all urgent
- Unsure

Q7 Please indicate your level of agreement or disagreement with the following statements.

	Strongly Agree	Agree	Neither Agree Nor Disagree	Disagree	Strongly Disagree
<u>Wildfire</u> is a threat to water quality in the McKenzie	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<u>Climate change</u> is a threat to water quality in the McKenzie	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
EWEB should partner with <u>land management</u> agencies to encourage forest treatments such as thinning and controlled burns to reduce the risk of wildfire	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
EWEB should partner with <u>nonprofit organizations</u> to maintain and enhance water quality	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
EWEB should partner with <u>state and federal agencies</u> to maintain and enhance water quality	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
EWEB should partner with <u>private landowners</u> to maintain and enhance water quality	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q8 Programs and activities to maintain the benefits provided by the McKenzie River Watershed could be implemented by a variety of organizations. How much do you trust each of the following types of agencies and organizations to support natural resource health in the McKenzie River Watershed?

(Select one response for each agency or organization)

	Completely	A lot	Somewhat	Not much	Unsure
Federal natural resource agencies	<input type="radio"/>				
State natural resource agencies	<input type="radio"/>				
Local Government	<input type="radio"/>				
Eugene Water & Electric Board	<input type="radio"/>				
Private landowners in the watershed	<input type="radio"/>				
Local Non-Profit Organizations	<input type="radio"/>				
National Non-Profit Organizations	<input type="radio"/>				

Q9 To what degree would you value regular communication (approximately monthly) regarding activities affecting the McKenzie River Watershed?

- Extremely valuable
- Very Valuable
- Moderately Valuable
- Slightly Valuable
- Not at all Valuable
- Unsure

Q10 To what degree do you agree or disagree with the following statements?

	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
I am more likely to trust government agencies when they work together.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am more likely to trust government agencies when they partner with non-profit organizations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Collaboration and partnerships produce better outcomes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel better about programs and projects when I feel informed	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Next, we want to ask some questions about drinking source water protection in the McKenzie River Watershed.

Please read the following: In 2018, EWEB completed a 10-year strategic plan for our Drinking Water Source Protection Program. The main goal of the program is to create a balance between watershed health and human use over time, and to maintain our community's exceptional water quality (for more information see: <http://www.eweb.org/community-and-environment/mckenzie-watershed-protection/drinking-water-source-protection-plan>).

Following is a list of the main programmatic elements of EWEB's approach to protecting the McKenzie Watershed:

- *Water Quality and Watershed Health Monitoring* - EWEB will measure and collect information on water quality in the McKenzie Watershed to monitor any changes and inform water treatment operations.
- *McKenzie Watershed Emergency Response System* - EWEB will maintain a watershed emergency response system for efficient and effective response to hazardous material spills.
- *Urban Runoff Mitigation* - EWEB will implement actions that mitigate, treat, and/or eliminate urban runoff from storm water outfalls upstream of the Hayden Bridge intake.
- *Riparian Forest Protection* - EWEB will invest in riparian and floodplain forest protection to promote natural treatment of pollutants, mitigate floods, reduce of sediment, and increase fish habitat.
- *Septic System Assistance* - EWEB will continue to work with McKenzie homeowners to reduce the impacts of septic systems on water quality.
- *Healthy Farms Clean Water* - EWEB will work with McKenzie farmers to reduce chemical use and increase riparian buffers to benefit water quality.
- *Healthy Forests Clean Water* - EWEB will work with partners to increase forest health to reduce wildfire risks, protect water quality, increase fish and wildlife habitat, and generate revenue for watershed restoration.

Q11 Before receiving this survey, were you familiar with EWEB's Source Water Protection Program?

- Yes
- No

Q12 In your view, how important or unimportant is EWEB’s source water protection program to the following populations?

	Extremely important	Very important	Somewhat Important	Not very important	Not at all important
To me personally	<input type="radio"/>				
For EWEB ratepayers	<input type="radio"/>				
For Lane County Residents	<input type="radio"/>				

Q13 To help EWEB understand how to prioritize source water protection efforts, please indicate how important each of the elements of EWEB’s Source Water Protection Program are to you. (Note: programs are described on the previous page)

	Extremely important	Very important	Somewhat Important	Not Very Important	Not at all Important
Water Quality and Watershed Health Monitoring	<input type="radio"/>				
McKenzie Watershed Emergency Response System	<input type="radio"/>				
Urban Runoff Mitigation	<input type="radio"/>				
Riparian Forest Protection	<input type="radio"/>				
Septic System Assistance	<input type="radio"/>				
Healthy Farms Clean Water	<input type="radio"/>				
Healthy Forests Clean Water	<input type="radio"/>				

Please tell us about your willingness to pay to protect the water quality of the McKenzie River Watershed and your drinking water.

EWEB currently funds the Source Water Protection Program through water rate fees. Water rates are subject to general management and board approval. Funds currently used for the Source Water Protection Program could be directed to other uses. Because maintaining water quality is not directly tied to water consumption, EWEB is considering other options for funding the Source Water Protection Program.

Q14 Currently the monthly amount supporting the Source Water Protection Program varies by the amount of water consumed. The current contribution is \$0.12 per 1,000 gallons (the average household uses 9,000 gallons per month). This equates to an average of \$1.11 per month (or \$13.32 per year) per household. Please indicate which fee structure is most desirable to you.

- The current program — customers who consume more water should pay more
- A flat fee assessed on all residential water customers (Appears as a separate line item fee on your monthly bill)
- A flat fee assessed on all (residential and commercial) EWEB water customers (Appears as a separate line item fee on your monthly bill)
- A tiered fee based on size of pipe (users with higher volumes have larger pipes; Appears as a separate line item fee on your monthly bill)

Q15 Suppose this EWEB Source Water Protection Program proposal was under consideration by the EWEB Board of Commissioners. This program would maintain or improve drinking water quality for EWEB customers now and in the future. If it cost your household \$13.32 each year would you support this program?

- Yes
- No

Q16 What is the maximum your household would pay each year for the EWEB Source Water Protection Program that would maintain or improve drinking water quality for EWEB customers now and in the future? Please indicate a dollar amount.

