

May 2017

City of Portland Bureau of Environmental Services

FOCUS GROUPS



Prepared by DHM Research

503.220.0575
239 NW 13th Ave #205
Portland, OR 97209
www.dhmresearch.com

Table of contents

INTRODUCTION & METHODOLOGY _____ **2**

SUMMARY & OBSERVATIONS _____ **3**

RECOMMENDATIONS & NEXT STEPS _____ **5**

KEY FINDINGS _____ **7**

APPENDIX _____ **26**

Introduction & Methodology

1

DHM Research conducted five focus groups with Portland residents to assess awareness and perceptions of the City of Portland's Bureau of Environmental Services and to determine resident priorities.

Research Methodology: The five focus groups were held April 25 to May 10, 2017, in Portland. In total, 54 people participated in the groups, which were divided by geographic area. The groups represented North/Northeast Portland (West of 82nd Avenue) (11 participants), Southeast Portland (West of 82nd Avenue) (12), East Portland (East of 82nd Avenue) (9), Southwest Portland (10), and Northwest Portland (12).¹

Participants were recruited from a list of registered voters. Efforts were made to ensure diversity by gender, age, income, political party, and ethnicity. The participants included both homeowners and renters. See Appendix A for complete participant demographics.

Statement of Limitations: The focus groups were led by a professional moderator and consisted of both written exercises and group discussions. Although research of this type is not designed to measure with statistical reliability the attitudes of a particular group, it is valuable for giving a sense of the attitudes and opinions of the population from which the sample was drawn.

This report highlights key findings from the focus groups. Each section reviews a major topic from the group discussions and includes representative quotations, as well as evaluative commentary. The quotes and commentary are drawn from both written exercises and transcripts produced from recordings of the group discussions.² The referenced appendices provide the complete responses to all written exercises.

DHM Research: DHM Research has been providing opinion research and consultation throughout the Pacific Northwest and other regions of the United States for over three decades. The firm is nonpartisan and independent and specializes in research projects to support public policy making.

¹ The Northwest Portland group was split into two sessions. There were seven participants in the first session, and five in the second.

² Quotations were selected to represent the range of opinions regarding a topic, and not to quantitatively represent expressed attitudes. Some have been edited for clarity to ensure correct punctuation and to eliminate non-relevant or intervening comments.

Portlanders value access to green space and natural areas in their backyards, and they believe protecting these areas should be a top priority.

Participants described green spaces near their homes as ideal places to think, relax, and get away from the bustle of the city. Many feel that natural areas boost physical and mental health, and they especially enjoy interacting with wildlife in these areas.

Some noted marked improvements to local natural areas in recent years, particularly those who spend time along Johnson Creek. Indicators of improvements included removal of debris, increased wildlife populations, and spawning salmon.

Many participants also explained that protecting the environment is a top priority; they want to know that BES will take care of these spaces, rather than putting cost or convenience first. Not all participants agreed on cost, but nearly all said it is worth some additional cost to exceed environmental standards when making improvements across the city.

Most participants have low awareness of how waterways and natural areas are managed, but they believe a mix of agencies—local, state, and federal—work together to manage them.

Some participants possessed somewhat accurate knowledge of watershed restoration, stormwater management, and wastewater treatment. But overall, many participants could only make guesses. There were misconceptions about the sources of drinking water, which compounded confusion about stormwater management and wastewater treatment. They correctly assumed wastewater is treated, but they weren't sure where it goes. Participants were split as to whether stormwater is treated before it is directed to nearby watersheds.

Numerous agencies were named as responsible for these tasks, including the Environmental Protection Agency, the Department of Environment Quality, the Department of Natural Resources, Park and Recreation, and even Portland General Electric and Bonneville Power Administration. These responses show not only a lack of awareness of BES—which was not mentioned by a single participant without significant prompting—but also confusion regarding the division of services between different levels of government.

BES flies under most participants' radars, but upon learning of the agency, they hope for transparency, accountability, and cost containment.

Few participants had ever heard of BES and assumed that other local governments, particularly the Water Bureau and Metro, were responsible for all BES's tasks and successes. Once they understood BES's role in the community, they wanted assurances that their ratepayer dollars were used effectively.

To provide such assurances, participants asked for a litany of materials from BES: billing inserts featuring report cards on local water quality and pie charts of how dollars are allocated, explanations of recent improvements and future projects, and public education about proper disposal methods that could reduce maintenance costs.

However, such a robust suite of information is almost certainly unnecessary. For one thing, this information already exists and is published on the BES website. More importantly, even participants themselves recognized that they would likely not read such information. This was evidenced by low familiarity with communications pieces recently sent to Portland residents.

BES has an opportunity to build its brand from scratch and to educate residents about watershed restoration and public health.

Such low awareness provides BES with an opportunity to shape messages about the bureau. Previous messaging—intentional or unintentional—that stuck with participants were typically media stories about sewage spills and watershed restoration projects. However, because participants thought drinking water and wastewater are managed by the same bureau, they initially attributed their negative perceptions of sewage spills and the Big Pipe to the Water Bureau.

Once participants heard a description of BES, they immediately began to attribute positive community improvements, such as riverside cleanup projects, to the agency. This tendency can be leveraged so that participants will more often associate BES with these types of projects. Notably, the BES heron logo was the most-recognized thing about the bureau. Participants recalled seeing it, but couldn't remember where. Continuing to strategically place the logo near BES successes, along with public education of what the agency does, will help residents understand its value.

Recommendations & Next Steps 3

BES should assume low awareness of its programs and services when communicating with the public and differentiate itself from drinking water.

Although some participants were more knowledgeable than others, most didn't have a strong grasp of water resources management. Participants were somewhat more knowledgeable about watershed health and restoration, relying on commonsense measures, such as what wildlife they see and whether the water contains debris.

Awareness of the relationship between drinking water, wastewater, and stormwater is low. Even with repeated remarks from the moderator to the contrary, participants rated the water quality of local rivers and streams based on their perceptions of drinking water. They also linked to drinking water BES's stated goal to protect public health, pointing to boil notices and lead pipes in Portland schools.

To combat these misconceptions, residents will need repeated reminders that BES does not provide drinking water. To increase public awareness of the relationship between different types of water management, it may be beneficial to also:

- Educate residents about the sources of their drinking water.
- Partner with community organizations and university experts to deliver these messages, which can reduce the skepticism with which many residents view governments and environmental groups.

BES can decide when and how to raise awareness of its services—and when to enjoy a low profile.

Low awareness isn't always a bad thing, as a few participants noted. Several commented throughout the discussions that they appreciated that there isn't much news about BES, meaning there aren't significant problems with the sewer system, threats to public health, or other negative impacts. Two participants wondered if it is necessary for residents to know about BES at all.

Many participants who had a stronger understanding of environmental issues felt more positively about the value of BES's services and programs. This is true across sectors: informed residents are typically more positive, because they better understand the challenges and trade-offs a service provider faces. The Southwest participants were the most informed about watershed health and stormwater management and were also among the most positive.

There may be times when BES will want to highlight its positive impact in the community and other times when it would prefer to retain its low profile. When BES chooses to highlight its impact, it should:

- Focus on outcomes and use a positive tone. Such a tactic will speak more directly to residents' priorities and values about natural spaces and clean water than will merely rebutting negative perceptions.
- Emphasize positive outcomes related to fish and wildlife, connections to nature, and access to recreation will connect deeply with residents.

Simple communications, such as images, brief statistics, and short stories will help residents contextualize the agency.

Given the low awareness of these issues in the community, most residents aren't ready for in-depth communications about the services and programs BES provides. Participants struggled to visualize BES as a bureau or a concept; one participant asked if it was a building, or a site, or a pipe.

Both the focus groups and other research show that Oregonians respond positively to messages and imagery that relate to their values about nature and the outdoors, including:

- Images of trees, rivers, fish, and wildlife
- Stories of BES's impact that are connected to residents' communities and quality of life
- Simple data points that show changes over time and comparisons to peer cities

Other research shows that strong messages will avoid certain words, phrases, and issues including *wastewater*, *stormwater*, *sustainability*, *livability*, and *infrastructure*. These technical terms are complicated, less connected to resident values, and tend to raise more questions than they answer.

Informed residents and community organizations may serve as a useful network of trusted messengers who can help combat misconceptions about water quality.

Participants' comments confirmed that community lore about water quality has a significant impact on residents' perceptions. Long-time residents spoke of the conventional wisdom that it is not safe to swim in the Willamette or eat fish from it. Newer residents were less attuned to these beliefs, and indicated that they based their perceptions in part on the fact that they see others recreating in the water.

To combat negative misconceptions about water quality:

- Partner with community organizations involved in outdoor recreation to encourage more residents to interact with waterways and natural areas.
- Continue to work in partnership with existing programs, like farmers' markets and Sunday Parkways, to reach residents who prioritize outdoor recreation, healthy wildlife habitat, and access to natural spaces.

Even residents who don't recreate on the river themselves will draw conclusions about water quality after seeing increased activity on the water. Each of these venues will provide ample opportunity to discuss positive outcomes with residents, who can in turn serve as community messengers.

Quantitative research can help develop metrics to track over time and provide insight into most effective messages for particular residents.

BES may consider using its questions in the annual auditor's survey to track perceptions of water quality or awareness of the bureau, as tracking questions work best when they are repeated once every year to once every three years.

The feedback from the focus groups and other research provides valuable guidance on the best types of messages, outcomes, and data to highlight in future communications. To determine, with greater specificity, which messages are most effective for certain demographic groups, BES may consider additional quantitative research that tests messages about recent positive outcomes.

DHM Research conducted five focus groups with Portland residents to determine resident priorities and assess their awareness and perceptions of the Bureau of Environmental Services (BES).

4.1 RESIDENT VALUES

Portlanders across the city value access to green space.

At the beginning of the discussion, participants described the things they most value about living in their community. They pointed to several community factors, including the relationships they share with their neighbors and the open-mindedness of the city.

In every group, participants highlighted green space as a positive attribute of their neighborhoods. Some mentioned parks, trees, and natural areas generally, and others were more specific. For example, several participants in East Portland pointed to Lents Park, Powell Butte, and Johnson Creek, while some in Northwest said they enjoyed the summer concerts in the park, the Zoo, and the Rose Garden.

In discussing why green space is important to their quality of life, participants said it gave them an opportunity to connect with nature, relax, and recreate.

“Living in a large city can be very difficult for me. I have anxiety that can be triggered by the hustle and bustle of the city. It’s really important to me to have somewhere to go and get away from all the chaos.”
–East Portland

“[There are] a lot of green spaces in Southwest. I’m an outdoor enthusiast. I like to hike. It’s a good opportunity for me to see more trees and less cars.”
–Southwest Portland

A few participants specifically said they value their proximity to waterways. Throughout the discussion, participants talked about their connection to the Willamette and Columbia Rivers, the Columbia Slough, and Johnson and Tryon Creeks, depending on where they live.

“[The] Columbia River. It doesn’t matter how hectic or crazy my day is, I know I have a place to go where I can walk. It’s quiet. I can think. I love the river.”
–North/Northeast Portland

“I’m three blocks away from the Springwater Corridor and right by Johnson Creek. It’s real important to have the natural spaces that we have out in East Portland. . . I like to take my kids; we hike up on the trails and I take them out fishing.” –East Portland

4.2 PERCEPTIONS OF WATER QUALITY

Participants base their perceptions of local water quality on what they see, smell, and hear.

As participants shared their perceptions of water quality in Portland's rivers and streams, it was clear they rely on three main sources of information: what they can see, what they can smell, and what they hear in the media and from other residents.

The appearance of waterways factors heavily into beliefs of quality. People believe that if they can see wild animals in or near the water, then the river or stream must be healthy. Some specifically mentioned spawning salmon as a sign of good water quality.

"Seeing animals interacting with the river regularly kind of makes me feel like it's in good condition. I think the other weekend I saw a seal. I was like, 'Okay, he's still alive.'"
—Northwest Portland

The presence of debris has the opposite effect. Several participants noted the garbage and other human impacts along Johnson Creek due to campers. These negative impressions can be counteracted through cleanup efforts and watershed restoration. Although several participants mentioned seeing trash along Johnson Creek, several also referred to the restoration in that area. As one participant explained:

"Johnson Creek got a huge overhaul and now it is looking great." —East Portland

When speaking of the Columbia Slough, several participants mentioned that the stagnant water and slow flow of the water indicated that it is in poor health. They also noted the murky water as a reason for their negative impressions, along with debris from campers. Participants cited industry along both the Columbia Slough and the Willamette River as sources of waste that diminish water quality.

The presence of recreation in and along the water also informs opinions. Residents internalize these visual statements and draw assumptions from them.

"When I drive by the Willamette . . . from the Sellwood to the Broadway, I see a lot of activity. Boaters out there, water skiers out there, people on paddle boards. So I think the water quality there is pretty good. Further up the river where the industrial hits to Sauvie Island, then I have a little different opinion." —North/Northeast Portland

"If they're eating the fish, I guess it's all right." —Southeast Portland

Participants who recreate in or along rivers and streams also rely on their noses to inform their perceptions. Several mentioned a bad smell as an indicator of poor water quality. These comments were most commonly attributed to the Willamette River.

Perhaps the most impactful sources of information regarding water quality are the media and word of mouth. Lore surrounding the health of the Willamette came up numerous times, and many participants believed what they heard. Others wondered if such perceptions were truly accurate.

"I can remember as a child being told never to go into the Willamette River."
—East Portland

"My perception may be wrong, but throughout my life in Portland there has always been jokes and conversations about how gross the Willamette is." —East Portland

Despite such comments, participants were more likely to rate the health of the Willamette south of the Broadway Bridge as good than as poor. Most agreed that the river's health has improved in recent years. Many participants pointed to positive cleanup efforts, in part because the river was designated as a Superfund site.

"[The Willamette] used to be bad. It's really clean now. It's like 95% improved."
—Northwest Portland

Although the Superfund site was viewed as a positive improvement, when it came to the section of the Willamette north of the Broadway Bridge, participants still believed the river's health to be poor. They described it as "toxic," cited warnings of raw sewage in the water, and noted that residents are advised to not eat the fish from this part of the river.

Despite mixed opinions about the health of the Willamette, few participants have negative opinions of the health of other area rivers and streams.

Many participants could not venture a guess as to the health of other rivers and streams, unless the waterway was in their own backyard. Participants who lived closest to a certain river or stream typically gave more positive ratings.

For example, Johnson Creek was considered healthy by about half of participants, and six of eight in the East Portland group said it was "good." Participants from the west side of the city were likely to say they didn't know. However, Johnson Creek's perceived health suffered from participants' mental images of camping along Springwater Trail. One participant living near Johnson Creek described how his opinion has evolved over time:

"You can tell when a river is not good if you walk in and you see bike tires and just nastiness in there. And if you see wildlife back in there again that where there previously, then there's obviously something going on in that river. Because when I was a kid, you didn't see hardly any wildlife. Now the wildlife is back." —East Portland

Other waterways fared better. More than half of participants didn't know about the health of the Columbia Slough, while those from North/Northeast Portland were likely to give it a "poor" rating. Even fewer participants were familiar with Tryon, Fanno, and Stephens Creeks, although Southwest participants thought Tryon and Fanno Creeks were in "good" health. None of the groups had more than a few participants who ventured a guess about the health of Stephens Creek.

4.3 AWARENESS AND PERCEPTIONS OF WATER MANAGEMENT

Most participants think water quality of local rivers and streams is managed by a mix of agencies, from the Portland Water Bureau to regulators like the EPA and DEQ.

When asked which agencies or utilities manage the water quality of local rivers and streams, most participants simply guessed. Not a single participant was able to name BES in this written exercise, although a few recognized the name when it was later provided to them.

Guesses as to who manages water quality of local rivers and streams commonly included the Environmental Protection Agency and Oregon's Department of Environmental Quality. A few also mentioned organizations involved in dam management, such as Portland General Electric and Bonneville

Power Administration. Vague references to other departments also cropped up, including the Department of Public Health, the Department of Public Services, and Waste Management.

“The EPA [is responsible] and it trickles down from there, like a hierarchy of governmental organizations. Probably local, municipal, but I think the Department of Engineers [are] responsible for the reservoirs.” –Northwest Portland

About a dozen participants thought the Portland Water Bureau was responsible for water quality of local rivers and streams. One participant gave an understandable reason for this belief:

“You send your payment to the City of Portland Water Bureau.” –Southeast Portland

Participants described, somewhat accurately, what a responsible agency might do to protect water quality.

Participants were most likely to say that the agency responsible for water quality of local rivers and streams would monitor the water’s pH, fish tissue, and sediment. To support clean watersheds, some also thought such an agency would be on the lookout for potential sources of pollution, ostensibly to mitigate or preempt contamination. Taking these preventative measures one step further, a few participants assumed water management agencies would have enforcement powers.

“I would also think monitoring populations of animals that are living near and in those waters . . . because the animals that occupy that space are a really good indicator of the overall health of the ecosystem, as well as acting as natural filters.” –East Portland

“Monitoring and testing, but also looking for the sources of contamination. A little of a police action in a sense, to find or to work with the agencies to make sure that pollution goes away.” –Northwest Portland

Most thought the agency responsible would treat wastewater before releasing it back into the river, but participants were less sure as to whether stormwater was treated or directed back to the watershed.

“[Wastewater] goes to the wastewater treatment plant in North Portland on Columbia Boulevard.” –Southwest Portland

A handful of participants mentioned stormwater and watershed management, although they didn’t use those phrases to describe the activities. The Big Pipe came up several times. Some participants connected the Big Pipe only to sewage, while others saw the relationship between sewage and stormwater. Others mentioned bioswales and other physical structures to manage stormwater.

“They preapproved and installed the Big Pipe, the sewer issue, every time the storm drains would get too full.” –North/Northeast Portland

“They built that great, big containment area by Barbur Boulevard that ran off and closed. It’s a containment area where they partitioned off, so it can hold the runoff, instead of ending up in the sewer system.” –Southwest Portland

In each group, awareness of stormwater issues was typically low. Some candidly shared that they aren’t sure what happens to stormwater when it goes down the drain, although some knew it went directly to the watershed and noted the “pucks” on the storm drains that indicate the water is not treated.

“On my bill, I see stormwater. I don’t know what that is. I know I pay for it.” –Southeast Portland

Public health was scarcely mentioned, although some did hope that the agency testing the water quality would alert residents to any health issues, such as salmonella or E. coli. It was sometimes unclear whether these references were to rivers and streams or drinking water. A few also mentioned that such an agency might be tasked with informing the public of hazards and educating residents on proper waste disposal.

“The public service, as far as telling people what they shouldn’t put down the drain. What you shouldn’t do in the river.”
–Southwest Portland

In the East Portland group, participants struck up a conversation about how an agency responsible for water quality might also create green space and encourage connections to nature.

“I was thinking more along the lines of creating parks and getting people out there to be more knowledgeable of the space, and to be along the water and get to know the surrounding areas.”
–East Portland

“There’s also a marshland off of Foster.”
–East Portland

Despite certain misconceptions, most participants were on the right track with their assumptions, and some were reasonably well-informed. Nonetheless, BES should assume low awareness of its services when communicating with the general public. Additional quantitative research may illuminate meaningful differences by demographic groups, which would allow for a communications strategy that leverages market segmentation for those more interested in environmental issues and in-depth information.

Participants struggled understand that drinking water is managed separately from stormwater and wastewater, a mindset that proved difficult to counteract.

