An Evaluation of Utility Ratepayer and Landowner Perceptions of a Payment for Ecosystem Services Program in the McKenzie River Basin

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About NIFA

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EXECUTIVE SUMMARY

This report presents the results of two surveys conducted as a part of a research project analyzing the potential for utilities and corporations to support payment for ecosystem services program. The research included a survey of ratepayers in the Eugene Water and Electric Board service area, and a survey of landowners with river frontage in the McKenzie River Basin (the watershed that supplies water for the Eugene Water and Electric Board).

Background

In 2011, Oregon State University (OSU) and the University of Oregon (UO) received a grant from the National Institute of Food and Agricultural (NIFA) to investigate how public water districts/utilities and corporations might provide sufficient funding and incentives to pay for ecosystem services. The research team was interested in understanding if individuals and firms would be willing to pay for ecosystem services, providing a viable additional source of revenue and employment for the long-term sustainability of small and medium-sized farms and rural communities, and to explore the feasibility of instituting these models at different scales (OSU & UO 2011). The primary objectives of this research were to:

- Determine the types of ecosystem services that are of most value and interest to the public;
- Identify the willingness of Eugene Water & Electric Board ratepayers to participate in a Payment for Ecosystem Services (PES) program; and
- Evaluate ways small and medium-sized landowners in the McKenzie River Basin could participate and benefit from a PES-based system.

Between March and July of 2012, UO and OSU conducted two surveys: the first sampled Eugene Water & Electric Board (EWEB) public water district ratepayers to learn what kinds of programs might be appropriate for improving protection of the McKenzie Watershed (this survey is referred to as the Buyers Survey to indicate the notion that ratepayers are buyers of clean water provided by the watershed); the second sampled landowners in the McKenzie Watershed who own property adjacent to the waterway (this survey is referred to as the Sellers Survey to indicate the notion that landowners in the watershed may be able to market the water quality benefits provided by their land). Survey questions inquired about customers' familiarity with, and attachment to, the watershed; their knowledge of risks to watershed health; and their willingness to participate in a variety of payment for ecosystem services (PES) strategies.

By assessing Eugene ratepayer willingness to pay and McKenzie area landowners willingness to participate in for watershed health programs, as well as buy and seller attitudes and experiences, these survey results may help to provide practical insight into how best to structure a PES market for this watershed.

Buyer and Seller Samples

The Buyer survey was administered to 980 EWEB ratepayers whose responses provide a representative sample of the population of Eugene EWEB customers. We received 411 valid responses—a 41.9% response rate. The Seller survey was administered to 598 private non-industrial landowners in the McKenzie Watershed whose properties are within one mile of the McKenzie River and its tributaries. We received 272 responses—a 45.5% response rate.

The two sample groups, Buyers and Sellers, represent populations tied to the McKenzie Watershed. Buyer respondents represent EWEB ratepayers, most of whom live in Eugene. The Seller sample represents non-industrial landowners in unincorporated areas in the McKenzie Watershed. The landowner population represents nearly 25.5 thousand acres; most Seller respondents use their land for either their primary residence or timber/forestry activities.

Table 1. Respondents current land use in the McKenzie River Watershed

Land Use	Total	Percentage
Primary Residence	219	**82%**
Farming	78	29%
Timber/Forestry	109	**41%**
Recreation	61	23%

Source: 2012 McKenzie River Watershed Seller Survey

Key Conclusions

To gauge support among prospective buyers and sellers of a Payment for Ecosystem Services (PES) marketplace, the Research Team developed a set of questions that while fundamentally different, allowed some comparison between the two sample populations.[1] Some questions were asked of both EWEB rate-payer ("Buyers") and landowner survey respondents ("Sellers"), while other questions were asked in similar ways based on the same scale. Key comparisons reveal significant relationships in selected characteristics vital to the success of a PES program (For all comparisons, see Chapter 5).

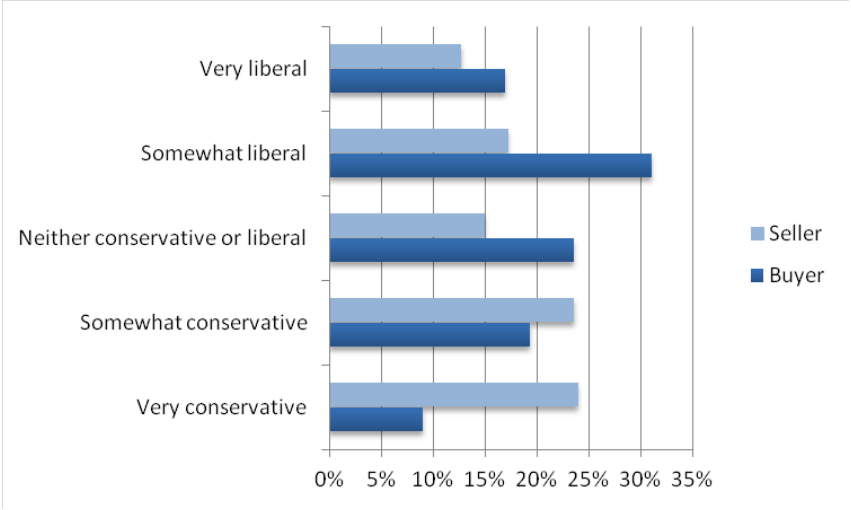
[1] The samples address different populations; the comparisons focus on attitudinal characteristics between the two populations.

The results suggest essential differences exist between buyer and seller respondents in regards to their geographic attachment, political views, and some demographic information.

Seller respondents identified the McKenzie Watershed as their "favorite place to be" and the "best place for me to do the things I enjoy," while Buyer respondents preferred to identify the McKenzie Watershed as a place that "reflects the type of person I am." The two groups disagreed most with the statements that they "would enjoy the activities I undertake [in the McKenzie Watershed] just as well in another place" or "don't really identify with the McKenzie Watershed."

Seller respondents living in the McKenzie Watershed tend to hold more conservative values than Buyer respondents living in Eugene (**Figure 1**). When asked to self-identify political viewpoints, on average, Sellers identified as "Somewhat conservative" with nearly 25% of respondents identifying as "Very conservative." In contrast, Buyers hold more liberal values. On average, Buyers self-identified as "Somewhat liberal" with 17% of respondents identifying as "Very liberal." Buyers hesitated more in identifying their political leanings, as 24% of Buyers and 15% of Sellers identified with "Neither conservative nor liberal" political views. **Despite these differences, political affiliation did not prove to be strongly predictive of a respondent's willingness to participate in a PES program** (Hickson, 2012).

Figure 1. Buyer and Seller Political Identification



Source: 2012 EWEB Residential Rate Payer Survey and McKenzie River Watershed Seller Survey

Buyer respondents trust different agencies than their Seller counterparts. The most notable difference between the types of institutions respondents trust to support the environmental health of the McKenzie Watershed involves trust of private landowners (**Table 2**). Buyers identify private landowners as least trusted, while sellers identify private landowners as most trusted. In contrast, Buyer and Sellers both place

relatively high trust in local non-profits and the Eugene Water and Electric Board.

Table 2. Average Trust in institutions supporting the environmental health of the McKenzie River Watershed

Institution	Sellers	Buyers
Private Land Owners	1.43	0.85
Local Government	0.80	1.10
National Non-Profit organizations	0.85	1.12
Local Non-Profit organizations	1.24	1.47
State Natural Resource agencies	1.10	1.29
Federal Natural Resource agencies	0.87	0.97
Eugene Water and Electric Board	1.29	1.38

Note: This data has been averaged from responses of Figures 3-15 and 4-15; 0=Not Much Trust, 1=A Little Trust, 2=Moderate Trust, 3=High Trust.
Source: 2012 EWEB Residential Rate Payer Survey and McKenzie River Watershed Seller Survey

Although many differences exist between prospective Buyers and Sellers represented in this sample, key similarities provide an opportunity establish a relationship in the interest of preserving essential services of the McKenzie Watershed.

Both prospective Buyer and Seller respondents have inherent attachment to the state and the region. As noted in **Table 3**, Seller and Buyer respondents agreed most with their attachment to the State of Oregon and the Pacific Northwest Region. Despite ranking the McKenzie Watershed low on geographic attachment, **Buyer's sense of place proved to be the most predictive variable related to their willingness to pay fees** for ecosystem maintenance and restoration in the McKenzie Watershed (Hickson, 2012).

Table 3. Attachment ranking of respondents to geographies

Rank	Sellers	Buyers
1	Oregon	Oregon
2	Pacific Northwest	Pacific Northwest
3	McKenzie	Eugene/Springfield
4	Western United States	Willamette Valley
5	Willamette Valley	Western United States
6	Eugene Springfield	McKenzie River Watershed
7	Lower Columbia River Basin	Lower Columbia River Basin

Source: 2012 EWEB Residential Rate Payer Survey and McKenzie River Watershed Seller Survey

Both Buyers and Sellers are concerned about stream health and preserving the McKenzie Watershed. Respondents to the Buyers survey indicated overwhelming support (62%) for programs to help landowners protect ecosystems. In particular, 68% of respondents were either

"Supportive" or "Very supportive" of grant programs to help residential owners with failing septic systems; 64% of respondents were either similarly supportive of an incentive program for agricultural and forest landowners who adopt management practices that enhance water quality. A near majority of respondents to the seller survey exhibited an "Interest" in participating in a program maintaining existing healthy streamside forests.

Eighty percent of Buyer respondents expressed support for programs that would maintain the environmental benefits provided by the McKenzie Watershed. Taken with the finding that 48% of Sellers expressed an interest in programs that would help maintain existing streamside forests, this research suggests that EWEB's pursuit of a PES marketplace is potentially viable.

Recognizing these similarities between potential Buyers and Sellers it is apparent that an overlap exists around sense of place and attachment to the McKenzie Watershed. It is on this common ground that a foundation for a PES marketplace could be built.

Implications for ecosystem services programs

As discussed in the literature, "Key to a successful Payment for Ecosystems Services (PES) program is simplicity in all aspects of the program: design, implementation, and monitoring"(Greenwalt & McGrath, 2009). Based on the survey results, EWEB will need to consider the implications of both prospective Buyer and Seller responses in establishing a PES program (which EWEB is calling the Voluntary Incentive Program or VIP) in the McKenzie Watershed.

Buyers consenting to a minimal monthly surcharge on their utility bill will increase the likelihood of success for a PES marketplace. **Data from the Buyers survey suggests majority support of fees up to approximately $2.00 per month**. Consent from ratepayers will greatly depend on EWEB successfully linking ratepayers' sense of place for the McKenzie Watershed to the importance of a PES system. The most predictive attribute of survey respondents' willingness to pay additional fees is one's emotional attachment to the McKenzie Watershed (Hickson, 2012).

Success of a PES system will depend on "right-sizing" the market for McKenzie Watershed landowners. Sellers indicated different palatable options for a VIP market structure, including willingness to accept between $200 and $400 per acre. **Sellers' approval of conservation easements over acquisitions indicates a clear desire to retain ownership and thus stewardship of land in the McKenzie Watershed.** It will be essential to find the optimum balance between the length of contract and rates of payment for maintenance and restoration of watershed services to enroll Sellers to participate.

EWEB might consider catalyzing a PES market through a pilot program like the proposed Volunteer Incentives Program (VIP). Knowing that a

segment of seller respondents were “very interested” in participating, and these same landowners own land of interest to EWEB to preserve water quality and ecosystem functionality, establishing a program around selected highly interested participants could provide legitimacy and engender trust among adjacent and nearby landowners. EWEB might also develop a forum to share experiences of participation, honing in on respondents’ sense of place and attachment to the McKenzie Watershed.

Accountability of a VIP program will help build trust among both Buyers and Sellers. **Clearly defined objectives and regular reporting will allow landowners to understand the requirements of participation and ratepayers to trust the VIP to protect their drinking water resource.** Publicly sharing the information regarding net benefit (this may include the amount of money disbursed, as well as avoided water treatment costs) to both ratepayers and landowners could provide incentive to support and participate in the VIP. By keeping track of progress, in both dollars and acres, the uncertainty exhibited in the survey findings may be appeased. An adequate monitoring and progress reporting system could, if EWEB desired, become the basis of a long-term adaptive management strategy.

Based on the results of the Buyer and Seller surveys, **education will be a critical hurdle**. Many respondents were unsure about questions with important levels of detail regarding riparian preservation, duration of contracts, enforcement, and payment structures. Uncertainty may be indicative of a lack of knowledge or understanding about what this program intends to achieve. EWEB will have to set clear goals regarding restoration and preservation of ecosystem services; these goals will have to be defined and shared with both ratepayers and landowners. This will require significant outreach to both prospective Buyer and Seller groups.

CHAPTER 1: INTRODUCTION

This report presents the results of two surveys conducted as a part of a research project analyzing the potential for utilities and corporations to support payment for ecosystem services program. The research included a survey of ratepayers in the Eugene Water & Electric Board service area and a survey of landowners with river frontage in the McKenzie River Basin (the watershed that supplies water approximately 200,000 people in the Eugene area).

Background

Interest is growing at the federal, state and local level in programs that protect watershed health by offering incentives to landowners that restore or maintain their property in a way that benefits and preserves water quality and supply. Such programs recognize there is economic value to managing land in a way that protects environmental goods of public interest – such as water quality, native wildlife, or recreation opportunities. Referred to as Payment for Ecosystem Services (PES), such programs have shown to be successful in a number of places in the United States. Notably, the City of Denver, Colorado has taken steps to establish PES markets to proactively protect the watershed of their drinking water sources.

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.[2] NIFA and the Universities were interested in understanding if individuals and businesses would be willing to pay for ecosystem services, providing a viable additional source of revenue and employment for the long-term sustainability of small and medium-sized farms and rural communities, and to explore the feasibility of instituting these models at different scales.

Members of University of Oregon's Institute for a Sustainable Environment, UO's Community Planning Workshop, and Oregon State University's Institute for Natural Resources formed a team (referred to as the "Research Team").

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,"

[2] The project team includes 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 at the University of Oregon.

are described in detail in Chapter 3 and the property owners survey, referred to as the "Sellers Survey," are described in detail in Chapter 4.

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, restriction-based programs). 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. Appendix B contains a copy of the survey instrument.

The Sellers survey asked landowners about characteristics of their property, their experience with conservation practices and programs, what kinds of watershed protection programs they would be most supportive of, their interest and willingness to participate in a PES program, the terms of PES agreements, and about their attachment to the McKenzie Watershed. A copy of this survey instrument can be found in Appendix B.

Both questionnaires ended with a section on respondent demographics.

Purpose and Methods

The purpose of project (as well as the surveys) was to explore the pathways through which public utilities could adopt PES-based incentive programs targeting small and medium-sized farms. Specifically, the study objectives were to:

(1) determine the types of ecosystem services that are of most value and interest to the public;

(2) identify the willingness of EWEB customers and McKenzie Watershed landowners to participate in PES schemes involving public utilities; and

(3) evaluate the mechanisms through which small and medium-sized landowners in the McKenzie River Basin could benefit from a PES-based system associated with public utilities and/or corporations.

The Research Team used the Tailored Design Method (Dillman 2009) to survey a random sample of potential buyers and sellers of ecosystem services from the McKenzie Watershed (see Appendix A for a more detailed discussion of survey methods).

Organization of this Report

The remainder of this report is organized as follows:

- **Chapter 2** presents the framework for the overall study, including an overview of payment for ecosystem services, and a more detailed discussion of the structure of this study.
- **Chapter 3** describes the responses to the Buyers 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** describes the responses to the Sellers Survey, including characteristics of respondents' properties, previous experience with conservation practices and programs, interest in participation in a PES program in the McKenzie Watershed, and thoughts about the structure of PES agreements.
- **Chapter 5** presents key comparisons between questions from both surveys and implications for design of EWEB's Voluntary Incentive Program (VIP) concept.

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 Instruments** presents a copy of both the Sellers and the Buyers survey instruments.

CHAPTER 2: FRAMEWORK

This chapter describes the framework for thinking about innovative approaches to protect and improve ecosystems in Oregon and across the country, and why payment for ecosystem services may be a good option. It also describes some of the challenges to payment for ecosystem services (PES) programs, as well as the opportunities locally and regionally. Finally, this chapter concludes by describing the rational that underlines the research for this project.

This report represents just part of the findings for the overall project. This chapter helps to explain how the findings from the two surveys conducted as part of this project, and reported here, fit in to the overall research goals of the project.

Background

In the last few decades diverse structural shifts in forestry and agricultural economies have depressed many rural communities across the country, as traditional resource dependent industries have closed or moved to lower levels of productivity and competitiveness (Power and Barrett 2001, Nelson 2002, Buttel 2003, Liffman et al. 2003, Torrel et al. 2005). This phenomenon is particularly prominent in the Pacific Northwest where growing environmental concerns and actions to protect endangered species have had direct effect on forestry and hydropower production. These trends have had implications for agriculture as well, raising costs of production to abide by new regulations, reducing acreage to provide area for wetlands and other restored ecosystems, and moving water from irrigated agriculture to fish and wildlife uses. The continued population influx to rural and exurban areas has also had significant impacts on agricultural activities in the Pacific Northwest. Amenity migrants moving to these areas for higher quality of life have contributed to land use change, as farms become towns and as large commercial farms are partitioned into smaller "hobby" farms (Fortman and Kusel 1990; Jones et al. 2003; Yung et al. 2003; Gosnell et al. 2006, 2007; Saint Onge et al. 2007).

Concurrent with these trends, small and medium-sized agricultural producers have been increasingly shut out of an evolving commodity production model that is shifting business from local and regional markets to national and global markets with associated production control. This has often been at the expense of economic, social and environmental well-being for rural communities and for small and medium-sized farms, or the 'ag of the middle' (e.g., Kirschenmann et al. 2008). These typically independent operations comprise the overwhelming majority of U.S. farms and play an important role in rural communities' well being in terms of tax bases, jobs and general community welfare. They are, however, in increasing danger of

disappearing because of their inability to participate in, or compete with, national and transnational commodity production networks. Many rural residents continue to experience a lower quality of life than many urban residents (Forest Trends 2008). Rural poverty persists as a pressing and seemingly intractable social problem.

Payment for Ecosystem Services (PES) programs are a market based, non-regulatory strategy for protecting watershed health. The beneficial services provided by a healthy watershed such as flood control, water filtration, erosion control, recreation opportunities and fish and wildlife habitat are treated as a commodity that can be quantified and valued. Typically, financial incentives are offered to landowners in exchange for adopting land management and water use practices that protect watershed or ecosystem services. Protection of riparian habitat, reduction of nonpoint source pollution and storage of flood waters are some examples of ecosystem services. Landowners who choose to participate in such a program are often referred to as sellers, because through their protective or restorative actions, they are selling watershed services. Funding for watershed protection typically is generated by users of the ecosystem services (also called buyers) (Hickson, 2012).

Payments for ecosystem services hold the potential to add new revenue streams for producers while restoring ecosystem functions in a positive feedback loop if appropriate institutions and incentives exist (Zhang et al. 2007; Parkhurst et al. 2002; Goldman, Thompson, and Daily 2007). Along these lines, there are a number of federal and state policies and programs—e.g., USDA Conservation Reserve Program (CRP), Conservation Reserve Enhancement Program (CREP), and Environmental Quality Incentives Program (EQIP)—that encourage producers to adopt ecologically beneficial practices on agricultural lands (Bernstein, Cooper, and Claassen 2004; Wu and Lin 2010). Various criticisms of these programs (limited payments, favoring of large commercial farms, wetlands effects) suggest that additional effort is required to address the well-aligned needs of small and mid-sized farms and ecological restoration.

A multifunctional approach that includes restoration and stewardship as complements to traditional production provide an alternative that may enhance both ecosystem and community resilience can be found in Eugene Water and Electric Board's (EWEB) proposed Voluntary Incentive Program.

EWEB envisions the development of an investment mechanism (called the "Voluntary Incentives Program (VIP)") that would make annual dividend payments to landowners who maintain riparian buffers within an identified stewardship boundary encompassing riparian forests and floodplains. Participation in the VIP is open to non-industrial private landowners, local governments, and non-profit organizations that own

land within a designated boundary. The program is currently in a conceptual state; EWEB's intent is to pilot the VIP in 2014.[3]

EWEB's approach is to reward good land stewards who maintain high quality riparian buffers to ensure that these landowners continue these practices. This differs from other programs, such as NRCS's Environmental Quality Incentives Program (EQIP), which offer incentives to landowners with degraded land to restore their properties to an improved condition. Instead, EWEB has chosen to reward landowners already implementing outstanding management practices and to provide a high standard for other landowners to strive for. In doing so, EWEB can maintain both ecosystem and community resilience, which in turn provide opportunities for cost savings and economic market development.

Though reward for good stewardship can motivate landowners to retain existing ecosystem resources, a common critique of PES programs involves the issue of additionality. Additionality refers to the economic and ecological gain resulting from a PES program. A program that lacks additionality can be described as a program that is "paying for adoption of practices that would have been adopted anyway" (Engel, et al., 2008). From an economic standpoint, programs that lack additionality demonstrate an inefficient use of resources. Demonstrating the enhancements to watershed or land stewardship is therefore an important aspect of any PES program in order to maintain its legitimacy.

What happens when the payments for maintaining ecosystems outpaces the value of the land itself? As rate-payers continue to participate over time, the payments to landowners may exceed land values to a point where the utility would achieve better value to purchase the property outright.

Rationale

The *rationale* for the NIFA research project is threefold. First, it contributes to better understanding of the potential for public utilities to participate in Payment for Ecosystem Services schemes, which is currently a little-explored subject in the scholarly literature. In practice, PES programs are only barely beginning to be investigated by isolated utilities around the country. However, PES programs have risen to prominence in select locations, such as Denver, Colorado (Toombs, et al., 2011) and New York City (Turner and Daily, 2008), as a means to proactively address growing concerns around the relationship between watershed land stewardship and water quality, especially in the context of drinking water resources. Second, this project provides new information about hybrid approaches suggested by integrating learned outcomes from the public utility and corporate investment models. Finally, this project provides a detailed analysis of the potential for broader applications of these approaches, both by exploring how they might apply at different scales,

[3] http://www.eweb.org/sourceprotection/vip

and by examining their potential effects on larger trends in rural investment and agricultural production.

Creating a type of "market" in which Oregon's farmers and forestland owners could sell the increased services that their environmental restoration projects provide would support jobs in rural areas. In addition to the value of preserved ecosystem services, such as water purification and temperature control, restoration contractors involved in all aspects of a scaled PES program may provide economic opportunity at many levels. From nurseries propagating native plants for riparian restoration, to field analysts tracking the ecological progress and economic impacts, the expansion of an ecosystem services market holds enormous potential for Oregon's rural communities.

CHAPTER 3: BUYER SURVEY RESULTS

This chapter presents a summary of the 2012 residential EWEB water rate payer survey, also referred to as the Buyer Survey. The Buyer Survey was distributed to a stratified random sample of 980 EWEB customers in the City of Eugene. Of those 980 customers that received surveys, 411, or 41.9% responded to the survey. This chapter describes respondents' characteristics, political attitudes, familiarity with the McKenzie Watershed, perceptions to risks to watershed health, customer interest and support for watershed protection programs, and willingness to pay for watershed protection.