\$ / per year _____

Q17 Would you support a voluntary contribution beyond the existing amount to enhance funding for source water protection programs similar to the low-income heating or the green power contribution? (i.e., voluntary contributions would go toward programs like: land acquisition for conservation, green infrastructure, stewardship and restoration activities)

- Yes
- No
- It depends. Explain: _____

Q18 Would you be willing to pay for carbon offsets if they would provide a funding stream for drinking source water protection?

- Yes
- No
- It depends. Explain: _____
-

Finally, we would like to know a little bit about you.

Q19 How long have you lived in the Eugene-Springfield metropolitan area?
(Please enter a number rounded to the nearest year)

Q20 Do you consider Eugene or Springfield your permanent home?

- Yes
- No

Q21 What is your age?

- 18-19 years of age
- 20 to 24 years of age
- 25 to 34 years of age
- 35 to 44 years of age
- 45 to 54 years of age
- 55 to 64 years of age
- 65 years and over

Q22 What was your annual household income in 2016?

- Less than \$15,000
- \$15,000 to \$24,999
- \$25,000 to \$34,999
- \$35,000 to \$49,999
- \$50,000 to \$74,999
- \$75,000 to \$149,999
- \$150,000 to \$199,999
- \$200,000 or more

Q23 What is your gender identity?

- Male
- Female
- Other
- Prefer not to say

Q24 What is your race/ethnicity?

- Prefer not to say
- White
- Black, African American
- Native Hawaiian, Other Pacific Islander
- Latino/Hispanic
- American Indian, Alaska Native
- Asian
- Other _____

Q25 What zip code do you live in? _____

Q26 What is the highest degree/level of school you have completed?

- Less than high school graduate
- High school graduate (or equivalency)
- Some college or associate degree
- Bachelor's degree
- Graduate degree or higher

Q27 Indicate the number of people in your household.

Number of individuals who are 17 years of age or younger. : _____

Number of individuals who are 18 years of age or older. : _____

Total : _____

Q28 Do you rent or own the housing unity that you live in currently?

- Own
- Rent
- Occupy without Payment

Q29 Are you registered to vote in the state of Oregon?

- Yes
- No

Q29a Did you vote in the 2018 midterm election?

- Yes
- No

Q30 Is there anything else that you would like to share with us about water quality or source water protection?

Thank you for your input!

Appendix C: Transcript of Written Survey Comments

This appendix includes written comments to the survey provided by respondents. We lightly edited the comments for spelling, but they are otherwise unchanged.

Q17 - Would you support a voluntary contribution beyond the existing amount to enhance funding for source water protection programs similar to the low-income heating or the green power contribution? (i.e., voluntary contributions would go toward programs like: land acquisition for conservation, green infrastructure, stewardship and restoration activities) – Comments to the option “it depends.”

- A guaranty that EWEB use the extra for stated purpose.
- All funds used expressly and only for watershed protection
- As long as it does not cannibalize a current consumption fee structure.
- As long as it was truly voluntary and was guaranteed to go toward this program!
- As long as it's voluntary
- As long as it's not abused and used for W.S.P.!
- As long as the current necessary budget is still met with required fees.
- As long as the funds were specific to these goals only and not a backup source of funding.
- As long as there was a minimum flat fee of some sort in place for everyone
- As long as you are charging industry a fair amount, go ahead and get voluntary contributions from who you can. But make sure the abusers are being charged first.
- At this time, I cannot afford pay higher bills.
- Contributions can be earmarked for specific programs
- Depending on my income. I'd do it if I can afford it for sure
- Depends on exactly what the funding is paying for and how transparent the process is
- Depends on what is considered voluntary and what the funding will be used for, open ended platitudes like this only produce additional expenses without proper oversight.
- depends on what the program would do/provide
- Don't waste time soliciting donations, just increase the fees as needed.
- expense enjoyed by all should be paid for by all
- How much we could afford
- how much you're asking

- How would that look?
- Hydroelectric dams are still the best thing for this area!
- I already support conservation programs
- I don't like the plan, I'm not convinced that they have the correct solution
- I live on a fixed income.
- I may not donate but I support a program that gives customers the option
- I need more information about these programs
- I think non- profit groups like the McKenzie River trust might use the funds better than EWEB.
- I think this is so important that you need a consistent source of steady funding. Grant monies may be available for extra line items.
- I would if I had a steady income and wasn't a college student.
- I would like to but as a graduate student, don't currently have room in my budget for this
- I would need information on programs
- I would need more information
- I would need to know more about the funding structure
- I would need to see the proposal to answer fully, but probably yes.
- I would not necessarily contribute, but it is a good idea.
- I would only support a voluntary contribution and/or increased rates as previously asked ONLY IF E.W.E.B. would become more accountable for the monies they already receive.
- I would prefer just to pay, or that it is mandatory to pay for water protection
- I would think commercial people should contribute to the "beyond" as their uses are more in scrutiny of poor management
- I would want more details about this program
- I would want to see detailed information about how the contribution was being used, rather than it simply going into a fund somewhere.
- I'd have to see the offerings, but I might.
- I'm on a fixed income.
- If 90% or more of the voluntary contributions went towards program objectives versus administration costs.
- If commercial customers are required to pay more
- If EWEB stops wasting money
- If I am able.
- if I can afford it
- If I have money from Soc. Security after living expenses yes.
- If I knew 100% that my money was going to the program and not to administration.

- If I see positive results, I would be more likely to donate more.
- if it was included in the monthly payment for the EWEB source water protection plan
- If it was transparent where the money would go
- if needed
- If one could identify the program. Too many programs are just "feel good" without adequate results.
- If proof of program/protection efforts are documented and that information is made public to evaluate the success in those efforts- I possibly would consider donating more. I would like to see a tiered system of priority projects where funds would be going and why they are deemed important to fund
- If tax deductible - yes
- If the utilization of the funds was agreed upon and strictly monitored by a neutral third party
- If we could choose which program the funds went to.
- Industry needs to pay at a higher rate than low income families for instance.
- It depends. How much?
- It would have to be an opportunity offered to me specifically. I would not seek this out. If someone came to my door, I would contribute, especially if it was a small addition to my monthly bill instead of a one-time contribution
- It's easier to contribute if it is figured into the bill. Most people will pay the extra couple dollars per month if it's billed to them, rather than giving up extra every month even if it were the same amount.
- low income
- Must be sure the donation does not reduce general fund contributions.
- need a reliable, sustainable funding source vs relying on contributions
- Not enough information to decide.
- Not if existing amount is eliminated. Funds would need to be dedicated.
- Not sure
- on close accounting of funds and if they go as intended
- on how confident I am that the \$ is going to the programs
- on how much information was shared on the programs to be supported
- On how much money I have
- on my budget & how much I'm already paying
- on my financial situation
- On the value the contribution would make
- only if totally voluntary- not a gateway to higher fees.
- people want to give more should be able to.
- Personal budget