Throughout these discussions, participants connected drinking water to wastewater and stormwater management. Many participants were unable to divorce the two issues in their minds, despite several prompts from the moderator to the contrary. Accordingly, BES has the opportunity to differentiate themselves from the Water Bureau in future communications.

Participant: *I know Portland Public Schools, if you go to a lot of these schools with that [lead] problem, you’ll see that there’s cups and a thing, and the tap water is off.*

Moderator: *[BES] is not responsible for drinking water.*

Participant: *But it sounds like it could [end up in] our drinking water.*
–North/Northeast Portland

“I’m still kind of surprised that this is a different agency than the people we get our drinking water from. It seems like that’s almost like it should be tied together.”
–Northwest Portland

Confusion may be driven partially by the fact that many participants don’t know the source of their drinking water, and they seemed to think wastewater was treated and returned as drinking water. One participant cited the Willamette River as the source of drinking water. Another, from the Northwest group, simply admitted, “I don’t understand the whole pipe system.”

“Why is the focus so narrow? . . . You flush your toilet, and it takes 24 hours for that water to come back out through your faucet. That’s how quick it is. . . I think if they’re going to have an agency like that, they should broaden their horizons and include everything that’s environmental.”
–North/Northeast Portland

Even though BES does not provide drinking water, it may benefit from sharing educational information about drinking water sources alongside information about wastewater treatment and stormwater management. Seeing each of these services in relation to one another may help residents better understand the agency’s services.

4.4 PERCEPTIONS OF BES

Participants weren’t familiar with BES, and they struggled to contextualize the services BES provides. Many assumed the Water Bureau manages stormwater, wastewater, and water quality.

After hearing a description of BES, few participants recalled having heard the name before. In several groups—despite prompts—none of the participants recognized the name. Even participants who have spent their entire lives in the Portland area were unfamiliar with the agency.

Although participants had already listed several of BES’s responsibilities when discussing what an agency responsible for water quality management might do, they had a hard time visualizing what BES does after they learned of the agency and heard a description of its charge.

“I’m trying to visualize this. Is it place? Is it equipment? . . . You can tell us what they do, but is it going to be a site? It is a building? . . . A lot of people here have mentioned a pipe. Is it based on a pipe? Is that their whole goal?”
–North/Northeast Portland

“I would like to see a list of what they’re currently doing, because I don’t know.”
–East Portland

Because participants lacked familiarity with BES, they attributed many of its projects and duties to the Portland Water Bureau.

“It seems for a long time that the Water Bureau of Portland was spearheading a lot of these movements regarding storm water and storage. I know they had the Big Pipe project. I was under the impression that all of this was under them.”
–Southwest Portland

“Portland Water Bureau has a lot of responsibility for watershed protection, as well as some of the sewers. And then Parks Bureau probably has some responsibility [in setting and enforcing environmental standards].”
–Northwest Portland

Based on these responses, it stands to reason that many Portland residents are likely to assume BES’s responsibilities are completed by another agency. Some residents will approach these issues without knowledge of which government—federal, state, or local—is responsible. This level of awareness provides a unique opportunity to shape messages about the agency from the ground up.

Upon learning of BES—and learning that it doesn't manage drinking water—participants had questions about the agency.

Once participants were told that BES protects water quality and manages stormwater and wastewater, questions about the agency's role peppered the conversations.

"I'm curious how long it has existed. Has it been around for decades? I'm curious if its funded locally. Are we going to be—is funding going to be cut? Is it part of the EPA in some ways?"
—Southwest Portland

"What do pump houses do? Are they pumping—because you say they don't do drinking water. What are they pumping?"
—East Portland

"In comparison to other cities our size, what is their budget like? What are their priorities? How do they prioritize?"
—North/Northeast Portland

As conversations continued, some participants began to recall recent news items and connect them to the agency. Before they knew BES exists, participants assumed the Water Bureau is responsible; upon learning of BES, participants quickly attributed certain projects to it. One way to leverage this immediate change in perceptions may be the use of images and simple storytelling.

"I imagine they might have something to do with the Green Streets. Setting those up or coordinating. You're driving along Division or whatever and you see those plants where it collects oil before flowing into the drains and into the river. Projects like that in the wetlands area making sure things are clear flowing."
—Southwest Portland

At this point, several participants also connected BES to the Big Pipe project, previously attributed to the Water Bureau. Participants in several groups also began to recall reading about the City's proposed methane recovery project, although the details eluded some of these participants. Although these participants attributed the idea to City Council, the context in which they mentioned it indicates they understood BES would manage the project. Views of the project were generally positive.

Comment: *This last week or two, the mayor's come out and said they've got a plan to build—his phrase was 'poop to power,' which is going to cost us more on water bill.*

Response: *This is the first I've heard of it. That's awesome.*

—North/Northeast Portland

"I read an article where somebody is planning on investing millions of dollars for a methane generator for humane waste. . . Which is a great plan. . . That's through someone in the City Council."
—Southwest Portland

These recollections demonstrate that residents seemed to have an easier time contextualizing BES's work when it related to a specific project. Accordingly, they are likely to have stronger connections stories of impact, rather than mere descriptions of BES's goals.

Despite a lack of awareness about BES, most participants thought the agency is doing a good or very good job once they understood its responsibilities.

Participants were split between saying BES does a good or very good job (33) and saying they don't know (18). Only three participants said that BES provides poor value to residents, and none said the value is very poor. In describing the value received, participants continued to make connections between familiar projects and their newfound understanding of BES.

“I thought BES did really good because one of the main reasons is, if you look at our rivers that run right through the middle of the city, they are great compared to other cities. The other thing is habitat restoration, the salmon. I’ve got Johnson Creek over by me. They’re always planting trees, restoring it.” –Southeast Portland

“I have natural spaces to hike through that BES helped create.” –East Portland

However, despite multiple reminders that BES does not provide drinking water, participants were still unable to shake the mental link. Several gauged BES’s performance on the quality of drinking water.

“I get good water. Clean water, they replaced my meter as soon as I asked. We don’t have fluoride in the water. That’s a good thing!” –Southeast Portland

“I wrote ‘very good’ as well, but I was also associating it with drinking water. But I did mention if storm drains in the community get clogged, I feel like it gets resolved very quickly.” –Northwest Portland

Satisfied participants highlighted watershed restoration, Portland’s healthy rivers and streams, the absence of service issues, and prompt service when issues did arise.

“Especially after this winter. If we’re going to have that much rain, and I didn’t see that many extra problems because of it, they’re doing something right.”

–Northwest Portland

“We had an incident, actually, a couple weeks ago. Oil got spilled on our road. And literally, the City of Portland was out there within an hour, with a big vac truck, sucking up the drain bases and stuff because of the way that the water goes straight into these places.”

–East Portland

Participants from Southwest Portland were typically the most informed about stormwater and wastewater management; they also had a reasonably strong grasp of water quality in the area. This group also gave BES the highest marks for value, indicating that higher awareness of the issues correlates to greater satisfaction—a typical result when measuring resident satisfaction with city services. Southwest participants also said they likely receive more BES services than residents in other parts of the city due to their geography.

“While there have been issues with contamination that hit the news, considering the [breadth] of what they cover, they’re relatively minor considering everything seems to be working.”

–Southwest Portland

“Considering the enormity of the population and the miles of pipe, [the] amount of things that they’re processing . . . I don’t think it would ever be possible for any group or person to keep that from happening. I think overall, that this whole area is very impressive, especially compared to other areas across the county.”

–Southwest Portland

Several participants without an opinion on BES explained that they were only just learning of the agency’s existence. They described a need for more information about the agency’s priorities, measures of success, and accountability before feeling confident rating the values of services provided. Most participants who said they didn’t know how to rate BES presented their comments in a neutral to positive fashion.

“I’m not sure the value we receive from BES because I’m not exactly sure what they control. But, from what I learned today, I would say they are pretty important in making sure sewage waste is managed correctly.” –North/Northeast Portland

“I would need BES to educate our area as to what they are doing to protect rivers, water, et cetera around the city.”
—East Portland

This is an advantageous starting position for communications and outreach. Participants were likely to draw positive conclusions about BES, even if they were conservative in their ratings. The adage “no news is good news” may apply here; strategic communications can teach residents what conclusions to draw about the agency in the absence of disruption.

“That’s probably why I don’t know about them because it’s something you don’t think about. You know, you flush your toilet; you don’t think about where it goes. The drains, you see them; you don’t think about where it goes unless somebody is there, going, ‘Hey, this drains to the streams. Watch what you put down there.’”
—East Portland

Some residents will only recall negative press, such as sewage spills. Government skeptics are likely to fill gaps in knowledge with their existing perception of federal, state, and local agencies.

There will be times when disruptions or sewage spills occur, and such incidents of course have a negative impact on perceptions. Those who were dissatisfied with BES pointed first to sewage spills into the Willamette River. However, this was a minority view.

Some participants made clear during the discussions that they believed the Big Pipe was intended to stop all sewage spills. Because spills occur infrequently, they took that to mean the project was unsuccessful.

“Remember, we spent all that money on the Big Pipe project to stop this from happening, and it keeps happening.”
—East Portland

“They don’t have nearly as many advisories, but that wasn’t the point. The point was there was not going to be any more sewage in the river.” —North/Northeast Portland

Others relied on their ideological views of government to draw conclusions. These participants maintained a skeptical view throughout the groups, as discussed later in this report.

“I’d have to research it, but initially I would never trust government bureaucracy—ever, ever trust them. Portland has a terrible reputation.”
—Southeast Portland

“I’m leery when they say ‘bureau.’”
—North/Northeast Portland

Some of these skeptics gave a “don’t know” rating for the value they receive from BES. Their comments included a negative spin. The North/Northeast Portland group had several such skeptics. Their opinions often seemed rooted in the belief that BES is not providing a unique service.

“Sounds like this is a waste of taxpayers’ money. Especially since it’s Portland. There are several agencies doing the same.”
—North/Northeast Portland

“How much of what they do overlaps or is duplicated by other government agencies: EPA, DEQ, Department of Natural Resources?”
—North/Northeast Portland

There will always be skeptics when it comes to government services. BES’s best tools to address this issue are informing the public of its success, highlighting measures of accountability, and differentiating itself from other bureaus and utilities—particularly drinking water providers and environmental enforcement agencies. Just as BES can educate residents that the absence of interruption is a good thing, so can the agency educate residents about what tangible improvements to look for, especially watershed restoration.

“It’s hard because it’s like, I’m not physically seeing [environmental improvements]. . . If I see the proof, then I’m all in.”
—Southeast Portland

4.5 MEASURING BES’S SUCCESS

Participants said that, to feel confident adjudicating BES’s success as an agency, they would need additional information. What type of information they would need depended heavily on the specific programs and services they were asked to adjudicate.

PROTECTING THE ENVIRONMENT

Seeing healthy fish and wildlife helps residents feel confident that BES is protecting the environment.

As with assessing water quality, many participants said they could judge the health of their community’s environment by looking at it. They again mentioned fish spawns, seeing wildlife in the water, and riverbanks clear of litter as good indicators of environmental health. Some said it would be helpful to see more advertising about the types of restoration projects BES has completed recently.

“What recent project did you do to protect our environment? Show me something you have done so I know what you have done.”
—East Portland

“I’d like to know when the first Chinook actually goes and spawns in the Johnson Creek. . . I’ve seen all the work around Foster and all that. They did all this work to increase fish habitat. Well, show me the fish in the water. That way, I can be like, ‘Hey!’ Instead, I drive over the bridge, and all I see is shopping carts in the water.”
—Southeast Portland

Both comments represent an opportunity to couple images of recent successes with short statistics, a strategy that can satisfy participants’ desire for more data without coming across as too esoteric. The second comment also broaches the subject of Portland’s homelessness crisis. Participants repeatedly noted seeing debris, human waste, and needles in waterways, especially along the Springwater Corridor. This issue tends to garner significant media coverage, and BES may build goodwill in the community by highlighting efforts to mitigate these impacts.

Participants want to know that BES will prioritize water quality and a healthy environment when it makes decisions about programs and services.

Participants listed several factors BES should consider when making choices about priorities. The most mentioned issues were maintaining water quality—including proper treatment of wastewater—and protecting the environment.

“Protecting our natural resources [should] be the ultimate goal, as opposed to cost and inconvenience. I feel like sometimes we get bogged down [in], ‘That will be difficult or inconvenience us,’ when the priority needs to be keeping our water clean.”
—Southwest Portland

PROTECTING PUBLIC HEALTH

Public health is important, but many participants link it to drinking water. Residents are likely to judge BES’s ability to protect public health on the frequency of advisories.

Both water quality and environmental protection are tied to another resident priority: public health. Whether participants explicitly mentioned public health or described it in broad terms, it was clear they draw connections between the health of local waterways, the health of wildlife—especially fish, and the health of the community.

“I put safety. Prioritize if there is anything that can cause illness. Keep the people of Portland safe.”
–Southwest Portland

However, talking about public health as it relates to water may complicate BES’s efforts to set itself apart from the Water Bureau; participants often spoke of public health as it relates to drinking water. The news stories participants recalled most frequently were those about sewage spills and boil notices.

Participants also spoke of the health risks of recreating in contaminated water or eating contaminated fish.

“People are fishing in that river and eating. Whenever I heard it, I go, ‘Oh god, no.’ But then again, where is my fish coming from?”
–Southeast Portland

“I know my kids went on a field trip, and it was those really fast boats, and it kept getting water in my mouth, and I’m just thinking, ‘Oh, sewage in my mouth.’ I would not advise anybody to swim in the river for any reason.”
–Southeast Portland

Clarification of what BES means when it says it “protects public health” will help residents better understand the issue.

“When they say public health, is it specifically like, hepatitis outbreaks when sewage is in the river, determining when they put out the warning to stay out of the river? Is it just a warning, or are they checking in with hospitals and doctors to figure out [if] there [is] a spike hepatitis?”
–North/Northeast Portland

COST OF PROVIDING SERVICE

Cost and accountability weren’t top issues for all participants, but for some, these issues are critical.

Many residents mentioned cost and accountability as important measures of success. Although these issues were mentioned somewhat less frequently, for some participants they are of the utmost importance. Some residents will gauge their satisfaction with BES solely on the value they receive from its services and their perception of its cost-effectiveness.

Given the option, residents will typically say they want to know more about how their tax dollars are spent. Several said they liked the Water Bureau’s cost breakdowns and said they would like to see a similar format for BES. However, alerting ratepayers to the fact that BES operates on a \$1 billion budget may draw more criticism than praise. Several participants seemed surprised to learn that the agency had such a large budget, and one began to wonder aloud whether such an amount was necessary:

“It says BES has a \$1 billion budget. Hey, maybe they could have done the same with \$375 million. So you see what I mean? Maybe they’re doing a good job, but is it cost efficient?”
–Southeast Portland

Participants didn’t have a strong grasp of how BES would use such a large budget, so they looked for comparative metrics. Many wanted to know how their rates compared to other cities of a similar size. With prompting, they also noted it would be helpful to compare Portland to cities with a similar amount of rainfall.

“I read something about them being very high compared to the rest of the country. I think that has to do with a lot of the infrastructure that they’re putting in for runoff. It is a rainy city. We have to deal with a lot of precipitation.”
–Southwest Portland

Part of the surprise at the budget figure is likely bound up in the fact that participants hadn’t heard of BES and believed certain activities, like watershed restoration and wastewater treatment, were managed by other agencies. Nonetheless, BES currently flies under most ratepayers’ radars, which may be the most advantageous position. After all, few participants expressed dissatisfaction with the value of services they receive.

“I think it is working. We are not having problems. There is nothing in the paper about it having problem. It must cost this much to get this kind of service.”
–Northwest Portland

If BES instead chooses to highlight its budget, it should link spending to growing infrastructure costs. Infrastructure was mentioned nearly a dozen times in the written exercises, and participants were likely to consider it when thinking about maintenance costs and the city’s growing population. Some noted that the city’s infrastructure is old and likely in need of significant upgrades.

“I was thinking of, like, updating sewer infrastructure, especially just our current sewer. I’m assuming [it] was not built for our population size now. And as [Portland] continues to grow, that needs to be updated.”
–North/Northeast Portland

ENSURING UNINTERRUPTED SEWER SERVICE

Some participants wanted data on sewer services, especially spills, while others were satisfied simply because their toilets flush.

Some residents are easier to please than others. One participant succinctly described how to evaluate BES’s ability to ensure uninterrupted sewer service:

“I experience this on a day-to-day basis, how my toilet and rainwater drains work.”
–North/Northeast Portland

Others wrote down that they’d like to see the rates of interruptions in Portland as compared to other communities, the “frequency and volume of raw sewage” spills, and service logs for preventative maintenance. However, these types of information aren’t likely to be the most successful for educating the public, considering most residents likely possess low awareness of these issues. Additional reports of sewage spills, for example, may only serve to exacerbate negative perceptions.

One participant said they evaluate BES based on whether they smell the sewer when crossing 82nd Avenue, hearkening back to participants’ use of their noses in assessing water quality. Another said TV, radio, and newspapers inform such judgements—while a third said staying *out* of the news would be a good way to tell what kind of job BES is doing.

Rather than focusing on dry statistics, BES may find it more advantageous to build its communications strategies around other, more accessible metrics. These might include what residents can see and smell and, again, reminding residents that “no news is good news” when it comes to sewer issues.

PUBLIC EDUCATION AND OUTREACH

Some participants expressed a desire for BES to take a lead role in educating the public and promoting environmental justice.

A handful of participants mentioned other issues, such as job creation, educating the public about water management and quality, and engaging underrepresented residents, such as residents of color and people with disabilities, in such discussions.

“A combination of, ‘Will it make ecosystems and micro-ecosystems healthier?’ and ‘Will it affect varying income levels, races and ethnicities in some sort of way?’ . . . People of color are disproportionately affected by water and air quality. I think that needs to be considered by the Bureau.”
–Southwest Portland

Residents made explicit references to specific types of education that would be helpful, including what not to put down the drain, how to use rain barrels to manage stormwater, and what types of home gardening techniques would promote a healthier watershed.

4.6 BALANCING CITY DIRECTIVES

Participants also weighed in on how the City of Portland should balance different considerations related to its directives, such as preference for minority contractors, prevailing wage policies, and environmental standards.

When it comes to decisions about construction, participants want to rest assured that their government has weighed several factors, including safety, cost, and disruption to businesses and residents.

Responding to trade-offs between worker safety, cost, and traffic disruption was difficult for many participants; it was considered the most difficult of all the trade-offs presented by 21 of the 54 participants. On the one hand, worker safety was a serious concern. Many people agreed that no one should have to risk life or limb to prevent a traffic delay. On the other hand, there were a litany of reasons to conduct construction at night: less traffic, less air pollution and fuel waste, and less disruption to local businesses. As participants talked through these trade-offs, one theme emerged: They merely hope BES will be as thoughtful about the decision-making process as they were.

“It’s hard because there is no one easy answer, or we wouldn’t even be discussing this.”
–Southeast Portland

Participants mentioned other factors, too, such as whether the construction would affect residential neighborhoods, which would be bothered by noise at night, or businesses, which would be impacted by street closures during the day. Even participants who preferred *conducting the work at night, which is more expensive and hazardous to workers, but less disruptive to traffic* weren’t flippant about worker safety. Instead, they simply believed safety concerns could be addressed in other ways. They pointed to better training for workers, better lighting for work sites, and even higher pay for union workers who are scheduled at night.

Resident frustrations with construction projects, especially long-term projects that cause significant delays, may be assuaged with reminders that BES does consider each of these factors before work begins. A simple acknowledgement of community safety can go a long way in helping residents understand why their lives have been impacted.