Characteristics of Survey Respondents

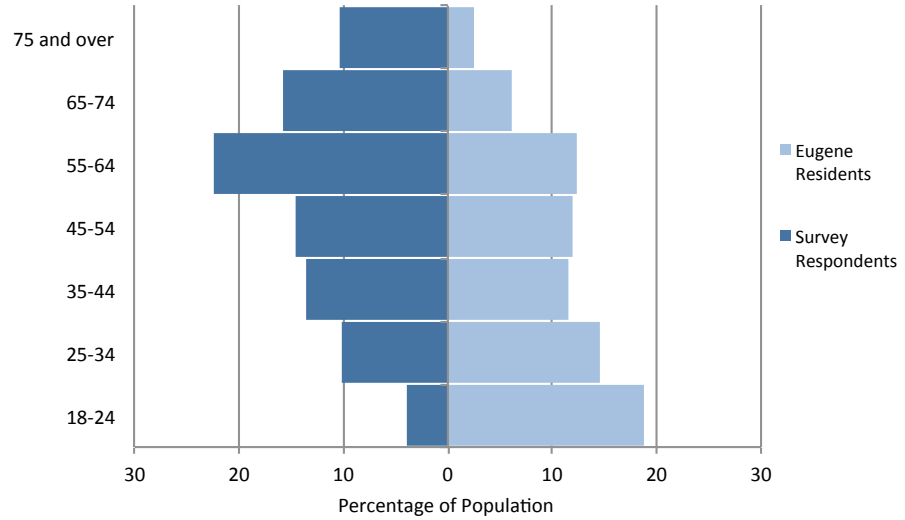
This section describes the characteristics of individuals that responded to the Buyer Survey. Where appropriate, this report compares the characteristics of the 2012 survey respondents to the characteristics of all city residents, as reported by the 2010 U.S. Census.

In any discussion of survey results based upon a population sample, it is important to identify and describe the characteristics of the sample, and compare them to the characteristics of the population as a whole. Differences that may exist between the sample and the population as a whole may suggest areas of potential bias. Give the sample size and the size of the population (approximately 50,000 EWEB water customers, the sample is representative at a 95% confidence level with a ±4.8% margin of error.

Age and Gender

Figure 3-1 shows the age distribution of survey respondents compared to the general population in Eugene according to the 2010 U.S. Census. In general, respondents between 18 and 34 were under-represented when compared to Eugene's population. This may be due in part because the survey was sent to Eugene's water billing database (which probably misses a big portion of Eugene's student population). People between the age of 18 and 24 are more likely to rent and less likely to own than older age groups. Some landlords pay water, thus the survey would have been sent to the homeowner, not the renter. Survey respondents 55 years of age and over were over-represented when compared to the general population in Eugene. Despite this, individuals between the ages of 35-44 were well represented in the survey. The average age of survey respondents was 46.2 years.

Figure 3-1. Age of Survey Respondents & City of Eugene Residents



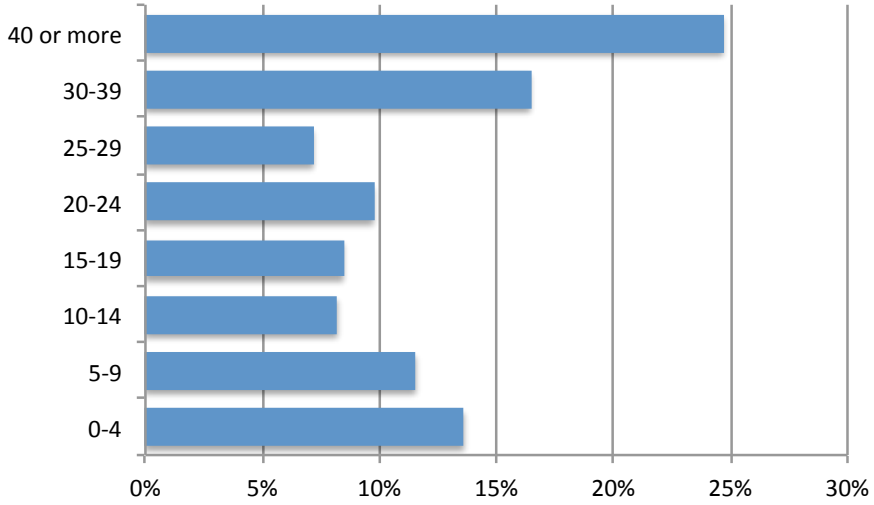
Source: 2012 EWEB Residential Rate Payer Survey, 2010 U.S. Census

The gender distribution of survey respondents had a higher percentage of males than the gender distribution of Eugene residents. Of those who responded to the survey, 55% identified as male. Whereas, according to the 2010 U.S. Census (Table QT-P1), 48% of individuals over the age of 18 is male in the City of Eugene.

Years lived in the area

Figure 3-2 shows the number of years survey respondents indicated living in the Eugene area. Nearly one-quarter indicated living in the area for 40 or more years; 58% had lived in the area 20 or more years. About 25% indicated they had lived in the area less than 10 years.

Figure 3-2. Years Survey Respondents Lived in the Eugene Area

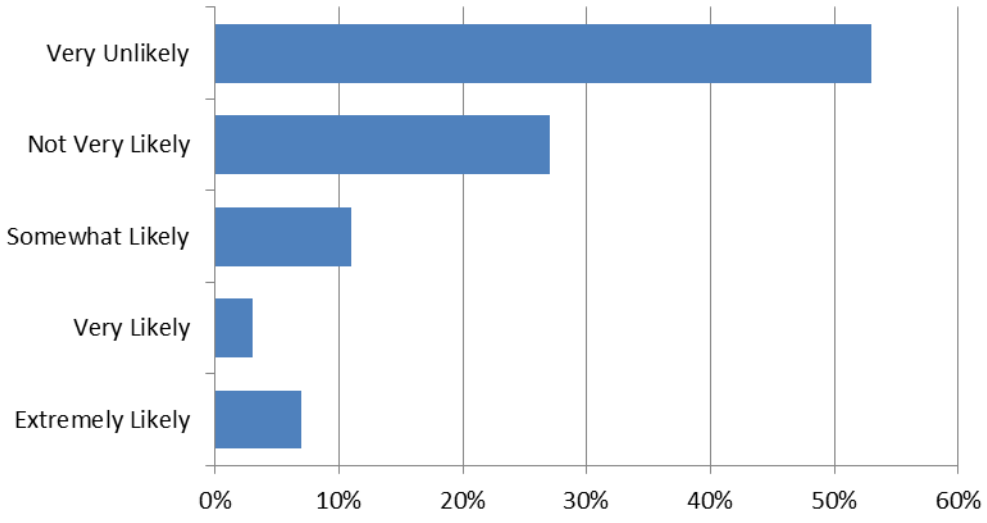


Source: 2012 EWEB Residential Rate Payer Survey, 2010 U.S. Census

Permanent home

Of those who responded to the survey, 90% consider Eugene or Springfield their permanent home. **Figure 3-3** shows that the majority of survey respondents are very unlikely (53%) or not very likely (27%) to move away from Eugene-Springfield metropolitan area within the next three years.

Figure 3-3. Survey respondents likely to move away from the Eugene-Springfield metropolitan area within the next three years



Source: 2012 EWEB Residential Rate Payer Survey

Homeowners and renters

Out of all respondents, 79% own their homes, compared to 56% for Eugene, according to the 2006-2010 ACS Table B25008. Only 21% of survey respondents were renters, compared to 44% of people who rent in Eugene. This suggests that the survey over-represents homeowners, which is not surprising considering that the sample represents households that pay water bills.

Number of people in Household

Table 3-1 shows the size of households as reported by survey respondents. The average household size was 2.4 persons. About 24% of respondents indicated living in single-person households, while 26% lived in two person households. About 30% lived in households with three or more persons. The average household size of survey respondents was 2.33 people.

Table 3-1. Household Size of Survey Respondents

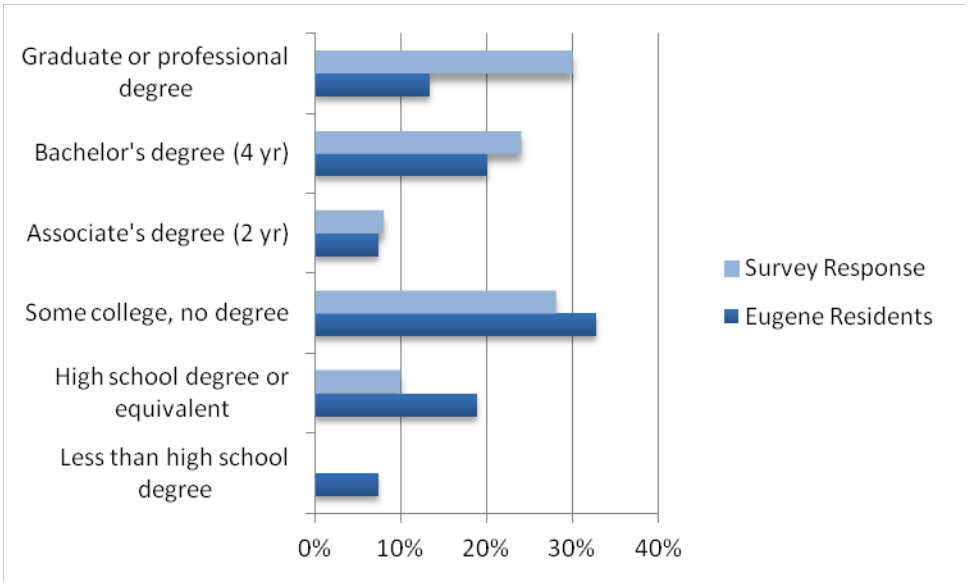
Persons in Household	Frequency	Percent
1	89	24%
2	173	46%
3	55	15%
4	36	10%
5	18	5%
6	3	1%
7	3	1%
8	1	0%
Total	**378**	**100%**

Source: 2012 EWEB Residential Rate Payer Survey

Education

Figure 3-4 shows the Education attainment of 2012 EWEB Residential Rate Payer Survey Participant and how they compare to the population in the City of Eugene. The largest group of respondents (30%) holds a graduate or professional degree, whereas only 13% of individuals in the City of Eugene hold similar credentials according to the 2006-2010 ACS (Table B15001). The second largest group of respondents (28%) has some college experience but no degree. This closely matches the percentage of those in the City of Eugene that hold a bachelor's degree (33%). Those that were not well represented in the survey include individuals with a high school degree or less than a high school degree.

Figure 3-4. Education attainment of survey participants and City of Eugene

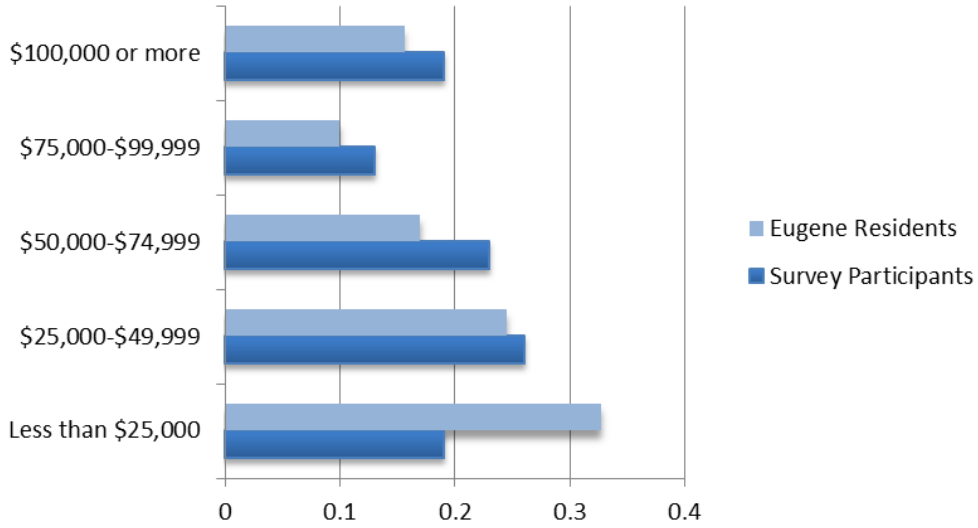


Source: 2012 EWEB Residential Rate Payer Survey, 2006-2010 ACS (Table B15001)

Figure 3-5 shows the income distribution of survey respondents. Household incomes between $25,000 and $49,999 represent 26% of respondent households. An additional 23% earn $50,000 to $74,999.

Household incomes of $100,000 or more, $75,000-99,999, and $25,000-49,999 closely mirror the percentages of household income of those that live in the City of Eugene within 1 to 3 percentage points. Household incomes of $50,000-$74,999 are underrepresented in the survey by 6% and household incomes of less than $25,000 are underrepresented in the survey by 14%.

Figure 3-5. Eugene residents' and survey participants' household income

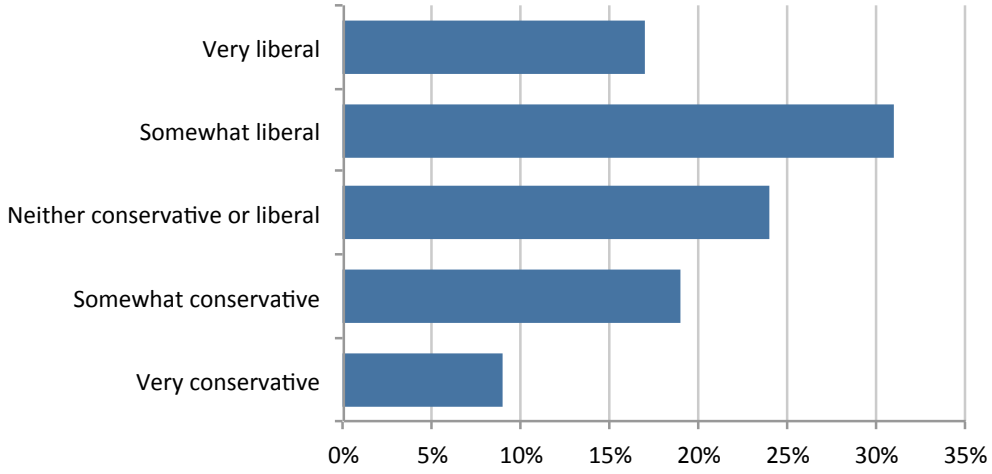


Source: 2012 EWEB Residential Rate Payer Survey, 2010 ACS – Table S1901

Political Attitudes

Figure 3-6 shows the self identified political views of those who participated in the survey. Of those who took the survey, 31% self identified as somewhat liberal and 24% self identified as neither conservative nor liberal. Those that identified as very conservative only constituted 9% of the survey respondents.

Figure 3-6. Political Attitudes of Survey Respondents



Source: 2012 EWEB Residential Rate Payer Survey

Familiarity with the Watershed

This section describes respondents' familiarity with the watershed, perceptions of risks to the watershed, customer interest and support for watershed programs, and willingness to pay for watershed protection. At the end of the survey, respondents were given the opportunity to provide additional written comments. These responses are listed in Appendix C.

The 2012 EWEB Residential Rate Payer Survey included a series of questions on the familiarity with the watershed. This section presents the results of familiarity with the watershed questions.

Of those who participated in the survey, 74% stated that they know that their drinking water comes from the McKenzie River. When asked how often survey respondents visit the McKenzie River Watershed (**Table 3-2)**,the majority (50% or more) of respondents never visit the McKenzie Watershed for work, walking, camping, fishing, boating, rafting, kayaking, biking, swimming, or birding. However, the greatest amount of visiting the McKenzie Watershed once every three to four months to sightsee (23%) and pass through (32%). Additionally, the greatest amount of once a year visits to the McKenzie Watershed are for sightseeing (25%), visiting with family or friends (23%), hiking (21%), camping (20%), and boating, rafting, and kayaking (19%).

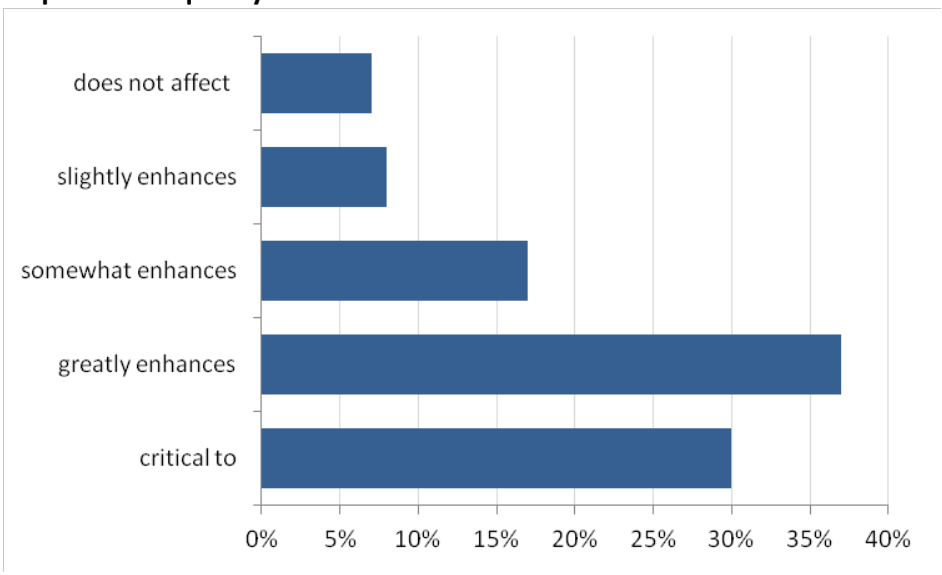
Table 3-2. How often Survey Respondents Visit the McKenzie Watershed

Question	Once a week	Once a month	Once per three to four months	Once every six months	Once a year	Never	Responses
Work	2%	1%	4%	2%	6%	**85%**	360
Visiting with family or friends	3%	5%	16%	15%	23%	**38%**	371
Visiting property I own	2%	1%	1%	1%	1%	**95%**	362
Walking	4%	6%	15%	14%	19%	**41%**	374
Hiking	2%	5%	19%	14%	21%	**40%**	377
Camping	1%	2%	10%	12%	20%	**55%**	367
Fishing	2%	4%	8%	9%	13%	**63%**	367
Boating, Rafting, Kayaking	1%	3%	7%	9%	19%	**61%**	368
Biking	1%	3%	7%	5%	9%	**76%**	365
Swimming	1%	1%	6%	5%	12%	**74%**	364
Sightseeing	2%	8%	23%	16%	25%	**26%**	377
Passing through	5%	15%	**32%**	19%	15%	14%	385
Birding or observing wildlife	2%	5%	10%	8%	14%	**62%**	362
Hunting	0%	1%	1%	1%	7%	**89%**	361
Off-road vehicle use	1%	1%	1%	2%	3%	**93%**	353

Source: 2012 EWEB Residential Rate Payer Survey

Figure 3-7 shows that the majority survey respondents' view the McKenzie River Watershed as critical to their quality of life (30%) and greatly enhances their quality of life (37%).

Figure 3-7. The McKenzie River Watershed impact on survey respondents' quality of life



Source: 2012 EWEB Residential Rate Payer Survey

Table 3-3 shows what kind of place survey respondents view the McKenzie River watershed. Many survey respondents strongly agree or agree that the McKenzie River Watershed is a place that they could escape to (74%), a place of high natural quality (88%), a place for recreation (89%), and a place to protect (89%), a place to they can go to restore themselves to (62%), vacation (70%), for family outings (83%), and for farming (50%). Survey respondents neither agree or disagree that the McKenzie Watershed is a place where they can find community (61%), produce lumber (35%), farm (40%), and make a living (46%). However, survey respondents strongly disagree or disagree that the McKenzie River Watershed is a place to stay away from (84%), doesn't mean that much to them (85%), or needs development (53%).

Table 3-3. Survey Respondents' view the McKenzie River Watershed as a place

Question	Strongly Agree	Agree	Neither Agree or Disagree	Disagree	Strongly Disagree	Responses
for recreation	**45%**	**44%**	10%	1%	0%	385
to protect	**63%**	**26%**	11%	0%	0%	388
of high natural quality	**53%**	**35%**	10%	1%	1%	386
for family outings	**33%**	**51%**	15%	1%	1%	390
I can escape to	**37%**	**37%**	24%	1%	2%	386
for vacationing	**25%**	**45%**	26%	3%	1%	386
to restore myself	**31%**	**31%**	35%	3%	1%	391
for farming	**10%**	**40%**	40%	7%	3%	387
to make a living	8%	37%	**46%**	6%	4%	388
for producing lumber	10%	28%	35%	15%	12%	386
where I find community	9%	19%	**61%**	9%	3%	388
that needs development	2%	9%	36%	**25%**	**28%**	390
that doesn't mean much to m	1%	3%	12%	**24%**	**60%**	388
to stay away from	1%	1%	14%	**28%**	**56%**	388

Source: 2012 EWEB Residential Rate Payer Survey
Note: Responses sorted in descending order by "strongly agree" plus "agree"

Table 3-4 shows that survey respondents strongly agree or agree that the natural features of the McKenzie River Watershed: has high scenic beauty (92%); has high quality recreation (84%); has high water quality (76%); is a healthy watershed (68%); has healthy wildlife habitat (67%); has healthy fish habitat (65%); healthy streamside forests (62%); and healthy forests (58%). Survey respondents were unsure if the natural features of the McKenzie Watershed have few invasive species (69%), well-managed farms (68%), good land use planning (64%), and well managed dams (50%).

Table 3-4. Survey respondents' level of agreement or disagreement that the natural features of the McKenzie River Watershed has/is….

Question	Strongly Agree	Agree	Unsure	Disagree	Strongly Disagree	Responses
high scenic beauty	**63%**	**29%**	8%	0%	0%	391
high quality recreation	**31%**	**54%**	13%	2%	0%	381
high water quality	**32%**	**45%**	22%	2%	0%	391
a healthy watershed	**23%**	**46%**	30%	2%	0%	389
healthy wildlife habitat	**20%**	**47%**	31%	2%	0%	391
healthy fish habitat	**21%**	**45%**	32%	3%	0%	391
healthy streamside forest	**19%**	**43%**	36%	3%	0%	389
healthy forests	**10%**	**47%**	37%	5%	0%	391
well-managed dams	11%	34%	**50%**	5%	0%	387
well-managed farms	4%	25%	**68%**	3%	0%	391
good land use planning	6%	23%	**64%**	7%	1%	387
few invasive species	4%	13%	**69%**	13%	0%	393

Source: 2012 EWEB Residential Rate Payer Survey
Note: Responses sorted in descending order by "strongly agree" plus "agree"

Table 3-5 shows how attached the survey respondents are to various spaces inside and outside of the McKenzie Watershed. Of those who participated in the survey, they felt "very attached" to the Eugene/Springfield Area (39%), The McKenzie River Watershed (36%), and the Willamette Valley (43%). Additionally, survey participants felt "extremely attached" to Oregon (48%), the Pacific Northwest (45%), and the Western United States (38%). Participants felt the least attached, "moderately attached," to the Lower Columbia River Basins (32%).

Table 3-5. Survey responses attachment to different places inside and outside of the McKenzie Watershed

Question	Extremely Attached	Very Attached	Moderately Attached	Slightly Attached	Not Attached	Responses
The Eugene/Springfield Area	38%	**39%**	16%	5%	1%	387
The McKenzie River Watershed	21%	**36%**	26%	11%	6%	388
The Willamette Valley	33%	**43%**	17%	7%	1%	384
Oregon	**48%**	33%	12%	5%	1%	388
The Lower Columbia River Basin	12%	24%	**32%**	16%	16%	382
The Pacific Northwest	**45%**	34%	14%	5%	2%	387
The Western United States	**38%**	35%	17%	6%	4%	387

Source: 2012 EWEB Residential Rate Payer Survey

Table 3-6 shows how much survey participants agreed or disagreed with statements regarding personal importance of the McKenzie River Watershed. The majority of the participants "neither agreed or disagreed" with the statements about the personal importance of the McKenzie River Watershed. The top four questions in which respondents strongly agreed or agreed with include: they feel they can really be themselves when they're there (48%), it reflects the type of person they are (41%), they really miss it when they are away for too long (40%), and it is the best place for them to do the outdoor things they enjoy (37%). Also of significance, the statement respondents disagreed with most was that "I don't really identify with the McKenzie River Watershed, with 48% of respondents indicating they "disagree" or "strongly disagreed."