- Program transparency is a must. Important to see where the money is going before asking for more
- Provide thru non profits
- quantifiable cost/benefits data
- Rate increases are mandatory not voluntary
- Reports on how funding is used.
- Should be part of rates we already pay
- So long as voluntary contribution doesn't give the people who do so special privileges or more weight in decision making. I would not want a business who is responsible for lots of use to be able to unfairly buy their way into decision making processes so that they may benefit while others suffer the consequences.
- stop the spraying of federal, state and private forests with herbicides.
- Support it, not sure I would contribute
- The voluntary contributions must be without strings attached, aka no special interests "donating" to get their bidding done.
- The water is fine and taxes are being raised much too quickly to sustain living here.
- Too often \$\$ donated goes to "administration expenses." Trust is difficult.
- wealthy and high usage customers, sure.
- When I'm not in school I would, but not right now.
- While I find these programs crucial and they directly affect myself and other family members I am currently in a low income bracket, therefore I cannot afford to contribute.
- with proof of where the funds are utilized
- Would depend on where money was going and how it would be used. Is it to fund grants similar to green power? Would it be to fund EWEB programs directly?
- would need more info
- Would want to see guarantee of an annual accounting of how the money was spent, including specific projects over a certain dollar amount, say \$25,000
- you chart to much now
- You should focus on getting people in rich neighborhoods to donate more and not ask for money from people that are struggling to get by already.
- you should just charge what you need for this program, we want more incentives for using less water, not flat fees that penalize those who use less water, these questions are very leading, and I am feeling more distrustful of EWEB than I did when I started this survey
- your rates keep going up. my pay doesn't.

Q30. Is there anything else that you would like to share with us about water quality or source water protection?

- I have always been happy with the taste and quality of the water in Eugene. I've also been pleased by the programs in place to keep the water clean. That being said the

cost of that water has risen remarkably. Extra cost should not be borne by lower income people.

- Commercial customers should pay for the restoration of caustic water they expel in our community.
- Thank you for sending this out! Extremely important and we would be willing to pay much more to protect our water resources- Thank you!
- Several months ago, I read an interview with an Oregon football recruit. He was asked what he thought of Eugene. Of course, he stated how beautiful he thought the area, but then mentioned - "and the tap water tastes really good" How lucky we are to have this beautiful and bountiful resource. Everything within our power to preserve and protect it should be done.
- Q 15-18 were difficult. It's hard to support EWEB when the "delivery charge" on my bill is more than my actual usage charge. I do not trust EWEB.
- "" Forest treatments"" is too generic a concept
- How thin are our forests going to have to be to offset climate change?
- I don't see any questions geared toward the complete reversal by fed on all environmental issues. With the current admin they cannot be trusted. How are you going to address the above items?"
- Partner with law enforcement and non-profit organizations to provide annual trash removal and education of users on leave nothing behind programs.
- "There's an old saying - ""Never configure effort with results."" Q. What quantifiable, tangible results are expected if the elements of the strategic plan are funded and implemented? Q. Is EWEB committed to terminating elements of the plan that are not demonstrably successful in terms of tangible results?"
- We are fortunate to have the McKenzie River as our source for drinking water! It must be maintained to keep it as clean and pure as it is!! It is extremely important that the McKenzie is managed for our future's need for clean water!
- I worry about the fire retardant used in the watershed.
- No thank you. Just keep up the good work. :)
- Forests in the watershed should be thinned of overgrowth and fuels on the forest floor by prescribed burns or mechanical removal to help prevent catastrophic fires. This would help prevent soil erosion being deposited in the McKenzie River.
- I have a hard time trusting EWEB management. One month I had an EWEB bill FIVE times more than normal. They denied any request for relief or any responsibility for the extreme over billing. Their rates climb higher and higher without increase in services!
- "I was disappointed when EWEB cancelled the project to develop a secondary emergency water source. Even if I never needed for disaster recovery, a fallback source may be needed as Eug-Spfd keep growing.
- Thanks for asking.

- P.S. Regarding Q2- it was unclear to me if Eug-Spfd is part of McK River watershed. The blackout section of the graphic would suggest not, so I had to respond 'no' - not travelling."
- "The survey asked questions about a program that I was unaware of. Implementing a program w/o making the public aware it is needed is profoundly irresponsible.
- I favor lifetime rate structures in which an initial, small, allotment of water is not charged any fee. This provides a progressive rate structure and encourages conservation by a relative increase in marginal rates.
- Water quality is vital. Our resource is a treasure and any intervention must be justified to me. I respect scientific data over programs the sound good superficially but have no substance."
- "Never sell off draw-downs of the river for commercial/corporate profits.
- Somehow streamline the process of holding abusers of the watershed accountable for the damage. Years of litigation, that ratepayers pay for while abuses continue is unacceptable.
- I would be very interested in seeing the results of this survey.
- alternative drinking water source that would truly be unaffected by anything manmade or natural that could disrupt supply from McKenzie
- Last month we had several visitors from California who, after drinking our tap water, remarked excitedly, "your tap water is 'delicious'. We are used to having to drink bottled water in California because our tap water is terrible tasting." I think this says it all!!!
- ""O impact""
- Protection of the entire ecosystem which in any way feeds the watershed should be top priority.
- Feel a bit uncertain about the controlled burns in this increasingly tinder box climate.
- Doug Firs seem to be passing as the climate changes- new species will arise. How do we know what is best for them?
- Don't understand your introduction of carbon offset for \$ in this context"
- I feel the water I drink, is good, and drink from the tap.
- Thank you
- Don't make our EWEB bill more expensive than it already is.
- Those who use much should pay for it. Strongly disagree with flat fee. Consider those who have very low and fixed income. Many can barely afford to buy food or pay bills.
- We lived in the country, had a well my water was much more clean and drinkable I use bottle water.
- EWEB to continue monitoring McKenzie River water quality.