Participants said it is more important to reduce maintenance costs overall than prioritize lower up-front costs, and they think governments should do a better job of communicating this trade-off.

Participants agreed nearly unanimously that it is better to pay for a project up-front than to be more over time in maintenance and repair. Just two participants preferred projects with lower up-front costs. Several participants drew upon traditional wisdom and spoke in platitudes.

“It never pays to be cheap. You’ll pay in the end.” –Southeast Portland

“Better to keep up than catch up.” –Southwest Portland

Participants also noted that when costs are assumed up-front, there is greater certainty. Down the line, maintenance costs will increase, and policymakers are guessing as to future costs.

“You can plan for wanting to build a new deck for \$10,000. I know today, it’s going to cost \$10,000. I’m guessing down the road. People tend to be more optimistic about [costs] later on.” –Northwest Portland

This portion of the discussion was underpinned by the feeling that governments must do more to show taxpayers that they are using funds wisely and are held accountable. Relatedly, participants wanted to know how a project would benefit their lives before deciding whether it was worth the up-front cost—or worth the cost at all. Several participants shied away from higher up-front costs for more experimental projects that don’t come with a proven track-record of success.

Yet participants were quick to say that this approach doesn’t seem to be used by their government. When asked if they thought BES chooses projects in this fashion, participants were doubtful. They agreed agencies face pressure to keep up-front costs low, but some described a bait-and-switch when projects run over cost.

“Later on, after they’ve already started it, they need more money, and you’re like, ‘Well, you already started it.’ The taxpayers are forced to pay for it.” –Southeast Portland

“I think that’s sometimes why there’s a disconnect between some people in Portland and some of the city bureaus . . . That could be the communications thing. We don’t know what’s going on. We don’t know what the long-term is. We’re paying higher bills. What’s in our future?” –Southwest Portland

This participant description that government is not clearly communicating its costs to residents highlights a challenge. Residents have low awareness of city bureaus such as BES—including their priorities, their successes, and their budgets. Although this information is available, residents rarely seek it out. In communicating about projects that will benefit residents in the future, it may be helpful to draw comparisons between recently-completed long-term projects to ease skepticism about whether they really stand to benefit from these up-front costs.

Most participants believed it is a better practice in the long run to strive to exceed minimum environmental standards.

About four of every five participants thought it would behoove the City to exceed minimum environmental standards when completing projects, rather than merely meeting them. The stated reasons for included concerns that existing standards are inadequate, Portland's ability to serve as a leader on environmental issues, and practical cost considerations.

"I just thought it would be less spent on continually having to meet standards if you were already exceeding it."
–Northwest Portland

Participants also thought it would be wise to factor in whether exceeding minimum standards would cause project delays or increase up-front costs, and to balance those issues against the net gain in environmental health.

"I'd want to see standards of like, what 10% pollution means, what 15% pollution means, and then a breakdown on the decision. All right, we're at 10% pollution, and we pay this much more."
–Northwest Portland

Of course, others disagreed. They pointed to a possible patchwork of standards, where one jurisdiction or project met only the minimum and another exceeded it. Some of these participants thought that if the standards really were inadequate, that efforts should be focused on tightening the restrictions, not exceeding them on a per-project basis.

Communicating cost savings when discussing environmental benefits is one tactic that will likely allow BES to build a positive reputation among the community broadly—regardless of whether residents receiving the communications prioritize environmental regulations.

More than half of participants agreed with the City's minority contracting preference.

Many of those who felt a contractor's status as a woman- or minority-owned business should be considered were quick to point out that, while diversity is important, experience remains crucial. Others were more emphatic in their preference for hiring underrepresented contractors, and thought the City's choice to do so would reflect community values.

"Keep things equitable only when merit is the same."
–Southwest Portland

"I don't want to get a job because I'm a minority. I want to get the job because I'm the most qualified person. But unfortunately, the most qualified person doesn't always get that job if you're a woman or minority."
–North/Northeast Portland

One participant who thought experience should be the primary consideration described a similar opinion:

"It should be based on experience, not based on anything else. If it happens to a woman or minority, all the better."
–Northwest Portland

However, other participants were firm that gender, race, and ethnicity should not factor into the equation. They instead shared concerns that the selected contractor should be the most qualified applicant, which several participants also indicated would likely be the most cost-effective for taxpayers.

"I'm all for equity, but the groups that will get it done right should be the ones to do it."
–East Portland

"I suspect too few women- or minority-owned businesses [would apply], and they would have an unfair advantage."
–Southeast Portland

Ultimately, participants agreed that only contractors who are well-qualified should be candidates for City projects, but not all immediately understood or connected with systemic underrepresentation. To build goodwill among all residents, BES can describe its contracting process as one that ensures high-quality contractors are chosen and that work is completed for a fair price to taxpayers. Once that foundation is laid, highlighting the work of women- and minority-owned business is likely to be well-received by the community.

“These kinds of questions, I’m glad they’re being asked and taken into consideration. I think a part of that communication piece—If I, as a resident, knew these things. Did you know that when we’re considering hiring a contractor, these are things we consider? That would be great. We consider women, minorities, and how they treat their employees. That makes me feel good about the city.” —Southwest Portland

Participants want to know that they are getting good value for their tax dollars when contractors work for the City.

Participants were somewhat evenly divided when discussing whether wages should matter to the City when it chooses contractors. Those who thought it should be a consideration pointed to the economic benefits of well-paid employees and the City’s opportunity to act as a leader in fair wages.

“I’m a firm believer in paying people a living wage. This promotes the health and economy of our country.” —North/Northeast Portland

“Employees who are treated better may do a better job [and] work faster. So, less hours and less costs?” —Southwest Portland

Those who felt it shouldn’t be a factor the City considers when hiring contractors also commented on the relationship between wages and good work product, but they saw things differently. Others simply believed that even if a company contracts with the public sector, its finances are a private matter.

“Wages are a function of the market. If they’re doing good work, they should be getting enough business to pay their employees well.” —Southeast Portland

“I feel no one should be asked what they pay their employees.” —East Portland

As with woman or minority contracting preferences, the City can promote its history of hiring skilled contractors for projects and its success in finding quality work for a competitive price.

4.7 COMMUNICATIONS AND OUTREACH

Participants said the most important things to know about BES are the basics: what the agency does, how it differs from other agencies, and what it has achieved. Because familiarity with the agency is so low, future communications must start from square one. In laying this foundation, BES has the opportunity to differentiate itself from other bureaus and to highlight its positive impacts on the environmental and public health.

Most participants rely on local newspapers, radio, and television news to gather information about their community, and the participants most informed about environmental issues trust area nonprofits.

The most frequently mentioned sources of information regarding local community issues were local media outlets. These outlets included Oregon Public Broadcasting, *Willamette Week*, *The Oregonian*, and KATU, among others. Several participants said also they would trust their neighborhood association for information about local issues.

Participants who were more interested in and informed about environmental issues also mentioned nonprofits dedicated to these issues, such as Crag Law Center, BARK, Audubon Society, 1000 Friends of Oregon, Sierra Club, and various river keeper organizations. Others thought environmental groups were too one-sided.

There was a split in opinion regarding government agencies, such as the Portland Water Bureau. A few participants said explicitly that they would look to the Water Bureau for information on local issues, while others said they were skeptical of government agencies, elected officials, the Portland City Council, and BES.

A strong communications and outreach strategy will cover all these bases. In addition to maintaining strong partnership with local newspapers, radio, and television stations, BES can build its brand and increase public awareness by continuing to collaborate with trusted community groups, for example, the Johnson Creek Watershed Council. Although these community partnerships are likely to reach only the most informed residents and those most interested in environmental issues, these residents are also likely to serve as the best BES ambassadors in the community.

When participants described most helpful types of information about BES, they merely described information already disseminated to the public.

Repeatedly, participants asked to see “data” or “statistics.” However, when pressed, many of these participants weren’t always able to describe what type of data they wanted to see. Others did describe certain metrics—the frequency of sewage spills and health advisories, toxin levels, and fish spawns—but few acknowledged that such data is already publicly available.

One particularly self-aware participant noted:

“My concern with getting too many metrics is there are people and data that I don’t care about. I think what it comes down to is just knowing a couple of things.”

—Northwest Portland

Participants sometimes spoke as though, because they hadn't heard of BES, the agency had not made a concerted effort to inform the public about its services. These participants again asked for existing information, such as statistics, billing inserts, and news stories about the agency.

"BES website should have info for studies, ratings, statistics, trends, third-party articles that demonstrate progress, cost, etc."
—Southeast Portland

Other participants were more likely to take responsibility for their lack of interest in such materials. They noted that people are busy and often receive all kind of mailers. Instead, these participants preferred highly visible—inescapable, almost—sources of information, such as media and bus advertisements.

"Honestly, I want to say, 'Yeah, send something in my bill, blah-blah-blah.' Honestly, I'm not going to read that. Straight up, I'm not going to read it. . . But I would say if it would be local media, and maybe even public events, would be more for [me]."
—East Portland

"I feel like they need a new PR campaign: first that it exists. So even if it's like, on TriMet they put an ad saying . . . 'This is BES at work' or something just bring awareness."
—North/Northeast Portland

Some participants believed targeted, in-person outreach might be more effective—before acknowledging that they weren't personally likely to attend such events.

In an effort to be helpful, many participants threw out other outreach ideas beyond billing inserts and newsletters. Events often came up, as a way to leverage a captive audience. Participants mentioned town halls, farmers' markets, and Sunday Parkways. Someone who mentioned workshops seemed to allude to the Bureau of Planning and Sustainability's Fix-It Fair.

But some of the participants were candid and shared that they probably wouldn't attend such events

"I'm going to be frankly honest with you. I wouldn't go [to a town hall], but I was just throwing that out there."
—North/Northeast Portland

However, one participant was likely correct when she noted that these types of events probably attract residents who are more interested in the services and programs BES provides.

"Farmers' markets, like you were saying, especially areas where people tend to [be] more concerned with environmental issues."
—East Portland

This may be a helpful strategy in creating and maintaining a network of community ambassadors, who can educate their friends and family about water resources management and watershed restoration. Considering the frequency with which participants relied on lore about the health of the Willamette River, word of mouth may prove a useful strategy to combatting misconceptions about water quality in Portland.

Residents may understand BES's work better if future communications combine stories of positive outcomes with simple statistics and imagery.

When participants described positive community improvements attributable to BES, they told them as stories. For example, one participant recalled that in his childhood, Foster Road was constantly flooded, but then shared a story of his recent visit to the Foster Floodplain Natural area:

"My oldest son is autistic. He loves all animals. We went through [the natural area] a couple weeks ago, and there was actually a deer in there . . . he completely loved it."

Just being able to get my kids, walk a block, and have a community area like that, it's hard to find out.”
–East Portland

These types of stories will provide residents with a frame of reference so they can understand what it means when they learn that BES protects the environment and watersheds. Without such stories, they may struggle to visualize BES as the focus group participants did.

“I just said let us know about past, present, future projects. That way it gives us a chance to get to know what they do and actually visualize what they do.”
–East Portland

Pairing simple stories with imagery will help residents contextualize new information. Participants described all sorts of visual aids and expressly asked BES to help them visualize their services.

“Pictures. We do well with pictures.”
–Northwest Portland

Notably, several participants across groups recognized BES's heron logo. An analysis of how and where the logo is used may provide helpful insight into where residents are absorbing information about the agency. BES may be able to leverage these information sources and include simple statistics about their work—like a pass or fail grade for water quality—to promote awareness.

Ultimately, BES may also continue to enjoy its low profile in the community.

There are certain advantages to low awareness of BES. In determining future communication strategies, the most important question will be: What does BES hope to achieve with greater public awareness? The answers to this question will inform when and how the agency promotes itself in the public.

This consideration wasn't lost on all participants, a few of whom wondered why BES would want to change their existing position.

“How would they benefit from me knowing more?”
–Northwest Portland

“I don't know if this is the wrong thing to say, but why do we need to know? Nobody ever heard of it. It comes on our bill. . . I don't know that there's any reason why I need to know about it, unless—here's my cynical side—unless it's just a way for me to be knowledgeable so when a bond measure comes up, I'll vote for it. . . I don't think people care enough, honestly, that it would be worth the money it would [cost], and they could fix a pipe instead.”
–Northwest Portland

However, as previously mentioned, informed residents are typically more positive. Near the end of the group, participants expressed an interest in learning more about BES and the work that they do. Several said they would take home the communications pieces to read, or that they would look up the Bureau online.

“What are you doing? I think it sounds interesting. Brag about yourself to us.”
–North/Northeast Portland

What's the one thing participants say they need to know about BES?

“The most important info from them would be that they don't supply drinking water.”
–East Portland

Appendix

5

**City of Portland BES Communications Focus Groups
DHM Research
Project #00572**

- Group 1: North/Inner Northeast Portland Residents; 4/25/17; N=11**
- Group 2: Inner Southeast Portland Residents; 4/27/17; N=12**
- Group 3: Outer East Portland Residents; 4/29/17; N=9**
- Group 4: Southwest Portland; 4/29/17; N=10**
- Group 5: Northwest Portland; 5/1/17 and 5/10/17; N=7 and N=5**

**Appendix A
Participant Demographics**

City and Zip Code

North/Northeast	Southeast	East Portland	Southwest	Northwest
Portland 97211	Portland/97202	Portland/97220	Portland/97201	Portland 97209
Portland/97203	Portland/97266	Portland/97223	Portland/97201	Portland/97209
Portland/97211	Portland/97206	Portland/97233	Portland/97205	Portland/97209
Portland/97212	Portland/97202	Portland/97236	Portland/97209	Portland/97209
Portland/97212	Portland/97214	Portland/97236	Portland/97219	Portland/97209
Portland/97212	Portland/97215	Portland/97266	Portland/97219	Portland/97209
Portland/97213	Portland/97214	Portland/97266	Portland/97219	Portland/97210
Portland/97217	Portland/97215	Portland/97266	Portland/97219	Portland/97210
Portland/97217	Portland/97214	Portland/97266	Portland/97219	Portland/97210
Portland/97230	Portland/97266		Portland/97239	Portland/97229
Portland/97232	Portland/97202			Portland/97229
	Portland/97266			No response

Occupation

North/Northeast	Southeast	East Portland	Southwest	Northwest
Disabled—not employed	Business Owner	Medical Billing	Independent Contractor	Accounting Specialist
Educational Medic Provider	Driver	Karaoke Host/ Music Producer	Jeweler	Administrative Assistant
Educator	Electrician	Owner A-1 Prestige Towing & Recovery	Manager	Company Owner
Hair Stylist	Exec assistant at non-profit	Homemaker and Foster Mom	Mental Health Specialist	Configuration Analyst
Mortgage	I.T.	Medical Transport Dispatch	Retired Assistant Director	Freelance Web Design
Retail Account Manager	LMT—massage therapist	No response	Retired Auto Sales	Fundraising/ Stagehand (part time)
Retired Park Tech	Member Service Rep—credit union	No response	Teacher	Retired, CEO for Regional Planning Association
Supervisor Glass Dept.	Realtor	No response	Teacher, bookseller	Teacher
No response	Registered Nurse	No response	No response	VP Sales (software)
No response	School bus driver		No response	No response
No response	Unemployed			No response
	No response			SSI

Education Level

Response Category	North/Northeast	Southeast	East Portland	Southwest	Northwest
Less than High School Graduate	--	--	--	--	--
High School Graduate	--	1	2	--	--
Some College; Technical School; Community College; 2-Year Degree	7	7	6	3	3
College Degree; 4-Year Degree	3	4	--	7	4
Graduate Degree	1	--	1	--	4
No response	--	--	--	--	1

Household Income

Response Category	North/Northeast	East Portland	Southwest	Northwest
Under \$15,000	1	1	--	1
\$15,000–\$29,999	3	1	1	1
\$30,000–\$49,999	4	2	5	1
\$50,000–\$74,999	1	3	1	4
\$75,000–\$99,999	--	1	2	--
\$100,000–\$150,000	2	1	1	2
More than \$150,000	--	--	--	2
No response	--	--	--	1

Household Income (Southeast)

Response Category	Southeast
Under \$25,000	3
\$25,000–\$49,999	1
\$50,000–\$74,999	5
\$75,000–\$99,999	1
\$100,000–\$150,000	2
More than \$150,000	--

Type of Home

Response Category	North/Northeast	Southeast	East Portland	Southwest	Northwest
Single-Family	7	10	8	8	5
Multi-Family	4	2	1	1	6
Other [Condominium]	--	--	--	1	--
No response	--	--	--	--	1

Home Ownership

Response Category	North/Northeast	Southeast	East Portland	Southwest	Northwest
Rent	3	5	3	5	8
Own	7	7	5	5	3
Other [Rent to own]	--	--	1	--	--
Other [Nothing indicated]	1	--	--	--	--
No response	--	--	--	--	1

Number of People in Household

Response Category	North/Northeast	Southeast	East Portland	Southwest	Northwest
1	3	6	--	3	6
2	3	4	3	4	4
3	1	1	3	2	--
4	1	--	--	--	--
5 or more	3	1	3	1	1
No response	--	--	--	--	1

Age

Response Category	North/Northeast	Southeast	East Portland	Southwest	Northwest
18–24	--	1	1	1	--
25–34	2	3	3	2	3
35–44	3	1	3	1	1
45–54	1	3	1	3	3
55–64	3	3	1	2	3
65–74	2	1	--	1	1
75+	--	--	--	--	--
No response	--	--	--	--	1

Gender*

Response Category	North/Northeast	Southeast	East Portland	Southwest	Northwest
Female	6	7	4	4	7
Male	5	5	5	6	4
Transgender	--	--	--	--	--
Cisgender	--	--	--	1	--
Genderqueer	--	--	--	--	--
Agender	--	--	--	--	--
Other	--	--	--	--	--
Prefer Not to Say	--	--	--	--	--
No response	--	--	--	--	1

*Multiple responses accepted

Racial or Ethnic Group*

Response Category	North/Northeast	Southeast	East Portland	Southwest	Northwest
White	7	9	8	9	9
American Indian, Alaska Native or First Nations	--	--	--	--	--
Asian	--	1	--	--	1
Hispanic or Latino	1	--	--	2	1
Middle Eastern or North African	--	--	--	--	--
Black or African American	3	1	2	--	1
African	--	--	--	--	--
Native Hawaiian or Pacific Islander	--	--	--	--	--
Another Race or Ethnicity	--	1	--	1	--
No response	--	--	--	--	1

*Multiple responses accepted

Political Party

Response Category	North/Northeast	Southeast	East Portland	Southwest	Northwest
Democrat	7	7	3	4	7
Republican	2	1	2	1	1
Other [Independent]	1	--	1	2	1
Other [Independent/Liberal]	--	--	--	--	1
Other [Left-leaning Independent]	--	--	2	--	--
Other: [Independent or Green]	--	--	--	1	--
Other: [Pacific Green]	--	--	--	1	--
Other: [Independent NAV]	--	--	--	1	--
Other [Nothing indicated]	1	4	1	--	1
No response	--	--	--	--	1

Appendix B Written Exercise 1

Make a list of the things that you value about living in your community. Place a star (*) by the item that is most important to you.