Table 3-6. Survey Participants agreement or disagreement with the following statements about the personal importance of the McKenzie River Watershed

Question	Strongly Agree	Agree	Neither Agree or Disagree	Disagree	Strongly Disagree	Responses
I feel I can really be myself when I'm there	**11%**	**37%**	47%	4%	2%	387
It reflects the type of person I am	**7%**	**34%**	51%	5%	3%	383
I really miss it when I am away for too long	**12%**	**28%**	45%	11%	4%	387
It is the best place for me to do the outdoor things I enjoy	**10%**	**27%**	51%	10%	1%	384
It is my favorite place to be	9%	25%	51%	13%	2%	383
I would enjoy the activities I undertake there just as well in another place	3%	28%	43%	21%	5%	387
I feel happiest when I am there	6%	18%	59%	13%	4%	386
As far as I am concerned there are better places to be	3%	17%	52%	22%	6%	384
I don't really identify with the McKenzie River Watershed	3%	14%	36%	**26%**	**21%**	383

Source: 2012 EWEB Residential Rate Payer Survey
Note: Responses sorted in descending order by "strongly agree" plus "agree"

Perception of Risks to Watershed Health

The 2012 EWEB Residential Rate Payer Survey included a series of questions on the perception of risks to watershed health. This section presents the results of perception of risks to watershed health questions.

Table 3-7 shows how much survey participants agreed or disagreed with the statements regarding the land management of the McKenzie Watershed. Most participants were unsure about statements regarding land management in the McKenzie River Watershed. This may indicate a lack of knowledge of how land is managed in the McKenzie Watershed, but also may allude to a level of distrust among ratepayers sampled.

Table 3-7. Survey Participants' agreement or disagreement with the following statements about land management in the McKenzie River Watershed

Question	Strongly Agree	Agree	Unsure	Disagree	Strongly Disagree	Responses
Most public forestland management protects water resources	5%	34%	**42%**	15%	4%	386
Most recreational development protects water resources	5%	29%	**46%**	16%	4%	388
Most agricultural management protects water resources	3%	26%	**49%**	18%	4%	385
Most highway maintenance protects water resources	3%	25%	**49%**	16%	6%	383
Most private forestland management protects water resources	4%	18%	**51%**	20%	7%	384
Most residential riverfront property protects water resources	3%	17%	**49%**	24%	6%	386

Source: 2012 EWEB Residential Rate Payer Survey
Note: Responses sorted in descending order by "strongly agree" plus "agree"

Table 3-8 shows survey respondents' thoughts on how likely or unlikely that a variety of issues will negatively impact the health of the McKenzie River Watershed. Survey respondents thought that it is "very likely" or "somewhat likely" that all of the statements will negatively impact the health of the McKenzie River Watershed. The top six responses were pesticide and herbicide application (87%), fertilizer application (84%), industrial pollution (82%), residential development (81%), and septic contamination (79%), and invasive species (79%).

Table 3-8. Survey Respondents' thoughts on likelihood that the each following will negatively impact the health of the McKenzie River Watershed

Question	Very Likely	Somewhat Likely	Somewhat Unlikely	Very Unlikely	Unsure	Responses
Pesticide and herbicide application	**66%**	**21%**	5%	2%	5%	387
Fertilizer application	**57%**	**28%**	7%	3%	6%	376
Industrial pollution	**60%**	**21%**	7%	5%	6%	388
Residential development	**39%**	**42%**	9%	5%	5%	378
Septic contamination	**49%**	**30%**	12%	3%	6%	386
Invasive species	**40%**	**39%**	8%	3%	10%	382
Transportation of hazardous materials on local highways	**41%**	**33%**	15%	7%	4%	388
Demand for water	**32%**	**41%**	12%	4%	10%	388
Stormwater runoff	**23%**	**45%**	16%	7%	10%	386
Agricultural practices	**27%**	**40%**	18%	5%	10%	382
Wildfire	**30%**	**32%**	21%	9%	7%	387
Forestry practices	**25%**	**35%**	19%	7%	13%	384
Recreation	**13%**	**40%**	30%	11%	6%	387

Source: 2012 EWEB Residential Rate Payer Survey
Note: responses sorted in descending order by "very likely" plus "somewhat likely"

Table 3-9 shows survey respondents' thoughts on how major or minor and impact of various situations will have on the health of the McKenzie River Watershed. Many survey respondents' believe that pesticide and

herbicide application (83%), industrial pollution (81%), fertilizer application (78%), residential development (75%), and septic contamination (72%) pose a "very major" or "somewhat major" impact to the health of the McKenzie River Watershed.

Table 3-9. Survey respondents' thoughts regarding magnitude of impact human activities would have to the health of the McKenzie River Watershed

Question	Very Major	Somewhat Major	Somewhat Minor	Very Minor	Unsure	Responses
Pesticide and herbicide application	**56%**	**27%**	9%	3%	5%	386
Industrial pollution	**59%**	**22%**	9%	5%	5%	387
Fertilizer application	**50%**	**28%**	12%	4%	6%	384
Residential development	**35%**	**40%**	15%	5%	5%	381
Septic contamination	**48%**	**25%**	16%	4%	7%	385
Invasive species	**35%**	**34%**	16%	5%	11%	384
Demand for water	**29%**	**37%**	17%	6%	10%	382
Transportation of hazardous materials on local highways	**34%**	**31%**	19%	10%	6%	387
Agricultural practices	**25%**	**37%**	22%	7%	9%	385
Wildfire	29%	30%	20%	13%	8%	386
Forestry practices	23%	34%	22%	10%	11%	384
Stormwater runoff	14%	37%	28%	10%	11%	388
Recreation	8%	27%	40%	19%	6%	384

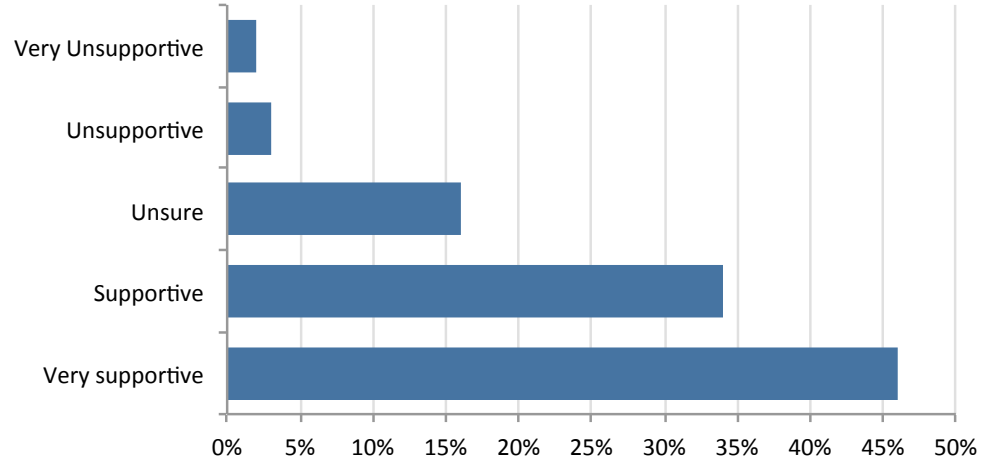
Source: 2012 EWEB Residential Rate Payer Survey
Note: Responses sorted in descending order by "very major" plus "somewhat major"

Customer Interest and Support for Watershed Protection Programs

The 2012 EWEB Residential Rate Payer Survey included a series of questions on the customer interest and support for watershed protection programs. This section presents the results of customer interest and support for watershed protection programs questions.

Figure 3-8 shows how supportive or unsupportive survey respondents are of establishing programs or activities to maintain the environmental benefits provided by the McKenzie River Watershed. Overwhelmingly, 80% of survey respondents were either very supportive (46%) or supportive (34%) of establishing programs or activities to maintain the environmental benefits provided by the McKenzie River Watershed.

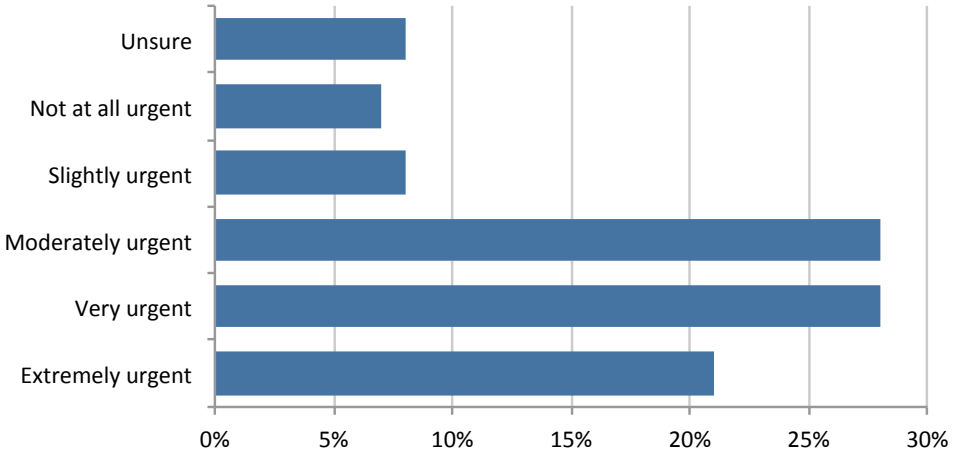
Figure 3-8. Support of survey respondents establishing programs or activities to maintain the environmental benefits provided by the McKenzie River Watershed



Source: 2012 EWEB Residential Rate Payer Survey

Figure 3-9 illustrates survey respondents' thoughts on how urgent they think putting into action programs that maintain or improve the health of the McKenzie Watershed. Only 21% of survey respondents think that it is extremely urgent to enact programs that maintain or improve the McKenzie Watershed; whereas, 28% think that it is very urgent or moderately urgent to enact programs that maintain or improve the McKenzie Watershed. Only about 7% think that these types of programs are not urgent.

Figure 3-9. Survey respondents' thoughts on level of urgency of action programs that maintain or improve the health of the McKenzie River Watershed



Source: 2012 EWEB Residential Rate Payer Survey

Table 3-10 illustrates how supportive or unsupportive survey respondents would be of the establishment of various education programs about watershed stewardship. Survey respondents are "very supportive" or

"supportive" of all five programs that were listed: an appropriate pest-management training program focused on reducing pesticide use (84%), a technical assistance program to help agricultural and forest landowners plan and implement watershed protection measures (83%), an inspection program designed to monitor septic systems 82%), a community education program about watershed protection (78%), and a watershed education school program (75%). Very few are unsupportive or very unsupportive of education programs.

Table 3-10. Survey respondents' level of support for establishing the following types of education programs about watershed stewardship

Question	Very supportive	Supportive	Unsure	Unsupportive	Very Unsupportive	Responses
An appropriate pest management training program focused on reducing pesticide use	**50%**	**34%**	12%	3%	1%	389
A technical assistance program to help agricultural and forest landowners plan and implement watershed protection measures	**41%**	**42%**	13%	3%	1%	383
An inspection program designed to monitor septic systems	**44%**	**38%**	13%	4%	1%	388
A community education program about watershed protection	35%	42%	16%	5%	1%	389
A watershed education school program	35%	40%	18%	5%	2%	385

Source: 2012 EWEB Residential Rate Payer Survey
Note: Responses are sorted in descending order by "very supportive" plus "supportive"

Table 3-11 shows how supportive or unsupportive survey respondents would be in establishing a variety of types of financial assistance programs for landowners, assuming they are well-designed and managed by a trustworthy organization. Most survey respondents are "Very supportive" or "supportive" of all the listed financial assistance programs for landowners. Respondents exhibited the most uncertainty around providing an annual payment program for landowners who maintain healthy streamside forests. Forty-three percent of respondents supported ("very supportive" or "supportive") an annual payment program versus 23% who were "unsupportive" or "very unsupportive" of this form of financial assistance program. Very few respondents were unsupportive of any of the programs.

Table 3-11. Survey respondents level of support of establishing the following types of financial assistance programs for landowners, assuming they are well-designed and managed by a trustworthy organization

Question	Very Supportive	Supportive	Unsure	Unsupportive	Very Unsupportive	Responses
A grant program for residential owners with failing septic systems	**30%**	**39%**	21%	7%	4%	389
An incentive program for agricultural and forest landowners who adopt management practices that enhance water quality	**25%**	**39%**	24%	7%	4%	389
A grant program for private landowners to implement watershed restoration projects	**22%**	**40%**	25%	9%	4%	384
An annual payment program for landowners who maintain healthy streamside forests	19%	24%	34%	17%	6%	388

Source: 2012 EWEB Residential Rate Payer Survey
Note: Responses are sorted in descending order by "very supportive" plus "supportive"

Table 3-12 shows how supportive or unsupportive survey respondents would be of various types of restrictions, assuming they are well-designed and enforced. Most survey respondents are "very supportive" or supportive of restricting new residential development in ecologically important areas (76%), restricting new septic systems in ecologically important areas (73%), restricting logging near streams (73%), and requiring the maintenance of native vegetation near streams (69%). Additionally, most are supportive of restricting the number of residences allowed (64%) and restricting the amount of pavement in new residential developments (62%). Respondents noted the most uncertainty about restricting the amount of pavement in new residential developments (26%) and restricting the total number of new residences allowed (24%). Very few respondents are unsupportive or very unsupportive of the various types of restrictions.

Table 3-12. Level of support of survey respondents for various types of restrictions, assuming they are well-designed and enforced

Question	Very Supportive	Supportive	Unsure	Unsupportive	Very Unsupportive	Responses
Restricting new residential development in ecologically important areas	**42%**	**33%**	16%	5%	4%	385
Restricting new septic systems in ecologically important areas	**42%**	**31%**	18%	5%	3%	385
Restricting logging near streams	**44%**	**29%**	16%	7%	3%	379
Requiring the maintenance of native vegetation near streams	35%	34%	22%	6%	3%	385
Restricting the total number of new residences allowed	27%	37%	24%	6%	5%	382
Restricting the amount of pavement in new residential developments	30%	32%	26%	8%	4%	384

Source: 2012 EWEB Residential Rate Payer Survey
Note: Responses are sorted in descending order by "very supportive" plus "supportive"

Table 3-13 shows how supportive or unsupportive survey respondents would be for various types of open space protections, assuming they are implemented with willing landowners and managed by a trustworthy organization. Most are "very supportive" or "supportive" of creating additional parks (66%), purchasing lands that are ecologically important (65%), and long-term lease agreements to protect lands that are ecologically important (64%); whereas, 49% of survey respondents are unsure about supporting paying landowners for their development rights on farm and forest.

Table 3-13. Survey respondents' level of support for various types of open space protections, assuming they are implemented with willing landowners and managed by a trustworthy organization

Question	Very Supportive	Supportive	Unsure	Unsupportive	Very Unsupportive	Responses
Creating additional parks	**23%**	**43%**	23%	7%	3%	385
Purchasing lands that are ecologically important	**28%**	**38%**	24%	6%	4%	385
Long-term lease agreements to protect lands that are ecologically important	**25%**	**39%**	27%	4%	5%	384
Paying landowners for their development rights on farm and forest land	9%	24%	49%	13%	5%	382

Source: 2012 EWEB Residential Rate Payer Survey
Note: Responses are in descending order by "very supportive" plus "supportive"

Table 3-14 shows what survey respondents think of various sizes of buffers are too small, too big, or just about right on the McKenzie River Watershed. The majority of survey respondents think that a 10-foot (69%) and a 30-foot (54%) buffer are too small. One third of respondents think that a 100-foot buffer is just right; whereas, 31% think that a 200-foot buffer and 46% think a 500-foot buffer is too big. As many as one-quarter of respondents expressed uncertainty about the "right size" of all proposed riparian buffers. The most uncertainty rested among larger buffer sizes.

Table 3-14. Survey respondents' thoughts on size of buffers

Question	Too Small	Just About Right	Too Big	Unsure	Responses
10 foot buffer	**69%**	6%	0%	24%	376
30 foot buffer	**54%**	14%	5%	27%	373
100 foot buffer	25%	**33%**	14%	29%	378
200 foot buffer	13%	22%	31%	**33%**	372
500 foot buffer	2%	16%	**46%**	36%	369

Source: 2012 EWEB Residential Rate Payer Survey

Table 3-15 shows how much survey respondents trust various types of agencies and organizations to support the environmental health of the McKenzie Watershed. Generally, most respondents held "moderate trust"

in state agencies (38%), local government (32%), and EWEB (38%). More than half (54%) of respondents indicated "a little trust" in National non-profit organizations, though the balance (29%) held "not much trust" in this type of organization. Local non-profit organizations garnered the greatest amount of "high trust" and "moderate trust" responses (54%). Private landowners garnered the most responses of "a little-" to "not much"- trust by nearly 67% of rate-paying respondents.

Table 3-15. Survey respondents' level of trust for various types of agencies and organizations to support the environmental health of the McKenzie River Watershed

Question	High Trust	Moderate Trust	A Little Trust	Not Much Trust	Unsure	Responses
Local non-profit organizations	20%	**34%**	18%	14%	14%	383
Eugene Water and Electric Board	13%	**38%**	22%	17%	9%	386
State natural resource agencies	9%	**38%**	25%	18%	10%	382
National non-profit organizations	9%	**30%**	23%	21%	16%	384
Local government	6%	**32%**	27%	26%	9%	382
Federal natural resource agencies	6%	26%	28%	**29%**	12%	382
Private landowners in the watershed	5%	18%	**34%**	33%	10%	378

Source: 2012 EWEB Residential Rate Payer Survey
Note: Responses are in descending order by "moderate trust"

Willingness to Pay for Watershed Protection

The 2012 EWEB Residential Rate Payer Survey included a series of questions on the willingness to pay for watershed protection. This section presents the results of willingness to pay for watershed protection questions.

Table 3-16 shows the potential willingness of survey respondents to participate in three programs each covering a different river or watershed corridor (i.e., McKenzie River, Willamette River, and Columbia weather) to improve water quality. Most 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 (55%), Willamette River (51%), and Columbia River (36%). Also, most survey respondents said "probably yes" that a $1 per month increase to improve water quality in the McKenzie River and Willamette River corridor. 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. A $5 or $10 monthly increase to improve the water quality of the McKenzie River was not supported by a majority of respondents, with 61% rejecting a $5 increase and 77% of respondents rejecting a $10 increase. Surcharges for protection of the Willamette River and Columbia River corridors were not as favored over $1 per month. Additionally, most survey respondents said "definitely no" to a $1 increase to improve the water quality of the Columbia River corridor.

Table 3-16. Potential Willingness to Participate in Water Quality Improvement Programs

Program 1: All of the money collected will be used to fund water quality improvement projects within the **McKenzie River** corridor only. The cost would be added to your monthly water bill. For each price level, would you participate in the program?

Question	Definitely Yes	Probably Yes	Unsure	Probably No	Definitely No	Responses
50 cents per month	**55%**	17%	10%	3%	15%	375
$1 per month	**43%**	21%	12%	5%	20%	376
$3 per month	18%	21%	19%	14%	**28%**	374
$5 per month	9%	12%	18%	21%	**40%**	371
$10 per month	3%	6%	14%	23%	**54%**	371

Program 2: All of the money collected will be used to fund water quality improvement projects within the **Willamette River** corridor only. The cost would be added to your monthly water bill. For each price level, would you participate in the program?

Question	Definitely Yes	Probably Yes	Unsure	Probably No	Definitely No	Responses
50 cents per month	**51%**	17%	9%	6%	17%	377
$1 per month	**36%**	21%	13%	6%	24%	375
$3 per month	15%	17%	20%	17%	**32%**	374
$5 per month	6%	10%	18%	24%	**42%**	373
$10 per month	1%	4%	16%	23%	**56%**	373

Program 3: All of the money collected will be used to fund water quality improvement projects within the **Columbia River** corridor only. The cost would be added to your monthly water bill. For each price level, would you participate in the program?

Question	Definitely Yes	Probably Yes	Unsure	Probably No	Definitely No	Responses
50 cents per month	**36%**	13%	12%	11%	27%	379
$1 per month	24%	17%	15%	12%	**32%**	376
$3 per month	9%	12%	17%	21%	**41%**	373
$5 per month	4%	6%	17%	24%	**49%**	373
$10 per month	1%	3%	14%	21%	**61%**	370

Source: 2012 EWEB Residential Rate Payer Survey

Table 3-17 shows survey respondents' willingness to pay extra on electric bills to support various renewable energy programs. Most survey respondents, at only 29%, stated that they would probably say yes to support an increase in their electric bill to support their own household rooftop solar program and within the Eugene/Springfield urban area. Additionally, 27% of the respondents said that they were unsure that they would pay extra on their electric bill to support renewable electricity programs elsewhere in rural Oregon. Lastly, most respondents said that

they would definitely not support paying extra on their electric bill to support renewable energy plans elsewhere in the Western U.S.

Table 3-17. Survey respondents' willingness to pay extra on their electric bill to support the renewable electricity programs

Question	Definitely Yes	Probably Yes	Unsure	Probably No	Definitely No	Responses
For my household (rooftop solar)	23%	**29%**	17%	10%	21%	377
Within the Eugene/ Springfield urban area	17%	**29%**	20%	12%	22%	377
Elsewhere in rural Oregon	8%	19%	27%	18%	**28%**	375
Elsewhere in the Western U.S.	6%	11%	29%	20%	**34%**	377

Source: 2012 EWEB Residential Rate Payer Survey

Table 3-18 shows the survey respondents' preferences for generating renewable electricity on farmland in Lane County, Oregon, and Western United States by adding a cost to their monthly electric bill. Most survey respondents said "definitely yes" to supporting a $0.50 per month increase in their electric bill to support renewable electricity on farmland in Lane County and Oregon. Most respondents supported a $1 per month rate increase for a program in Lane County though responses were split (42% responded "definitely" or "probably" yes, 42% responded "probably" or "definitely" no) when applied to renewable activities in Oregon. In Lane County though, survey respondents were increasingly less supportive as rates increased to $3, $5, or $10 per month. Respondents showed the greatest amount of uncertainty over a $5 increase (22%). Respondents were split regarding their support of a $0.50 increase to support renewable electricity activities in the Western United States; respondents were not supportive of any rate increases above $0.50 for this geographic scale.

Table 3-18. Preferences for generating renewable electricity on farmland

Program 1: This program would place solar panels or wind turbines on farmland in **Lane County**. The cost would be added to your monthly electric bill. For each of the following price levels, would you participate in the program?

Question	Definitely Yes	Probably Yes	Unsure	Probably No	Definitely No	Responses
50 cents per month	**38%**	16%	14%	9%	23%	376
$1 per month	**29%**	17%	16%	10%	28%	373
$3 per month	12%	16%	21%	17%	**35%**	373
$5 per month	5%	8%	22%	24%	**42%**	374
$10 per month	2%	4%	18%	21%	**55%**	372

Program 2: This program would place solar panels or wind turbines farmland in **Oregon.** The cost would be added to your monthly electric bill. For each of the following price levels, would you participate in the program?

Question	Definitely Yes	Probably Yes	Unsure	Probably No	Definitely No	Responses
50 cents per month	**34%**	16%	15%	8%	27%	378
$1 per month	25%	17%	16%	10%	**32%**	376
$3 per month	10%	15%	22%	16%	**37%**	376
$5 per month	3%	8%	23%	21%	**45%**	375
$10 per month	1%	4%	20%	17%	**58%**	374

Program 3: This program would place solar panels or wind turbines on farmland in the **Western U.S.** The cost would be added to your monthly electric bill. For each of the following price levels, would you participate in the program?