- "I was on youtube the other day and watched this, Positive and Negative Energy Effects on Water. It's a short video check it out sometime"
- Hazardous material transport must be strictly regulated along both the McKenzie River - Willamette River. Strict enforcement of speed limits for fuel or other trucks, speed of all vehicular traffic in certain areas should be reduced. Very high penalties for litter or trash in or along the river(s).
- Thank you for getting information from us on how we feel about things involving EWEB so we have a voice as well!
- I didn't have much information to make good responses, sorry. I do know I think water issues are VERY important.
- I have the general perception that EWEB commissioners do a good job, however, I feel the City of Eugene doesn't use their wastewater fees appropriately. I have talked to Eugene city employees who say the city has an awful lot of money in that fund that is not being used right. They should help fund your activities.
- I have been to a lot of different places. Our water is the best of all the places I have ever been.
- Very happy with EWEB water!
- I tried my best but I know so little about this - even after googling McKenzie River Watershed. Here it is, for what it's worth.
- One reason I continue to live here is the quality of the water. It is a precious resource that so many of us take for granted here.
- I think it makes sense to just pay for protective programs. It's our drinking water, after all. While I agree that voluntary programs such as carbon offsets or consumption based rates are more equitable for low income folks, I think our drinking water isn't the place to cut corners on something we struggle to "find funding" to keep in place.
- I am very concerned about use of herbicides in areas near the McKenzie, and other runoff (oil from cars). Also, too much of the McKenzie has lost its riparian foliage. There are too many lawns on its banks (where fertilizer and herbicides can enter) and a lack of shade because trees and foliage have been cut. We need rules on this!
- Is there any plan to make the water intake further upstream? Say to Cougar Res?
- I use a water filtration pitcher. Some times I have an unusual taste in the water.
- I am considering donating to McKenzie River Trust in my will
- I am glad I live in a state that recognizes the importance of preserving their water supply by sending this survey out. We must protect our water supply and the rivers of Oregon!
- Being a Global Traveler, I always look forward to coming home and pouring a glass of water out of the tap! I could not do that in Europe or the Caribbean. We are very fortunate here in Eugene. (Twelve years ago I prepared all dinner for the watershed meetings at EWEB. Great folks!)

- Living on very low income. Can't help.
- Water is going to control habitat on the planet even more as weather patterns change. We have the best water on the planet. We need to keep it that way.
- No, not at this time
- Water quality in our area and the US/world in general is an inseparable part of the climate change crisis.
- The average consumer does not have the knowledge to answer many of these comparative questions. We must depend on EWEB's management and Board of Directors to keep our water safe now and in the future while mitigating costs
- It has taken me 62 years to understand all I know about the importance of a non-polluted planet. I think mass education may help at a younger age. Setting examples and participation toward the goal of a cleaner environment and keeping it that way.
- It's great that we enjoy some of the best drinking water in the country. That is something worth maintaining. We are able to drink really good water, right from our tap. So many people have to buy drinking water.
- Keep up the great work!
- "What concerns me most about EWEB at this time is its plan to install ""smart meters"" for both water and electricity. This would be an unwarranted invasion of privacy and a massive form of electronic pollution with likely adverse consequences for the health of the citizenry.
- See: familiesforsafemeters.org
- This issue needs plenty of public ventilation."
- Water is life!
- too much chlorine in water
- I approve and would support EWEB getting a second source of water in case something goes wrong with our current one source. What happened to that plan?
- I was sad to see that EWEB did not pursue the alternate drinking water source proposal. Backup systems are prudent for essential needs like drinking water.
- We are getting taxed out of our home. 3% increase a year. We can't pay for additional programs. Our governor spends \$ to fight the Feds. Bah!! Ask PERS Tier I to contribute to this worthwhile project for clean watershed.
- Thank you for all you do to protect this valuable resource!
- We have always loved Eugene, but do not like some of the decision making that is taking place in our area. In 1965 our water still used to run approx. \$4.50 per month. Now it is up around \$200 per month. What happened? Yes I realize we are now paying for the cost of sewers. EWEB has been over spending with modern (fancy buildings) and more expensive Batt. ecofriendly cars and trucks, etc. They seem to forget that the average elderly people have to live within a budget which EWEB doesn't seem to be doing. Other than that, they are good folks doing a great job! We have always enjoyed going to Leaburg Park, next to the fish hatchery on the

McKenzie River. One other thing that we miss is not being able to walk out on the floating pathway at Trailbridge Dam (Lake) to fish with the family. Sorry for all of my complaining, guess I'm just feeling old and grumpy! Anyway, keep up the good work, and try not to over spend!

- More street cleaning = less polluted run-off!!
- I like the taste of Eugene's water. But I also use a Brita filter for my personal drinking water
- Growing up in midwest and especially south TEXAS where the water from the tap was AWFUL. Moving from Calif to Eugene I LOVE our tap water - cold and wonderful and often I could see a huge pipeline to Midwest as well or California. Bless the McKenzie River!
- Thanks
- no
- "Highest priority should be keeping treatment facilities at state-of-the art levels, unless it can be demonstrated that implementing upstream source/quality strategy is more cost-effective on a life-cycle basis. I haven't seen this.
- While there is value in the watershed protection program, there are federal, state and private land owners who should have primary responsibility for protecting the watershed. I view EWEB's role as a secondary, much smaller one; one that helps around the margins.
- EWEB should focus on lobbying congress, the state legislature and federal, state and local agencies to ensure that there is a strong legal and regulatory structure in place, with adequate funding for watershed protection."
- When my water bill was way out of price range for water usage I complained to you and was done to correct the problem. How does your water usage go from 3000 gallons to 7000 gallons with no change in the water I used? with no change the next month the water usage was back to 3000 gallons. I did the leak checks that eweb suggest on change but no help from eweb. it's happened about 4 time eweb either mis read the meter or estimated the use. but how do you know?
- I dislike EWEB and will not give them anymore of my money than I have to!
- Use common sense not politics.
- "Regarding the question asking; of what importance, relative to other conservation areas, I place McKenzie River Watershed Conservation.
- I selected Extremely Important; however, I would like to clarify that by Extremely Important, I mean EQUALLY extreme importance. All areas of land & water conservation to our planet are EXTREMELY IMPORTANT! If we don't start to do something about our use/abuse of natural resources, they will continue to fall away and become unavailable. Every effort we can make to sustain our planet and its resources is our responsibility as inhabitants of this space. Thank you for conducting this survey and for your efforts to conserve water and our community's environment. I hope that we as a community can come together to put these, and more, systems in place for our future and future generations."