North/Northeast

- *Artsy; liberal; Lots of trees & flowers; Community-oriented; In walking distance to most things
- *History; Transportation; Friendly
- *Liberal/quirky; access to the city; quiet street; safety; tree-lined streets; great/diverse food options; interesting movie scene; SUMMER; access to river/beauty
- *My neighbors. They are among my closest friends and why I stay in the area; Plenty of greenspace. I live near Washington Park.
- *Neighbors; Proximity to airport; Proximity to Edgefield.
- *People are generally courteous and take care of their space; Walkable to shops/food; The different people who live there
- *Resources for those in need; Seeing people every day/familiar faces; Nature and recreation areas are geared toward families; Middle-to-high-to-low class
- *Safety; Parks; Schools; Traffic
- *The people; Building (homes); Activities; Parks; Neighborhood
- *The river; safety; affordability; quietness; centrally located close to freeways
- *Walking distance to grocery shopping/gym/shopping; Close-knit community; Close to public transit; Great schools

Southeast

- *Accessibility; Low crime; Outdoors-oriented
- *Affordability; Close to shopping, restaurants; Walkability; Safety; Quiet; Traffic
- *Clean & well-kept; Pleasant neighbors; Convenient to necessities; Somewhat safe
- *Community; *Stores; *Streets; Friends (the less I travel the more time I save)
- *Green space; Lots of trees; Walkable; Restaurants/cafes nearby; Good public school; Friendly neighbors
- *I live up on top of the hill away from the crime and traffic close to Happy Valley which are nicer neighborhoods and newer; It's close to everything
- *Location (Far enough away from the downtown area but close enough to still be a part of the amazing Portland community); Portland public schools; People's Co-op
- *Safe; Near work; Good neighbors; Property values up; Near friends
- *Safety; Stores; Parks; Decent streets; Public transit; Neighbors
- *Supports between neighbors, whether that is watching each other's houses or friendships; Walkability; Sociability of neighbors; Safety; Friendliness; Businesses being locally owned
- *Walkability; All homeowners; Older community; Stores and restaurants walk to; many generations in neighborhood
- *We all take pride in keeping our block clean; Everyone owns their home; Everyone gets along

East Portland

- *Access to natural areas; Clean air; Generally fairly quiet; Ease of alternative transportation (cycling)
- *Community support; Safety; Cleanliness; Homeless outreach; Community preservation; Affordable living
- *Easy access to stores, doctors, hospital; Bus and MAX; Good system for roads
- *I value my neighbors; Lents Park and all it has to offer—playground with a water park, baseball field where the Portland Pickles play.
- *Multicultural; Clean from most trash; Bike trails; Open-minded
- *Quiet and peaceful; Bike accessibility
- *Safe; Know most people; Space; Close to Springwater; Pretty area; Good schools
- *Schools; Near parks; How close it is to family; Freedom from city life; Access to outdoor hiking
- *The schools; Environment; The closeness of neighbors, i.e. looking out for each other and being friendly; Public transportation; Proximity to basic goods and services

Southwest

- *Beautiful. Lots of trees/hills and views; Easy to get to many places all over the city because close to freeway—centrally located to Beaverton, etc.
- *Diversity; safety; In/near the city; Easy to commute
- *Diversity; Walkability; Friendly people; Acceptance; Nice restaurants; Health-oriented (more than other places)
- *Good public transportation/MAX; Love being in the heart of the city; Lots of places to shop and eat; Amazing restaurants
- *Good schools; Close to downtown and other suburbs; Fairly safe; Nice neighbors; Access to green space.
- *Green spaces; Lower crime; Less populated than some other areas; More residential than commercial
- *Minimal police activity; Walkability; Friendly neighbors
- *Nearby to brother, parents, workplace, etc.; Neighbors are friends; Green; Quiet; Not too much traffic for walking; two close-by parks
- *Quiet (mostly); Neighbors; Friendly; Space; Trees; Parks access for walks with dog; Small café
- *Quiet and safe; Green; Walkable; Close to business

Northwest

- *Accessibility to shops, transit and friends. Closeness to healthcare
- *Accessible; Clean; Safe; Close to places to go out; Parks to enjoy
- *Close to mass transit; Something always going on; Close to shopping stores
- *Close to nature; Close to hospital; Close to shopping; Streetcar accessible; TriMet accessible
- *Location or access; Vibrancy, eclecticism; Safety; Familiarity; Housing market; Opportunities; Night life
- *Lots of things nearby downtown; Centrally located; Transportation; Walking distance; Green spaces
- *Safety; Close to hiking/outdoor activities; Large open, roads, sidewalks; Relatively good roads; Clean
- *Walkability; Convenience; Good transit connections; Know everyone at the grocery store and library; Feels safe; Close to my parents; Green and beautiful; People care about Cedar Mill—It feels like a place; Memories; Community garden
- *Walkability; Plenty of restaurants and bars, etc. close by; Urban; Variety of living situations; Access of public transport
- *Walkable neighborhood; Good transit access; Mix of housing; Lot of bars, restaurants; Friendly neighbors
- *Walking to everything we need; The parks; The concerts in the parks; Health care close by; Variety of restaurants
- *Walking; Friendly animals; Easy commute; Stores

For the most important issue, why is it important to you?

North/Northeast

- [Artsy] I like that my neighborhood has lots of artists/artwork because it makes the neighborhood more beautiful and harmonious.
- [History] I am interested in the significance of Vanport as a part of Portland History. I have a senior friend who lived through it.
- [Liberal/quirky] I'm gay and feel safe almost everywhere. I appreciate that it's a non-issue for most places around the city. I appreciate the more liberal-conscious of the city as well; eco-friendly
- [My neighbors. They are among my closest friends and why I stay in the area] We all look out for each other, take care of each other. Our area is safer and has less petty crime because we have each other's backs.
- [Neighbors] I appreciate having the contact with my neighbors. Just chatting about stuff, etc.
- [People are generally courteous and take care of their space] Neighbors respecting each other (not used to it coming from Texas)

- [Resources for those in need] Because Oregon is a city where some are dependent and need a helping hand, there are thousands up in the 20,000 of homeless in need. I am one of them.
- [Safety] I've had my home broken into before.
- [The people] I live in a very diverse neighborhood. People of all walks of life. Race, culture, social.
- [The river] No matter how crazy your day gets, I know I have a serene place where I can walk, think and enjoy nature.
- [Walking distance to grocery shopping/gym/shopping] It's important to me to be close to the things I enjoy because it gives me a sense of community. I have people close to me who enjoy similar activities.

Southeast

- [Accessibility] I appreciate the fact that as a resident of inner SE (Hawthorne) I am close to everything that fits most of my daily needs—restaurants, parks, stores.
- [Affordability] If I couldn't afford to rent/own in the neighborhood, renders all other issues moot.
- [Clean & well-kept] Important because it's HOME and want to be nice.
- [Community] The people around me have some influences on me as a person; [Stores] The less I travel the more time I save
- [Green space] I think green space is super important for mental and physical health—exercise and fresh air or just sitting in beauty
- [I live up on top of the hill away from the crime and traffic] A lot of Portland has got a lot of people and it's quiet.
- [Location] No response
- [Safe] As a woman who lives along I feel that a safe neighborhood is very important.
- [Safety] Safety is important because a person should feel that way in their home and neighborhood. No drug addicts or burglarizing or car break-ins.
- [Supports between neighbors] Without others we are distant.
- [Walkability] Able to walk to stores, restaurants and get to see and meet neighbors—feel safe enough to walk everywhere
- [We all take pride in keeping our block clean] Because I have worked hard and I like a clean home, yard, and environment.

East Portland

- [Access to natural areas] Living in a large city can be very difficult for me. I have anxiety that can be triggered by the hustle and bustle of the city. It's really important to have somewhere to go and get away from all of the chaos.
- [Community support] Being a supportive and neighborly person with others in your community is important to maintain the other values listed above, working together.
- [Easy access to stores, doctors, hospital] Because of being a foster parent, it is important to get various services to help kids. I live being able to drive short distances for doctors, stores, etc.
- [I value my neighbors] My neighbors have also become friends of ours. We look out for each other when away from our homes (vacation). We help each other out with projects.
- [Multicultural] This is important to me because people exercise tolerance even if they don't agree with your lifestyle.
- [Quiet and peaceful] I want to live in a place where I can relax and escape.
- [Safe] It's where I raised my family—son is close by—see grandchildren. Space for yard and gardening. Know all my neighbors.
- [Schools] Three of my children have special needs and I wanted them to go to the best school I could find.
- [The schools] The quality of education and the staff are very important to me being a father of three minor children.

Southwest

- [Beautiful. Lots of trees/hills and views] My life is better when I see nature every day. Trees make me relax. Greenery makes me relax. I drive through pretty areas just going to work in Beaverton and back. Didn't like working downtown.
- [Diversity] Diversity is important because it brings together people with varied opinions and creates a community of people that appreciate the differences among them.
- [Diversity] Diversity is the most important thing I value about living in my community because I like to learn new things. New people helps me grow.
- [Good public transportation/MAX] It's nice to be able to hop on the Max a block from my house and get to anywhere in the city I want to go. West or East side.
- [Good schools] I support public schools, but I know there is a difference depending on the neighborhood. I have a daughter who has gone through the PPS school system.
- [Green spaces] I am an outdoor enthusiast. Trees and open space are important to me. Give me opportunity to hike through wooded areas close to home. Fewer cars, more trees.
- [Minimal police activity] In a context where there is a lot of police activity, I am having to play the role of bystander or third party in the ongoing police vs. criminals dichotomy.
- [Nearby to brother, parents, workplace, etc.] I like being able to walk to my parents or brother's house for frequent family gatherings and to the bookstore or community center.
- [Quiet (mostly)] We value less busy and quiet neighborhoods. We are "on" a lot with our business and so really value the time to be quiet.
- [Quiet and safe] As a retired person, I value my surroundings differently than I did at 20. I lived downtown, walked everywhere (at all hours). Now I value quiet and safe.

Northwest

- [Accessibility to shops, transit and friends] These are important to me because when I have free time I can utilize those resources.
- [Accessible] I am an on-the-go person and being able to get to places, people and things easily is huge in terms of my quality of life.
- [Close to mass transit] Because this city is getting crowded quickly, it's taking a lot longer to get from point A to B. If I can take public transportation I always do.
- [Close to nature] It's hard getting in touch with nature living in the city, especially NW. Love the trails that lead up in the Zoo, Rose Garden, etc.
- [Location or access] Location, accessibility and opportunities
- [Lots of things nearby downtown] Didn't want to be far away from services, etc.
- [Safety] As a single female whose main mode of transportation is walking, I value not being concerned about my safety.
- [Walkability] I do not own a car and yet I can still navigate (safely) this neighborhood.
- [Walkability] So much nicer to park in on weekend and do everything needed. No need to fight traffic, find parking, pay for parking.
- [Walkable neighborhood] Tied to more dense activities, community, ability to access lots of services, but see neighbors face-to-face
- [Walking to everything we need] We see it as a win-win—health, entertainment, lifestyle we want
- [Walking] Need to be healthy and stay healthy.

Appendix C Written Exercise 2

To the best of your knowledge, which utilities or agencies are responsible for managing the water quality of local rivers and streams?

North/Northeast

- Don't know
- EPA, Portland Parks & Rec; Water Company; Nonprofits; Local environmental groups/nonprofits.
- EPA; Health department; self-policed
- I don't know. Portland recycling.
- Pacific Power; Bull Run; Columbia Basin; City of Portland Water Bureau
- Portland Power
- Portland water & sewer; BES—Billion dollars.
- Portland Water Bureau; EPA
- Portland Water Bureau; the people; Bureau of Environmental Services
- Portland Water District/Water Bureau
- PP&L; PGE; DEQ; EPA; DNR

Southeast

- City of Portland; EPA
- DEQ (state); EPA (federal); River Watch (non-profit)
- DEQ; Water district
- Don't know
- EPA
- EPA; Water Bureau
- I'm not sure, although I think that the county is responsible for sewer issues
- Metro?
- Mt. Tabor; I don't know
- No clue! Portland Parks? EPA? Portland Fire?
- Portland Water Bureau; EPA
- Portland Water Bureau; The City of Portland

East Portland

- City of Portland Water Bureau; Metro
- Department of Environment Agency?
- Don't know!
- EPA; Waste Management
- PGE; Rockwood Water; OR DEQ; Wastewater treatment plant
- Portland Department of Public Services
- Portland Water Bureau; EPA
- Portland Water; PGE; Bonneville; DEQ
- Unsure. Maybe Portland Water Bureau? EPA?

Southwest

- City of Portland, state.
- City of Portland; Portland Natural Gas; Reservoirs; Sewage; Water company
- DEQ
- DEQ; EPA
- DEQ; EPA; ESA? Portland Bureau of Water; Portland Environmental Bureau
- Environmental protection groups.
- I don't know
- I don't know. City of Portland; Metro; State of Oregon
- Tualatin River Keepers; Portland City/Bull Run Watershed
- Water Bureau of Portland and EPA; Environmental Protection Agency; DEQ

Northwest

- Tualatin Valley Water District (? I know it's a water district, but blanking on the name); THPRD natural resources department
- Conservation Collaboration of Oregon (bit of a guess)
- Environmental Protection Agency
- Environmental Health; Department of Fish & Wildlife; EPA
- EPA (Oregon's version); BPA; PGE; PP&L
- I don't know. Army Corps of Engineering
- I'm not sure
- Metro; Oregon Department of Environment; Portland Water Bureau; Portland Park Bureau
- Metro? Portland Water? Oregon Fish & Wildlife? EPA/Superfund etc. Army Corps of Engineers.
- Not sure—Tualatin Water
- PGE; Dam; Wind power
- USDA

How do these utilities or agencies accomplish that?

North/Northeast

- By speaking up about the health of our water. If they drank water and got E.coli or salmonella, etc.; Disinfect water with chlorine, etc.
- By testing and meeting minimum standards. Or they wait for a disaster.
- Community board panels; Donations from consumers; Clean energy fees; Government mandates
- Hydropower, fish, ecosystem; DEQ monitoring.
- I don't know
- I don't really know—however I supposed it's a mix of regional surveying/testing and possibly volunteer help.
- Instillation of the "Big Pipe"; Monitoring Superfund sites.
- Portland recycling works with the community to obviously reuse and recycle to keep the river clean.
- Taxes
- Testing the water/soil; Limiting chemicals released by factories.
- They charge you for it monthly. I.e. sewer, processing and cleaning.

Southeast

- ? Out of that loop right now.
- Charge their customers; Run tests on water quality
- Environmental regulations?
- Maintain and upkeep the reservoir, on a daily watch
- Regulation
- Regulations of businesses and properties; Testing regularly for problems
- Scientific monitoring with culturing water samples and tracking sewer overflow; Announcement about when the water quality is below a certain point.
- Soil tests; Water tests; Data; Comparison models
- Taking samples/going out into the communities.
- Test water regularly; Monitor holding facilities
- Water testing; Issuing warnings when bad (sewer overflow)
- No response

East Portland

- Create wildlife refuges, parks, etc.; Modernize piping throughout the city (Powell Butte)
- Don't know!
- Responsible for people's impact on the environment; PGE maintain vehicles in the case of fleet. owning companies and equipment; DEQ holds people to a standard of vehicles to keep toxic material from get.
- Routinely test water—restrictions such as types of crafts used for leisure (to cut down on pollution)

- Set strict guidelines for residents and companies in the local area (took a guess) to make sure they're not illegally dumping in the water.
- Sewer runoff; Making sure companies on river follow guidelines; Bonneville—fish counting dam
- They assumedly monitor the streams for pH and debris; They monitor watersheds and supplies for contamination.
- Unsure.
- Waste management processes and filters dirty water; pH balance

Southwest

- Go knock on doors to get awareness and petitions signed to prevent local landscapes (rivers, etc.) from being destroyed.
- Monitoring Bull Run; Monitoring the Willamette; Work with various water entities to coordinate testing and handle reported instances of contamination.
- Regulate use of items harmful to clean water. Channel waste away from rivers and streams.
- Sewage; Sanitation; Education on pollution and bio-identical materials and chemicals
- Testing, enforcing state environmental laws dealing with water quality and issues that affect that. IE> Runoff, spills, trash.
- Water Bureau has a holding tank. Water for runoff during heavy precipitation; EPA conducts studies to determine how “safe” water is for drinking and swimming.; DEQ creates and upholds policies to protect environmental quality.
- Water testing. Issue alerts when water is too toxic to swim in, etc. Public service info. Explaining what shouldn't be put down the drain or in the river. Water treatment plants.
- Wish they'd incentivize water collection (from roofs) with new building codes; Manage storm drain; Treat waste (we need to do better with that)
- With city money, purifying, building infrastructure, following practice and procedures in place.
- No response

Northwest

- Don't know—put out flyers; Volunteers to monitor
- Have guidelines; Test
- Land use and regulation to protect watershed; Limit development; Respond and mitigate pollution
- Legislation; Company environmental policies; Control water flow with dams
- No response
- Sewer management; Tree and native shrub planting to prevent erosion near waterways and cool water
- Testing current conditions, surveying streams and monitoring wildlife.
- Testing quality of cleanliness; Deciding what can go into the rivers and streams
- Testing, sewer outflow projects, Fish habitat management, etc. Tracing source of pollution.
- Testing. Look for source of contamination.
- They have different departments that are set up to monitor water quality, scientists who test the water quality, reports, testing, etc.
- Track pollution levels to see changes in water levels, bacteria, through regular testing

**Appendix D
Written Exercise 3**

All things considered, rate the value you receive for Bureau of Environmental Services (BES) programs and services.

Response Category	North/Northeast	Southeast	East Portland	Southwest	Northwest	Total
Very good	--	2	--	1	5	8
Good	2	3	6	8	6	25
Poor	--	2	--	1	--	3
Very Poor	--	--	--	--	--	--
Don't know	9	5	3	--	1	18

Why?

Very Good	
North/Northeast, East Portland	[No responses]
Southeast	<ul style="list-style-type: none"> ▪ For a city as big as ours we have great rivers and habitat. ▪ I'm an advocate of the services underlined [<i>protect water quality, public health, and the environment</i>]
Southwest	<ul style="list-style-type: none"> ▪ Price per person seems pretty good, given constant growth in number of people and roads and buildings and the fact that the market would not likely deal with the problem.
Northwest	<ul style="list-style-type: none"> ▪ As far as I know, the quality of my drinking and the water systems within my community are of good quality. Storm drains can get clogged but are then usually quickly cleaned. ▪ Because Portland has some of the best drinking water in the US, we have uncovered reservoirs also, and we are not dealing with water toxicity issues like other places, i.e. Flint, etc. Our rivers and streams are pretty clean and maintained regularly. ▪ I saw a story on TV that they are going to turn wastewater into gasoline. It will cut down on the ozone issues because it will take the heat generated from the wastewater out of the air. I thought that was so interesting. Also making our own fuel. ▪ I've always thought Portland water tastes very good, so they must be doing something right. The Big Pipe project was huge, so hopefully will alleviate a serious sewer runoff problem. Not an easy job, I would think. ▪ Out of sight, out of mind. The water is just not requiring filtering. Tap water good. Notice to not drink water. Peed in reservoir—big deal. Not large enough cost to concern me.
Good	
North/Northeast	<ul style="list-style-type: none"> ▪ Health concerns ▪ I assume that the BES does a good job because in the time I've lived in Portland, the health of the rivers has improved.
Southeast	<ul style="list-style-type: none"> ▪ I get good water. Clean water they replaced my meter as soon as I asked. We DON'T have Fluoride in the water. That's a good thing! ▪ I know that they recently put in a huge new thing (?) to decrease the sewer overflow into the Willamette. I know we'll be paying for that for years. ▪ Not sure what services; Native Oregonian
East Portland	<ul style="list-style-type: none"> ▪ For such a large endeavor, some things are bound to break. Yes, they could be more preemptive in their maintenance. They respond quickly and attempt to improve as they can. ▪ I feel like they have fluoride and other substances to make an individual passive and think less for themselves ▪ I have clean water that flows into my home. I have natural spaces to hike through that BES has helped create. ▪ I've never had an sewer or pipe problems during my time living in Portland. ▪ Only reason I have issues with them is the annual sewage runoff into our rivers.