Question	Definitely Yes	Probably Yes	Unsure	Probably No	Definitely No	Responses
50 cents per month	25%	15%	15%	11%	**34%**	377
$1 per month	18%	15%	17%	13%	**38%**	376
$3 per month	6%	8%	22%	18%	**45%**	374
$5 per month	1%	5%	20%	21%	**53%**	375
$10 per month	1%	1%	18%	18%	**62%**	375

Source: 2012 EWEB Residential Rate Payer Survey

Key Findings

- A total of 411 EWEB residential water rate-payers responded to the survey which was issued to 988 addresses, a 41.6% response rate.
- Respondents reported experiencing the McKenzie Watershed at least once every six months (or more) to pass through (71%), sightseeing (49%), walking (40%), hiking (40%), and visiting with family or friends (39%).
- The McKenzie Watershed either greatly enhances (37%) or is critical to (30%) the quality of life of respondents.

- The overwhelming majority of respondents either agrees or strongly agrees that the McKenzie Watershed is a place to (1) protect (89%), (2) for recreation (89%), (3) of high natural quality (88%), (4) for family outings (83%), and (5) I can escape to (74%).
- The overwhelming majority of respondents either agrees or strongly agrees that the McKenzie Watershed is a place of high scenic beauty (92%), high quality recreation (84%), and high water quality (76%).
- Most respondents were uncertain regarding the impacts of certain land management activities on the health of the McKenzie Watershed.
- The overwhelming majority of respondents believe it is very likely or somewhat likely that the following are negatively impacting the health of the McKenzie Watershed and either a very major or somewhat major impact, respectively: pesticide and herbicide application (87%/83%), fertilizer application (84%/78%), industrial pollution (82%/81%), residential development (81%/75%), and invasive species (79%/68%).
- Over 80% of respondents were either very supportive (46%) or supportive (34%) of establishing programs or activities to maintain the environmental benefits provided by the McKenzie Watershed. And 77% of respondents believe that it is extremely urgent (21%), very urgent (28%), or moderately urgent (28%) to create programs that maintain or improve the health of the McKenzie Watershed.
- Respondents were the most supportive (very supportive and supportive) of educational programs that promote an appropriate pest management training focused on reducing pesticide use (84%), followed by a technical assistance program to help agricultural and forest landowners plan and implement watershed protection measures (83%), and an inspection program designed to monitor septic systems (82%).
- Respondents were the most supportive (very supportive and supportive) of financial assistance programs for residential owners with failing septic systems (68%), incentives for agricultural and forest landowners who adopt management practices that enhance water quality (64%), and grant programs for private landowners to implement watershed restoration projects (62%).
- Respondents were the most supportive (very supportive and supportive) of restrictions on new residential development in ecologically important areas (76%), logging near streams (73%), and new septic systems in ecologically important areas (73%).

- Respondents were the most supportive (very supportive and supportive) of protection programs that (1) create parks (66%), (2) purchase lands that are ecologically important (65%), and (3) create long-term lease agreements to protect lands that are ecologically important (64%).

- Over half of the respondents indicated that a 10-foot buffer (69%) and a 30-foot buffer (54%) were too small to protect water quality in the McKenzie Watershed. Almost 1/3 of respondents indicated that a 100-foot buffer was either just about right (33%) or were unsure (29%), and that a 200-foot buffer was too big (31%). Almost half of the respondents believe that a 500-foot buffer is too big (46%).

- Respondents indicated that the most trustworthy (high and moderate trust) organizations to support environmental health of the McKenzie Watershed were local non-profits (54%) and Eugene Water & Electric Board (52%) and the least trustworthy (a little trust or not much trust) were private landowners in the watershed (67%) and federal natural resource agencies (57%).

- Over half of the respondents indicated they would support (definitely and probably) up to a $1 charge per month for projects within the McKenzie Valley (64%) or the Willamette River corridors (57%).

CHAPTER 4: SELLER SURVEY RESULTS

This chapter presents a summary of the 2012 McKenzie Watershed property owner survey, also referred to as the Seller Survey. The Seller Survey was distributed to all 597 private non-industrial landowners in the McKenzie Watershed whose properties are within one mile of the McKenzie River and its tributaries. Of those people, 272, or 44% responded to the survey. This chapter describes landowner demographics, political attitudes, property characteristics, past participation in voluntary conservation programs, and interest in participating in conservation programs.

Characteristics of Survey Respondents

As discussed in regards to the Buyers Survey, characteristics of the sample population may be compared to characteristics of the population as a whole to assure the validity of survey results. Due to the nature of the landowner population we were unable to compare the sample data with data from the U.S. Census or other standard sources. It is, however, important for this study to contextualize responses provided by this sample population in order for the results of Chapter 4 to be understood completely.

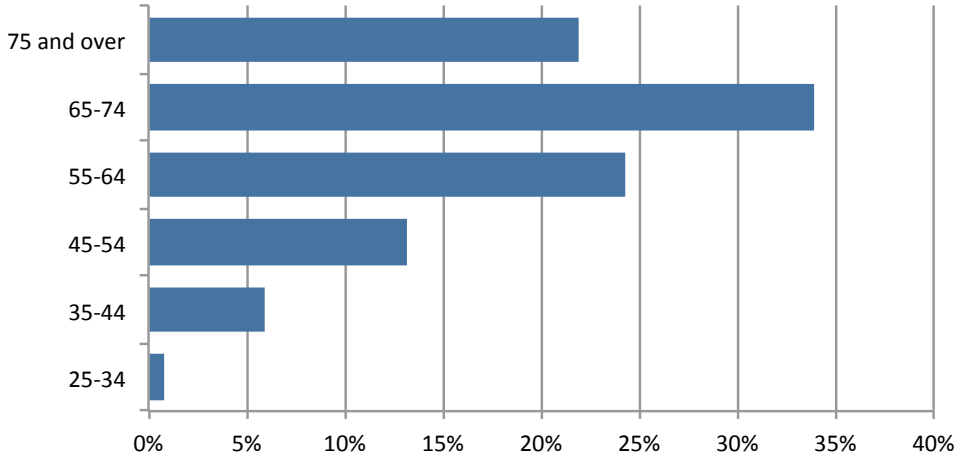
This chapter describes the characteristics of individuals who responded to the Sellers Survey, all of whom are residents of the McKenzie River Valley.

Age and Gender

Figure 4-1 shows the age distribution of survey respondents in the McKenzie River Watershed. More than half (56%) of those who responded to the survey were 65 years of age or older, while only one percent of respondents were in the 25-34 age range. The average age of respondents to the Seller survey was 68 years old; the median age was 66 years old.

The gender distribution of survey respondents had a higher percentage of males than females with 67% of respondents identifying as male.

Figure 4-1. Age of Survey Respondents



Source: 2012 McKenzie River Watershed Seller Survey

Number of people in Household

Based on survey responses, the majority of households in the McKenzie River Watershed do not have children living with them. Eighty-four percent of survey respondents indicated that they did not have children living with them while 72% of all households are comprised of just two adults. This is consistent with respondents' average age. **Table 4-2** illustrates household size among respondents.

Table 4-2. Household size among respondents in the McKenzie Watershed

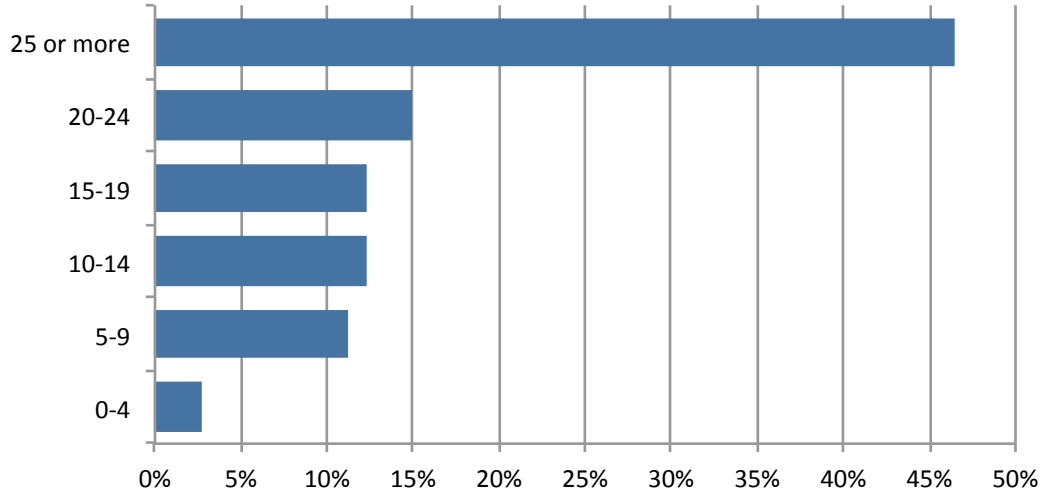
Number of People	Adults	Children	Total Household
0	0%	**84%**	0%
1	16%	7%	14%
2	**72%**	5%	64%
3	7%	3%	8%
4	4%	0%	7%
5	0%	0%	3%
6	0%	0%	1%
7 or more	0%	0%	1%

Source: 2012 McKenzie River Watershed Seller Survey

Length lived in the area

Of those who responded to the survey, 86% have owned their property for more than 10 years. Close to half of all respondents (47%) have owned their property for more than 25 years. Only 3% of those who responded have owned their property for less than five years. **Figure 4-2** shows the distribution of survey respondents' by the number of years they have owned their property.

Figure 4-2. The number of years landowners have owner their property in the McKenzie River Watershed



Source: 2012 McKenzie River Watershed Seller Survey

Permanent home

Of those who responded to the survey, 80% considered the McKenzie River Watershed their primary residence. Ninety-two percent of respondents anticipated that they will continue to own their property for the next ten years. And, 65% of respondents have a designated successor to take over the management of the property in the case of their passing.

Homeowners and renters

A large percent of respondents (81%) answered that they do not rent or lease any of their land. The remaining 19% of respondents who rent or lease their land, indicated that they do so for the following reasons:

- Rental housing
- At times for hay crop/cattle
- Home
- Pasture
- Crop
- Pasture
- We rent the residence to another person
- House rental
- Residence
- Harvesting hay crop
- Sugar beet seed - 2 acres, Hay - 7 acres
- Residential
- Agra crops
- Crops and border a horse
- Hazelnut orchard
- Also hay field, rent separate residence
- Income
- Rental housing
- Mobile home site
- House, and land for farming
- Farming
- Crops
- Farming
- Rent house/live in shop/apartment
- Ag land/organic growers/residential

- Wheat and filberts
- Have rented it in the past. See attached.
- House rental
- Nursery
- Pasture
- Rent the dwelling
- Vegetable farming
- Cannery crops
- The second home on the property, with its ~2 acres
- Living
- Mobile home park
- Farming only 1-2 ac.
- I rent the home on the property
- 3 houses on 2 1/4 acres
- Hay production
- Organic farming 63 acres
- Hay crop
- Rent 450' cabin
- Residential rental/farm
- Horse training
- Grazing cattle
- Home for a son

Current Land Use

Table 4-1 shows survey respondents' current land uses. Eighty-two percent of survey respondents indicated that their property in the McKenzie River Watershed was their primary residence. Forty-one percent of respondents indicated that they were engaged in timber or forestry and 29% of respondents indicated that they were engaged in farming. As a whole, timber and agriculture account for 70% of current land use in the McKenzie Watershed which is consistent with the 2009 CPW study, *McKenzie River Basin Development Risk Atlas*, which found 69% of total acres in the Basin to be engaged in timber or agriculture.

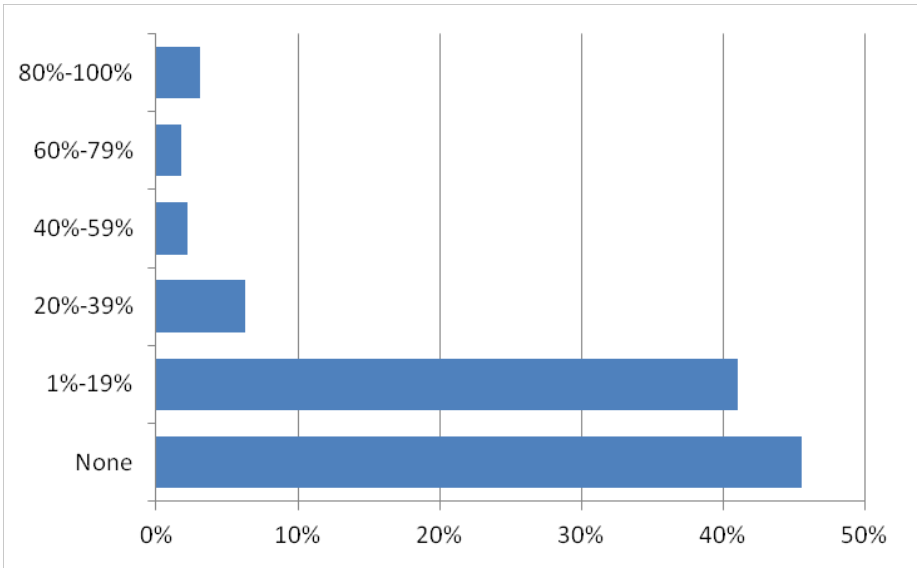
Table 4-1. Respondents current land use in the McKenzie River Watershed

Land Use	Total	Percentage
Primary Residence	219	**82%**
Farming	78	29%
Timber/Forestry	109	**41%**
Recreation	61	23%

Source: 2012 McKenzie River Watershed Seller Survey

Figure 4-3 shows the percentage of household income provided by the land. Based on survey responses, the majority of respondents (87%) receive less than 20% of income from the land with 46% of total respondents receiving no income from their land. Only 3% of respondents reported receiving 80-100% of their household income from the land. As a whole, less than 10% of respondents receive 50% or more of their household income from the land.

Figure 4-3. Percentage of household income provided by the land

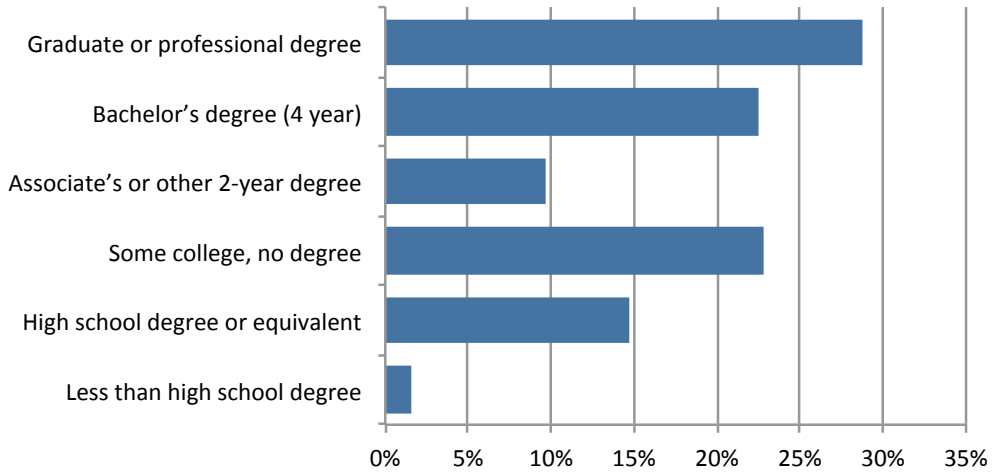


Source: 2012 McKenzie River Watershed Seller Survey

Education

Figure 4-4 shows the education attainment of survey respondents in the McKenzie Watershed. More than half (51%) of survey respondents indicate having attained at least a four-year degree. The largest group of respondents (29%) has a graduate or professional degree. Twenty-two percent of survey respondents indicate having attained a four-year Bachelor's degree. Those who are not well represented in the survey are those with a high school degree or less than a high school degree.

Figure 4-4. Education attainment of survey participants in the McKenzie River Watershed



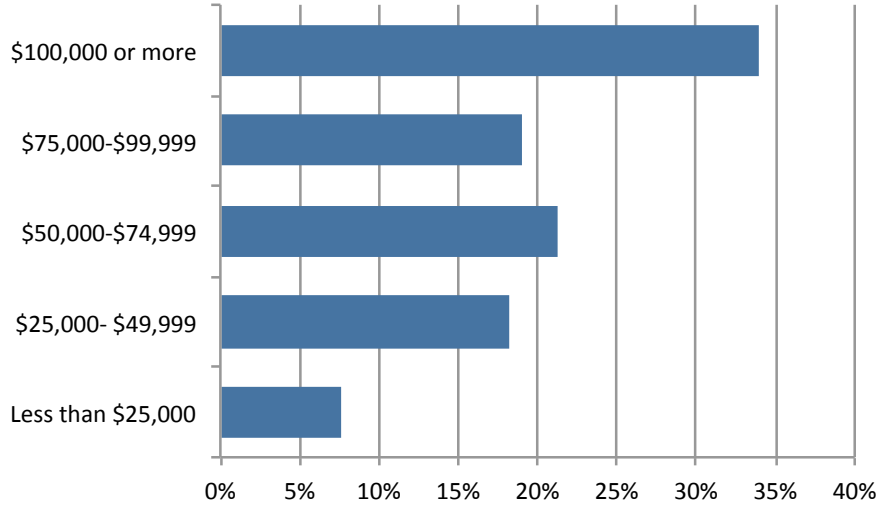
Source: 2012 McKenzie River Watershed Seller Survey

Income

Figure 4-5 shows the income distribution of survey respondents. Household incomes of $100,000 or more represent 34% of respondent

households. An additional 19% of households indicate earning between $75,000-$99,000 per year while 21% of surveyed households earn between $50,000-$74,999 annually. Only 26% of survey respondents indicated household earnings of less than $49,999 per year.

Figure 4-5. Household income of survey participants' in the McKenzie River Watershed

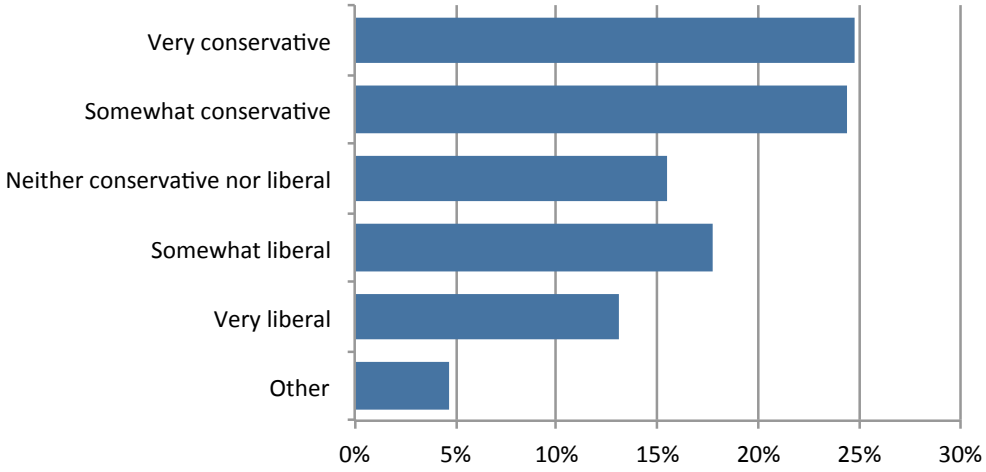


Source: 2012 McKenzie River Watershed Seller Survey

Political Attitudes

Figure 4-6 represents the political attitudes of survey respondents in the McKenzie Watershed. Of those who responded to the survey, close to half (49%) self identified as very or somewhat conservative. Fifteen percent of respondents identified as neither conservative nor liberal. Those that identified as somewhat or very liberal constitute 31% of the survey respondents.

Figure 4-6. Political attitudes of survey respondents



Source: 2012 McKenzie River Watershed Seller Survey

Landowner Experience with Conservation Practices and Programs

The 2012 McKenzie Watershed Seller Survey included a series of questions on conservation practices and programs.

This section shows respondents previous experience with conservation practices and programs. Respondents were asked if they have participated in any conservation practices, or voluntary conservation and environmental programs on their land.

Conservation Practices

Table 4-3 represents survey respondents experience with conservation practices. Based on survey responses, 53% have controlled for invasive species within the last five years, 69% indicated improving irrigation efficiency, and 43% indicated thinning forestland to reduce fire risk. No respondents indicated leasing, selling, or donating water rights for conservation.

Table 4-3. Survey respondents experience with conservation practices

Conservation Practices	Yes, within the past 5 years	Yes, but more than 5 years ago	No	Not applicable to my land
Controlling invasive species	**53%**	10%	33%	4%
Developing a forest or range management plan	12%	11%	**63%**	14%
Enhancing stream or wetland habitat	18%	3%	**57%**	18%
Implementing integrated pest management (IPM)	12%	3%	**77%**	8%
Improving fish or wildlife habitat	17%	8%	**61%**	15%
Improving irrigation efficiency	18%	7%	**61%**	24%
Installing off-stream water developments for livestock	5%	1%	**59%**	35%
Leasing, selling, or donating water rights for conservation	0%	0%	**79%**	20%
Planting non-commercial native vegitation	22%	8%	**65%**	4%
Removing a fish barrier or screening diversion	1%	2%	**63%**	33%
Thinning forestland to reduce wildfire risk	29%	14%	**47%**	10%

Source: 2012 McKenzie River Watershed Seller Survey

Participation in Voluntary Conservation and Environmental Certification Programs

Table 4-4 and 4-5 show survey respondents participation in voluntary conservation and environmental certification programs. **Table 4-4** represents survey respondents' participation in voluntary conservation programs. Approximately 18% of respondents indicated they have participated in voluntary conservation programs at some point. A total of 10% of survey respondents have participated in local voluntary conservation programs. Less than ten percent of survey respondents have participated in federal (7%) or state (6%) conservation programs.

Table 4-4. Survey respondents' participation in voluntary conservation programs

Conservation Programs	Never	Within the past 5 years	More than 5 years ago
A federal conservation program	**93%**	2%	4%
A state of Oregon conservation program	**94%**	3%	3%
A local conservation program (example: a watershed council or conservation district)	**90%**	8%	2%

Source: 2012 McKenzie River Watershed Seller Survey

Survey respondents were asked two questions about conservation easements and title transfers on their property. Four percent of survey respondents indicated having some or all of their land covered by a conservation easement held by a conservation organization or agency. Two percent of survey respondents indicated having sold, donated, or transferred the title to land previously owned to a conservation organization or agency.

Table 4-5 represents survey respondents' participation in environmental certification programs. Three percent of respondents have participated in livestock or crop certification programs. Seven percent of respondents have participated in forest certification programs.

Table 4-5. Survey respondents' participation in environmental certification programs

Certification Programs	Never	Within the past 5 years	More than 5 years ago
Livestock or crop certification (e.g., Organic)	**97%**	1%	2%
Forest certification (e.g., American Tree Farm System, Forest Stewardship Council)	**93%**	3%	4%

Source: 2012 McKenzie River Watershed Seller Survey

Respondents who had participated in Forest certification programs were predominately certified by the American Tree Farm System (50%), while others had participated in well certification, Sustainable Forestry Initiative, Firesafe/Firewise, Wostec certification, Forest deferral, or McKenzie River Trust. Survey respondents were also asked whether they have entered into a contract to generate any types of environmental credits such as carbon sequestration, wetland, and fish or wildlife habitat. Less than 2% of respondents indicated entering into a contract to generate environmental credits.

Willingness to Participate in a Voluntary Incentive Program

The following section presents survey respondents' interest in and willingness to participate in a voluntary incentive program. Respondents were asked a series of questions pertaining to voluntary conservation

programs. Survey respondents were asked to state their preferences on length of contracts, annual payments, program requirements, conservation easements and acquisitions, and implementation organizations.