- I think EWEB does a good job in preserving our water quality in Oregon
- I assume this part of a CBA, but I'm not willing to reveal my "Willingness to Pay" other than the \$13 bucks. See Boardman et al for other methods.
- Not about water quality or source water protection. It is about your methodology. I will nigger as I have problems with the structuring of questions in surveys such as these. You tend to expect more of the respondent's knowledge than he or she has. If they really don't "get" your question (understand), then their responses makes little sense. You pose many questions that have great expectations of the respondent's understanding of the question matching your understanding. If you look into the research on these matters, you are on shaky grounds. What you want to learn and what your naive respondents offer often do not correspond. Sorry, I just want to make the science behind these matters better, to make the decisions better.
- I fully support the water quality program. It is important that the program not accidentally create other environmental problems -- but that seems very unlikely. If our income was higher, I would support giving more for the program. And commercial water users should definitely contribute -- probably more than homeowners. Not sure about how the program should be funded, but I had to pick an answer.
- I have traveled to many places, and Eugene has the best tasting water. The water in some place's tastes to bad, I'm surprised they put up with it. I'm glad EWEB is proactively working to keep our water quality high.
- maintain the ecology, so we can still use it within the next several generations
- No, thanks. I appreciate being "chosen" to participate in this survey. :)
- No
- EWEB management needs to separate itself from all nonprofit organization local and nationally.
- Keep it CLEAN AND COLD.
- Our water tastes so much better than elsewhere in the USA. I pity those who are impacted by natural disasters.
- Just do something. Any action would be great.
- I feel the standards for contaminants are unrealistic and unnecessary, leading to treatment protocols that make tapwater undrinkable.
- Along with water protection, ensure access to recreation (kayak, hike, ski)
- EWEB does a great job in most things it undertakes, so do this project on your own, or be in total control with whoever you might partner with.
- "Keep up the good work.
- In general, I think we should be promoting a culture of less consumption and charging bigger users higher prices to discourage over consumption and protect resources."

- I don't want any more aerial spraying of herbicides on Timber production lands. It's very clear to me that these chemicals drift on air currents and saturate all the watersheds. This is not an acceptable way to make more profit. As someone who is supposedly concerned about the quality of our drinking water this should be a huge concern for you. You must make an immediate effort to see that this is stopped immediately. I'm not the only one who feels this way, in fact everyone I know feels this way.
- Thank you
- We are lucky to have such a great water source!
- I'm very glad to learn of the programs, actual and proposed, that EWEB is involved in for water quality and source water protection. In a way, it is above and beyond the norm expectation; for that, it is a contribution to the betterment of humanity, lives and also to standards of thinking and participating for individuals, and private and public companies. Stewards of the land and forward thinking - wow.
- Please keep working to improve our environment.
- I don't think very much about water quality because living in Eugene, it has always been good. But continuing to be aware of water quality and water protection is important and should be considered by everyone living here. I think we've taken advantage of the good water we do have.
- We like the annual reports about the quality of our drinking water. Please continue them.
- EWEB water quality is very good. Recommendation is to retain current quality, don't think higher quality is necessary.
- I appreciate the quality of our water and how good it tastes. Thank you
- Water Is Life!
- Water is important, but I am paying more than 10 times what I was paying while living east of OR. It's very expensive here and I don't understand why water is so expensive considering all the rain we get here.
- "Water quality and protection is so important to every aspect of our life. We use it to grow the food we eat, we cook with it, drink it and bathe in it.
- Every living thing on this earth must have water to survive but not just water, it has to be safe water.
- How can we call our food (Organic) when the water we use to nourish the seeds is contaminated or is not up to quality?
- WITH OUT WATER WE ARE NOTHING"
- Assuring to know this project is evolving and is a priority.
- Increasing the monthly bill will be difficult. It's already hard enough not to overuse water and electricity. My bill is expensive as is on a tight usage of things.
- Please continue to protect our water source. I believe clean water is one of the most important issues we face now and in the future.

- "maybe eweb should lower retirement pay and then eweb would have more money to waist on surveys like this and programs that spend more and do nothing to help water and not
- keep raising rates
- should have sold river front property to someone other than city and they would have made more money also
- sell land they own that is not needed"
- The question about how much we would be willing to pay is loaded and refuses denominations.
- Do not know enough about the water situation in Eugene as of yet. Have only been here since summer. Still learning about the area.
- We are fortunate to have the quality of water and an important factor for living in the region.
- #1 reason of wanting to move. EWEB prices.
- Just want to say that during the summer people who are watering gardens should not have to pay water sewage fees for the water not going into the sewer but into the garden.
- "I have noticed in the last several months the taste of the tap water changes from time to time. I do not use a filter as I cannot afford a filtration system at this time. I count on our agencies to keep us safe.
- Water quality is of the utmost importance. We should be doing as much as we can to protect our land and animals. I hope the Federal and state government will invest the most money to protect us as salaries are not very high in this city. Most people are stretched to their limits monetarily. We do not want another Flint, Michigan incident on our hands.
- Thank you for all you do!"
- Do what's right for this valuable resource we have.
- Need more native fish. Stop hatchery planting
- We have recently returned from a 10 day trip to San Luis Obispo, CA and Scottsdale, AZ. We were dependent on bottled water for cooking and drinking. Even bottled water does not taste as good as what we get from the McKenzie. Having to make sure you had drinking water around the house and not run out was akin to keeping tabs on whether or not you needed milk. We hated the number of plastic bottles we went through, plus there is the cost and time involved with buying the water constantly. Water quality goes beyond that which is directly consumed or put into our bodies: Showering and bathing with the water that EWEB provides felt like a spa treatment when we got home compared to either the hard water or heavily softened water of the desert southwest. I would pay dearly to protect our watershed and invest in whatever infrastructure is necessary to protect it. Thank you for providing such a good service. I think household water quality should be included as one of the factors in a livability index.