	<ul style="list-style-type: none"> We haven't had water or sewer problems related to the city. I am thankful for that. I'm sure they struggle to keep on top of increased population but we haven't been affected negatively.
Southwest	<ul style="list-style-type: none"> I always hear "Oregon/Portland has the best water/drinking water." I believe BES has made a good effort at managing the water resources of the metro area. That being said, I understand there have been some issues with runoff. I wanted to give "very good," but couldn't, due to that reason. I think it is impossible for anyone or group to keep all spills from happening. I think what they do is amazing. So many residents. So many pipes! Such a large area. I would put very good, but I don't know enough about how the money is allocated and how the BES works to know if improvements could be made. I think they could do better—still too many sewage overflows into the Willamette. Would them to add even more novel ways into building codes so that as we continue to grow, water quality could even improve more. I'm impressed by all the new stormwater containment work being done in southwest. But I'm saddened by the loss of wetlands—especially by Walmart in Tigard. This may not be under BES jurisdiction. Seem to do a good job responding to issues. Superfund storm from sewer water, though system is overwhelmed at times. I have heard that budgeted dollars were spent on projects not water related? Sewer bills very high. There are some pipe breaks and overflows of sewers, but they always seem to get repaired quickly. Knowing the number of incidents responded to per year, or the change over time of wildlife/fish habitat quality would help in rating the BES There have been repeated instances of contamination. There are high costs to taxpayers for some of the remediation, with no real data to suggest how there might be lower costs.
Northwest	<ul style="list-style-type: none"> Considering the rainfall, it's well managed. I see a lot of work to keep it up-to-date. When there is an overflow on the street they will set up detours and give it attention. I know the water quality has been unsafe at times because the open reservoirs were contaminated and we had to boil our water a few times until it was corrected. The reservoir at Washington Park was uncovered and they closed it. I've never run into any issues with the water treatment in Portland. I regularly use this resources and therefore believe it to be in good working order. Portland has high water quality; Works to limit contamination in rivers; Sensitive to wildlife and fish impacts These environmental services protect public health and I consider that a high value in a developed society. Our city would look and feel much different without these ecological services. We can enjoy waterways and their beauty. It takes so much work and effort for things to run smoothly. Water quality here is good—they're trying to change out old pipes (i.e. Tanner Creek project years ago) and work on old pumps that fail—Willamette River, raw sewage.
Poor	
North/Northeast, East Portland, Northwest	[No responses]
Southeast	<ul style="list-style-type: none"> I would need to research but initially I wouldn't trust any government bureau with blind faith and any agency darling with environmental services that has any attachment to Green enough. I would be highly skeptical

	<ul style="list-style-type: none"> ▪ We have regular occurrences of raw sewage spilling into the Willamette. Our fish are becoming mutants from toxins.
Southwest	<ul style="list-style-type: none"> ▪ I honestly don't think they do the best with keeping wastewater separate from clean water. I know it always ends back up in our rivers and streams back into the ocean.
Very Poor	
All Groups	[No responses]
Don't know	
North/Northeast	<ul style="list-style-type: none"> ▪ Because I have never heard of them. I don't know exactly what programs or services are in place to rate them. ▪ How much of what they do overlaps or is duplicated by other government agencies, EPA, DEQ, Dept. of National Resources ▪ I don't know if they would have had much involvement in my hookup (sewer). Other than that, I'm not sure of the agency. ▪ I haven't heard about it. Don't really understand how they came to be. Only hearing about it at this focus group! ▪ I only understand theoretically what BES claims to accomplish. I need to know more specifically in order to evaluate it. For example, I don't know if the river is any cleaner/dirtier than before or how they steward its resources. ▪ I'm not sure the value we receive from BES because I'm not exactly sure what they control but from what I learned today I would say they are pretty important in making sure sewage waste is managed correctly. ▪ It seems like we're paying a lot to make up for past environmental mistakes. Portland has some of the highest water prices in the country and a lot of the reason is the sewer fees. ▪ Sounds like this is a waste of taxpayers' money. Especially since it's Portland. There are several agencies doing the same. ▪ What are they really up to? Why don't we know who they really are? Another front or action. Maybe they only show up when there is something noticeably wrong with the environment. When the citizens get angry.
Southeast	<ul style="list-style-type: none"> ▪ I don't directly pay for these services, and I don't know how good of a job they're doing. I like and support their goals but can't rate value with given info. ▪ I need a breakdown of costs of the things they do. ▪ I rent so I don't pay for water and for the past couple of years there have been outbreaks of bad water so it is hard to rate the value. ▪ I would have to do research and then I can answer this better. ▪ Not familiar with valuation of public agencies vs. other public agencies.
East Portland	<ul style="list-style-type: none"> ▪ I would need the BES to educate our area as to what they are doing to protect the rivers, water, and etc. around the city. ▪ I'm not well-educated on what they're specifically doing. However, we have clean drinking water so it must not be too bad! ▪ Not enough information. Needs numbers and statistics over a period of time that can show evidence of the quality of their performance.
Southwest	[No responses]
Northwest	<ul style="list-style-type: none"> ▪ More information as to where money is specifically going and how wildlife is affected by the services provided, e.g. salmon

Appendix E Written Exercise 4

With limited resources, the Bureau of Environmental Services must make choices about priorities. Make a list of the criteria you want BES to consider when making decisions about how to spend and invest taxpayer money.

North/Northeast

- Clean drinking water; Accountability—eliminate duplication of services; use greywater where possible.
- Cost less per household; Process; How it effects the people; Environment, trees, property; Jobs
- Find a legitimate way to protect public health by first controlling the sewage drain off into cleaner water sources; Contamination control should be the first. Get a big net, some plastic, clay or something to soak up contaminants; We can keep a cut clean, but what about dirty water to rinse the cut with? That's nasty. Disease spread to our water that leads to drinking water.
- How does the investment affect the rivers and other water? Does it have a positive (less pollutants/less human waste) or negative (harmful to creatures/plants/polluting) impact?
- Look at roads/transportation near bodies of water for runoff and how road maintenance or lack of (potholes) plays a part in toxic material getting into the bodies of water.
- Maybe improving existing infrastructure that works, but may need an upgrade or repairs, rather than building new projects that could eat up a huge chunk of the budget.
- Outsource a company to audit their responsibilities and see if other established agencies and departments can do the same management services of the cost. Bureau? I'm leery of the name!
- Spend money wisely; Long lasting repairs
- Stop ALL sewage leaks into the river.
- Update sewer infrastructure for efficiency and to accommodate a population surge so that waste is not polluting the river, but also is being treated/reused in an eco-friendly/renewable way; Be forward-thinking in solving problems with the city; Be researching and collaborating internationally to generate the best solutions; develop a better public image.
- What one makes/cost; A location one lives in; Water bill (monthly); Sustainability.

Southeast

- (1) Make wastewater/stormwater as clean as possible before repurposing; (2) Make infrastructure improvements as needed to improve (1)
- Administration cost—accountability; Clean-up cost; Safety issues; Planning
- Clean rivers; Fish and wildlife; Effective management of water; Cost; Impact on residents
- Complete transparency input. Taking time to weigh all the data before beginning big projects. Having a community liaison who is available to community who need help/answers
- Cost to the people (consumers); In the end, swimmable rivers
- Efficient wastewater disposal that would be cost-effective; Clean waterways for fish and recreation
- Fish & wildlife; Environment; Mother earth; Communities no matter how big or small
- Fish/salmon/steelhead; Storm runoff; Sewage treatment; Habitat restoration projects
- No raw sewage into the river; No collapsing pipes; Restore river banks; No poop in the river
- Treated water; Treated sewage
- Two priorities: Environment (clean rivers for swimming and recreation, safe and healthy wildlife habitats); Keeping property safe from damage (protecting properties from flooding/stormwater drainage, protecting properties from sewage back-up or sewage into ground, treating water)
- Wildlife; Communities (I said wildlife because that's our food and it keeps the earth going, community second because we're paying them to help the people)

East Portland

- [1 billion is limited??] I would like BES to fully consider the outcome or several outcomes to their projects before creating or completing projects.
- Better sewer pipes so no runoff to river; move in closer for people to not have gutters; Rain gardens; Better on Corridor

- Clean of pathogens, viruses, disease, drugs; Public water fee cheaper; Think about it for a week; Increase property value
- Clean, safe water; Take care of wastewater safely; Ways to keep up with increased loads—little houses?
- Consider what affects vulnerable communities and people in general, and preservation of natural resources...I don't really know.
- How is this going to impact the local residents? How much is it going to cost? Are there other cost-effective ways to get it done? Is this an immediate need?
- I want to make sure that pipes are maintained and repaired in a timely manner, and that the environment and community is considered in all decisions.
- Public health and safety; Keeping the public informed about potential risk and perhaps thinks that may be unforeseen or unknown risk factors
- Public health effect; Natural areas/environmental repercussions; Development of more symbiotic practices

Southwest

- #1 Protecting our natural resources for future generations and prioritizing that over cost—or inconvenience.
- Better storm drain outlets to pour either in lakes or ponds so doesn't spill into our main water source for drinking water. Should be better filters put in and more bio-friendly chemicals that don't have side effects.
- Clean river; No chemicals in water (less chlorine, even); Increased wastewater treatment capacity; Get the lead out of pipe works to all public spaces; Building codes that move us into a more sustainable livable city.
- Direct impacts to people and the area in question. Input from those directly impacted. Mitigation that makes sense and is not just a one-size fits all solution. Long-term benefits.
- Ensure there is clean and fresh water available for all of the residents. Also to ensure all waterways are safe to swim in.
- General stream and wetland quality. Sewer rates are very high in Portland, not sure where the money goes? Help to keep environmentally sensitive wetland and drainage areas unoccupied.
- Quality of customer service; Preemptive fixing of potential problems; If chemical use, are risks to public worth the benefit? Improving/maintaining high quality of Willamette
- Safety—safe drinking/bathing water, no lead. Money, funding—how to evenly distribute funds to all communities equally.
- Treat sewage. Replace failing sewer systems so you can treat sewage without it leaking out. I feel everything else should be a second priority. Testing river water. Education.
- Will this make our water cleaner (or less dirty?); Will this make our ecosystems healthier?; Will this make our air cleaner?; Will this affect varying income levels and race/ethnicities in an equitable system?

Northwest

- Average water use per day, cost comparison to other cities. Baselines for efficient operation. What resources it takes to operate efficiently. Yearly projections, reports on water quality, usage.
- Efficiency of service delivery; Nature-friendly approaches to stormwater management; Long-term infrastructure investment—how long will the investment last
- Fix downtime, repairs; Preventative maintenance; Water quality testing.
- Maintain existing infrastructure in state of good repair; Comply with all current federal, state, regional and local regulation; Prioritize any new investment, con/benefit
- Maintaining safe infrastructure, pipes, adequate testing, maintaining sewer services.
- Protection of environment (10% above standards); Health of the people; Budget allocation for maintenance so major emergency is avoided.
- Public Health; Environmental Impact; Cost/value ratio-long term
- Safety and cleanliness of the water as it relates to the health of the environment and wildlife; Well-developed infrastructure to move the water through the city and to the cleaning facility and drainage

- Systems working efficiently for the lowest cost; Be easy to maintain and keep up maintenance before the system breaks down
- That money is not being misused; making sure research is done before going forward, such as where it is needed more
- Water quality: it's everything for humans—farming, wildlife, fish—for me it starts here; Do the things that ensure that this happens: new pipes, new technology for testing construction, education
- What is it going to cost in taxes; Advances in technology

Appendix F Written Exercise 5

Below are four responsibilities BES must balance when providing services. For each, indicate what types of information would be useful to you in evaluating BES's success in providing services.

Ensuring uninterrupted sewer service

North/Northeast

- Continue service—proven. (Show us)
- How they will implement any new structures.
- I experience this directly on a day-to-day basis. How my toilet and rainwater drains work.
- I would like to see statistics and studies regarding how functional and reliable Portland's sewer system is currently.
- Monitoring through an alarm that goes off and generates a report
- My sewer service has never been uninterrupted.
- Needed at all times
- News story on TV, radio, newspaper, magazines, etc.
- Staying out of the news with a pipe break or overflow.
- They need to introduce themselves and their officers in commercials, town halls, ads/print.
- What's their plan and is it sustainable long term?

Southeast

- How often does this happen
- I guess a website with the specific information about these goals. I've never poked through their website before, so this may already exist.
- Is there preventative maintenance; Is there fines for grease?
- Projects have timelines
- Rates of interruptions in Portland vs. other communities
- Research contracts, vested interests; Results; History; Comparative studies, to related agencies nationwide
- Statistics showing downtimes.
- Statistics/trends related to sewer problems throughout the city
- Survey people using this service; What does BES do to provide these things
- What maintenance is provided; What routes are they running daily
- What, how they are doing
- No response

East Portland

- Condition of pipes (age, etc.); Schedule of replacing pipes
- Current status of sections of pipes: projects planned, estimated life of a pipe, when they were installed
- How is this done; What steps have been taken?
- Knowing the number of incidents of interruption by county/year?
- Not hearing about runoff into the rivers
- Not smelling sewer when crossing 82nd Ave.
- Right [illegible] and have and ban on [illegible]
- The number of incidents versus potential incidents
- Yelp review

Southwest

- Are they? What kinds of "interruptions" are there and what is their track record.
- Frequency and volume of raw sewage emitted into rivers and streams
- How many times has service been interrupted. Where was it interrupted and for how long? Why? How did they fix it? Plans to prevent future interruptions?

- How often and where does service get interrupted? What's being done to fix it?
- Knowing we had no sewage spills/overflows into the river
- Let everyone know what's going on with our clean/and sewage water. Where is the waste going?
- Letting me know directly when there are issues in my neighborhood and why. Remedies.
- Reporting/experiencing uninterrupted sewer service.
- Very difficult to predict incidents, respond quickly.
- What interruption is caused by repair/replacement (time, etc.) How many interruptions per year occur?

Northwest

- Cost comparison with other cities with same populations. What are the key performance indicators to monitor?
- Data on maintenance due to interrupted sewer services
- Frequency of interruptions. Process to handle chaos.
- How many repairs and what kind are they having now; What are their biggest problems that cause interrupted sewer service; What makes it easier to have uninterrupted sewer service?
- I think it needs to be discussed through the news media—newspaper, local news
- Measures of sewer system infrastructure and service, age of system; Metrics or report card vs. peer system; Number of service outages
- Need to know if there were any interruptions, etc. If there are adequate personnel to deal with them, etc. And adequate means.
- Notice of any potential interruptions and the length of the interruption (if available).
- Report—status updates
- Service logs; Citizen complaints on social media (big data approach)
- Stats; No hearing that there is a problem, pipes breaking; Transparency
- Uptime drinking metric. Planned vs. unplanned downtime.

Protecting public health

North/Northeast

- Comparative analysis of Portland vs. other cities in terms of health
- Is this being tested? How and how often?
- Keep sewage out of the river.
- Keep the public informed on what you do to our water.
- More knowledge of programs offered to the public i.e. classes, field trips
- Most important
- Notices. Proven facts that there are no health concerns.
- Recent water test toxin levels; How this compares to cities across the country; What carcinogens are present and what levels are dangerous.
- To know of any potentially hazardous chemicals that could contaminate the environment or us if anything negative should occur. Also, how they plan to prevent it.
- What are the metrics that they use to assess this? What data are they collecting? How are they using it?
- Who has jurisdiction. Department of health/BES?

Southeast

- Clarify what this means. Since they're not drinking water, clarify that as well.
- How
- Information indicating any water-borne illnesses
- Notifying consumers in a timely manner when something is wrong with quality—swimming, fishing
- Rates of health warnings vs. other communities
- Raw sewage not going in rivers; Safe drinking water
- Research contracts, vested interests; Results; History; Comparative studies, to related agencies nationwide
- Statistics and trends related to health problems affected by water/sewer issues

- Stats about how it is improving/helping quality standards for public health and more info on why that is a positive thing for the community
- What are they doing to protecting public health?
- What are they protecting against?
- No response

East Portland

- Again numbers, perhaps contaminants released into environment due to lack of treatment
- How is the public health impacted?
- How they respond to disasters
- How water is tested and what is quality
- More info on what they do to maintain this
- Not having a break in a sewer pipe; If it does happen to repair it quickly
- Providing literature with water bill which describes current projects and successes
- The health of our rivers
- They should [illegible] a pH best at the very least to make sure the pool is safe to swim in

Southwest

- Are they? And how? How do they coordinate with other agencies.
- Chemicals used; What has the quality of water been like over time. Is the BES helping? Maintaining? Not helping?
- Having/seeing a grading scale on illness caused by water, or any responsibilities of BES
- How exactly does BES work to protect public health?
- Incidents of lead poisoning; Frequency and concentration of toxins in water
- Knowing we did not put chlorine into our water. Seeing viable and maintained green spaces around the city.
- Media that tells me “quickly” about 1) water quality, 2) outbreaks of virus or insect-related illness and where.
- What areas are being threatened, how BES is responding, leaks, blockages and overflows address chronic problem areas.
- What dangers have there been? How dangerous? How many times? When? Where? Who was in danger? What fix? Plans to prevent? What they do to protect it.
- What testing they’re doing to see quality of water.

Northwest

- Advance notice of any containments in water systems that could affect public health (Polluted streams, algal blooms and chemicals)
- Contamination statistics. Percent of infrastructure in disrepair.
- Healthy water conditions vs. actual current level. How often it’s checked. Public reports.
- Measure of water quality; measure of impact on fish and wildlife
- Meeting federal Clean Water Act guidelines for water quality; Exceeding federal Clean Water Act standards for water quality; Being able to swim in the Willamette (deemed safe)
- Rate of water-borne illness
- Rates of disease or infection from contaminated water, what the baseline levels are, what are the main indicators of mentoring public health.
- Reports quarterly, half year or yearly: Why if any incidents; What corrective measures taken to ensure that this won’t happen again?
- Stats; People not getting sick
- Testing the waters, constantly, constant monitoring of flood and draining issues. Lead pipe issues?
- What challenges are we having to public health in Portland; What causes these challenges?
- No response

Protecting the environment

North/Northeast

- Again, who supersedes who? EPA BPS. There is more than the obvious. All our bright college students major in environmental science.
- Data showing water purity after treatment and also how much *untreated* water re-enters the environment.
- Has this service been tested in other states or communities? How has BES planned for all aspects?
- How are you different than DEQ? EPA?
- If any chemicals or other toxic material is, or could be a byproduct of any projects they take on.
- Same as above [More knowledge of programs offered to the public i.e. classes, field trips]
- Seeing no change in the community and land.
- Soil & water contaminant tests around Portland and the surrounding area; Fat tests from birds and animals that live on air-toxins present.
- Tell us what we need to know. Wouldn't you want to know if the house was going to flood?
- Very important
- What are their goals? How are they measuring them? How can we/they know that they are succeeding?