Based on survey responses, **Table 4-6** represents the likelihood of survey respondents to enroll in a voluntary incentive program within the next five years. Roughly a quarter of all respondents answered "don't know" to all the questions. This may be indicative of a lack of knowledge about conservation programs among landowners. Survey responses show that landowners are least likely (43% are not very likely or not at all likely) to enroll in either programs to store carbon through alternative forest management practices or programs that enable the restoration of degraded stream and floodplain areas. Respondents showed the most support for benefiting water quality (44% were somewhat, very, or extremely likely), followed by protecting and maintaining healthy floodplain areas (41% were somewhat, very, or extremely likely) and streamside forests (39% were somewhat, very, or extremely likely). Responses also show that these three supported types of conservation programs elicited the least uncertainty of the five proposed programs.

Table 4-6. Likelihood of survey respondents to enroll in a voluntary conservation program within the next five years

Conservation Programs	Extremely Likely	Very Likely	Somewhat Likely	Not Very Likely	Not At All Likely	Don't Know	Total
Benefiting water quality or quantity	**4%**	**17%**	**23%**	12%	22%	22%	100%
Protecting and maintaining healthy flood plain areas (forest and other natural vegetation)	**7%**	**14%**	**21%**	12%	24%	23%	100%
Protecting and maintaining healthy streamside forests	7%	16%	16%	14%	24%	22%	100%
Enabling restoration of degraded stream and floodplain areas	4%	9%	17%	**17%**	**26%**	27%	100%
Storing carbon through alternative forest management practices	4%	7%	15%	**15%**	**28%**	31%	100%

Source: 2012 McKenzie River Watershed Seller Survey
Note: Responses are sorted in descending order by "extremely likely" plus "very likely" plus "somewhat likely"

Table 4-7 shows interest among landowners in participating in voluntary incentive programs in the McKenzie Watershed. A near majority (48%) of respondents indicated definite or possible interest in maintaining existing healthy streamside forest, while 27% of respondents were unsure of their interest in maintaining existing healthy forests. Forty-one percent of respondents indicated definite or possible interest in restoring streamside forests that are currently degraded, and 30% showed definite or possible interest in creating streamside forest on land that is not currently forested. Roughly 30% of respondents were uncertain about restoring currently degraded forest or not currently forested areas.

Table 4-7. Survey respondents interest in participating in voluntary incentive conservation programs

Activity	Definitely Interested	Possibly Interested	Unsure	Probably Uninterested	Definitely Uninterested
Maintain existing healthy streamside forests	**19%**	**29%**	27%	9%	17%
Restoring streamside forests that are currently degraded or unhealthy	14%	26%	**30%**	12%	18%
Creating streamside forests on land that is not currently forested	10%	20%	**32%**	15%	23%

Source: 2012 McKenzie River Watershed Seller Survey
Note: Responses are in descending order by "definitely interested" plus "possibly interested"

In developing a voluntary incentive program, landowners would enter into a contract to conserve or restore streamside forests. Assuming that financial benefits were adequate, survey respondents were asked what contract lengths they would be willing to enter into: 10-year, 20-year, 30-year, or permanent agreements.

Based on survey responses recorded in **Table 4-8**, interest decreases with contract length with 38% answering definitely yes or probably yes to a 10-year contract and only 13% answering definitely yes or probably yes to a 30-year or permanent contract. Respondents also indicated a greater degree of uncertainty with 32% to 37% answering that they are unsure of any of the contract lengths.

Table 4-8. Survey respondents interest in participating in voluntary incentive conservation programs based on contract length

Length	Definitely Yes	Probably Yes	Unsure	Probably No	Definitely No
10-year contract	8%	30%	**32%**	12%	18%
20-year contract	4%	13%	**37%**	19%	26%
30-year contract	4%	9%	**36%**	22%	29%
Permanent contract	4%	9%	**34%**	19%	35%

Source: 2012 McKenzie River Watershed Seller Survey

Survey respondents were asked at what price per acre they would be willing to participate in a voluntary incentive program. **Table 4-9** shows survey respondents interest in participating in voluntary incentive programs based on annual payments per acre. Survey responses showed a great degree of uncertainty with roughly 40% of all respondents indicating they were unsure. As predicted, as price increased so did interest in the program. At $25 per acre, only 7% of respondents answered definitely yes or probably yes. At $400 per acre, the number of respondents answering definitely yes or probably yes jumped up to 36%. At $50 per acre or less, 54% of respondents indicated they would probably or definitely not participate.

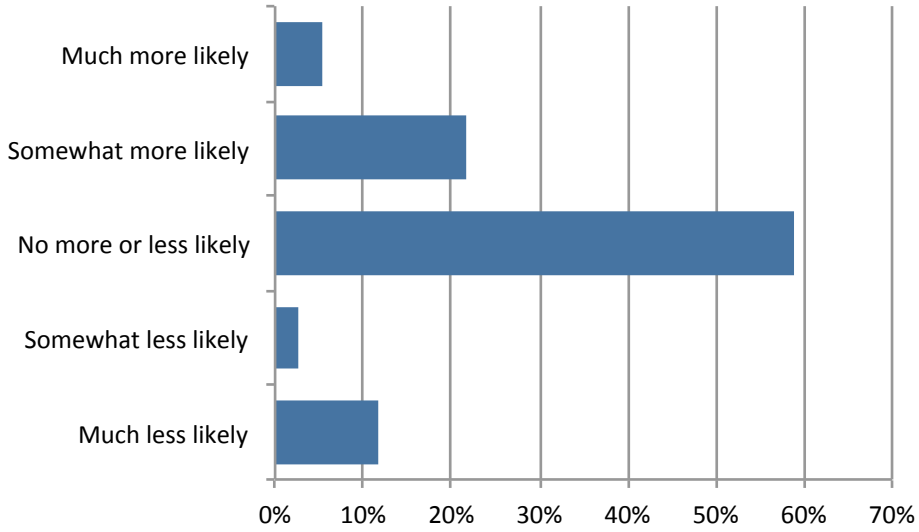
Table 4-9. Survey respondents interest in participating in voluntary incentive conservation programs based on annual payments per acre

Annual payment	Definitely Yes	Probably Yes	Unsure	Probably No	Definitely No
$25 per acre	2%	5%	**40%**	18%	36%
$50 per acre	2%	8%	**40%**	18%	31%
$100 per acre	5%	15%	**43%**	13%	24%
$200 per acre	8%	19%	**41%**	11%	21%
$400 per acre	20%	16%	**36%**	10%	18%

Source: 2012 McKenzie River Watershed Seller Survey

Survey respondents were asked if they would be more or less likely to participate in the voluntary incentive program if EWEB offered a bonus payment at the start of the contract. Fifty-nine percent indicated that they were no more or less likely. Five percent indicated that they were much more likely and 22% somewhat more likely. Twelve percent answered much less likely. **Figure 4-7** shows survey responses based on an initial bonus payment at the start of the contract.

Figure 4-7. Survey respondents willingness to participate in a voluntary incentive program based on a bonus payment at the start of the contract



Source: 2012 McKenzie River Watershed Seller Survey

Table 4-10 shows survey respondents willingness to participate in a voluntary incentive program given various contract requirements. Potential requirements include deed restrictions, periodic on-site monitoring, annual reporting, specific management actions such as weed control, regular project maintenance, joint participation with neighbors, repayment if enrolled land fails to meet program criteria, and public

recreation access. Survey respondents answered definitely yes or probably yes to periodic on-site monitoring (36%) and regular project maintenance (38%). Eighty-seven percent answered probably or definitely no to public recreation access and 59% answered probably or definitely no to a deed restriction lasting the duration of the contract. Other conditions fall in the middle receiving equal yes and no support. Roughly a third of respondents answered unsure to all the conditions (excluding public recreation access).

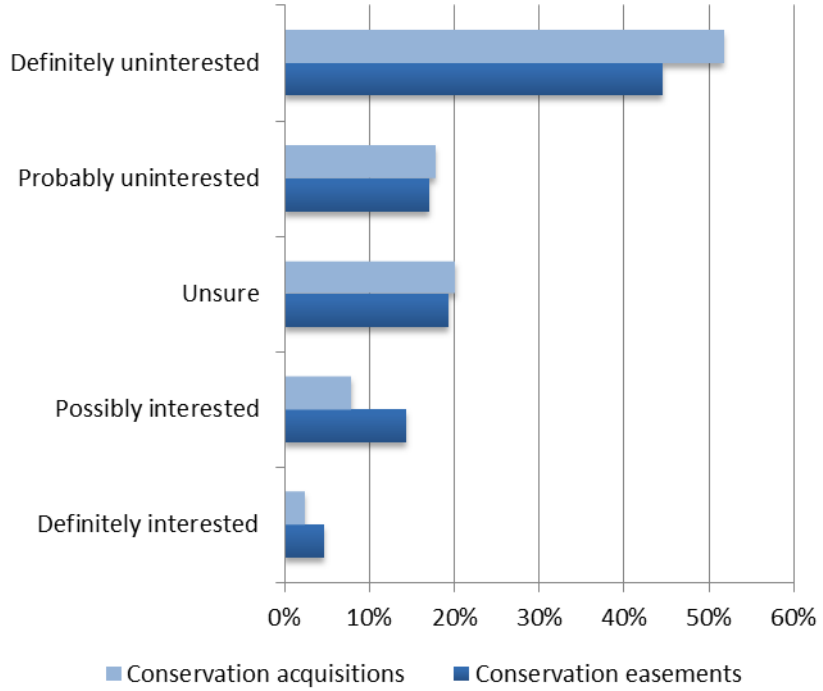
Table 4-10. Survey respondents' willingness to participate in a voluntary incentive program based on EWEB requirements

Type of condition	Definitely Yes	Probably Yes	Unsure	Probably No	Definitely No
Regular project maintenance (example: noxious weed control)	**4%**	**34%**	31%	10%	21%
Periodic on-site monitoring	**5%**	**31%**	26%	13%	25%
Annual performance evaluations	3%	27%	29%	14%	26%
Specific management actions prior to enrollment (example: noxious weed control)	3%	27%	34%	13%	24%
Joint participation with your neighbors or nearby landowners	2%	26%	36%	13%	22%
Repayment if your enrolled land fails to meet program criteria	3%	14%	35%	17%	31%
A deed restriction lasting the duration of the contract	2%	10%	29%	**19%**	**40%**
Public recreational access	0%	1%	12%	**17%**	**70%**

Source: 2012 McKenzie River Watershed Seller Survey
Note: Responses are in descending order by "definitely yes" plus "probably yes"

Figure 4-8 shows survey respondents' interest in conservation easements and acquisitions. Responses indicate that a majority of those surveyed are not interested in conservation easements and acquisitions. Seventy percent of respondents indicated that they were uninterested in conservation acquisitions while 62% were uninterested in conservation easements. About 20% of respondents answered unsure.

Figure 4-8. Survey respondents' interest in conservation easements and acquisitions



Source: 2012 McKenzie River Watershed Seller Survey

EWEB is considering the creation of a zero-interest loan program for projects in the McKenzie River watershed that enhance water quality reduce pollution, or increase water use efficiency. Survey respondents were asked if they would be interested in a zero-interest loan program for septic upgrades, irrigation efficiency projects, transition to organic production, and invasive weed removal. **Table 4-11** shows survey responses. With the exception of invasive weed control a higher percentage of respondents answered probably to definitely no (42-50%) for all of these programs and approximately 30% of respondents indicated that they were unsure. Thirty-five percent of respondents answered probably to definitely yes for invasive weed control and 30% for septic upgrades.

Table 4-11. Survey respondents interest in participating in a zero interest loan

Zero interest loans for:	Definitely Yes	Probably Yes	Unsure	Probably No	Definitely No
Septic upgrade	6%	24%	**28%**	17%	25%
Irrigation efficiency	7%	16%	**30%**	22%	25%
Transition to organic production	4%	10%	**36%**	22%	28%
Invasive weed control	10%	24%	**30%**	16%	20%

Source: 2012 McKenzie River Watershed Seller Survey

Program administration is an important component of EWEB's voluntary incentive program. Respondents were asked to answer how likely they would be to enroll in an incentive program if it required them to work with an organization. **Table 4-12** shows the survey results. Respondents showed the greatest interest (somewhat likely, very likely or extremely likely) in working with the Oregon Department of Fish and Wildlife (50%), Oregon State University Lane County extension service (48%), EWEB (45%), and the McKenzie Watershed Council (46%). Cascade Pacific Resource Conservation & Development l received the least amount of interest with only 23% of respondents indicating that they were extremely, very, or somewhat likely to work with the organization. This may be due in part to landowner's lack of familiarity with Cascade Pacific as 40% indicated they don't know.

Table 4-12. Survey respondents interest in working with organizations to implement a voluntary incentive program

Organizations	Extremely likely	Very likely	Somewhat likely	Not very likely	Not at all likely	Don't know
Oregon Department of Fish and Wildlife (ODFW)	5%	18%	**27%**	9%	17%	24%
Oregon State University Lane County Extension Service	8%	13%	**28%**	11%	18%	24%
McKenzie River Watershed Council	6%	16%	**25%**	11%	17%	**25%**
Eugene Water & Electric Board (EWEB)	5%	12%	**28%**	11%	21%	23%
McKenzie River Trust	5%	14%	21%	14%	20%	**27%**
Upper Willamette SWCD	3%	8%	20%	16%	20%	**33%**
Oregon Watershed Enhancement Board (OWEB)	2%	8%	20%	14%	19%	**36%**
Natural Resources Conservation Services (NRCS)	3%	9%	17%	15%	21%	**34%**
Private consulting firms	2%	7%	18%	16%	22%	**35%**
Lane Council of Governments (LCOG)	3%	7%	15%	20%	25%	**30%**
Cascade Pacific Resource Conservation & Development (CPRCD) Council	2%	6%	15%	16%	21%	**40%**

Source: 2012 McKenzie River Watershed Seller Survey
Note: Responses sorted in descending order by "extremely likely" plus "very likely" plus "somewhat likely"

Additional Landowner Information

Overall, survey respondents agreed to positive personal statements about the importance of the McKenzie River Watershed. Eighty-three percent agree or strongly agree to the statement "it is my favorite place to be." Seventy one percent agree or strongly agree to the statement "it reflects the type of person I am" and 77% agree or strongly agree to the statement "I feel I can really be myself when I'm there." Only 10% of respondents agree or strongly agree to the statement "I don't really identify with the McKenzie River Watershed." **Table 4-13** shows survey respondents sentiments towards the McKenzie River Watershed.

Table 4-13. Survey respondents sentiments towards the McKenzie River Watershed

Statements	Strongly Agree	Agree	Unsure	Disagree	Strongly Disagree	Total
It is my favorite place to be	39%	**44%**	9%	7%	1%	100%
I feel I can really be myself when I'm there	26%	**51%**	14%	7%	2%	100%
It is the best place for me to do the things I enjoy	28%	**47%**	13%	12%	1%	100%
I really miss it when I am away for too long	27%	**45%**	18%	8%	2%	100%
It reflects the type of person I am	22%	**50%**	21%	6%	2%	100%
I feel happiest when I am there	25%	**40%**	22%	11%	2%	100%
I would enjoy the activities I undertake there just as well in another place	4%	25%	26%	**36%**	9%	100%
As far as I am concerned there are better places to be	4%	14%	23%	**42%**	17%	100%
I don't really identify with the McKenzie River Watershed	2%	8%	17%	**43%**	30%	100%

Source: 2012 McKenzie River Watershed Seller Survey
Note: Responses are in descending order by "strongly agree" plus "agree"

Table 4-14 shows survey respondents feelings of attachment towards various places from the Western United States and the Pacific Northwest to more locally the Eugene/Springfield area and the McKenzie Watershed. Eighty-one percent of respondents indicated that they were very attached or extremely attached to Oregon, 73% to the Pacific Northwest, and 71% to the McKenzie Watershed. Only 52% and 54% respectively were very attached or extremely attached to the Eugene/Springfield area and the Willamette Valley. Twenty-four percent indicated that they were not attached to the Lower Columbia River Basin.

Table 4-14. Survey respondents' feelings of attachment towards various places

Places	Extremely Attached	Very Attached	Moderately Attached	Slightly Attached	Not Attached
The Eugene/Springfield area	15%	**37%**	29%	15%	4%
The McKenzie Watershed	27%	**43%**	18%	6%	5%
The Willamette Valley	15%	**40%**	34%	9%	2%
Oregon	33%	**48%**	13%	5%	1%
The Lower Columbia River Basin	5%	19%	**32%**	20%	24%
The Pacific Northwest	29%	**44%**	20%	6%	2%
The Western United States	28%	**39%**	22%	7%	4%

Source: 2012 McKenzie River Watershed Seller Survey

Table 4-15 shows survey respondents' level of trust of institutions that support the environmental health of the McKenzie River Watershed. Forty-five percent of respondents indicated the greatest amount of trust

(high or moderate trust) among private landowners in the watershed. Forty-two percent of respondents showed a high or moderate amount of trust in EWEB. Forty percent of respondents answered "Not Much Trust" of federal natural resource agencies. Forty-two percent answered 'Not Much Trust' to Local government and Eugene residents. Respondents also showed a higher amount of trust for local non-profit organizations (36%) than national non-profit organizations (22%).

Table 4-15. Survey respondents' level of trust of institutions that support the environmental health of the McKenzie River Watershed

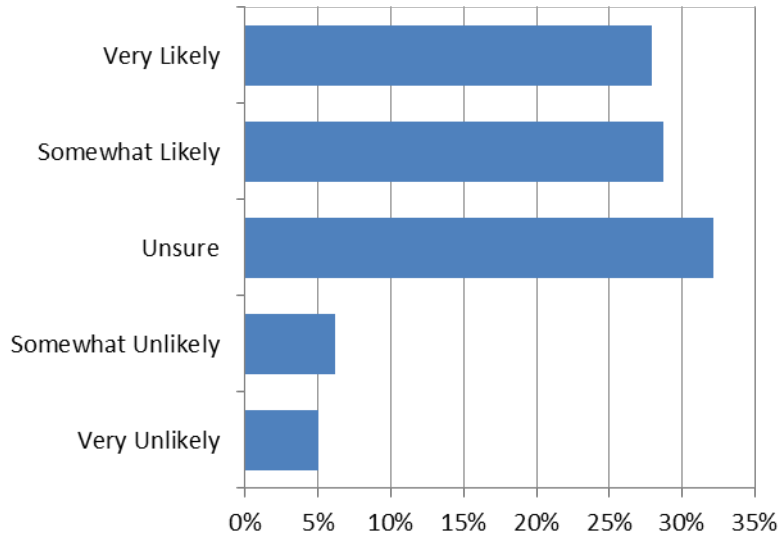
Agency/Organization	High Trust	Moderate Trust	A Little Trust	Not Much Trust	Unsure
Private landowners in the watershed	9%	**36%**	31%	15%	9%
Eugene Water & Electric Board	6%	**36%**	27%	22%	9%
Local non-profit organizations	7%	**29%**	28%	22%	13%
State natural resource agencies	2%	**32%**	**32%**	26%	9%
Federal natural resource agencies	2%	24%	26%	**40%**	9%
Local government	2%	21%	28%	**42%**	7%
National non-profit organizations	2%	20%	27%	**36%**	15%
Eugene residents	2%	18%	24%	**42%**	13%

Agency/Organization	High Trust	Moderate Trust	A Little Trust	Not Much Trust	Unsure
Private landowners in the watershed	9%	**36%**	31%	15%	9%
Eugene Water and Electric Board	6%	**36%**	27%	22%	9%
Local non-profit organizations	7%	**29%**	28%	22%	13%
State natural resource agencies	2%	**32%**	**32%**	26%	9%
Federal natural resource agencies	2%	24%	26%	**40%**	9%
Local government	2%	21%	28%	**42%**	7%
National non-profit organizations	2%	20%	27%	**36%**	15%
Eugene residents	2%	18%	24%	**42%**	13%

Source: 2012 McKenzie River Watershed Seller Survey
Note: responses sorted in descending order based on "high trust" plus "trust"

Based on the opinion of survey respondents - family, relatives, and friends will likely (57% somewhat or very likely) be supportive of their participation in a voluntary program to promote the environmental health of the McKenzie Watershed. Eleven percent indicated that family, relatives, and friends would be somewhat or very unlikely to be supportive. Nearly a third (32%) of respondents said they were unsure. **Figure 4-9** shows the results.

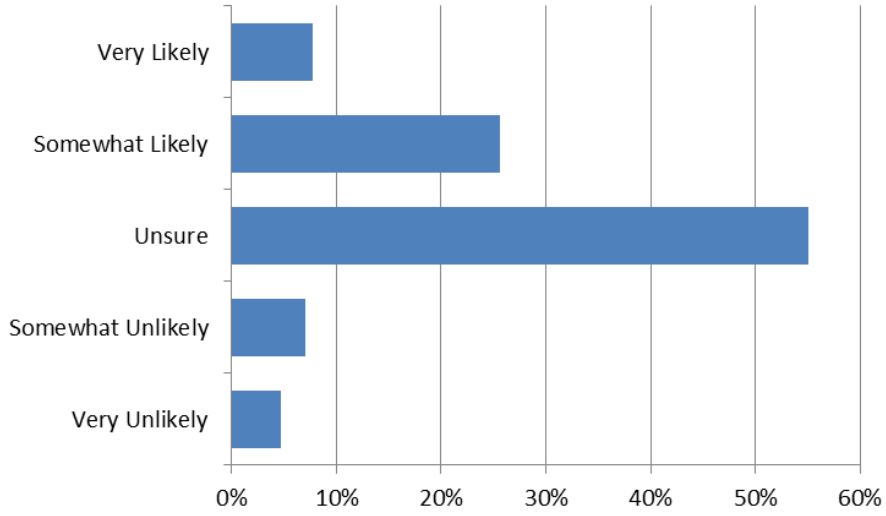
Figure 4-9. Survey respondents opinion of the likelihood that family, relatives, and/or friends will be supportive of their participation in a voluntary program to promote the environmental health of the McKenzie River Watershed



Source: 2012 McKenzie River Watershed Seller Survey

Figure 4-10 shows survey respondents' opinion of the likelihood that their neighbors will participate in a voluntary program to promote the environmental health of the McKenzie Watershed. Fifty-five percent indicated that they were unsure if their neighbors would participate in a voluntary program. Thirty-four percent of respondents believe that their neighbors are somewhat or very likely to participate. Twelve percent indicate that their neighbors are somewhat or very unlikely to participate.

Figure 4-10. Survey respondents' opinion of the likelihood that their neighbors will participate in a voluntary program to promote the environmental health of the McKenzie River Watershed



Source: 2012 McKenzie River Watershed Seller Survey

Key Findings

- The survey was distributed to 597 private landowners in the McKenzie River Basin. Of those people, 272, or 44% responded to the survey.
- More than half (56%) of those who responded to the survey were 65 years of age or older, while only one percent of respondents were in the 25-34 age range. The average age of respondents to the Seller survey was 68 years old; the median age was 66 years old.
- Of those who responded to the survey, 86% have owned their property for more than 10 years. Close to half of all respondents (47%) have owned their property for more than 25 years. Only 3% of those who responded have owned their property for less than five years.
- Of those who responded to the survey, 80% considered the McKenzie Watershed their primary residence. Ninety-two percent of respondents anticipated that they will continue to own their property for the next ten years. Sixty-five percent of respondents have a designated successor to take over the management of the property in the case of their passing.
- Forty-one percent of respondents indicated that they were engaged in timber or forestry and 29% of respondents indicated that they were engaged in farming. As a whole, timber and

agriculture account for 70% of current land use in the McKenzie River Watershed.