- seniors should receive some type discount
- Preserving the environment including water quality, forests and quality of life is a very Oregon Value. I support the preservation of our watershed!
- Water is life. Climate change is going to greatly affect every aspect of our lives. The water quality problem Salem faced this past summer should inspire everyone to realize how important our water resources are. Everyone, EWEB and citizens, need to be proactive.
- I believe that EWEB has provided an excellent service to our community, and I am glad that consideration is given to ensure high-quality water supplies are maintained.
- I discourage you from sending any form of print communication regarding these issues. They are expensive to produce, distribute and (including environmentally) dispose of and I would hazard a guess fewer than 10% of recipients spend more than 10 seconds looking at them. As an example, the Stormwater Newspaper (or whatever it's called) I periodically receive in the mail seems like a colossal waste of money.
- "We should not encourage population growth. More people = more water usage = less clean water for people downstream, less clean water to dilute runoff, higher water temperature = stressed fish habitat.
- Eugene was a much better place to live 40 years ago."
- Need more complete information
- I am against the use of toxic spray in our forests and roadsides, also forest fire aerial retardants which are toxic to nature.
- Prefer biological and mechanical filtration and cleaning over chemicals.
- It's an extremely valuable and irreplaceable resource. Our watershed is extremely unique and should be protected. I don't think people understand what they have when they turn on the tap. Everyone should care about their source water.
- I feel clean water is going to be a limited resource in the near future. Given this, It's important to maintain what we can now.
- Water quality is really important. I did the Peace Corps and lived in a village with an open stream as my water source that would dry up part way through the year. I had tons of water borne illnesses during those 2 years. And because I know what it's like to literally not have water for days at a time, I really try to do my part to conserve. So about 2/3rd of my water bill from EWEB isn't for my water use, it's flat fees. I want clean water and I want to support keeping our water clean, but I would like a pat on the back for my water saving now and again instead of feeling like I'm forced to financially help offset other people who don't bother to conserve or keep crap out of our waterways.
- It is the best and freshest water in the US.
- We have a lot of runoff in the Wilson Street area of Eugene and I believe this has been an issue since "they" developed the housing area south of us, on the hilly side of land across 18th Avenue. All the roads, driveways and roofs leaves nowhere for the runoff to go but into Wilson Street and Wilson Court. We have a lake in our back

yard in the winter, so much so that we have a pair of ducks that make it home. Something will need to be done to divert the water at some point. I worked for the city in Sarasota, Florida and any new commercial construction required holding tanks (basement) to hold the first gusher from a rainfall, and then it was released to the water system in a controlled manner. Something similar to this system would help keep Wilson Street and Wilson Court from being submerged during monsoon season.

- I am dedicated to end spraying toxic substances in the watershed forests of the drinking water for all people around the world, but mostly for Eugene. this is a high priority. also, fish and habitat protection is important to me. clear clean water is so important, and we are fortunate to live in this abundant water area. we need to be stewards of the environment for the future generations of all species on this planet.
- Use existing resources to pay for enhancements. EWEB water and electric rates are already high.
- I did not understand the question regarding which fee structure I favored. There was no way to avoid answering but it is not actually clear to me what the options are.
- I do not trust the current federal agencies to support water quality programs due to the attitude of the Trump administration towards the environment. It will be up to local, state governments, public utilities and private organizations to lead the way during this administration.
- N/a
- I did not fully answer some questions because the particular agencies were not specified: non-profit, government, etc.
- I am all for protecting and improving our water, I think the key to making this happen in the best way possible without making customers angry is to make increased charges optional if at all possible. I do not feel charging for it automatically, while allowing people to opt out is shady at all, because many people will just pay it without question which is good, but if someone cares enough about an increase, they can then take action to keep their costs low if they simply do not have the money to help. Informing people of the change and the opt out might be key in maintaining customer satisfaction.
- Adequate coverage in this survey.
- As I understand it, there is no source of water should there be a catastrophic interruption in the McKenzie water system. Is that true?
- EWEB needs to develop an alternative water source to mitigate any damages to the McKenzie source.
- Feel that we are already paying a lot for our water and electric. The cost for these programs should come from what we are already paying without an increase to our monthly bill.
- No
- Never add fluoride.
- N/A

- I'm so happy to live in an area where programs are being created with foresight, rather than waiting until there is a problem. Great job, Eweb!
- Water quality is important to ALL our health including all the animals and the environment.
- I appreciate the efforts EWEB is making to enhance and maintain water quality.
- "Question re paying program was not clearly worded. Others are ambiguous without additional information available."
- How do we protect our rivers from terrorist?
- informative survey--thx for studying the water issues thoroughly
- "WATER IS LIFE ITSELF
- I remember a missionary sharing - ""what is more valuable? a gold necklace or a glass of water? In (he named a country I can't remember now...) a glass of fresh water""
- I think you are twenty years behind!
- Thank you for all the work that is being done to protect our beautiful land and water!
- We are fortunate to have such a valuable water source in our community.
- "I hope the program will be implemented
- Drinking water has to be a good quality is very important."
- It seems too risky to me to put all of health in jeopardy with only one water source. What if a terrorist poisons the McKenzie or blows up a dam? What do we do for drinking water then? Is water being stored for an earthquake or other natural disasters? What about updates to the pipe system as it ages? Water seepage could become a problem, too. It seems to me that your plan needs some more parts to it and perhaps a second water source.
- No
- I think the example of Portland's protected watershed versus others in the country that have been degraded by human activity or devastated by fire, are instructive as EWEB looks to the future. Hayden Bridge Filtration Plant is designed to treat water quality as it is now; if the watershed is degraded then EWEB's customers will be faced with very large costs for treatment upgrades just to maintain the same finished water quality.
- "I moved here from Los Angeles. I couldn't drink the tap water in L.A., as it tasted so bad.
- The water in Eugene is wonderful!"
- Water quality is important to me. I don't completely trust the water that comes out of my tap, so I use a filter system. I wish I could have more confidence in my pipes and the water that comes out of my tap.
- I am a Realtor in Eugene and feel that water and quality of life go hand in hand. Thank you.