Southeast

- Can they do more
- Define this role.
- How many fish are returning to spawn in the rivers
- How? What do they mean by environment
- Is the water cleaner than before; are aquatic creates thriving
- Quality standards, factual stats on what they're treating water with/how they stake samples/what they're doing to improve the current environment and what they could be doing better.
- Rating of Portland-sized communities' watershed quality
- Research contracts, vested interests; Results; History; Comparative studies, to related agencies nationwide
- Same as above [Raw sewage not going in rivers; Safe drinking water]
- Some data showing levels of toxins in the water; data regarding wildlife health, death rates
- Water quality test results
- Which environments, is it water, or all i.e. grass, trees, etc.

East Portland

- Health quality of ecosystems surrounding wastewater return areas
- How they have saved the animals, fish habitats
- How they plan on ensuring service to the growing population
- I don't know, stop littering
- Info on the projects they are a part of; More advertising
- Is wildlife being harmed?
- Statistics and non-biased sources on what they do, and how their work is impacting the environment
- What recent projects have you completed to protect the environment?
- No response

Southwest

- Clean trash and debris from environmentally sensitive areas. Continue building oil collector (run-off situations)
- Health of wetlands; Safety of rivers and streams for swimming; Comprehensive markers and the statistics
- How do they? And how do they coordinate with other agencies?
- How is river/stream water evaluated? How is wildlife conservation evaluated?
- Making sure none of bio-wastes are getting into the neighborhood or drinking water.
- Media that tells me what they are targeting and why.

- Seeing evidence of the swales and other remediation measures being employed to help make a greener city. Would love to see more trees planted as we've lost so many these past few winters.
- Visually seeing the environment thrive/reports
- What do they mean by the environment? What do they do and where? Who benefits/ Does what they do cause harm somewhere else?
- What is being done to prevent sewer spillage? During cleanup, what is that process like? Are chemicals used that can harm wildlife?

Northwest

- Contamination metrics of river.
- Disposal of water; How decision on where to put water is made. If third party companies help set guidelines (or it's in-house).
- How BES defines protecting the environment; What are BES priorities for wildlife?
- Knowing and understanding water quality
- Report, status updates on projects, collaborations and new innovations, and work being done and about to be done—easily accessible to public
- Same as above [*Measure of water quality; measure of impact on fish and wildlife*]; Any report of damage to fish and wildlife
- Signage of where protection is being applied/performed for public knowledge
- Stats; Salmon is surviving
- The bioswales are a good step, water advisories, signage.
- The ecosystem reports on environmental health
- Through the forestry service
- What is attacking our environment?

The cost of providing service

North/Northeast

- Break down just like the Water Bureau sends out (pie chart)
- Full disclosure or where every penny of my sewer bill goes.
- How does this affect "us" the taxpayers?
- I need to know tangible outcomes of the agency in order to quantify the value of the service. Theory is interesting, but I need the actual services provided.
- Knowing that the cost of service was shared equal to all
- Learn about their fund priorities
- Let the people know your organization dates, how to find your legal responsibility to the public and how to help if we care so much about what this BES is doing to actually make a difference in our water quality, whether for drinking or not. Still, there could be contaminants.
- Lower bills. After completion if promised. Sticking to budget.
- No response
- Somehow showing me how they do something no other public agency does and how it's a value to me.
- What costs go into the projects.

Southeast

- Accountability for spending
- Breakdown of who does what in the BES and what the costs are.
- Breakdown on our bills, or directing the consumer to a website with information
- Compared to what
- Comparison of above data to how much has been spent on a yearly basis—should reflect better results when more money is spent.
- How much of that money is really needed to help us?
- How much—break it down to me?
- Is there oversight and an audit
- Rates compared to other Portland agencies and other cities' equivalents to BES

- Research contracts, vested interests; Results; History; Comparative studies, to related agencies nationwide; Budgets; History
- This is already very spelled out on my bills.
- No response

East Portland

- A breakdown of cost of service and how our taxes are put to use
- A breakdown of their budget and how that budget is going to impact households and communities
- A complete breakdown of cost of services
- Breakdown of budget items; Future expected projects
- Breakdown of the money—Mailer life PGE and NWNG does
- Breakdown of where the money went
- I don't know
- More transparency regarding cost of projects and how they are prioritized
- Wouldn't notice unless it was pointed out to me; maybe a graph of my contribution over the years

Southwest

- Comparable to any "similar" cities?
- Cost of repair; cost of replacing; cost to clean up spill; cost to prevent spill; tech.
- Cost of service compared to other areas; Costs compared to fees and local income
- How much they are spending on each project and community
- Let us know how much we will be taxed on clean water and sanitation testing/sewage.
- Lower bills, or equitable bills.
- Public outreach to let us know. Make info available on website.
- What is the cost of providing service. What is spent on each of the above?
- Where does the money go and how?
- No response

Northwest

- A list of where funding is specifically allotted
- Balance sheet, looking at financials
- Bid process. How often contracts are reviewed. Average cost vs. other comparable cities.
- Breakdown?
- Budget priorities; Con/benefit of maintenance vs. new initiatives
- Cost comparison analysis with other municipal water bureaus of the same size.
- Financial statements; How much of BES budget goes to direct service activities, how much goes to infrastructure, how much to operations, to labor and pension obligations
- I wouldn't know where to begin. Maybe compare with Seattle, Washington and Vancouver B.C.
- Itemize costs?
- The cost per resident.
- No response
- No response

**Appendix G
Written Exercise 6**

BES has multiple responsibilities and mandates. At times, these are in conflict with each other, and people may disagree which should be the higher priority. For each of the following situations, please indicate which you think should be the higher priority for BES and add a sentence or two to explain your opinion.

1. When selecting a contractor for work on behalf of BES, which should be the higher priority?

Response Category	North/Northeast	Southeast	East Portland	Southwest	Northwest	Total
Selecting the contractor based on their experience and cost only	6	8	6	4	8	32
Selecting the contractor based on their experience and cost, plus being a women or minority owned business	5	3	2	6	4	20
Other/No response	--	1	1	--	--	2

Selecting the contractor based on their experience and cost only	
North/Northeast	<ul style="list-style-type: none"> ▪ Being a woman or minority makes no difference to me. The companies values, social responsibility, reputation of ethical business practices are my priority ▪ I'd prefer best contractor, period. There may be a service gap if too much otherwise. ▪ Keep politics out of it! In the general sector that's how I sub out work! The woman or minority steps up their game and gets jobs based on merit. ▪ To me it should solely be based on experience so we know it will be successful. ▪ We need experience, it doesn't matter who has it ▪ We need qualified workers on all levels of all genders. Even a man in a dress if he qualifies over a minority or woman.
Southeast	<ul style="list-style-type: none"> ▪ Experience is important—look at resumes without knowing if women or minorities ▪ I don't think being a woman or a minority should have anything to do with the choice. It has no bearing ▪ I don't think we need affirmative action as long as minorities aren't being discriminated against. ▪ I feel to save money experience and cost is what matters ▪ PC is destroying this nation. Select contractors based on their experience and costs ▪ Suspect too few women- or minority-owned businesses and they would have an unfair advantage ▪ No comment [x2]
East Portland	<ul style="list-style-type: none"> ▪ Although I feel employing women and minorities is important, I feel limiting yourself based on an individual's personal identity and background isn't of the utmost importance and the job should be done by the most qualified person regardless. ▪ Gender and race should not be a reason to hire a contractor ▪ I'm all for equity, but the groups that will get it done right should be the ones to do it. ▪ Race and gender don't have anything to do with experience ▪ The best contractor should be selected for the job race or sex or creed or anything shouldn't bias BES' choice. ▪ No comment
Southwest	<ul style="list-style-type: none"> ▪ Experience is the most important factor when dealing with issues for work. ▪ Outcomes re: working history should be proof enough regardless who owns the business. ▪ Someone should be hired with experience and skill. Whichever cost more or not needs to be managed properly.

	<ul style="list-style-type: none"> No comment
Northwest	<ul style="list-style-type: none"> As long as experience highly factors in quality. The best value for money should get the job. Do not care who owns the business, all else being equal. I don't think this should be a minority or gender issue, considering these contracts are not having a major part of the workforce. It should be based on experience not based on anything else. If it happens to be a woman or minority, the better. The best experienced and cost-effective regardless of ethnicity and gender. With a tight budget I feel less factors can help with decision making. It doesn't negate the fact that supporting a small, local, or female-owned business is important, but there are larger priorities. No comment [x2]
Selecting the contractor based on their experience and cost, plus being a women or minority owned business	
North/Northeast	<ul style="list-style-type: none"> Experience is most important, but all people should have an opportunity It would be great to hire a contractor that is owned by women and minorities, but ultimately I think the businesses that will do the highest quality job should be selected regardless of who owns them. Only if the contractor is otherwise the right choice should this be considered after. This supports a social justice and culture changing progressive mindset that leads our nation and reflects 21st century values. No comment
Southeast	<ul style="list-style-type: none"> I think having diversity is important Responsible thing to do Supporting women and minorities are so important to me. We need to know they're supporting the good fight.
East Portland	<ul style="list-style-type: none"> I think all minority should have a chance if they have the knowledge White men get enough work!
Southwest	<ul style="list-style-type: none"> Because so much is done by who knows who and white men still have an advantage in money/power which equals more access, more education, more knowing people. Try to spend the money to more people/variety of people Historical and present underrepresentation of women and minority-owned business and of systematic disadvantage needs to be acknowledged. Keep things equitable only when merit is the same To help bend the curve and make this a more equitable city Try to support local business, and not only large corporations, keeping overall cost/budget in mind. No comment
Northwest	<ul style="list-style-type: none"> Bonus point for DBE (disadvantaged business enterprise) I find value in offering a hand up to the underrepresented if cost/quality are not affected. It's 2017. Many times it is easy for a public agency to continue with the same supplier or service provider, building a bit of a monopoly. By selecting minority- of women-owned businesses this helps to diversity options in the marketplace.
Other/No response	
North/Northeast, Southwest, Northwest	[No responses]
Southeast	<ul style="list-style-type: none"> I feel this is a false dichotomy. It doesn't need to be either/or
East Portland	<ul style="list-style-type: none"> No comment

2. When selecting a contractor for work on behalf of BES, which should be the higher priority?

Response Category	North/Northeast	Southeast	East Portland	Southwest	Northwest	Total
Selecting the contractor based on their experience and cost only	4	6	3	2	6	21
Selecting the contractor based on their experience and cost, plus the wages they pay their employees	7	5	6	7	6	31
Other/No response	--	1	--	1	--	2

Selecting the contractor based on their experience and cost only

North/Northeast	<ul style="list-style-type: none"> See above. [<i>Keep politics out of it! In the general sector that's how I sub out work! The woman or minority steps up their game and gets jobs based on merit.</i>] Some employees get paid differently, so it would be unfair to judge price of employees' wages. Just how much to finish and let boss worry about their pay. Wages should be based on markets and if contractors don't pay competitive wages they won't have employees for long. We are just taking experience into account. Payroll is the responsibility of the company
Southeast	<ul style="list-style-type: none"> All about budget. Answer two has nothing to do with the actual cost and experience of getting job done. Experience and cost only. The contractor can choose how he pays his employers Higher wages don't necessarily mean best Wages are a function of the market—if they're doing good work, they should be getting enough business to pay their employees well. What they pay employees doesn't matter that is a concern for the employees
East Portland	<ul style="list-style-type: none"> I don't think pay should have any effect on a company's ability to complete a task. I feel no one should be asked what they pay their employees. It's abuses, no owner wants to lose money \$\$\$
Southwest	<ul style="list-style-type: none"> As above [<i>Outcomes re: working history should be proof enough regardless who owns the business</i>] Should be based on more experience and education and based on cost.
Northwest	<ul style="list-style-type: none"> I believe the company can run itself as it chooses, as long as it is operating within the law. Pay rate should be the contractor's responsibility, and pay scales should be at the market rate. The breakdown of the companies P/L doesn't define a successful project. Benefits offered vs. pay is more interesting. The contractor should be able to provide best services and pay their employees based on outcomes. No comment [x2]

Selecting the contractor based on their experience and cost, plus the wages they pay their employees

North/Northeast	<ul style="list-style-type: none"> Again, supporting a company that provides a living wage so that everybody wins. Equal pay for all I think it is important that the people working on a project are well rounded with cost/experience and a good overall company to work with. I'm a firm believer in paying people a living wage. This promotes the health and economy of our country. Pay a fair wage for the job that is required. This could help ensure higher-quality work. Well-paid employees make happier workers.
Southeast	<ul style="list-style-type: none"> If you're treating their employee good they're doing good. 50/50 It's important an employee feels supported enough in order to support the boss/business and add motivation to do their absolute best.

	<ul style="list-style-type: none"> ▪ It's important that they choose an option that is sustainable to our work force. ▪ We need to make enough to live—normally, higher wage employees are more knowledgeable. ▪ Wealth inequality needs to be addressed.
East Portland	<ul style="list-style-type: none"> ▪ A fair wage is necessary. ▪ Because employees should be treated fairly. ▪ Because most governmental agencies are required to pay prevailing union scale they should be held to same practices. ▪ I want to make sure the workers are properly cared for and compensated, and have a good work environment. ▪ Payment of contract employees is an important factor to maintain ethical standards. ▪ Wages are important to consider since they often show a contractor's experience and skill level.
Southwest	<ul style="list-style-type: none"> ▪ Employees who are treated better may do a better job, work faster. So less hours and less costs? ▪ Everyone deserves a living wage. ▪ It's important to choose equitable companies ▪ Prevailing wage law ▪ Since other agencies and jurisdictions have had a hard time forcing living wages, BES can. ▪ Spread the money around. ▪ We want people/workers to be able to have livable wages.
Northwest	<ul style="list-style-type: none"> ▪ Being paid a living wage should be a priority even if it is contracted work. ▪ In my opinion, higher wages (or livable wages) can lead to a better quality of work. It's a better investment in the long term. ▪ Maintaining. ▪ Makes sense to me. ▪ Not primary factor, but bonus. ▪ Pay the people who do the work.
Other/No response	
North/Northeast, East Portland, Northwest	[No responses]
Southeast	<ul style="list-style-type: none"> ▪ I feel this is a false dichotomy. It doesn't need to be either/or
Southwest	<ul style="list-style-type: none"> ▪ No comment

3. When designing a project, which should be the higher priority?

Response Category	North/Northeast	Southeast	East Portland	Southwest	Northwest	Total
Meeting the minimum environmental standards, which is often less expensive and takes less time to complete	3	3	1	2	2	11
Exceeding the minimum environmental standards, which is often more expensive and takes more time to complete	8	9	8	8	10	43

Meeting the minimum environmental standards, which is often less expensive and takes less time to complete

North/Northeast	<ul style="list-style-type: none"> Environmental standard fluctuate depending on administration. Lots of other factors. Can minimum standards be slowly improved at less cost? Minimum is fine and I believe the studies required to exceed are a waste of time and money
Southeast	<ul style="list-style-type: none"> Minimum standards are based off data not just chosen randomly—they should be adequate. The minimum saves money No comment
East Portland	<ul style="list-style-type: none"> To keep costs down.
Southwest	<ul style="list-style-type: none"> Environment protections are in place—go by them. More vs. less. Sometimes if money saved from a cheaper project can be used for other environmental projects.
Northwest	<ul style="list-style-type: none"> Exceeding by how much? Feel that standards are strict and adequate. If standard needs to be higher, change the law.

Exceeding the minimum environmental standards, which is often more expensive and takes more time to complete

North/Northeast	<ul style="list-style-type: none"> Always go above the minimum, no matter the expense. Build/choose for the world that I want. If I don't usually make big decisions based upon the minimum criteria, why should I change my city? I think it matters that we exceed standards and have it take a little longer but have it done correctly. Measure once and cut 10 times. Seeming that this organization handles water and public health, so environmental standards are paramount. The minimum environmental standards are not enough. The EPA, in my opinion, is bought out by large corporations This is the more forward-thinking option. No comment
Southeast	<ul style="list-style-type: none"> Best quality Do what's right. "Minimum environmental standards" are not necessarily worthy goals. Environment first! Environment important I will pay more or a high-quality job that doesn't have to be done a second or third time No point in cutting corners Only if they truly are doing what they say they are. This is a better value because it makes the living environment better for longer With Republicans in charge, the "minimum" is lowering
East Portland	<ul style="list-style-type: none"> As each situation dictates, don't go crazy with it but moderate on a case-by-case basis. I would rather pay more to ensure that our environment is taken care of.

	<ul style="list-style-type: none"> ▪ I'd rather things be done ethically and correctly than cheap and fast. ▪ I'm always willing to pay more and be patient for higher standards. ▪ If you excel you have longer to figure out upgrades. ▪ In the long run, it could be less expensive and last longer. ▪ It is worth building structures that fit into the environment. ▪ To make sure it is the best [illegible] and set the standard for the rest of the country.
Southwest	<ul style="list-style-type: none"> ▪ Better results long term. ▪ Clarify ▪ Future-oriented. Don't do bare minimum, go above that so protect environment as much as possible. ▪ Needs to be done to prove all is properly taken care of. ▪ Pay now, pay later. ▪ Quality over quantity. Exceeding minimum standards means it will have more benefits in the long run. ▪ The minimum is often woefully inadequate. ▪ We need to make the environment the highest priority possible.
Northwest	<ul style="list-style-type: none"> ▪ Exceeding long-term investment in water quality. ▪ Exceeding may mean less problems. ▪ Exceeding the minimum standards will provide lower costs down the road. It's always the smarter option to go above the minimum standards when you are dealing with so many variables. ▪ Lasting value ▪ Long-term investment in the environment is investment in humans. ▪ More time/money spent on protecting the environment now makes for less maintenance moving forward. ▪ Save money in the long run if you do it right the first time. ▪ There is only one earth. Investing, the first time, to do something the right way typically saves money longer term ▪ No comment [x2]

4. When designing a project, which should be the higher priority?

Response Category	North/Northeast	Southeast	East Portland	Southwest	Northwest	Total
Selecting projects that have lower up-front costs, but are more expensive to maintain and repair over time	--	--	1	1	--	2
Selecting projects that have higher up-front costs, but are less expensive to maintain and repair over time	11	11	8	9	12	51
Other/No response	--	1	--	--	--	1

Selecting projects that have lower up-front costs, but are more expensive to maintain and repair over time	
North/Northeast, Southeast, Northwest	[No responses]
East Portland	<ul style="list-style-type: none"> ▪ I believe it's better to spread the cost over time than to be hit all at once.
Southwest	<ul style="list-style-type: none"> ▪ Needs to be properly handled.
Selecting projects that have higher up-front costs, but are less expensive to maintain and repair over time	
North/Northeast	<ul style="list-style-type: none"> ▪ Don't keep cutting if you haven't measured. More expensive to repair over and over. ▪ I think it's okay to cost more upfront again as long as its sustainable in the future.