- Household incomes of $100,000 or more represent 34% of respondent households. An additional 19% of households indicate earning between $75,000-$99,000 per year while 21% of surveyed households earn between $50,000-$74,999 annually. Only 26% of survey respondents indicated household earnings of less than $49,999 per year.

- Of those who responded to the survey, close to half (49%) self identified as very or somewhat conservative. Fifteen percent of respondents identified as neither conservative nor liberal. Those that identified as somewhat or very liberal constitute 31% of the survey respondents.

- Based on survey responses, 53% have controlled for invasive species within the last five years and 29% indicated thinning forestland to reduce fire risk. No respondents indicated leasing, selling, or donating water rights for conservation.

- Approximately 23% of respondents indicated they have participated in voluntary conservation programs at some point. A total of 10% of survey respondents have participated in local voluntary conservation programs.

- Four percent of survey respondents indicated having some or all of their land covered by a conservation easement held by a conservation organization or agency. Two percent of survey respondents indicated having sold, donated, or transferred the title to land previously owned to a conservation organization or agency.

- Three percent of respondents have participated in livestock or crop certification programs. While 7% of respondents have participated in forest certification programs.

- With respect to support for conservation programs, respondents showed the most support for benefiting water quality (44% were somewhat, very, or extremely likely), followed by protecting and maintaining healthy floodplain areas (41% were somewhat, very, or extremely likely) and streamside forests (39% were somewhat, very, or extremely likely).

- With respect to enrolling in a voluntary conservation program, a near majority (48%) of respondents indicated definite or possible interest in maintaining existing healthy streamside forest, while 27% of respondents were unsure of their interest in maintaining existing healthy forests. Forty-one percent of respondents indicated definite or possible interest in restoring streamside

forests that are currently degraded and 30% in creating streamside forest on land that is not currently forested.

- Interest decreases with contract length with 39% answering definitely yes or probably yes to a 10-year contract and only 13% answering definitely yes or probably yes to a 30-year or permanent contract. Respondents also indicated a greater degree of uncertainty with 32% to 37% answering unsure.

- Survey respondents' interest in payments for conservation increases as the amount of the payment increases. At $25 per acre, only 7% of respondents answered definitely yes or probably yes. At $400 per acre, the number of respondents answering definitely yes or probably yes jumped up to 35%. At $50 per acre or less, approximately 50% or respondents indicated they would probably or definitely not participate.

- Respondents showed the greatest interest (somewhat likely, very likely or extremely likely) in working with the Oregon Department of Fish and Wildlife (50%), Oregon State University Lane County extension service (48%), EWEB (45%), and the McKenzie Watershed Council (46%). Cascade Pacific Resource Conservation & Development received the least amount of interest with only 23% of respondents indicating that they were likely to work with the organization, this may also be because this is the least known of the organizations and agencies.

- Forty-five percent of respondents indicated they most trusted (high or moderate trust) private landowners in the watershed. Forty-two percent of respondents showed a high or moderate amount of trust in EWEB. Forty percent of respondents answered 'Not Much Trust' of federal natural resource agencies. Forty-two percent answered 'Not Much Trust' to local government and Eugene residents.

CHAPTER 5: KEY CONCLUSIONS & IMPLICATIONS

This chapter summarizes key conclusions and implications of the EWEB ratepayer (buyer) and McKenzie Watershed landowner (seller) surveys. Eugene Water & Electric Board ratepayers allow the research team to gauge ratepayer willingness to pay for a proactive effort to conserve the source of their drinking water. McKenzie Valley landowners provide insights into the population who provide the foundation of any ecosystem conservation efforts. When taken together, the results of the Buyers Survey and Sellers Survey can provide insight into the attitudes, opportunities, and challenges a payment for ecosystem services market may present in the McKenzie Watershed.

Comparison of Buyer and Seller Survey

To gauge support among prospective buyers and sellers of a Payment for Ecosystem Services (PES) marketplace, the two surveys included a set of questions that allow direct comparisons between the two populations.[4] By comparing and contrasting these questions, this chapter describes some significant relationships in selected characteristics vital to the success of a PES program.

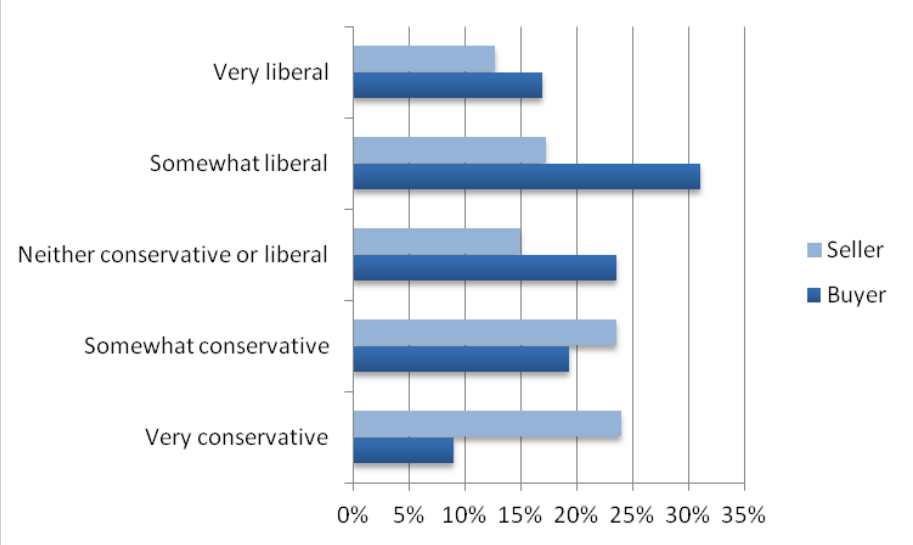
Analysis of the results suggests essential differences exist between buyer and seller respondents in regards to their geographic attachment, political views, and some demographic information.

Respondents from both the Buyer and Seller surveys identified strong attachment to the Eugene/Springfield area in particular, as well as very strong attachment to larger regional groupings such as the State of Oregon and the Pacific Northwest region. Prospective Seller respondents seem to have stronger attachment to the McKenzie Watershed than prospective Buyer respondents, while buyers reported higher attachment to the Willamette Valley.

Seller respondents living in the McKenzie Watershed tend to hold more conservative values than Buyer respondents living in Eugene (**Figure 5-1**). When asked to self-identify political viewpoints, on average, Sellers identified as "Somewhat conservative" with 25% of respondents identifying as "Very conservative." This is in significant contrast with Buyers, who hold more liberal values. On average, rate-payers self-identified as "Somewhat liberal" with 17% of respondents identifying as "Very liberal." Buyers hesitated more in identifying their political leanings, as 24% of Buyers and 15% of Sellers identified with "Neither conservative nor liberal" political views.

[4] The samples address different populations; the comparisons in this chapter focus on attitudinal characteristics between the two populations.

Figure 5-1. Buyer and Seller Political Identification



Source: 2012 EWEB Residential Rate Payer Survey and McKenzie River Watershed Seller Survey

Buyer respondents trust different agencies than their Seller counterparts. The most notable differences exist in regards to the type of institution to support the environmental health of the McKenzie River Watershed include trust of Private Land Owners (**Table 5-1**). **Notably significant similarities exist between the two groups' trust of Local Governments, National and Local Non-profit organizations, and State Natural Resource agencies.** Eugene Water &Electric Board had similar average trust in both groups, though this relationship was not shown to be statistically significant.

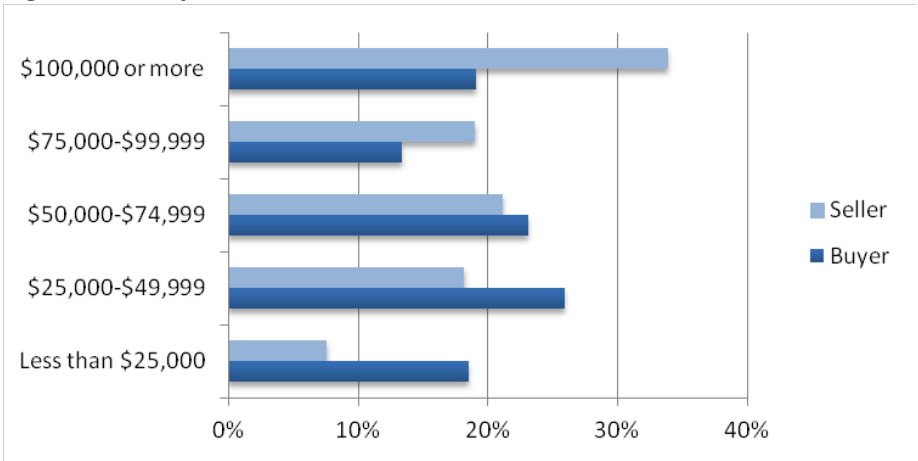
Table 5-1. Average Trust in institutions supporting the environmental health of the McKenzie River Watershed, ranked by statistical significance

Institution	Sellers	Buyers
Private Land Owners	1.43	0.85
Local Government	0.80	1.10
National Non-Profit organizations	0.85	1.12
Local Non-Profit organizations	1.24	1.47
State Natural Resource agencies	1.10	1.29
Federal Natural Resource agencies	0.87	0.97
Eugene Water and Electric Board	1.29	1.38

Note: This data has been averaged from responses of Figures 3-15 and 4-15; 0=Not Much Trust, 1=A Little Trust, 2=Moderate Trust, 3=High Trust.
Source: 2012 EWEB Residential Rate Payer Survey and McKenzie River Watershed Seller Survey

Demographically, seller respondents differ from Buyer respondents. As described in **Figure 5-2**, respondents to the Seller survey indicated having higher occurrence of incomes over $100,000; fewer respondents to the Seller survey indicated having a household income of less than $25,000. Respondents from Eugene more commonly reported a household income of between $25,000 and $75,000 annually before taxes.

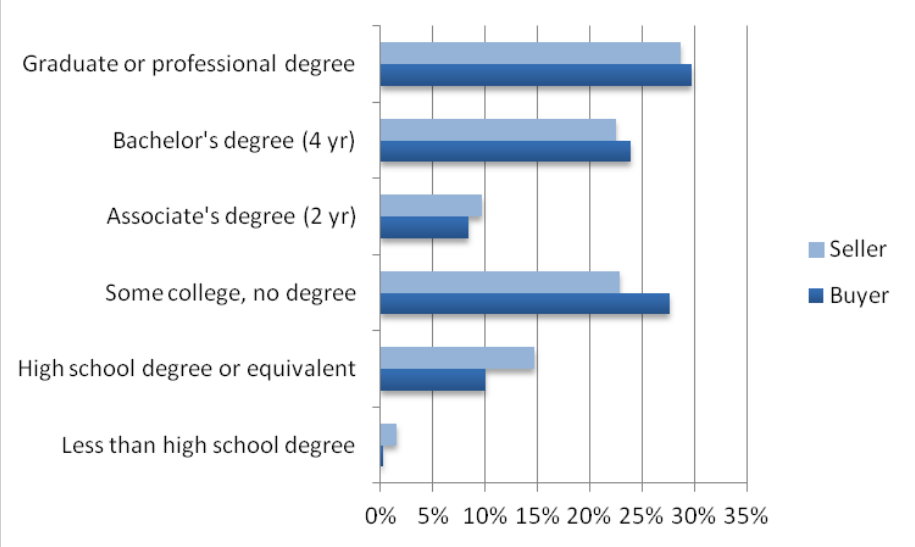
Figure 5-2. Buyer and Seller Household Income before taxes, 2011-12



Source: 2012 EWEB Residential Rate Payer Survey and McKenzie River Watershed Seller Survey

Respondents to both Buyer and Seller surveys reported different levels of educational attainment (**Figure 5-3**). Most notably, buyer respondents were more likely to have attended some college or completed some form of higher education. Though the plurality of Seller respondents reported comparable likelihood of attaining a bachelor's or graduate degree, seller respondents were more likely than Buyer respondents to have achieved an Associate's degree, a high school degree, or less.

Figure 5-3. Buyer and Seller Educational Attainment



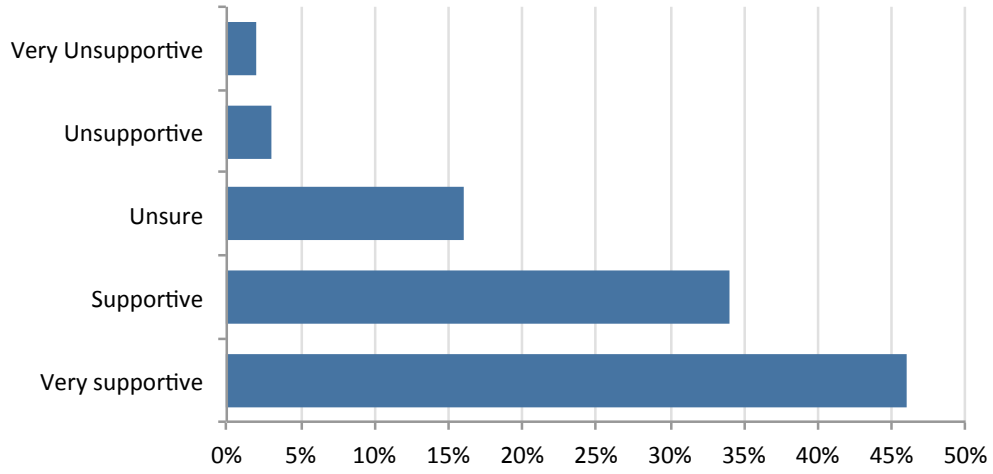
Source: 2012 EWEB Residential Rate Payer Survey and McKenzie River Watershed Seller Survey

Interest in Payment for Ecosystem Services

To gauge interest for a Payment for Ecosystem Services (PES) market, both Buyer and Seller respondents were asked how supportive they felt about particular details of potential market details. Buyers were asked a series of questions regarding their willingness to pay for ecosystem services provided by the McKenzie Watershed, while Sellers were asked a series of questions regarding their willingness to participate in a PES market.

Figure 5-4 shows how supportive or unsupportive Buyer respondents are of establishing programs or activities to maintain the environmental benefits provided by the McKenzie Watershed. Overwhelmingly, 80% of survey respondents were either very supportive (46%) or supportive (34%) of establishing programs or activities to maintain the environmental benefits provided by the McKenzie Watershed.

Figure 5-4. Buyers' support of survey respondents establishing programs or activities to maintain the environmental benefits provided by the McKenzie River Watershed



Source: 2012 EWEB Residential Rate Payer Survey

Table 5-2 shows how supportive or unsupportive Buyer respondents felt about a variety of financial assistance programs designed to support landowners willing to conserve ecosystem services on their property. Generally, Buyers supported a grant, annual payment, or incentive program aimed at conservation, though the most support was exhibited for a grant program for residential owners with failing septic systems.

Table 5-2. Buyer respondents' level of support of establishing the following types of financial assistance programs for landowners, assuming they are well-designed and managed by a trustworthy organization

Question	Very Supportive	Supportive	Unsure	Unsupportive	Very Unsupportive	Responses
A grant program for private landowners to implement watershed restoration projects	22%	**40%**	25%	9%	4%	384
A grant program for residential owners with failing septic systems	30%	**39%**	21%	7%	4%	389
An annual payment program for landowners who maintain healthy streamside forests	19%	24%	**34%**	17%	6%	388
An incentive program for agricultural and forest landowners who adopt management practices that enhance water quality	25%	**39%**	24%	7%	4%	389

Source: 2012 EWEB Residential Rate Payer Survey

Table 5-3 shows interest among landowners in participating in voluntary incentive programs in the McKenzie Watershed. A near majority (48%) of respondents indicated interest in maintaining existing healthy streamside forest, while 27% of respondents were unsure of their interest in maintaining existing healthy forests. Forty percent of respondents indicated interest in restoring streamside forests that are currently degraded, and 30% showed interest in creating streamside forest on land that is not currently forested. Roughly 30% of respondents were uncertain about restoring currently degraded forest or not currently forested areas.

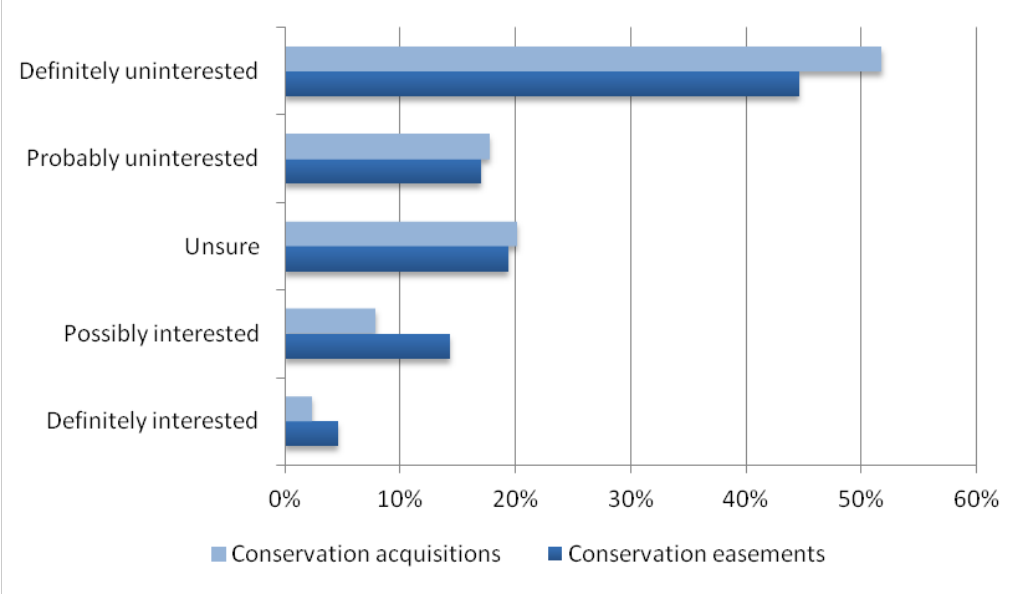
Table 5-3. Seller respondents interest in participating in voluntary incentive conservation programs

Activity	Definitely Interested	Possibly Interested	Unsure	Probably Uninterested	Definitely Uninterested
Maintain existing healthy streamside forests	19%	**29%**	27%	9%	17%
Restoring streamside forests that are currently degraded or unhealthy	14%	26%	**30%**	12%	18%
Creating streamside forests on land that is not currently forested	10%	20%	**32%**	15%	23%

Source: 2012 McKenzie River Watershed Seller Survey

Respondents wish to continue to own the land they conserve through water quality improvement programs. Responses indicate, as shown in **Figure 5-5,** that a majority of those surveyed are not interested in conservation easements and acquisitions. Of those interested, conservation easements are preferred over conservation acquisitions. About 20% of respondents were uncertain about their interest.

Figure 5-5. Survey respondents interest in conservation easements and acquisitions



Source: 2012 McKenzie River Watershed Seller Survey

Based on survey responses recorded in **Table 5-4**, interest decreases with contract length with 38% answering "definitely yes" or "probably yes" to a 10-year contract and only 13% answering definitely yes or probably yes to a 30-year or permanent contract. Uncertainty of respondents may indicate a need for more information before landowners will commit to conservation programs in durations longer than 10 years.

Table 5-4. Survey respondents interest in participating in voluntary incentive conservation programs based on contract length

Length	Definitely Yes	Probably Yes	Unsure	Probably No	Definitely No
10-year contract	8%	30%	**32%**	12%	18%
20-year contract	4%	13%	**37%**	19%	26%
30-year contract	4%	9%	**36%**	22%	29%
Permanent contract	4%	9%	**34%**	19%	35%

Source: 2012 McKenzie River Watershed Seller Survey

Market Conditions

Based on the findings of **Table 5-5,** there is a potential willingness of Buyer respondents to participate in a program to improve water quality on the McKenzie River. Most 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 (55%). Since EWEB initially proposed a $0.41 monthly fee (EWEB, 2012), this data suggests strong support for this rate and possibly greater (Lurie, et. al., 2012). An additional 21% of survey respondents said "probably yes" that a $1 per month increase to improve water quality in the McKenzie River. A split occurred at the $3 monthly surcharge level for projects in the McKenzie

River corridor; 39% of respondents answered affirmatively, while 42% of respondents answered negatively. A $5 or $10 monthly increase to improve the water quality of the McKenzie River did not garner much support from respondents, with 61% rejecting a $5 increase and 77% of respondents rejecting a $10 increase.

Table 5-5. Potential Willingness to Participate in Water Quality Improvement Programs

Question	Definitely Yes	Probably Yes	Unsure	Probably No	Definitely No	Responses
50 cents per month	**55%**	17%	10%	3%	15%	375
$1 per month	**43%**	21%	12%	5%	20%	376
$3 per month	18%	21%	19%	14%	**28%**	374
$5 per month	9%	12%	18%	21%	**40%**	371
$10 per month	3%	6%	14%	23%	**54%**	371

Source: 2012 EWEB Residential Rate Payer Survey

Respondents are willing to pay more for water quality improvements of rivers they feel attachment to. When asked the same question, regarding their willingness to accept surcharges on their utility bill to support protection of other river corridors, such as the Willamette River or the Lower Columbia River, responses were not generally favored. Surcharges for protection of the Willamette River and Columbia River corridors were not as favored over $1 per month. While respondents supported a $0.50 charge for similar programs in the Willamette River (51%), and Lower Columbia River (36%). When taken together with previous research around attachment to watersheds (Hickson, 2012), respondents prove more willing to accept surcharges to protect regionally-relevant or –proximate watersheds.

Seller respondents were asked at what price per acre they would be willing to participate in a voluntary incentive program. As noted in **Table 5-6,** larger sums per acre were favored over smaller sums. At $400 per acre, the number of respondents answering definitely yes or probably yes reached to 36%, though the same percentage remained uncertain. At $200 per acre 27% of respondents remained interested, though interest dropped to one-fifth of respondents supporting a program at a rate of $100 per acre. Rates aside, this information indicates both definite interest at certain rates and significant uncertainty among Seller respondents.

Table 5-6. Survey respondents' interest in participating in voluntary incentive conservation programs based on annual payments per acre

Annual payment	Definitely Yes	Probably Yes	Unsure	Probably No	Definitely No
$25 per acre	2%	5%	**40%**	18%	36%
$50 per acre	2%	8%	**40%**	18%	31%
$100 per acre	5%	15%	**43%**	13%	24%
$200 per acre	8%	19%	**41%**	11%	21%
$400 per acre	20%	16%	**36%**	10%	18%

Source: 2012 McKenzie River Watershed Seller Survey

Although many differences exist between prospective Buyers and Sellers represented in this sample, key similarities provide an opportunity establish a symbiotic relationship in the interest of preserving essential services of the McKenzie Watershed.

Despite differences in their relationship to the Watershed, both Buyer and Seller respondents both feel a strong sense of place associated with the McKenzie River. Seller respondents identified the McKenzie Watershed as their "favorite place to be" and the "best place for me to do the things I enjoy," while Buyer respondents preferred to identify the Watershed as a place that "reflects the type of person I am." The two groups disagreed most with the statements that they "would enjoy the activities I undertake [in the McKenzie Watershed] just as well in another place" or "don't really identify with the McKenzie Watershed."

Both prospective Buyer and Seller respondents have inherent attachment to the state and the region. Seller and Buyer respondents agreed most, as noted in **Table 5-7**, with their attachment to the State of Oregon and the Pacific Northwest Region. United attitudes resulted in both groups identifying as "Moderately-" to "Very-" attached to these geographies with the least disagreement. Most notable is the attachment both groups had to the Eugene/Springfield area; Seller respondents noted they are, on average, "Moderately attached" while EWEB rate-payer respondents on average feel "Very attached."