- no
- "The quality of water - the natural high quality of water will be an indicator of other environmental indices.
- I care about the water for all children including my grandson who is with me 4 days a week and all animals and the plant ecosystem."
- Not about water quality but as explanation for my odd local voting record: I vote in California where I have another home. My wife votes in Oregon.
- Water is life. Pure and Clean water is healthy life.
- our family have owned property on this river since 1949. it is the most beautiful river in Oregon. please do everything possible to keep the river running clean and pure forever.
- Pure drinking water will become even more important in the years ahead. Without it, we die. Everything else pales in important.
- With the impacts from climate change upon us, ensuring that the quality and quantity of our drinking water is not degraded is extremely important to me. I fully support efforts to protect and enhance our watershed. Thanks for the efforts EWEB has undertaken to date and I would support continuing these efforts.
- "After various debates about using other drinking water sources than the McKenzie - some that would benefit mainly commercial interests, I have a trust issue.
- I am heartily in favor of doing whatever it takes to preserve the unique McKenzie River as our drinking water source.
- Water preservation and wise use will be the main climate change issue in our valley over the next 10 years, I believe."
- EWEB water is excellent, especially compared to almost anywhere else. We definitely should protect it!
- It seems, or at least my perception is, that the McKenzie watershed has been managed well; providing clean drinking water, healthy fish habitat, and a local recreation. I would like the McKenzie to remain a good example of watershed management for decades to come.
- Many of the questions asked here are too nuanced for a straight yes or no answer. For example, yes, forest treatments can help protect water supply, but thus far the U.S. Forest Service has not proven that it can implement such management schemes without also clearcutting and otherwise harming the watershed. Forest management and mitigating wildfire risk can help but needs to be based on science (and not uninformed rhetoric). More forest management is not the answer. Responsible forest management is, and logging for logging sake does not help water quality or forest health.
- As a general rule, EWEB rates are WAY too high, especially compared to SUB! That being said, the programs mentioned here are important. It is important to maintain healthy drinking water and to maintain our forests and rivers to help with that. I would be more willing to pay for these ecological programs if I felt the money, I'm currently paying to EWEB was "worth it." The electrical end of my bill is ALWAYS high

and doesn't lend me to want to approve (voter approved) any additional "taxes" by EWEB. Hope that makes sense!!!

- your survey does not handle numbers well. It would not accept the fact that have lived in the area for 45 years, so I left it blank.
- Fresh clean water is precious. I don't want eweb to sell water to corporations or any entity. (Other than as a utility). Our watershed should be protected and used for the people that live in watershed area. Corporations that use huge amounts of water for things like cooling should have to find ways to use gray water or "non-fresh" water. We shouldn't be wasting our precious resource for things like that, or for things like flushing toilets. More utilization of grey water should be normalized.
- Doesn't the Willamette Valley Project/USACE have an impact (direct or indirect) on water/wildlife/salmon/forest/ etc and EWEB's water quality (seems like Fern Ridge, Cottage Grove, Dorena Lake are close and their flood control and fish biologists and others may have a role)? I saw forest service on your map but didn't see the Corps of Engineers. I know certain agencies are responsible for water testing in different areas and I think the state as a whole would be better off centralizing all water quality with one agency and standard and then to have non-profit and/or other agency perform periodic audits/tests of their own to ensure compliance with federal/state standards.
- A lot is two words. Alot is not a word. You need to edit your questionnaire.
- It's our most vital resource.
- It is interesting that our water is drawn from the McKenzie river near where Weyerhaeuser Paper mill dumps effluent from its mill in Springfield. I always thought that was a remarkable situation.
- Overall, I was not impressed with the quality of this survey - especially for a university sponsored one. The first half of the questions were basically - do you like clean water? How are people not going to say yes? There should have been more options to say I don't know or I have no opinion. The few questions with real potential impact require more information than was provided. Maybe links to resources would have been useful (although, probably very few people would do the research.)
- Important to get infrastructure updated to prevent water main breaks which impact water quality and cause boil orders.
- Very concerned about any housing developments/septic tanks up river from Waltherville to Blue River areas.
- Our water quality is critical- we can't take it for granted.
- Alot isn't a word. It's a lot.
- The question about how long I've lived in Eugene doesn't make clear whether the answer should be how many years I've lived here or since what year. My first answer, 48 years, was rejected so I answered with the year I moved to Eugene, 1969.
- Make the corporations pay, not individuals.

- "This is important for Eugene's future, but I think more education and information would help more residents understand just how important.
- Also, please learn to spell ""a lot""--it is NOT ""alot.""
- The survey questions could have been written better. Some questions push the participant to think a certain way (i.e. "How urgent..."). Responses to other questions are not properly balanced between one extreme and the other. Etc.
- Moved here from Hawaii and we thought the water was good. But the water here is AMAZING!!! Let's fight to keep it that way!!!
- Thank you!
- Water is the backbone of life. It needs to be a very high priority.

Appendix D: Analysis of Potential Non-Response Bias

This appendix presents the results of cross-tabulation and weighting against key demographic variables. We include the data tables as documentation for how we approached the analysis of the potential for non-response bias.

A key concern of organizations that conduct surveys is statistical validity. Given the sample size and the size of the population (47,126 EWEB water customers), the sample is representative at a 95% confidence level with a $\pm 3.40\%$ margin of error. Stated a different way, if one were to assume that the sample was perfectly random *and* that there was no response bias, then the survey would have a margin of error of $\pm 3.40\%$ at the 95% confidence level. In simple terms, this means that if a survey were conducted 100 times, the results would end up within $\pm 3.40\%$ of those presented in this report.

We conducted the analysis against three key survey questions:

Q14 Currently the monthly amount supporting the Source Water Protection Program varies by the amount of water consumed. The current contribution is \$0.12 per 1,000 gallons (the average household uses 9,000 gallons per month). This equates to an average of \$1.11 per month (or \$13.32 per year) per household. Please indicate which fee structure is most desirable to you.

- The current program — customers who consume more water should pay more
- A flat fee assessed on all residential water customers (Appears as a separate line item fee on your monthly bill)
- A flat fee assessed on all (residential and commercial) EWEB water customers (Appears as a separate line item fee on your monthly bill)
- A tiered fee based on size of pipe (users with higher volumes have larger pipes; Appears as a separate line item fee on your monthly bill)

Q15 Suppose this EWEB Source Water Protection Program proposal was under consideration by the EWEB Board of Commissioners. This program would maintain or improve drinking water quality for EWEB customers now and in the future. If it cost your household \$13.32 each year would you support this program?

- Yes
- No

Q16 What is the maximum your household would pay each year for the EWEB Source Water Protection Program that would maintain or improve drinking water quality for EWEB customers now and in the future? Please indicate a dollar amount.

\$ / per year _____

The results are organized by question.