	<ul style="list-style-type: none"> ▪ If true, this would be a more cost-effective way to budget ▪ It seems we get the worse of both sometimes. ▪ Over time this is the better solution. ▪ Pay now or later ▪ Sometimes the more you spend up front will work out better in the end. ▪ Sustainable is the best way to go. ▪ This is practical wisdom—it's what I try to live by. ▪ No comment [x2]
Southeast	<ul style="list-style-type: none"> ▪ Better-quality work and materials, hopefully ▪ Costs to maintain will go up ▪ It never pays to be cheap. You'll pay in the end. ▪ It's a better value, and lasts longer ▪ It's more efficient to install better quality that will need less maintenance ▪ Long run ▪ Maintenance is expensive and inconvenient ▪ Sewer projects are long-term ▪ Think for the future ▪ Why do things twice and spend more money? ▪ No comment
East Portland	<ul style="list-style-type: none"> ▪ It always costs more to do any project than expected so look to less future costs. ▪ Less expensive upkeep is always better in my opinion. ▪ Pay more now at have the best rather than pay less later to maintain and [illegible] ▪ Pay more up front for something that will endure. ▪ Paying more upfront saves on maintenance over time. ▪ Really this needs to be broken down to the total cost over the usable life of the project. ▪ No comment [x2]
Southwest	<ul style="list-style-type: none"> ▪ "Better to keep up than catch up." A small investment to start will yield better results. ▪ All decision should be made with the long term in mind. ▪ If it is in the budget now to pay for it good. But we don't know future budgets. ▪ In general—but this may depend on the nature of the project and what is involved. ▪ Stop passing problems to the next generation. ▪ Take advantage of lower costs in long-term in case budget changes, etc. Want to be able to afford what's there. ▪ You can plan for the higher upfront costs easier than guessing what the maintenance will be down the road. ▪ No comment [x2]
Northwest	<ul style="list-style-type: none"> ▪ Better investment over time. Especially if budgets get cut. ▪ Consider long-term impact, most sewer projects are multi-year. ▪ Depends on the details, but as labor costs increase, better to spend more now, if actually cheaper. ▪ Do it right the first time. Costs are lower in the long run. ▪ Lasting value pays for itself over time. ▪ Pay me now or pay me later. ▪ Projecting upfront is better than not knowing. ▪ Some, if the costs should pay for themselves through superior construction. ▪ No comment [x4]
Other/No response	
North/Northeast, East Portland, Southwest, Northwest	[No responses]
Southeast	<ul style="list-style-type: none"> ▪ Too many variables to compare

5. When scheduling construction on a project, which should be the higher priority?

Response Category	North/Northeast	Southeast	East Portland	Southwest	Northwest	Total
Conducting the work during the night, which is more expensive and more hazardous for workers, but less disruptive to traffic	5	1	3	4	3	16
Conducting the work during the day, which is less expensive and safer for workers, but more disruptive to traffic	5	10	5	5	8	33
Other/No response	1	1	1	1	1	5

Conducting the work during the night, which is more expensive and more hazardous for workers, but less disruptive to traffic

North/Northeast	<ul style="list-style-type: none"> ▪ Better PR—a good public face can help make things run more smoothly in the long run. ▪ Proper safeguards and lighting can keep to a minimum. ▪ The cost of disrupting business isn't taken into account. ▪ The overall stress and accidents experienced by all people in the city will likely go down with night work. ▪ What about neighborhoods? Traffic is already a pain.
Southeast	<ul style="list-style-type: none"> ▪ No comment
East Portland	<ul style="list-style-type: none"> ▪ Heavy traffic is a serious problem in Portland and affects thousands of people, therefore work should be done at night when possible. ▪ Traffic is already horrible, night work is better. ▪ No comment
Southwest	<ul style="list-style-type: none"> ▪ For public goodwill, especially if it's a long, ongoing project. ▪ To help the city function in the smoothest way possible and disrupt fewest people possible. ▪ Traffic is already very bad in the city. Water is already very expensive. ▪ Waste of fuel and deteriorating of air quality must be factored in. Should be considered when possible.
Northwest	<ul style="list-style-type: none"> ▪ The larger cost to businesses due to disruptions will be more costly overall. Depends on how much more expensive. ▪ No comment [x2]

Conducting the work during the day, which is less expensive and safer for workers, but more disruptive to traffic

North/Northeast	<ul style="list-style-type: none"> ▪ Detours can be in place during the day. People can use different routes if they know ahead of time and plan accordingly ▪ No one's safety should ever be compromised. Drivers can ride the Max or ride a bike, or find work closer to home ▪ Safety for workers is important ▪ Sometimes it is more of a priority and safer in the day. But emergencies should be cared for at night by on-call staff. ▪ What are the work hazards? Can the city create a more creative way to navigate the disruption in traffic? Traffic sucks and impacts a ton of people.
Southeast	<ul style="list-style-type: none"> ▪ A little bit of inconvenience is best for lower cost and safety ▪ But the way traffic is going they will have to start working at night. ▪ I would almost be inclined to say #1, but for selfish reasons ▪ Night work would be disruptive to sleep ▪ People need to get over local traffic—it doesn't cause really big problems ▪ Safety wins, 100% of the time ▪ They can make alternative routes

	<ul style="list-style-type: none"> ▪ Work is better during the day; safer and better job done ▪ No comment [x2]
East Portland	<ul style="list-style-type: none"> ▪ Depends specifically on where. ▪ Safety first. ▪ Safety for workers takes priority. ▪ Safety is always my number one concern. ▪ Safety should be a top priority.
Southwest	<ul style="list-style-type: none"> ▪ Gut reaction. Hate sitting in traffic, but really... ▪ On the fence on this one. But I think with forewarning, commuters can make plans. ▪ Safety is always the highest priority. ▪ The workers should be able to know they're safe. Traffic is something that we all have to go through. ▪ Worker safety is more important than temporary civilian interruption.
Northwest	<ul style="list-style-type: none"> ▪ As long as advance notice is given. Areas with high volume of traffic with no alternative route options should be night work. ▪ Depends on budget. ▪ Safety and cost is always a priority. ▪ Safety should be a priority. ▪ Traffic will have to be flexible. ▪ With notice, people can do work-around. ▪ No comment [x2]
Other/No response	
North/Northeast	[No responses]
Southeast	<ul style="list-style-type: none"> ▪ Depends on how big and long the project is.
East Portland	<ul style="list-style-type: none"> ▪ It depends on where they plan to do the work.
Southwest	<ul style="list-style-type: none"> ▪ Totally depends where the projects is and how many people are at risk/delayed. Will it cause traffic backups that fan out for miles?
Northwest	<ul style="list-style-type: none"> ▪ It doesn't always have to be done in the daytime—it can be cheaper at night if negotiated in contract and where the project is.

Star the tradeoff that was most difficult to answer.*

Response Category	North/Northeast	Southeast	East Portland	Southwest	Northwest	Total
1. When selecting a contractor for work on behalf of BES, which should be the higher priority? (Women/Minority Business)	2	4	3	2	5	16
2. When selecting a contractor for work on behalf of BES, which should be the higher priority? (Wages paid)	2	2	--	1	1	6
3. When designing a project, which should be the higher priority? (Minimum environmental standards)	3	--	1	--	--	4
4. When designing a project, which should be the higher priority? (up-front costs)	1	2	1	1	1	6
5. When scheduling construction on a project, which should be the higher priority? (Day/night)	4	3	4	5	5	21
No response	1	1	--	1	1	4

*Some participants gave multiple responses.

**Appendix H
Written Exercise 7**

Please rate your overall perception of the health of the following rivers and streams.

Willamette River from Sellwood Bridge to Broadway Bridge

Response Category	North/Northeast	Southeast	East Portland	Southwest	Northwest	Total
Very good	--	--	--	--	--	--
Good	6	5	2	4	7	24
Poor	3	6	3	4	1	17
Very Poor	2	--	4	1	2	9
Don't know	--	--	--	1	2	3
No response	--	1	--	--	--	1

Briefly describe why you gave the rating you did.

Very Good	
All groups	[No responses]
Good	
North/Northeast	<ul style="list-style-type: none"> ▪ Before today I had no negative opinions about the Willamette. I will be doing research now to learn more. ▪ Good water flow ▪ I see less business development and shipping traffic = less pollution ▪ I see lots of activity on the river. ▪ In general good condition. ▪ No comment
Southeast	<ul style="list-style-type: none"> ▪ Good based on the fact that I see that part of the river every day. For the most part it looks okay. ▪ I would dip my feet in the water and they look pretty good ▪ I've heard that the Willamette is cleaner now than it's been in decades since the big pipe was put in to address sewer runoff. ▪ It could be worse ▪ Less urbanized than next stretch
East Portland	<ul style="list-style-type: none"> ▪ I've seen it ▪ The information I've heard over the years is that water quality has been greatly improved over decades past.
Southwest	<ul style="list-style-type: none"> ▪ In 2006 the EPA declared the river was safe to swim in. ▪ Love that my dogs can swim here. Am concerned when the advisories go out to close this area. ▪ But I would NEVER go into the river. I don't really know what "good" is. I think it is always contaminated due to so many people. I don't think it could ever not be. ▪ No comment
Northwest	<ul style="list-style-type: none"> ▪ Big Pipe project has eliminated a bit of the concerns with the pollution of the Willamette. ▪ Big Pipe—getting better ▪ Clean up ▪ Not much news on it and the looks of it. ▪ Seeing wildlife in the area ▪ No comment [x2]
Poor	
North/Northeast	<ul style="list-style-type: none"> ▪ Continued warnings of raw sewage ▪ Frequent sewage spills ▪ Middle of downtown and sewage (Homeless boats)
Southeast	<ul style="list-style-type: none"> ▪ Any part of Willamette in the city is poor. ▪ Contaminates in water; dirty color ▪ I have always heard a lot of waste is dumped in Willamette

	<ul style="list-style-type: none"> I think that the squishy stuff at the bottom is sewage. My experience in the water. It doesn't smell good at all. Superfund site—Schnitzer Steel, Ross Island gravel
East Portland	<ul style="list-style-type: none"> My perception may be wrong but throughout my life in Portland there has always been jokes and conversations on how gross the Willamette is. News reports of efforts to clean up Lots of industrial waste
Southwest	<ul style="list-style-type: none"> Looks gross, swam in it, got an ear infection. Sewage Sewage signs—condemning. Trash Willamette needs help. It's improved over the years, but needs more.
Northwest	<ul style="list-style-type: none"> Stigma from past
Very Poor	
North/Northeast, Southeast	[No responses]
East Portland	<ul style="list-style-type: none"> Industrial waste and the general public disrespect of environment Just from appearances it looks murky and oily River has been dirty my whole life This area got a poor rating due to the sewage runoff
Southwest	<ul style="list-style-type: none"> I just think all waterfront downtown is nasty.
Northwest	<ul style="list-style-type: none"> Read a while back about it taking decades for the water to be clean for swimming When my husband got a puncture wound by the Willamette River the doctors were very concerned.
Don't know	
North/Northeast, Southeast, East Portland	[No responses]
Southwest	<ul style="list-style-type: none"> No comment
Northwest	<ul style="list-style-type: none"> Not certain Poor for swimming and fishing.
No response	
North/Northeast, East Portland, Southwest, Northwest	[No responses]
Southeast	<ul style="list-style-type: none"> I would say dirty

Willamette River from Broadway Bridge to Sauvie Island

Response Category	North/Northeast	Southeast	East Portland	Southwest	Northwest	Total
Very good	--	--	--	--	--	--
Good	5	3	3	3	6	20
Poor	4	8	2	4	4	22
Very Poor	1	1	2	2	1	7
Don't know	1	--	2	1	1	5

Briefly describe why you gave the rating you did.

Very Good	
All groups	[No responses]
Good	
North/Northeast	<ul style="list-style-type: none"> ▪ (Homeless boats) Pesticides? ▪ Before today I had no negative opinions about the Willamette. I will be doing research now to learn more ▪ Clean as far as I know ▪ Fast moving water ▪ Some spills, but not as bad as upriver.
Southeast	<ul style="list-style-type: none"> ▪ I would dip my feet in the water and they look pretty good ▪ I've heard that the Willamette is cleaner now than it's been in decades since the big pipe was put in to address sewer runoff. ▪ No comment
East Portland	<ul style="list-style-type: none"> ▪ Lots of industrial waste ▪ The area around Sauvie Island has gotten much better ▪ The information I've heard over the years is that water quality has been greatly improved over decades past.
Southwest	<ul style="list-style-type: none"> ▪ But I would NEVER go into the river. I don't really know what "good" is. I think it is always contaminated due to so many people. I don't think it could ever not be ▪ In 2006 the EPA declared the river was safe to swim in. ▪ Seems cleaner
Northwest	<ul style="list-style-type: none"> ▪ Big Pipe project has eliminated a bit of the concerns with the pollution of the Willamette ▪ Big Pipe—getting better ▪ More cleaned up ▪ Poor because of ships but swimmable ▪ No comment [x2]
Poor	
North/Northeast	<ul style="list-style-type: none"> ▪ I see more shipping traffic and it is downstream which equals more pollution ▪ More industrial along river. ▪ Poor due to pollution, but not as bad since it's out of the area. ▪ This is an area of the river that has a lot of traffic so I assume its quality is lower.
Southeast	<ul style="list-style-type: none"> ▪ Any part of Willamette in the city is poor. ▪ Away from downtown seems like it would be cleaner—but shipyards ▪ Cars and boats and sewage in water ▪ Dirty ▪ Industrial business on the river ▪ My experience in the water. It doesn't smell good at all. ▪ Sauvie Island is a wasteland for drunk teens to throw their beer bottles and trash into the river ▪ Toxic superfund area
East Portland	<ul style="list-style-type: none"> ▪ News reports of efforts to clean up ▪ Recent updates to the surrounding have made water quality in this area better
Southwest	<ul style="list-style-type: none"> ▪ Industrial waste and PCBs. Superfund site. ▪ Looks gross, swam in it, got an ear infection.

	<ul style="list-style-type: none"> Probably getting better. Am curious to know more about the planned Superfund site cleanup. Willamette needs help. It's improved over the years, but needs more.
Northwest	<ul style="list-style-type: none"> More industrial area equals more contaminated Not good Superfund cleanup site. Toxic air along NW Front Ave. Superfund sites? Contamination river bottom
Very Poor	
North/Northeast	<ul style="list-style-type: none"> Looks dense and contaminated, plus smells tainted in the air.
Southeast	<ul style="list-style-type: none"> Garbage, sewage
East Portland	<ul style="list-style-type: none"> Industrial waste and the general public disrespect of environment River has been dirty my whole life
Southwest	<ul style="list-style-type: none"> Superfund cleanup site. Sediment contaminants. Fish can't be eaten: carp, bass Willamette is unclean
Northwest	<ul style="list-style-type: none"> When my husband got a puncture wound by the Willamette River the doctors were very concerned.
Don't know	
North/Northeast, Southeast	[No responses]
East Portland	<ul style="list-style-type: none"> I'm not sure No comment
Southwest	<ul style="list-style-type: none"> No comment
Northwest	<ul style="list-style-type: none"> No comment

Johnson Creek

Response Category	North/Northeast	Southeast	East Portland	Southwest	Northwest	Total
Very good	--	--	--	--	--	--
Good	4	5	6	2	4	21
Poor	3	2	--	4	1	10
Very Poor	2	4	1	--	--	7
Don't know	2	1	2	4	7	16

Briefly describe why you gave the rating you did.

Very Good	
Groups 1-5	[No responses]
Good	
North/Northeast	<ul style="list-style-type: none"> A lot has improved during the past decade Good water flow My mom lives over in that area. Lots of groups to protect it. No comment
Southeast	<ul style="list-style-type: none"> Building habitat/watershed, planting trees Heard of improvement Looks O.K. to me Off Johnson Creek Blvd.-Gresham, fairly clean—Crystal Springs No comment
East Portland	<ul style="list-style-type: none"> Just last year Johnson Creek got a huge overhaul and now is looking great. Looks okay Lots of work done on it. News reports of positive efforts to clean up The communities surrounding waterway help to keep it clean. The overall health is good except for the debris.
Southwest	<ul style="list-style-type: none"> But not sure if it's poor now due to human waste from the homeless.

	<ul style="list-style-type: none"> Looks thriving
Northwest	<ul style="list-style-type: none"> Good for salmon spawning—return to ocean. No comment [x3]
Poor	
North/Northeast	<ul style="list-style-type: none"> Floods and picks up debris. Have heard it is pretty bad. Not in the best area or neighborhood. Upkeep poor.
Southeast	<ul style="list-style-type: none"> Has been fouled by human waste and garbage My experience in the water. It doesn't smell good at all.
East Portland	[No responses]
Southwest	<ul style="list-style-type: none"> Environmental degradation I'm not knowledgeable, but seems very polluted I've read about dramatic improvements in recent years and even andramons fish found in creek, but still, long way to go. Semi-dirty.
Northwest	<ul style="list-style-type: none"> Many human impacts and frequent floods.
Very Poor	
North/Northeast	<ul style="list-style-type: none"> I've heard it's one rainstorm from wreaking havoc No response
Southeast	<ul style="list-style-type: none"> Due to homeless around the area. Garbage, sewage It always looks full of garbage when I see it up by 82nd Avenue. Trash everywhere
East Portland	<ul style="list-style-type: none"> I hear stories from my dad about he and his brothers fishing there. I would not do this now.
Southwest	[No responses]
Northwest	[No responses]
Don't know	
North/Northeast	<ul style="list-style-type: none"> I don't know much about any of these Not visited this place.
Southeast	<ul style="list-style-type: none"> I don't know anything about these.
East Portland	<ul style="list-style-type: none"> I am not 100% but I feel this may be affected by the houseless population. No comment
Southwest	<ul style="list-style-type: none"> Don't know No comment [x3]
Northwest	<ul style="list-style-type: none"> NA No comment [x6]

Columbia Slough

Response Category	North/Northeast	Southeast	East Portland	Southwest	Northwest	Total
Very good	--	--	--	1	--	1
Good	1	3	1	--	2	7
Poor	6	1	3	3	1	14
Very Poor	1	5	--	1	1	8
Don't know	3	3	4	5	8	23
No response	--	--	1	--	--	1

Briefly describe why you gave the rating you did.

Very Good	
North/Northeast, Southeast, East Portland, Northwest	[No responses]
Southwest	<ul style="list-style-type: none"> ▪ No comment
Good	
North/Northeast	<ul style="list-style-type: none"> ▪ Generally okay. I paddle them and there's lots of healthy wildlife.
Southeast	<ul style="list-style-type: none"> ▪ Compare to other countries ▪ OK ▪ No comment
East Portland	<ul style="list-style-type: none"> ▪ No comment
Southwest	[No responses]
Northwest	<ul style="list-style-type: none"> ▪ No comment [x2]
Poor	
North/Northeast	<ul style="list-style-type: none"> ▪ Always been bad ▪ Flow is too slow. ▪ Homeless camps leave/dump into ▪ I've heard this is dirty, but the quality has improved in recent years. ▪ Stagnant water flow ▪ No comment
Southeast	<ul style="list-style-type: none"> ▪ My experience in the water. It doesn't smell good at all.
East Portland	<ul style="list-style-type: none"> ▪ Too many homeless living on it. ▪ Lots of industrial waste. ▪ Lots of dumping by public.
Southwest	<ul style="list-style-type: none"> ▪ I'm not knowledgeable, but seems very polluted ▪ Semi dirty ▪ Sewage
Northwest	<ul style="list-style-type: none"> ▪ It's a slough?
Very Poor	
North/Northeast	<ul style="list-style-type: none"> ▪ Don't know enough
Southeast	<ul style="list-style-type: none"> ▪ I think there's a lot of industry there ▪ Industrial—Willamette water does not flow as fast ▪ Sedentary water ▪ Toxic superfund area ▪ Toxins from many factories
East Portland	[No responses]
Southwest	<ul style="list-style-type: none"> ▪ Part of the Superfund cleanup.
Northwest	<ul style="list-style-type: none"> ▪ Industrial contaminants
Don't know	
North/Northeast	<ul style="list-style-type: none"> ▪ I don't know much about any of these ▪ Not visited this place. ▪ No comment

Southeast	<ul style="list-style-type: none"> I don't know anything about these. I've never heard anything about this good or bad. No comment
East Portland	<ul style="list-style-type: none"> No comment [x4]
Southwest	<ul style="list-style-type: none"> No comment [x5]
Northwest	<ul style="list-style-type: none"> Don't know about it. No comment [x7]
No Response	
North/Northeast, Southeast, Southwest, Northwest	[No responses]
East Portland	<ul style="list-style-type: none"> Not sure

Tryon Creek

Response Category	North/Northeast	Southeast	East Portland	Southwest	Northwest	Total
Very good	--	--	1	--	1	2
Good	2	2	2	6	1	13
Poor	--	1	--	1	--	2
Very Poor	--	1	--	--	--	1
Don't know	8	8	6	3	10	35
No response	1	--	--	--	--	1

Briefly describe why you gave the rating you did.