Table 5-7. Attachment ranking of respondents to geographies

Rank	Sellers	Buyers
1	Oregon	Oregon
2	Pacific Northwest	Pacific Northwest
3	McKenzie	Eugene/Springfield
4	Western United States	Willamette Valley
5	Willamette Valley	Western United States
6	Eugene Springfield	McKenzie River Watershed
7	Lower Columbia River Basin	Lower Columbia River Basin

Source: 2012 EWEB Residential Rate Payer Survey and McKenzie River Watershed Seller Survey

Both ratepayers and basin residents are concerned about stream health and preserving the McKenzie watershed. Respondents to the buyers survey indicated overwhelming support (62%) for programs to help landowners protect ecosystems. In particular, 68% of respondents were either "Supportive" or "Very supportive" of grant programs to help residential owners with failing septic systems; 64% of respondents were either similarly supportive of an incentive program for agricultural and forest landowners who adopt management practices that enhance water quality. Respondents to the seller survey provided more tepid, but a near majority exhibited an "Interest" in maintaining existing healthy streamside.

Program interest is high in sampled prospective Buyers and Sellers. Based on comparisons between questions asked of sellers' willingness to participate for prescribed amounts of money per acre and buyers' willingness to pay on a monthly basis for a program of this kind, several relevant relationships can be identified. Eighty percent of Buyer respondents expressed support for programs that would maintain the environmental benefits provided by the McKenzie watershed. Taken with the finding that 48% of Sellers expressed an interest in programs that would help maintain existing streamside forests, this research suggests that EWEB's pursuit of a PES marketplace is potentially viable.

Recognizing the similarities between potential Buyers and Sellers, this analysis suggests that an overlap exists around sense of place and attachment to the McKenzie Watershed. Further analysis could identify key characteristics of those landowning individuals who responded affirmatively to questions regarding interest in conservation easements and willingness to accept certain rates of payment per acre of properly managed land. With this common ground and detailed analysis of these findings, a foundation for a PES marketplace (VIP) could be built.

Implications for ecosystem services programs

A Payment for Ecosystem Services (PES) marketplace will present significant logistical and holistic challenges such as valuation of land for ecosystem services, monitoring activities and accountability, maintenance requirements, education strategies, and desired outcomes, among others. Both buyers and sellers will rely on the transparency of all participating entities; literacy and education for the rate-paying public and landowning participants alike; as well as a clearly defined objective with clear milestones for a Volunteer Incentive Program (VIP) in the McKenzie River Watershed to be successful.

As discussed in the literature, "Key to a successful Payment for Ecosystems Services (PES) program is simplicity in all aspects of the program: design, implementation, and monitoring" (Greenwalt & McGrath, 2009). Based on the aforementioned Key Conclusions, EWEB can consider the implications of both ratepayer and landowner responses in the establishment of the VIP in the McKenzie Watershed.

Data from the Buyers survey suggests support of additional fees exceeds the initial proposal of an average fee of $0.41 per month (EWEB, 2012). Consent from ratepayers will greatly depend on EWEB successfully linking ratepayers' sense of place for the McKenzie River to the importance of a PES system for maintaining the McKenzie River's water quality and ecological value.

Success of a PES system will depend on "right-sizing" the market for McKenzie River Watershed landowners. Sellers indicated different palatable options for a VIP market structure, including some level of willingness to participate for payments between $25 and $400 per acre. Sellers' approval of conservation easements over acquisitions indicates a clear desire to retain ownership and thus stewardship of land in the McKenzie River Watershed. EWEB will have to work with landowners directly to find the optimum balance between the length of contract and rates of payment for maintenance and restoration of watershed services.

Nineteen percent of landowner respondents were "definitely interested" in participating in a voluntary program to maintain existing healthy riparian forests. Establishing a program by targeting a select example willing early adopter participants could help to work out program details, provide legitimacy in the proof of concept, and engender trust among nearby landowners. EWEB might also develop a forum to share experiences of participation.

Responses to both the Buyer and Seller surveys exhibited a moderate to high amount of uncertainty. Many respondents were reported uncertainty around questions about riparian preservation, duration of contracts, enforcement, and payment structures. This uncertainty is likely indicative of a lack of knowledge or understanding about what a program like the VIP would intend to achieve and how it would be implemented. EWEB will have to educate both McKenzie landowners and Eugene ratepayers about program goals regarding restoration and preservation of ecosystem services, requiring substantial outreach to both prospective Buyer and Seller groups.

Accountability of a VIP program also will help engender trust among both ratepayers and McKenzie watershed landowners. Clearly defined objectives, a transparent process for participation and regular reporting will allow landowners to understand the requirements of participation and ratepayers to understand the benefits of the VIP to protecting their drinking water resource. Publicly sharing the information regarding net benefit (this may include the amount of money disbursed, as well as avoided water treatment costs) to both ratepayers and landowners could provide incentive to support and participate in the VIP. By tracking progress, in both dollars and acres, uncertainty about the program, which was reported in both surveys, may be addressed. A reporting and monitoring system also could become the basis of a long-term adaptive management strategy.

APPENDIX A: SURVEY METHODOLOGY

This appendix describes the methods used to develop and administer the survey of EWEB ratepayers (the "Buyers Survey") and of landowners in the McKenzie watershed (the "Sellers Survey").

The Buyers Survey

The Buyers Survey sample was pulled from the population of residential water ratepayers in the EWEB service territory (primarily the City of Eugene). Of an estimated 50,000 residential water ratepayers in the City, the research team surveyed a stratified random sample of 1,000 individuals. The sample frame was EWEB's residential utility billing list—which includes all residential ratepayers that receive bills.[5]

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 a 12-page, black and white, printed booklet that consisted of 31 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.

The sample was stratified by U.S. Census Tract and income categories. The survey team grouped Census Tracts within Eugene City limits into income quintiles (five categories). A random sample from each quintile was pulled for a total sample size of 1,000 residential ratepayers.

To mitigate for anticipated survey response bias the sample oversampled slightly within the two lowest Census Tract income quintiles and undersampled slightly within the higher income census tract quintiles. Table A-1 shows the number of surveys administered and the approximate response rates from each Census Tract income quintile. Of the 1,000 surveys issued, 18 were returned by the post office due to a mailing address error or reported moving out of the EWEB service area, and two registered as email errors. Therefore, the final sample size was 980. Ratepayers in the sample were contacted a total of four times: first, an introductory postcard with the website address for the online survey version; second, with a survey packet as described above; third, with a reminder postcard; and finally, with follow-up survey packet. That portion of the sample that was selected for web-participation were contacted via email address up to six times over the course of six weeks.

[5] A small percentage of renters have their water bills included in their rent.

Of these 980 surveys issued, 411 individuals responded, a 41.9% response rate. Eugene Water & Electric Board offered a $10 credit for all those individuals who submitted a completed survey.

Table A-1. Buyer survey sample composition and response rate by Census income tract quintile, 2012

Income Quintile	Sample Size by Quintile	Responses by Quintile	Percent of Responses by Quintile	Percent of Total Responses
1	250	107	42.8%	26.0%
2	250	94	37.6%	22.9%
3	175	64	36.6%	15.6%
4	175	76	43.4%	18.5%
5	150	70	46.7%	17.0%
TOTAL	1000	411	41.1%	100.0%

Source: University of Oregon McKenzie River Watershed Survey of Eugene Residents, 2012 and 2010 U.S. Census of Population and Housing. Note that non-deliverables have not been removed from the sample size here and thus reported response rates are slightly different than in the text.

A key concern of organizations that conduct surveys is statistical validity. If one were to assume that the 2010 sample was perfectly random and that there was no response bias, then the survey would have a margin of error of ±5% at the 95% confidence level. In simple terms, this means that if a survey were conducted 100 times, the results would end up within ±5% 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 U.S. Census in 2010. 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 2012.

The Sellers Survey

The Sellers Survey was sent to the universe of 663 non-industrial private properties in the McKenzie Watershed that are within one mile of the McKenzie River and its major tributaries. The McKenzie Watershed covers approximately 1,300 square miles including the unincorporated areas of Marcola, Walterville, Leaburg, Vida, Nimrod, Blue River, and McKenzie Bridge, Oregon.[6]

Landowners received a survey packet via first class mail. Each landowner was asked to complete a 12-page black and white printed survey booklet, by answering 34 questions. The survey was to be returned to the University of Oregon via an enclosed postage-paid envelope. As a token

[6] About the McKenzie Watershed, http://www.mckenziewc.org/about.html

of appreciation, a check for $10.00 was included in the survey packet sent to each landowner.

Participation in this survey was voluntary. Of the initial property addresses, 66 surveys were unable to be delivered, bringing the sample frame to 597 possible respondents. Each viable address was contacted a total of three times: first, with a survey packet as described above; next, with a reminder letter; and finally, with a reminder postcard.

The Sellers Survey was completed over the course of 2 months by the owners of 265 properties within the McKenzie Valley, representing a 44.4% response rate. Table A-2 represents the Sellers Survey sample by Land Use designation.

Table A-2. Seller Survey Sample by Lane County Zoning

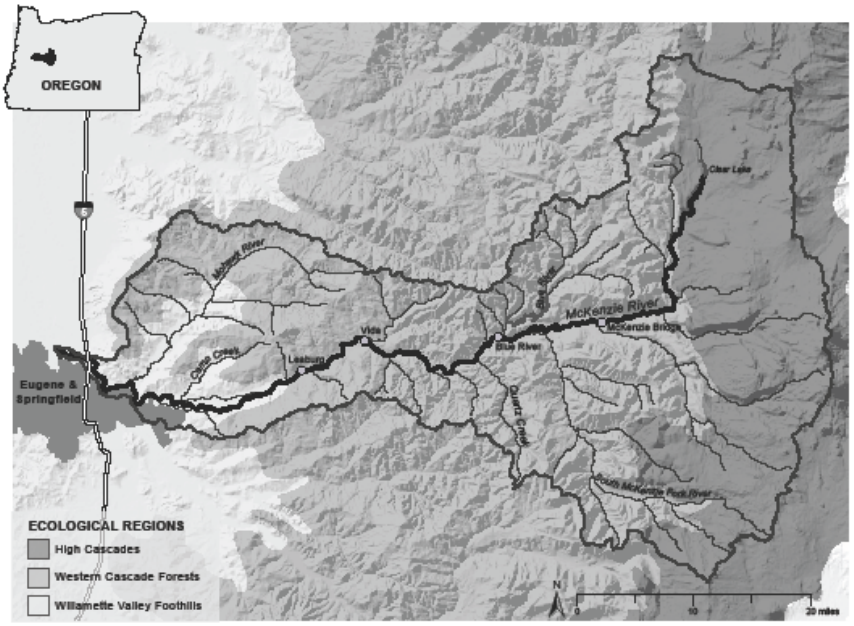
Zoning Designation	Tax Lots		Acres	
	Sample	Percent	Number	Percent
AG	3	0.5%	11	0.0%
E30	194	29.3%	7,644	30.1%
E40	43	6.5%	3,110	12.2%
E60	22	3.3%	1,001	3.9%
F1	39	5.9%	1,874	7.4%
F2	267	40.3%	10,827	42.6%
ML	17	2.6%	305	1.2%
RR10	78	11.8%	655	2.6%
Total	**663**	**100.0%**	**25,427**	**100.0%**

Source: University of Oregon McKenzie River Property Owners Survey, 2012 and Lane County GIS, 2012.

Appendix B: Survey Instruments

This appendix presents a copy of the online survey instrument. Please note that the survey looked considerably different in the online version. Much of the formatting is lost. Moreover, the survey had several skip sequences. The online survey software does not display questions that are skipped based on specific responses.

The McKenzie River Watershed



A Survey of Eugene Residents

Your help with this effort is greatly appreciated! Thank you!

Instructions:

- Please carefully read each question and make your responses clear.
- Feel free to write in any additional comments or explanations anywhere on the survey.
- Please mail your completed survey back in the prepaid envelope provided.
- All of your answers will be kept completely anonymous.

A watershed is an area of land within which all water drains to the same place. The McKenzie River is approximately 90 miles long and is fed by many smaller rivers, creeks, streams and springs. The McKenzie River converges with the Willamette River near Eugene and Springfiled, and eventually meets the Columbia River in Portland. The McKenzie River Watershed encompasses nearly 1,380 square miles. Forested lands comprise the majority of the watershed area, mostly in the higher elevations. Several small communities and agricultural land (primarily orchards, nurseries, row crops, and pastureland) are located in the lower elevations. The cities of Springfield and Eugene are located near the mouth of the McKenzie River, but the cities themselves are mostly outside of the watershed.

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THE MCKENZIE RIVER WATERSHED AND YOU

The McKenzie River provides drinking water to nearly 200,000 residents in the Eugene metropolitan area. You were selected to participate in this study in part because your water comes from the McKenzie River through a water intake located inside the Springfield city limits. Several hydroelectric dams on the McKenzie River provide electricity to much of the area's residents. The watershed also provides habitat to a variety of fish and wildlife, farm and forest products, and recreational opportunities.

1) **Did you know that your drinking water comes from the McKenzie River?** ***(Select one)***

○ Yes ○ No

2) **In an average year, how often do you visit the McKenzie River Watershed for the following reasons?** ***(Select one response for each activity that most closely matches you visitation)***

	Once a week	Once a month	Once every 3-4 months	Once every 6 months	Once a year	Never
Work	○	○	○	○	○	○
Visiting with family or friends	○	○	○	○	○	○
Visiting property I own	○	○	○	○	○	○
Walking	○	○	○	○	○	○
Hiking	○	○	○	○	○	○
Camping	○	○	○	○	○	○
Fishing	○	○	○	○	○	○
Boating, Rafting, Kayaking	○	○	○	○	○	○
Biking	○	○	○	○	○	○
Swimming	○	○	○	○	○	○
Sightseeing	○	○	○	○	○	○
Passing through	○	○	○	○	○	○
Birding or observing wildlife	○	○	○	○	○	○
Hunting	○	○	○	○	○	○
Off-road vehicle use	○	○	○	○	○	○
Other: _____	○	○	○	○	○	○

3) **How much does the McKenzie River Watershed enhance your quality of life?** ***(Select one)***

○ 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.

4) How much do you agree or disagree that the following statements describe the McKenzie River Watershed? *(Select one response for each statement)*

The McKenzie River Watershed is:	Strongly Agree	Agree	Neither Agree or Disagree	Disagree	Strongly Disagree
A place I can escape to	○	○	○	○	○
A place of high natural quality	○	○	○	○	○
A place for recreation	○	○	○	○	○
A place where I find community	○	○	○	○	○
A place for vacationing	○	○	○	○	○
A place for family outings	○	○	○	○	○
A place to restore myself	○	○	○	○	○
A place to protect	○	○	○	○	○
A place for producing lumber	○	○	○	○	○
A place for farming	○	○	○	○	○
A place to make a living	○	○	○	○	○
A place that needs development	○	○	○	○	○
A place to stay away from	○	○	○	○	○
A place that doesn't mean much to me	○	○	○	○	○

5) How much do you agree or disagree with the following statements about the natural features of the McKenzie River Watershed? *(Select one response for each statement)*

The McKenzie River Watershed:	Strongly Agree	Agree	Unsure	Disagree	Strongly Disagree
Is a **healthy watershed**	○	○	○	○	○
Has high **water quality**	○	○	○	○	○
Has healthy **fish habitat**	○	○	○	○	○
Has healthy **wildlife habitat**	○	○	○	○	○
Has healthy **streamside forests**	○	○	○	○	○
Has few **invasive species**	○	○	○	○	○
Has well-managed **farms**	○	○	○	○	○
Has healthy **forests**	○	○	○	○	○
Has well-managed **dams**	○	○	○	○	○
Has good **land use planning**	○	○	○	○	○
Has high quality **recreation**	○	○	○	○	○
Has high **scenic beauty**	○	○	○	○	○

6) How attached do you feel to each of the following places? *(Select one response for each place)*

	Extremely Attached	Very Attached	Moderately Attached	Slightly Attached	Not Attached
The Eugene/ Springfield Area	○	○	○	○	○
The McKenzie River Watershed	○	○	○	○	○
The Willamette Valley	○	○	○	○	○
Oregon	○	○	○	○	○
The Lower Columbia River Basin	○	○	○	○	○
The Pacific Northwest	○	○	○	○	○
The Western United States	○	○	○	○	○

7) How much do you agree or disagree with the following statements about the importance of the McKenzie River Watershed to you personally? *(Select one response for each statement)*

	Strongly Agree	Agree	Neither Agree or Disagree	Disagree	Strongly Disagree
It is my favorite place to be	○	○	○	○	○
As far as I am concerned there are better places to be	○	○	○	○	○
It is the best place for me to do the outdoor things I enjoy	○	○	○	○	○
I would enjoy the activities I undertake there just as well in another place	○	○	○	○	○
It reflects the type of person I am	○	○	○	○	○
I feel I can really be myself when I'm there	○	○	○	○	○
I really miss it when I am away for too long	○	○	○	○	○
I feel happiest when I am there	○	○	○	○	○
I don't really identify with the McKenzie River Watershed	○	○	○	○	○

RISKS TO WATERSHED HEALTH

8) How much do you agree or disagree with the following statements about land management in the McKenzie River Watershed? *(Select one response for each statement)*

	Strongly Agree	Agree	Unsure	Disagree	Strongly Disagree
Most agricultural management protects water resources	○	○	○	○	○
Most public forestland management protects water resources	○	○	○	○	○
Most private forestland management protects water resources	○	○	○	○	○
Most residential riverfront property protects water resources	○	○	○	○	○
Most highway maintenance protects water resources	○	○	○	○	○
Most recreational development protects water resources	○	○	○	○	○

In the McKenzie River watershed, some of the following may be ***very unlikely*** to occur, but create ***major negative consequences*** to the health of the watershed if they occur. Others may be ***very likely***, but only cause ***minor negative consequences*** that accumulate over time. It is OK if you are not an expert in these issues; we are simply looking for your general intuition.

9) **How likely or unlikely is it that the each following will negatively impact the health of the McKenzie River Watershed?** *(Select one response for each factor)*

	Very Likely	Somewhat Likely	Somewhat Unlikely	Very Unlikely	Unsure
Residential development	○	○	○	○	○
Pesticide and herbicide application	○	○	○	○	○
Fertilizer application	○	○	○	○	○
Transportation of hazardous materials on local highways	○	○	○	○	○
Stormwater runoff	○	○	○	○	○
Recreation	○	○	○	○	○
Septic contamination	○	○	○	○	○
Industrial pollution	○	○	○	○	○
Agricultural practices	○	○	○	○	○
Forestry practices	○	○	○	○	○
Invasive species	○	○	○	○	○
Wildfire	○	○	○	○	○
Demand for water	○	○	○	○	○

10) **How major or minor of an impact would the following have to the health of the McKenzie River Watershed?** *(Select one response for each factor)*

	Very Major	Somewhat Major	Somewhat Minor	Very Minor	Unsure
Residential development	○	○	○	○	○
Pesticide and herbicide application	○	○	○	○	○
Fertilizer application	○	○	○	○	○
Transportation of hazardous materials on local highways	○	○	○	○	○
Stormwater runoff	○	○	○	○	○
Recreation	○	○	○	○	○
Septic contamination	○	○	○	○	○
Industrial pollution	○	○	○	○	○
Agricultural practices	○	○	○	○	○
Forestry practices	○	○	○	○	○
Invasive species	○	○	○	○	○
Wildfire	○	○	○	○	○
Demand for water	○	○	○	○	○

PROTECTING THE WATERSHED

There are many citizens, landowners, non-governmental groups, and government agencies interested in protecting and enhancing the McKenzie River Watershed's health. Programs to protect or enhance the watershed range from regulations, to voluntary action, to education. We would like to know how you feel about protecting or enhancing the qualities of the McKenzie River Watershed.

11) **In general, how supportive or unsupportive would you be of establishing programs or activities to maintain the environmental benefits provided by the McKenzie River Watershed?** *(Select one)*

- ○ Very supportive
- ○ Supportive
- ○ Unsure
- ○ Unsupportive
- ○ Very unsupportive

12) **How urgent do you think it is to put into action programs that maintain or improve the health of the McKenzie River Watershed?** *(Select one)*

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

13) **How supportive or unsupportive would you be of establishing the following types of education programs about watershed stewardship?** *(Select one response for each program)*

	Very Supportive	Supportive	Unsure	Unsupportive	Very Unsupportive
A technical assistance program to help agricultural and forest landowners plan and implement watershed protection measures.....	○	○	○	○	○
An appropriate pest management training program focused on reducing pesticide use....	○	○	○	○	○
An inspection program designed to monitor septic systems.....	○	○	○	○	○
A watershed education school program.....	○	○	○	○	○
A community education program about watershed protection.....	○	○	○	○	○

14) How supportive or unsupportive would you be of establishing the following types of financial assistance programs for landowners, assuming they are well-designed and managed by a trustworthy organization ? *(Select one response for each program)*

	Very Supportive	Supportive	Unsure	Unsupportive	Very Unsupportive
A grant program for private landowners to implement watershed restoration projects...	○	○	○	○	○
A grant program for residential landowners with failing septic systems.....	○	○	○	○	○
An annual payment program for landowners who maintain healthy streamside forests.....	○	○	○	○	○
An incentive program for agricultural and forest landowners who adopt management practices that enhance water quality.....	○	○	○	○	○

15) How supportive or unsupportive would you be of the following types of restrictions, assuming they are well-designed and enforced? *(Select one response for each restriction)*

	Very Supportive	Supportive	Unsure	Unsupportive	Very Unsupportive
Restricting the total number of new residences allowed.....	○	○	○	○	○
Restricting new residential development in ecologically important areas.....	○	○	○	○	○
Restricting new septic systems in ecologically important areas.....	○	○	○	○	○
Restricting the amount of pavement in new residential developments.....	○	○	○	○	○
Restricting logging near streams.....	○	○	○	○	○
Requiring the maintenance of native vegetation near streams.....	○	○	○	○	○

16) How supportive or unsupportive would you be of the following types of open space protections, assuming they are implemented with willing landowners and managed by a trustworthy organization? *(Select one response for each approach to open space protection)*

	Very Supportive	Supportive	Unsure	Unsupportive	Very Unsupportive
Creating additional parks.....	○	○	○	○	○
Paying landowners for their development rights on farm and forest land.....	○	○	○	○	○
Purchasing lands that are ecologically important.....	○	○	○	○	○
Long-term lease agreements to protect lands that are ecologically important.....	○	○	○	○	○

17) To protect water quality, natural resource policy commonly recommends a natural or forested area along streams and rivers, called a buffer, where development and management options are limited. In general, do you think the following buffers are too small, too big, or just about right? *(Select one response for each type of buffer)*

	Too Small	Just About Right	Too Big	Unsure
No Buffer	○	○	○	○
10 foot buffer	○	○	○	○
30 foot buffer	○	○	○	○
100 foot buffer	○	○	○	○
200 foot buffer	○	○	○	○
500 foot buffer	○	○	○	○

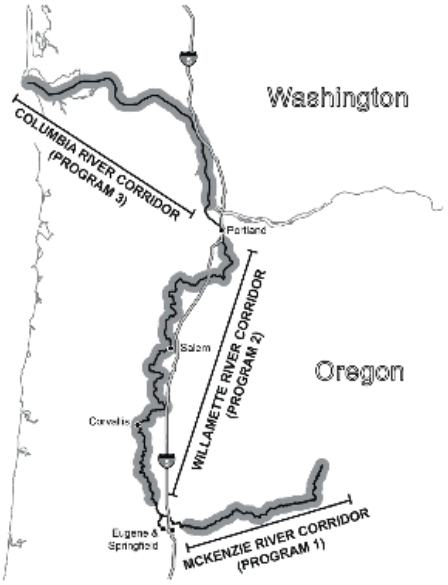
I would support a variable buffer that would be determined by the environment in a particular location..... ○ Yes ○ No

18) New programs and activities to maintain the environmental benefits provided by the McKenzie River Watershed could be implemented by a variety of government agencies or organizations.