Q14: Fee Structure

Analysis shows that type of payment is significantly correlated with educational attainment ($p=0.026$), age ($p=0.000$), and income ($p=0.023$). The percentages are calculated in the direction of the respondent characteristic to allow comparison across characteristic classes.

For example, Table D-1 shows a general pattern that as educational attainment increases, the percentage of respondents that prefer the current program increases.

Table D-1. Type of Payment by Educational Attainment

	The current program — customers who consume more water should pay more	A flat fee assessed on all residential water customers (Appears as a separate line item fee on your monthly bill)	A flat fee assessed on all (residential and commercial) EWEB water customers (Appears as a separate line item fee on your monthly bill)	A tiered fee based on size of pipe (users with higher volumes have larger pipes; Appears as a separate line item fee on your monthly bill)	Number of Respondents
Less than high school graduate	67%	33%	0%	0%	6
High school graduate (or equivalency)	71%	7%	7%	14%	56
Some college or associate degree	76%	4%	9%	12%	200
Bachelor's degree	76%	3%	6%	15%	213
Graduate degree or higher	80%	2%	7%	11%	210
ALL RESPONSES	76%	4%	7%	13%	685

Table D-2 shows variability across age groups with more than 80% of respondents 20-24 and 55-64 preferring the current program.

Table D-2. Type of Payment by Age

	The current program — customers who consume more water should pay more	A flat fee assessed on all residential water customers (Appears as a separate line item fee on your monthly bill)	A flat fee assessed on all (residential and commercial) EWEB water customers (Appears as a separate line item fee on your monthly bill)	A tiered fee based on size of pipe (users with higher volumes have larger pipes; Appears as a separate line item fee on your monthly bill)	Number of Respondents
18-19 years of age	0%	100%	0%	0%	1
20 to 24 years of age	89%	0%	11%	0%	9
25 to 34 years of age	77%	5%	11%	8%	66
35 to 44 years of age	65%	3%	13%	19%	100
45 to 54 years of age	74%	5%	7%	14%	109
55 to 64 years of age	82%	3%	3%	11%	149
65 years and over	78%	3%	6%	13%	252
ALL RESPONDENTS	76%	3%	7%	13%	686

Table D-3: Type of Payment by Income

	The current program — customers who consume more water should pay more	A flat fee assessed on all residential water customers (Appears as a separate line item fee on your monthly bill)	A flat fee assessed on all (residential and commercial) EWEB water customers (Appears as a separate line item fee on your monthly bill)	A tiered fee based on size of pipe (users with higher volumes have larger pipes; Appears as a separate line item fee on your monthly bill)	Number of Respondents
<\$25k	82%	5%	6%	6%	77
\$25-\$49k	74%	5%	10%	10%	143
\$50-\$74k	83%	1%	6%	10%	153
\$75-\$149k	70%	3%	7%	20%	196
\$150 and up	74%	7%	8%	11%	90
ALL RESPONSES	76%	4%	7%	13%	659

Q15: Support for Investment in DWSP

Tables D-4 through D-6 show a crosstabulation of support for EWEB’s current investment in the DWSP program by age, income, and educational attainment. None of the variables are statistically correlated. The results show strong support for investment for DWSP across all characteristics.

Table D-4: Support Investment in DWSP by Age

Age	Yes	No	Number of Respondents
18-19 years of age	100%	0%	1
20 to 24 years of age	78%	22%	9
25 to 34 years of age	95%	5%	66
35 to 44 years of age	91%	9%	98
45 to 54 years of age	94%	6%	109
55 to 64 years of age	92%	8%	150
65 years and over	92%	8%	256
All Respondents	92%	8%	689

Table D-5: Support Investment in DWSP by Income

Income	Yes	No	Number of Respondents
<\$25k	91%	9%	77
\$25-\$49k	92%	8%	144
\$50-\$74k	94%	6%	154
\$75-\$149k	93%	7%	196
\$150 and up	97%	3%	90
All Respondents	93%	7%	661

Table D-6: Support Investment in DWSP by Educational Attainment

Educational Attainment	Yes	No	Number of Respondents
Less than high school graduate	100%	0%	6
High school graduate (or equivalency)	90%	10%	58
Some college or associate degree	91%	10%	200
Bachelor's degree	92%	8%	213
Graduate degree or higher	95%	5%	210
All Respondents	92%	8%	687

Q16: Maximum Willing to Pay

Tables D-7 through D-9 show willingness to pay (in dollars) by age, income, and educational attainment. All three of these respondent characteristics are significantly correlated with willingness to pay.

Table D-7: Support Investment in DWSP by Age

Educational Attainment	<\$13.32	\$13.32-\$14.99	\$15.00-\$23.99	\$24.00-\$49.99	\$50.00+	Number of Respondents
18 to 24 years of age	14%	0%	57%	10%	19%	21
25 to 34 years of age	14%	9%	49%	9%	20%	70
35 to 44 years of age	10%	7%	34%	17%	33%	83
45 to 54 years of age	15%	9%	31%	24%	20%	86
55 to 64 years of age	12%	9%	36%	16%	26%	122
65 years and over	10%	12%	36%	20%	24%	200
All Respondents	12%	9%	37%	18%	24%	582

Table D-8: Support Investment in DWSP by Income

Income	<\$13.32	\$13.32-\$14.99	\$15.00-\$23.99	\$24.00-\$49.99	\$50.00+	Number of Respondents
<\$25k	17%	7%	46%	13%	17%	71
\$25-\$49k	14%	17%	40%	12%	17%	127
\$50-\$74k	7%	10%	31%	27%	25%	134
\$75-\$149k	9%	6%	28%	21%	36%	172
\$150 and up	6%	6%	31%	21%	36%	84
All Respondents	10%	9%	34%	19%	27%	588

Table D-9: Support Investment in DWSP by Educational Attainment

Educational Attainment	<\$13.32	\$13.32-\$14.99	\$15.00-\$23.99	\$24.00-\$49.99	\$50.00+	Number of Respondents
Less than high school graduate	17%	17%	33%	17%	17%	6
High school graduate (or equivalency)	15%	22%	33%	15%	15%	46
Some college or associate degree	16%	13%	40%	14%	16%	176
Bachelor's degree	9%	6%	31%	19%	34%	185
Graduate degree or higher	6%	6%	29%	25%	34%	190
All Respondents	11%	9%	33%	19%	27%	603