Very Good	
North/Northeast, Southeast, Southwest	[No responses]
East Portland	<ul style="list-style-type: none"> Beautiful to hike near
Northwest	<ul style="list-style-type: none"> Since the creek is nestled in a forest, it has advantages in maintaining its health.
Good	
North/Northeast	<ul style="list-style-type: none"> Nice and clean No response
Southeast	<ul style="list-style-type: none"> Better protected No comment
East Portland	<ul style="list-style-type: none"> Lots of money to keep clean, higher respect level. West side!!
Southwest	<ul style="list-style-type: none"> I live near here and hike here. I know there's a lot of work being done. Salmon span there. Must be okay. Semi-clean. Lewis & Clark area. No comment [x3]
Northwest	<ul style="list-style-type: none"> Improved due to effort of BES and community
Poor	
North/Northeast, East Portland, Northwest	[No responses]
Southeast	<ul style="list-style-type: none"> My experience in the water. It doesn't smell good at all.
Southwest	<ul style="list-style-type: none"> Not very familiar. Visited once or twice.
Very Poor	
North/Northeast	<ul style="list-style-type: none"> Don't know enough
Southeast	<ul style="list-style-type: none"> Trashy
East Portland,	[No responses]

Southwest, Northwest	
Don't know	
North/Northeast	<ul style="list-style-type: none"> ▪ Don't know ▪ I don't know much about any of these ▪ N/A ▪ Not familiar ▪ Not visited this place. ▪ No comment [x3]
Southeast	<ul style="list-style-type: none"> ▪ I don't know anything about these. ▪ I've never heard anything about this good or bad. ▪ No comment [x6]
East Portland	<ul style="list-style-type: none"> ▪ Not sure ▪ No comment [x5]
Southwest	<ul style="list-style-type: none"> ▪ Don't know ▪ No comment [x2]
Northwest	<ul style="list-style-type: none"> ▪ Don't know where it is ▪ NA ▪ No comment [x8]
No Response	
North/Northeast	<ul style="list-style-type: none"> ▪ No response
Southeast, East Portland, Southwest, Northwest	[No responses]

Fanno Creek

Response Category	North/Northeast	Southeast	East Portland	Southwest	Northwest	Total
Very good	--	--	1	1	--	2
Good	2	2	1	4	1	10
Poor	2	1	--	1	--	4
Very Poor	--	1	--	--	--	1
Don't know	6	8	7	4	11	36
No response	1	--	--	--	--	1

Briefly describe why you gave the rating you did.

Very Good	
North/Northeast, Southeast, Northwest	[No responses]
East Portland	<ul style="list-style-type: none"> ▪ Rural location helps—human contamination avoidable.
Southwest	<ul style="list-style-type: none"> ▪ Walk along this a lot and it seems relatively clean and healthy.
Good	
North/Northeast	<ul style="list-style-type: none"> ▪ Friend lives near there and says it's nice. ▪ No comment
Southeast	<ul style="list-style-type: none"> ▪ Has been cleaned and restored ▪ No comment
East Portland	<ul style="list-style-type: none"> ▪ West side!
Southwest	<ul style="list-style-type: none"> ▪ Beaverton. Semi-clean ▪ I think this has some good areas and some poor, but there is improvement. ▪ Looks thriving ▪ No comment

Northwest	<ul style="list-style-type: none"> Improved due to effort of BES and community
Poor	
North/Northeast	<ul style="list-style-type: none"> Floods often No comment
Southeast	<ul style="list-style-type: none"> My experience in the water. It doesn't smell good at all.
East Portland, Southwest, Northwest	[No responses]
Southwest	<ul style="list-style-type: none"> Not very familiar. Visited once or twice.
Very Poor	
North/Northeast	<ul style="list-style-type: none"> Don't know enough
Southeast	<ul style="list-style-type: none"> Trashy
East Portland, Southwest, Northwest	[No responses]
Don't know	
North/Northeast	<ul style="list-style-type: none"> I don't know much about any of these Not familiar Not visited this place. No comment [x3]
Southeast	<ul style="list-style-type: none"> I don't know anything about these. I've never heard anything about this good or bad. No comment [x6]
East Portland	<ul style="list-style-type: none"> Not sure No comment [x6]
Southwest	<ul style="list-style-type: none"> Don't know Don't know where that is No comment [x2]
Northwest	<ul style="list-style-type: none"> Don't know NA No comment [x9]
No Response	
North/Northeast	<ul style="list-style-type: none"> No comment
Southeast, East Portland, Southwest, Northwest	[No responses]

Stephens Creek

Response Category	North/Northeast	Southeast	East Portland	Southwest	Northwest	Total
Very good	--	--	--	--	--	--
Good	--	1	1	2	--	4
Poor	--	1	--	1	--	2
Very Poor	--	1	--	--	--	1
Don't know	10	9	8	7	12	46
No response	1	--	--	--	--	1

Briefly describe why you gave the rating you did.

Very Good	
All groups	[No responses]
Good	
North/Northeast, Northwest	[No responses]
Southeast	<ul style="list-style-type: none"> ▪ No comment
East Portland	<ul style="list-style-type: none"> ▪ No comment
Southwest	<ul style="list-style-type: none"> ▪ Semi-clean. I don't know what this is. ▪ No comment
Poor	
North/Northeast, East Portland, Northwest	[No responses]
Southeast	<ul style="list-style-type: none"> ▪ My experience in the water. It doesn't smell good.
Southwest	<ul style="list-style-type: none"> ▪ Not very familiar. Visited once or twice.
Very Poor	
North/Northeast, East Portland, Southwest, Northwest	[No responses]
Southeast	<ul style="list-style-type: none"> ▪ Trashy
Don't know	
North/Northeast	<ul style="list-style-type: none"> ▪ Don't know ▪ I don't know much about any of these ▪ Not familiar ▪ Not visited this place ▪ No comment [x6]
Southeast	<ul style="list-style-type: none"> ▪ Don't know ▪ I don't know anything about these ▪ Never heard of this ▪ No comment [x6]
East Portland	<ul style="list-style-type: none"> ▪ Don't know this one ▪ Not sure ▪ No comment [x6]
Southwest	<ul style="list-style-type: none"> ▪ Don't know ▪ Don't know where that is ▪ No comment [x5]
Northwest	<ul style="list-style-type: none"> ▪ ? ▪ Don't know where it is ▪ NA ▪ Where is Stephens Creek? ▪ No comment [x8]
No Response	
North/Northeast	<ul style="list-style-type: none"> ▪ No comment
Southeast, East Portland, Southwest, Northwest	[No responses]

Others: [Name]

Response Category	North/Northeast	Southeast	East Portland	Southwest	Northwest	Total
Very good	--	1	--	--	--	1
Good	--	1	1	1	--	3
Poor	--	--	--	--	--	--
Very Poor	--	--	--	--	--	--
Don't know	3	1	4	1	4	13
No response	8	9	4	8	8	37

Briefly describe why you gave the rating you did.

Very Good	
North/Northeast, East Portland, Southwest, Northwest	[No responses]
Southeast	<ul style="list-style-type: none"> [Clackamas] Clean—love it
Good	
North/Northeast, Northwest	[No responses]
Southeast	<ul style="list-style-type: none"> [No specification] I see fish swimming
East Portland	<ul style="list-style-type: none"> [Sandy] Private citizens help to keep waterway clean
Southwest	<ul style="list-style-type: none"> [Tualatin River] I know the Tualatin River is cleaner.
Poor	
All groups	[No responses]
Very Poor	
All groups	[No responses]
Don't know	
North/Northeast	<ul style="list-style-type: none"> No comment [x3]
Southeast	<ul style="list-style-type: none"> No comment
East Portland	<ul style="list-style-type: none"> Not sure No comment [x3]
Southwest	<ul style="list-style-type: none"> N/A
Northwest	<ul style="list-style-type: none"> No comment [x4]
No Response	
North/Northeast	<ul style="list-style-type: none"> No comment [x8]
Southeast	<ul style="list-style-type: none"> My comment is that it didn't seem like you wanted to hear from me. I don't know anything about these. No comment [x7]
East Portland	<ul style="list-style-type: none"> No comment [x4]
Southwest	<ul style="list-style-type: none"> No comment [x7]
Northwest	<ul style="list-style-type: none"> No comment [x8]

Appendix I Written Exercise 8

Make a list of people, organizations, or sources of information that you trust about local issues

North/Northeast

- All local news programs; Comedians
- City Commissioner Amanda Fritz
- Local news
- Local newspaper; TV News; City Council Meetings
- NAACP; CAT; Aging and Disability Services; Resources such as Human Solutions; Join; Central City Concern; Sunshine Division etc.
- None that I know yet. In general, Oregon is much better than my home state, but there are still many questions that go unanswered
- OPB; DEQ; Willamette Week; Neighborhood Association Meetings
- OPB; Willamette Week? Portland Mercury?
- Portland Water Bureau; Planned Parenthood; Moda (Portland healthcare); United Way is an organization I've worked with directly that is extremely involved with bringing diversity to the community through acts of service.
- Radio; News—TV; Social media—some; Portland newspaper—Oregonian; Public officers
- Willamette Week; OPB; Portland Water Bureau; The Oregonian.

Southeast

- I trust Deborah Kafoury; I trust OPB/NPR
- Local news; Myself
- My family, friends, and other than that trust is a real issue in today's society
- Neighborhood groups
- None that I know of
- OPB; The Oregonian
- OSPIRG; PSU
- Portland Public Schools; Oregon Dept. of Forestry; Co-ops
- Senator Jackie Winters
- SOLV; Riverwatch
- Willamette Week; Portland Mercury; OPB
- No response

East Portland

- Decline to answer
- I'm not educated on such subjects enough to make this sort of judgment. I generally have a lack of trust toward government organizations, but that could change with more information.
- Metro; Columbia Land Trust
- Neighborhood association; CRAG ; Friends of Johnson Creek; Willamette Week; Democrats of East Portland
- No one unless multiple sources agree
- Non-profit organizations; Humanitarian endeavors; Environmental advocacy groups (don't have specifics)
- Portland Water Bureau; KATU for local news; Lents Homeowners Association
- Some radio personalities who do research—Lars Larson; Some online articles
- No response

Southwest

- All news channels, local. Local agencies that have websites. Portland Tribune
- Audubon; OPB; Oregonian, but with some healthy skepticism.
- Greenhouse. I trust the news for the true stories. I trust foundations and health care people. I trust CAP and personal foundations that try to help people.
- NCNM; Nonprofits; Churches; Eco-friendly business

- OPB Earthfix; Riverkeepers; Portland Water Bureau; Tim Swinehart; Sometimes the Oregonian
- Oregonian (newspaper); EPA (loosely—maybe not with new administration); DEQ; ODOT; KOIN 6 news.
- Oregonian, other reputable news sites and articles. Nonprofit organizations.
- Riverkeepers
- Riverkeepers; BARK; Sierra Club
- Scientists/professors through universities.

Northwest

- City Club reports; Street Roots newspaper; Cedar Mill News; 1000 Friends of Oregon; The Audobon Society; BES public affairs
- Community volunteers; Organizations that do not have a personal interest in it
- EPA; The Oregonian; Local representative (Williamson)
- EPS; Forest Service; Special Olympics; Portland Business Bureau; Fire & Rescue
- I don't know who to trust anymore
- KGW News, Metro
- Local news; PBJ
- Local TV news; Oregonian; Willamette Week; Advocacy groups on issues, nonprofits; Local elected officials
- Nonprofits, nongovernmental organizations
- Not really a trusting type of person when it comes to government
- OPB on television
- The Mercury; Willamette Weekly

Make a list of people, organizations, or sources of information that you do not trust about local issues.

North/Northeast

- City of Portland inspectors; BES; HUD; DHS
- Don't know
- Fox News; radical bloggers; Facebook; Twitter; Deep Dark Web; Republicans or Democrats that use fear to sway a vote or tax dollars
- Local politicians, government and decision makers. Some are probably doing their best, but a lot go unaccounted for. (Time, money, spending)
- People talking on the street; Articles posted on Facebook; Any article or news written by a source that does not do clinical research, or is a stakeholder.
- Portland city government. Social media
- Radio Talk Shows
- Social media—some.
- There's nobody I distrust outright, I just try to be a diligent consumer of information regardless of the source.
- No response
- No response

Southeast

- Any government agency, bureaucracy, NGOs, green companies, etc. Corporate media
- Anything coming out of the current federal administration
- Big organizations
- City Council; Metro
- City of Portland
- Developers
- Government/city; Car salespeople
- Local news; City of Portland
- Local televised news; Mayor and City Council (broken form of government)
- Not sure

- PPS
- The news, different organizations, the source

East Portland

- Anyone paid by politicians for biased evidence to suit their agenda
- Business owners
- City of Portland; White House
- Decline to answer
- Local newspapers; City Council
- N/A
- No response
- No response
- No response

Southwest

- Crooked politicians, local authorities, businessmen
- Environmental groups are often not big picture. They give only one side without looking into or admitting what is being harmed. So I research what they say before trusting.
- Groups or people that could benefit monetarily from fudging numbers, stats, info about local issues, or could withhold information.
- I don't trust organizations that are not honest about severity of contamination and sewage spills. Try to downsize the issues. Our government. President Trump.
- Lars Larson
- National "biased" websites and channels.
- Private companies; Private interests; Developers
- Robocalls; Comments section of anything.
- Sometime the Oregonian
- No response
- No response

Northwest

- BES—will only say what public wants to hear; Agencies that provide funding
- City Hall and police commissioner
- Greenpeace
- Most of them—can't think of one
- Not sure
- Outside news sources; Agencies, people with an agenda with profit
- Paid advocates, lobbyists
- Portland Business Alliance; Mayor's office
- President of the USA—Trump
- The Oregonian
- No response
- No response

Appendix J Written Exercise 9

What is the most important information you need to know about the Bureau of Environmental Services?

North/Northeast

- Exactly what services they provide and how they do it. What are their priorities?
- How are you making Portland great(er)? What are you doing? I think it sounds interesting. Brag about yourselves to us.
- How their money is spent.
- How to be involved with the changes to be made. Contact, address, names of supervisors, special departments for specifics.
- I need to know what they are doing is not being duplicated at any level (state, metro, county, federal government) How are they different?
- They are part of the sewer system.
- They have such a huge, important job that I know little about. I will read the history provided and look into the work they are doing.
- What the purpose is and why they exist.
- What they actually do in terms of what they manage. What is in their jurisdiction, etc. And what, if anything, overlaps with the Portland Water Bureau and budgeting.
- When where they formed and what happened to create a void that said, "Hey, we need a BES!"
- Who are you and how do you do what you do? How are you funded and *exactly* where does the money go? How much for admin, wages, equipment, etc.

Southeast

- Listen to everyone, don't judge a person on their socio-economic status.
- How are the improving infrastructure for better results in the future
- How they are doing on Portland's updated sewer project, the Big Dig; Will this be able to withstand the growth of Portland in 50 years
- Tell me more about them. Tell more about what they do exactly.
- To be transparent with the public instead of agenda-driven
- BES website should have info for studies, ratings, statistics, trends, third-party articles that demonstrate progress, cost, etc.
- If salmon are in Johnson Creek; If there is preventative sewer maintenance OR programs starting for these.
- Big-picture goals and what actions they're doing to reach those goals.
- Keeping sewer and runoff out of rivers till it's been cleaned. Update and check sewer on yearly basis.
- Any TANGIBLE accomplishments that benefit the public.
- Where and how our money is being spent to promote a healthy environment.
- I want BES to tell me what they do and how they do it: if you asked me this morning what I thought about BES I would have no, *zero* clue about them. Let the public know about what they do.

East Portland

- What is your overall goal for the Portland area?
- Please inform Portland about past, present, and future projects—this would help me feel like I was getting to know what your work accomplishes; Volunteer opportunities, incentives for homeowners; Website, inserts in bill; OPB documentary, booths in park activities.
- Who are you?
- The most important info from them would be that they don't supply drinking water. How could BES improve public relations? More info about them enclosed in monthly billing.
- BES could be more forthcoming with info about itself, alerting the public to its role in the city. I want to know the priorities they are weighing for future projects.
- What are they doing to help Portland with its future growth?
- Most importantly I would be interested in more community awareness of who they are, what they're doing, what they plan to do. Local media, news, fliers, public events, incentives.

- What are you doing and what do you plan to do?
- Where they spend the money and their long-term plans for the city of Portland!!

Southwest

- I think BES should inform residents of the simple day-to-day habits/practices that help the health of our watershed. For example: rain barrels; tree planting; Outdoor plants.
- Keep us informed on who you are, what you do, your priorities and plans for improving our city and your progress. How are you funded and how is the money being spent.
- Tell public the goals of the organization, where money is going towards (pie chart) and updates occasionally or work going toward goals.
- The most important thing they should get out to the community is the facts about honest issues that are affecting all of us in the Portland metro area, whether sanitation, chemical or water.
- Specifically what projects they are doing and why. What's coming up next and why.
- What is the ongoing status of water. Rebated issues that affect the neighborhoods (each one) and what the long-term goals/costs and impacts ongoing.
- The most important thing the BES should be getting out is reports and education on how safe the water is, what BES is doing to protect Portland, how they are doing it, how it affects individuals and how to help.
- How much the sum total of their efforts are affecting and impacting the Willamette, Columbia and all of the tributaries.
- Where the money comes from; How it is spent; Who benefits; Who decides where it is spent; Is it politically controlled? The difficulties of sewage treatment needs, officials faced.
- What is the work that they do and how is it contributing to the better quality of our lives and the lives of our progeny.

Northwest

- BES: Help me understand why you are a separate organization to the Portland Water Bureau when you join each other on the same bill to customers. Would you not save admin costs through combining orgs?
- Comparative analysis of their work with other cities.
- Comparison analysis with other cities that average same rainfall, population, etc. What performance indicators do you monitor, or prioritize in maintaining a healthy, efficient, water system?
- I'd like to know the current conditions of the water sources I use. Also if any health concerns could arise from work being done or an impending storm.
- Just so data and statistics are related clearly to cause and effects, money spend and projects completed, clearly explaining environmental impact etc.
- Make every day Earth Day. Make it a priority to let the community know they are in safe hands and that they are doing the best they can.
- Make themselves known and what they're about and what they're doing and why. Cost effectiveness!
- Projects and procedures happening in my area. What is their goal, how are results monitored.
- Simple report card (non-technical) on budget, services, performance.
- Strategic plan for the next 50 years; Investments in grey and green infrastructure
- That they are trying every day to do the best job possible with the resources they have and how they are doing that.
- The work projected or what they are doing to make sure that we are provided services that will benefit our safety and safety of wildlife.