How much do you trust the following types of agencies and organizations to support the environmental health of the McKenzie River Watershed? *(Select one response for each agency or organization)*

	High Trust	Moderate Trust	A Little Trust	Not Much Trust	Unsure
Federal natural resource agencies	○	○	○	○	○
State natural resource agencies	○	○	○	○	○
Local government	○	○	○	○	○
Eugene Water and Electric Board	○	○	○	○	○
Private landowners in the watershed	○	○	○	○	○
Local non-profit organizations	○	○	○	○	○
National non-profit organizations	○	○	○	○	○

PROTECTING WATER QUALITY IN THE REGION



19) We would like to learn about your potential willingness to participate in any or all of the three *hypothetical* water quality improvement programs. You, an EWEB residential ratepayer, would have a small fee added to your monthly water bill to fund water quality improvement projects in either the McKenzie, Willamette, or Columbia River watersheds.

Please consider each program independently of each other, and use the map to the right as a reference diagram. Assume that as program cost increases, water quality improvement increases. *(For each program, select one response for each price level)*

Program 1: All of the money collected will be used to fund water quality improvements projects within the **McKenzie River** corridor only. For each price level, would you participate in the program?

Added cost to your water bill:	Definitely Yes	Probably Yes	Unsure	Probably No	Definitely No
50 cents per month	○	○	○	○	○
$1 per month	○	○	○	○	○
$3 per month	○	○	○	○	○
$5 per month	○	○	○	○	○
$10 per month	○	○	○	○	○

Program 2: All of the money collected will be used to fund water quality improvements projects within the **Willamette River** corridor only. For each price level, would you participate in the program?

Added cost to your water bill:	Definitely Yes	Probably Yes	Unsure	Probably No	Definitely No
50 cents per month	○	○	○	○	○
$1 per month	○	○	○	○	○
$3 per month	○	○	○	○	○
$5 per month	○	○	○	○	○
$10 per month	○	○	○	○	○

Program 3: All of the money collected will be used to fund water quality improvements projects within the **Columbia River** corridor only. For each price level, would you participate in the program?

Added cost to your water bill:	Definitely Yes	Probably Yes	Unsure	Probably No	Definitely No
50 cents per month	○	○	○	○	○
$1 per month	○	○	○	○	○
$3 per month	○	○	○	○	○
$5 per month	○	○	○	○	○
$10 per month	○	○	○	○	○

PARTICIPATING IN RENEWABLE ENERGY PROGRAMS

20) Would you be willing to pay extra on your electric bill to support the following renewable electricity programs? *(Select one response for each program)*

A program that develops solar or wind electricity:	Definitely Yes	Probably Yes	Unsure	Probably No	Definitely No
For my household (rooftop solar)	○	○	○	○	○
Within the Eugene/ Springfield urban area	○	○	○	○	○
Elsewhere in rural Oregon	○	○	○	○	○
Elsewhere in the Western U.S	○	○	○	○	○

21) We would like to know about your preferences for generating renewable electricity on farmland. For each of the following hypothetical programs, assume that the farmer is a willing participant and fully compensated for use of his/her land. *(Select one response for each price level)*

Program 1: This program would place solar panels or wind turbines on farmland **in Lane County.** The cost would be added to your monthly electric bill. For each price level, would you participate in the program?

Added cost to your electric bill each month:	Definitely Yes	Probably Yes	Unsure	Probably No	Definitely No
50 cents per month	○	○	○	○	○
$1 per month	○	○	○	○	○
$3 per month	○	○	○	○	○
$5 per month	○	○	○	○	○
$10 per month	○	○	○	○	○

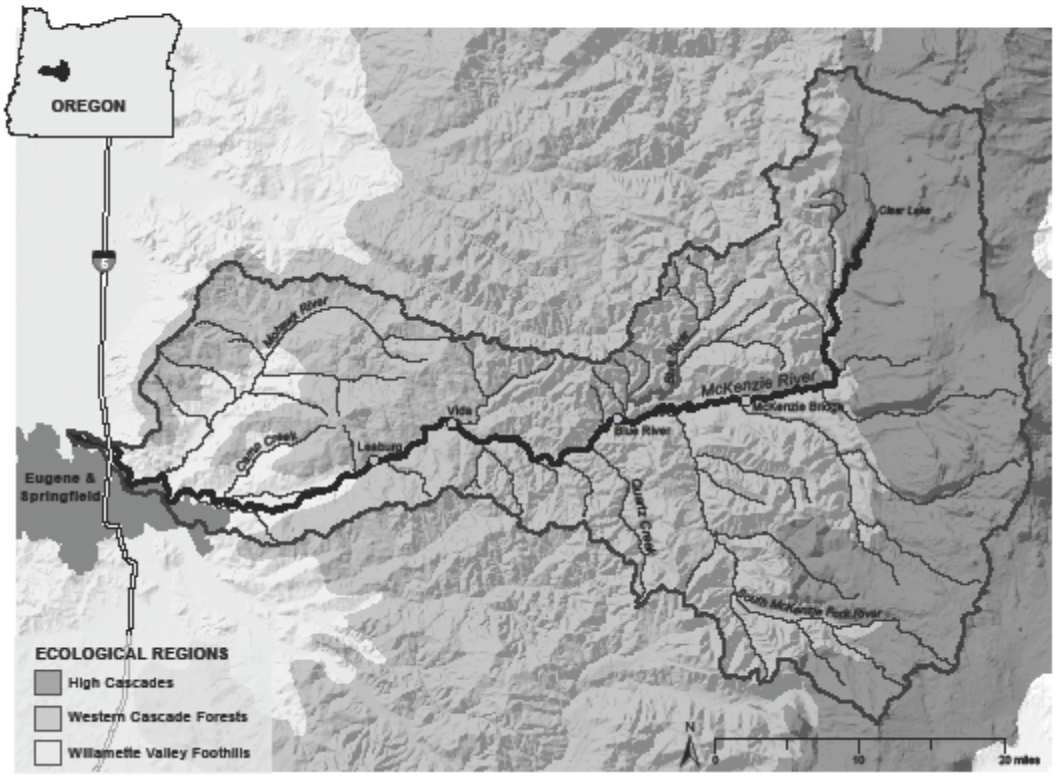
Program 2: This program would place solar panels or wind turbines on farmland **in Oregon.** The cost would be added to your monthly electric bill. For each price level, would you participate in the program?

Added cost to your electric bill each month:	Definitely Yes	Probably Yes	Unsure	Probably No	Definitely No
50 cents per month	○	○	○	○	○
$1 per month	○	○	○	○	○
$3 per month	○	○	○	○	○
$5 per month	○	○	○	○	○
$10 per month	○	○	○	○	○

Program 3: This program would place solar panels or wind turbines on farmland **in the western U.S.** The cost would be added to your monthly electric bill. For each price level, would you participate in the program?

Added cost to your electric bill each month:	Definitely Yes	Probably Yes	Unsure	Probably No	Definitely No
50 cents per month	○	○	○	○	○
$1 per month	○	○	○	○	○
$3 per month	○	○	○	○	○
$5 per month	○	○	○	○	○
$10 per month	○	○	○	○	○

The McKenzie River Watershed



A Survey of Eugene Residents

Your help with this effort is greatly appreciated! Thank you!

Instructions:

- Please carefully read each question and make your responses clear.
- Feel free to write in any additional comments or explanations anywhere on the survey.
- Please mail your completed survey back in the prepaid envelope provided.
- All of your answers will be kept completely anonymous.

A watershed is an area of land within which all water drains to the same place. The McKenzie River is approximately 90 miles long and is fed by many smaller rivers, creeks, streams and springs. The McKenzie River converges with the Willamette River near Eugene and Springfiled, and eventually meets the Columbia River in Portland. The McKenzie River Watershed encompasses nearly 1,380 square miles. Forested lands comprise the majority of the watershed area, mostly in the higher elevations. Several small communities and agricultural land (primarily orchards, nurseries, row crops, and pastureland) are located in the lower elevations. The cities of Springfield and Eugene are located near the mouth of the McKenzie River, but the cities themselves are mostly outside of the watershed.

YOU AND YOUR HOUSEHOLD

22) In what year were you born?

_____

23) Are you male of female?

○ Male ○ Female

24) In general, how likely or unlikely are you to purchase locally produced goods and services? *(Select only one)*

- ○ Extremely Likely
- ○ Very Likely
- ○ Somewhat Likely
- ○ Not Very Likely
- ○ Very unlikely

25) How long have you lived in the Eugene-Springfield metropolitan area? _____ years

26) Do you consider Eugene or Springfield your permanent home?

○ Yes ○ No

27) Do you rent or own the home you live in?

○ Rent ○ Own

28) How many people live in your household, including yourself?

_____ Adults (18 years or older) _____ Children (less than 18 years)

29) How likely are you to move out of the Eugene-Springfield metropolitan area within the next three years? *(Select only one)*

- ○ Extremely Likely
- ○ Very Likely
- ○ Somewhat Likely
- ○ Not Very Likely
- ○ Very unlikely

30) What is the highest level of school you have completed? *(Select only one)*

- ○ Less than high school degree
- ○ High school degree or equivalent
- ○ Some college, no degree
- ○ Associate's degree (2 yr)
- ○ Bachelor's degree (4 yr)
- ○ Graduate or professional degree

31) Please estimate your total household income in 2011 before taxes: *(Select only one)*

- ○ Less than $25,000
- ○ $25,000- $49,999
- ○ $50,000- $74,999
- ○ $75,000- $99,999
- ○ $100,000 or more

Maintaining Environmental Quality in the McKenzie River Watershe
A Survey of Property Owners

There is growing interest at the federal, state and local level in programs that protect watershed health by offering incentives (usually financial) to landowners that restore or maintain their property in a way that benefits and preserves water quality and supply. Such programs recognize there is economic value to managing land in a way that protects environmental goods of public interest – such as water quality, native wildlife or recreation opportunities. This survey is part of an effort by the Eugene Water and Electric Board (EWEB) to learn more about what kind of an incentive program might be appropriate for improving and maintaining protection of the McKenzie River Watershed. Your answers will inform the shape and design of any program considered.

Thank you in advance. Your help is greatly appreciated!

Survey Instructions:

- Please carefully read each question and make your responses clear.
- Feel free to write in any additional comments or explanations anywhere on the survey.
- All of your answers will be kept completely confidential.
- **Please mail your completed survey back in the prepaid envelope provided.**

UNIVERSITY OF OREGON

Oregon State UNIVERSITY OSU

YOUR PROPERTY IN THE MCKENZIE RIVER WATERSHED

1) How many years have you owned property in the McKenzie River Watershed?

_____ Years

2) Of the land that **you own**, do you rent or lease any of it to others?

○ Yes → What for? _____

○ No

3) What is the current use of the land you own in the McKenzie River watershed? *(Check all that apply)*

	Yes	No
A primary residence	○	○
Farming	○	○
Timber/ forestry	○	○
Recreation	○	○

Other, please explain:

_____

YOUR EXPERIENCE WITH CONSERVATION PRACTICES AND PROGRAMS

4) Have you ever used any of the following conservation practices on any of the land you own? *(Select one response for each conservation practice)*

	Yes, within the past 5 yrs	Yes, but more than 5 yrs ago	No	Not applicable on my land
Controlling invasive species	○	○	○	○
Developing a forest or range management plan	○	○	○	○
Enhancing stream or wetland habitat	○	○	○	○
Implementing integrated pest management (IPM)	○	○	○	○
Improving fish or wildlife habitat	○	○	○	○
Improving irrigation efficiency	○	○	○	○
Installing off-stream water developments for livestock	○	○	○	○
Leasing, selling, or donating water rights for conservation	○	○	○	○
Planting non-commercial native vegetation	○	○	○	○
Removing a fish barrier or screening a diversion	○	○	○	○
Thinning forestland to reduce wildfire risk	○	○	○	○
Other (*please specify*):	○	○	○	○

_____

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5) Have you ever participated in any of the following voluntary conservation programs on any of the land you own? *(Select one response for each program)*

	Within the last 5 years	More than 5 years ago	Never
A federal conservation program	○	○	○
A state of Oregon conservation program	○	○	○
A local conservation program (example: a watershed council or conservation district)	○	○	○

6) Have you participated in any types of environmental certification programs on any of the land you own? *(Select one response for each program)*

	Within the last 5 years	More than 5 years ago	Never
Livestock or crop certification *(e.g., Organic)*	○	○	○
Forest certification *(e.g., American Tree Farm System, Forest Stewardship Council, Sustainable Forestry Initiative)*	○	○	○

Please identify the specific certification programs you have participated in:

_____

7) Have you entered into a contract to generate any types of environmental credits (e.g., carbon sequestration, wetlands, fish or wildlife habitat)?

- ○ Yes, within the last 5 years → What type of credit? _____
- ○ Yes, but more than last 5 years → What type of credit? _____
- ○ No

8) Do any of the below statements about conservation real estate apply to you?

	Yes	No
Some or all of my land is covered by a conservation easement held by a conservation organization or agency.	○	○
I have sold, donated, or otherwise transferred the title to land I previously owned to a conservation organization or agency.	○	○

9) In next five years or so, how likely would you be to enroll in a voluntary conservation program that focused on the following goals and required you to either maintain existing conservation practices or adopt new conservation practices? *(Select one response for each)*

	Extremely Likely	Very Likely	Somewhat Likely	Not Very Likely	Not At All Likely	Don't Know
Benefiting water quality or quantity	○	○	○	○	○	○
Protecting and maintaining healthy streamside forests	○	○	○	○	○	○
Protecting and maintaining healthy flood plain areas (forest and other natural vegetation)	○	○	○	○	○	○
Enabling restoration of degraded stream and floodplain areas	○	○	○	○	○	○
Storing carbon through alternative forest management practices	○	○	○	○	○	○

THE FUTURE OF VOLUNTARY CONSERVATION PROGRAMS IN THE MCKENZIE RIVER WATERSHED

The Eugene Water and Electric Board (EWEB) is currently considering several types of programs to help maintain water quality in the McKenzie River Watershed, which serves as the sole source of drinking water for nearly 200,000 people in the Eugene metropolitan area. **Please help us understand your likelihood of participating in and perceptions of these programs.**

10) The voluntary incentive program would pay landowners to maintain existing healthy streamside forests. A partner program would fund projects to restore degraded streamside forests or convert areas currently under other uses to forest. How interested or uninterested would you be in participating in these programs? *(select one response for each)*

	Definitely Interested	Possibly Interested	Unsure	Probably Uninterested	Definitely Uninterested
Maintaining existing healthy streamside forests	○	○	○	○	○
Restoring streamside forests that are currently degraded or unhealthy	○	○	○	○	○
Creating streamside forests on land that is not currently forested	○	○	○	○	○

11) EWEB and other potential funders of voluntary incentive programs like that described above are unlikely to provide incentives without a contract that defines the time period over which you will participate. Assuming the financial benefits for you were adequate, would you be willing to participate in a voluntary incentive program to maintain healthy streamside forests for the following contract lengths?

Length of contract:	Definitely Yes	Probably Yes	Unsure	Probably No	Definitely No
10-year contract	○	○	○	○	○
20-year contract	○	○	○	○	○
30-year contract	○	○	○	○	○
Permanent contract	○	○	○	○	○

12) For each of the following price levels, would you be willing to participate in a voluntary incentive program? Prices are in dollars per acre of streamside forestland enrolled per year.

An annual payment to you of:	Definitely Yes	Probably Yes	Unsure	Probably No	Definitely No
$25 per acre	○	○	○	○	○
$50 per acre	○	○	○	○	○
$100 per acre	○	○	○	○	○
$200 per acre	○	○	○	○	○
$400 per acre	○	○	○	○	○

13) If you were to participate in the voluntary incentive program that EWEB is considering, how much of your land would you consider enrolling? *(Answer either acres or percent, whichever is easiest for you)*

_____ Acres **-OR-** _____ Percent of your property

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14) Would you be any more or less likely to participate in the voluntary incentive program if EWEB offered you a bonus payment at the start of the contract, but a lower annual payment (assuming the total payment over the duration of the contract was unchanged)?

○ Much more likely ○ Somewhat more likely ○ No more or less likely ○ Somewhat less likely ○ Much less likely

15) Would you be willing to participate in the voluntary incentive program if EWEB required you to agree to any of the following? *(select one response for each requirement)*

	Definitely Yes	Probably Yes	Unsure	Probably No	Definitely No
A deed restriction lasting the duration of the contract	○	○	○	○	○
Periodic on-site monitoring	○	○	○	○	○
Annual reporting to the project sponsor	○	○	○	○	○
Specific management actions prior to enrollment (e.g. noxious weed control)	○	○	○	○	○
Regular project maintenance (e.g. noxious weed control)	○	○	○	○	○
Joint participation with your neighbors or nearby landowners	○	○	○	○	○
Repayment if your enrolled land fails to meet program criteria	○	○	○	○	○
Public recreational access	○	○	○	○	○

16) EWEB is currently considering programs for conservation easements and acquisitions that could result in market value payments to landowners. **Conservation easements** are voluntary legal agreements with a landowner that typically limit development rights, but agricultural and forestry uses can be maintained if those uses meet the goals of the agreement. **Conservation acquisitions** typically transfer the title of a property to a conservancy or land trust to manage for conservation purposes. How interested or uninterested are you in conservation easements or acquisitions for your property in the McKenzie River watershed? *(select one response for each)*

	Definitely Interested	Possibly Interested	Unsure	Probably Uninterested	Definitely Uninterested
Conservation easements	○	○	○	○	○
Conservation acquisitions	○	○	○	○	○

17) EWEB is considering the creation of a zero-interest loan program for projects in the McKenzie River watershed that enhance water quality, reduce pollution, or increase water use efficiency. Would you participate in a zero interest loan program for any of the following project types?

Zero interest loans for:	Definitely Yes	Probably Yes	Unsure	Probably No	Definitely No
Septic upgrade	○	○	○	○	○
Irrigation efficiency projects	○	○	○	○	○
Transition to organic production	○	○	○	○	○
Invasive weed removal	○	○	○	○	○

18) How likely would you be to enroll in any of the above types of incentive programs if it required you to work with the following organizations to implement the program or project?

	Extremely Likely	Very Likely	Somewhat Likely	Not Very Likely	Not At All Likely	Don't Know
McKenzie River Watershed Council	○	○	○	○	○	○
McKenzie River Trust	○	○	○	○	○	○
Cascade Pacific Resource Conservation & Development (CPRCD) Council	○	○	○	○	○	○
Eugene Water and Electric Board (EWEB)	○	○	○	○	○	○
Natural Resources Conservation Services (NRCS)	○	○	○	○	○	○
Oregon Department of Fish and Wildlife (ODFW)	○	○	○	○	○	○
Private consulting firms	○	○	○	○	○	○
Upper Willamette Soil and Water Conservation District (SWCD)	○	○	○	○	○	○
Oregon Watershed Enhancement Board (OWEB)	○	○	○	○	○	○
Lane Council of Governments (LCOG)	○	○	○	○	○	○
OSU/Lane County Extension Service	○	○	○	○	○	○

FINALLY, PLEASE TELL US A LITTLE ABOUT YOURSELF AND YOUR OPINIONS

19) How much do you agree or disagree with the following statements about the importance of the McKenzie River Watershed to you personally? *(Select <u>one</u> response for each statement)*

	Strongly Agree	Agree	Unsure	Disagree	Strongly Disagree
It is my favorite place to be	○	○	○	○	○
As far as I am concerned there are better places to be	○	○	○	○	○
It is the best place for me to do the things I enjoy	○	○	○	○	○
I would enjoy the activities I undertake there just as well in another place	○	○	○	○	○
It reflects the type of person I am	○	○	○	○	○
I feel I can really be myself when I'm there	○	○	○	○	○
I really miss it when I am away for too long	○	○	○	○	○
I feel happiest when I am there	○	○	○	○	○
I don't really identify with the McKenzie River Watershed	○	○	○	○	○

20) How attached do you feel to each of the following places? *(Select <u>one</u> response for each place)*

	Extremely Attached	Very Attached	Moderately Attached	Slightly Attached	Not Attached
The Eugene/ Springfield area	○	○	○	○	○
The McKenzie River Watershed	○	○	○	○	○
The Willamette Valley	○	○	○	○	○
Oregon	○	○	○	○	○
The Lower Columbia River Basin	○	○	○	○	○
The Pacific Northwest	○	○	○	○	○
The Western United States	○	○	○	○	○

21) How much do you trust the following types of institutions to support the environmental health of the McKenzie River Watershed? *(Select one response for each institution)*

	High Trust	Moderate Trust	A Little Trust	Not Much Trust	Unsure
Federal natural resource agencies	○	○	○	○	○
State natural resource agencies	○	○	○	○	○
Local government	○	○	○	○	○
Eugene Water and Electric Board	○	○	○	○	○
Private landowners in the watershed	○	○	○	○	○
Local non-profit organizations	○	○	○	○	○
National non-profit organizations	○	○	○	○	○
Eugene residents	○	○	○	○	○

22) In your opinion, are your family, relatives, or friends likely to be supportive if you participated in a voluntary program to promote the environmental health of the McKenzie River Watershed?

○ Very likely ○ Somewhat likely ○ Unsure ○ Somewhat unlikely ○ Very unlikely

23) In your opinion, are your neighbors likely to participate in voluntary programs to promote the environmental health of the McKenzie River Watershed?

○ Very likely ○ Somewhat likely ○ Unsure ○ Somewhat unlikely ○ Very unlikely

24) Do you anticipate that you will continue to own your property in the McKenzie River watershed for the next ten years?

○ Yes ○ No

25) Is your primary residence in the McKenzie River Watershed?

○ Yes
○ No

26) Is there a designated successor(s) to take over the management of your property in your passing?

○ Yes
○ No

27) In what year were you born?

_____

28) Are you male or female?

○ Male ○ Female

29) How many people live in your household, including yourself?

_____ Adults (18 years or older) _____ Children (less than 18 years)

30) What is the highest level of education that you have completed? *(Check one only)*

○ Less than high school degree
○ High school degree or equivalent
○ Some college, no degree
○ Associate's or other 2-year degree
○ Bachelor's degree (4 year)
○ Graduate or professional degree

31) Please rate whether you consider your political views to be more conservative or more liberal? *(Check one only)*

- ◯ Very conservative
- ◯ Somewhat conservative
- ◯ Neither conservative nor liberal
- ◯ Somewhat liberal
- ◯ Very liberal
- ◯ Other: _____

32) Please estimate your total household income in 2011 before taxes: *(Check one only)*

- ◯ Less than $25,000
- ◯ $25,000- $49,999
- ◯ $50,000-$74,999
- ◯ $75,000-$99,999
- ◯ $100,000 or more

33) Approximately what percentage of your household's income is provided by your land? *(Place a slash through the number line where appropriate; example: --50----/----60--)*

0---------10---------20---------30---------40---------50---------60---------70---------80---------90---------100%

34) How can we make the results of this questionnaire useful to you? *(Select any that apply)*

- ◯ A public meeting where the survey results are presented and discussed
- ◯ A website that summarizes the results of the questionnaire
- ◯ An email sent to the following address: _____

Note: this email address will be kept separate from your answers, and will only be used to communicate with you about the results of the survey

Please feel free to share any specific or general comments in the space provided below.

Please mail your answers back in the postage-paid envelope provided.