

Tualatin Valley Water District
Delivering The Best Water Service Value

Issue 1 – Review of the Issue of Affordability
September 14, 2016



Presented by:
HDR Engineering, Inc.



Overview of Tonight's Presentation

- At a high level, gain an understanding of, and context related to, the issue of affordability
 - Provide the RAC with a balanced discussion of the issue of affordability and alternatives available to address the issue
- TVWD is not immune from the issue of affordability and currently has in place a customer emergency assistance program (CEAP)
 - Existing program may need to be modified or enhanced
 - TVWD desires to be proactive on this issue
 - TVWD wants to review the range of alternatives
- **Key question:** Should TVWD augment its customer assistance program and rates to better address the issue of affordability?



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Some of the Challenges of This Issue

- Defining the “affordable” from the “unaffordable”
 - Extensive industry literature and research
 - No universally accepted definition of “affordable” rates
- Identifying customers with affordability issues – today and in the future
- There is no single program or solution to the issue
 - Affordability of water, like other goods in society, is a complex social issue
 - There are differing views and opinions on how to best address affordability



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RAC Affordability Roadmap – Where Are We Headed?

1. “BIG PICTURE”

- ◆ National Perspectives
- ◆ Defining Affordability
- ◆ Root Causes
- ◆ Business Case

2. TVWD SPECIFIC

- ◆ Service Area
- ◆ Median Household Income
- ◆ Ranges of Income

4. RAC INITIAL FEEDBACK

- ◆ Problem?
- ◆ Need to Expand Assistance?
- ◆ Most suitable programs?

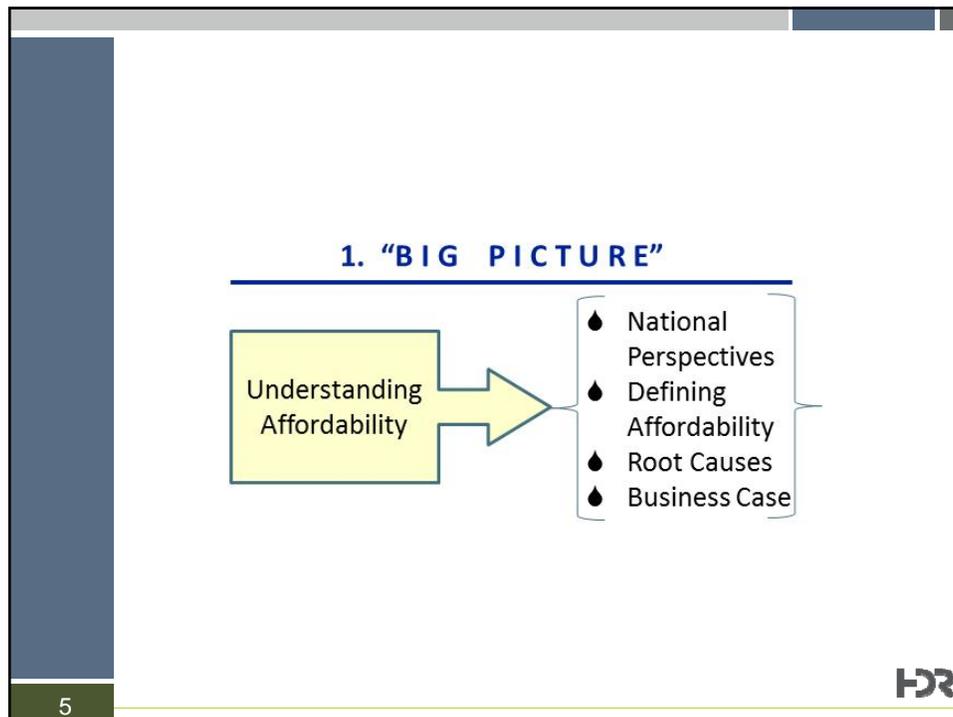
3. MORE “BIG PICTURE”

- ◆ Bill Discount
- ◆ Flexible Terms
- ◆ Lifeline Rates
- ◆ Temporary Assistance
- ◆ Water Efficiency

Programs to Address Affordability



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National Perspective of Affordability

- U.S. Census – In 2014, 46.7 million (14.8%) live in poverty
- Nationally, utilities find that 1% of their customers are unable to pay their bill at any particular time
 - 1% seems small, but nationally, about 15% of residential customers in low-income households are constantly at risk of payment problems
- Affordability of utility rates is not a new or recent issue
 - Early 1970's increased regulation
 - Mid-1980's phasing out of grant programs
- Within increasing rates, addressing the issue of affordability within the utility industry has taken on greater prominence in recent years

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Attempts to Define “Affordable”

- 1997 – EPA developed a “financial capability test”
 - Utilized average utility cost per household as a percentage of local median household income
 - If the average cost per household exceeds the local median household income, the rate was considered to be unaffordable on a community-wide basis
 - Under the test, 2% was the percentage used
 - Example: \$60,000 MHI = \$1,200/year or \$100/month
- Remembering Stats 101 – Mean, Median, Mode
 - Five values: 1, 1, 4, 5, 14
 - Mean – $(1+1+4+5+14) \div 5 = 5.0$
 - Median = mid-point of the range = 4
 - Mode = most common value = 1



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Using MHI to Define Affordability

- Use of MHI (community-wide approach)
 - EPA two part test for wastewater
 - Part One – Preliminary screening based upon MHI (2.0%)
 - Part Two – Secondary screening based upon Financial Capability Indicators (FCI)
 - Affordability tests were also developed for drinking water utilities, but for small utilities
 - Used 2.5% of the national average MHI
- Over time, MHI has been used by different organizations
 - Affordability has ranged from 1.5% to 3.0%
- Rating Agencies consider affordability and MHI

Fitch Medians	Rating Category			All Credit
	“AAA”	“AA”	“A”	
Individual Water/Sewer Utility Average Monthly Residential Bill (\$)	\$26	\$45	\$50	\$43
Individual Water/Sewer Utility Average Annual Bill as % MHI	0.5%	0.9%	0.9%	0.8%



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Issues With Using MHI

- MHI is a poor indicator of economic distress or poverty in a community
 - MHI is a community-wide measure
 - MHI does not capture impacts across diverse communities
- There has been significant discussion within the industry concerning how to better define affordability
 - Assess affordability across the community's income distribution
 - Challenges of data availability – timeliness and applicability

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Defining Affordability and the RAC

- For purposes of the RAC, it does not need to agree upon or define “affordable” or affordability in order to consider whether to provide customer assistance programs
 - RAC should use this overview discussion and the different perspectives of affordability in the context of the local data to help form opinions, conclusions and recommendations

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Typical Root Causes of Affordability Issues

- Crisis (e.g. illness, job loss, family issues)
- Affordability or money management issues
- Older housing with inefficient plumbing
- Elderly or disabled customer limitations

Customer assistance programs are not always “after-the- fact” assistance programs

- Prevention before-the-fact
- Intervention after-the-fact
- Crisis assistance programs
- Deferred payment programs
- Programs to minimize recurrences

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Causes for Non-Payment and Customer Assistance Programs (Part 1)

	Crisis (e.g., illness, job loss, family issues)	Affordability or money management problems
Prevention Before the Fact	1. Analysis of customer data and other databases	Identify low-income accounts with recurring patterns
	2. Communication efforts	Promote awareness of crisis assistance programs
	3. Customer service training	First point of contact readiness
	4. Prevention before- the-fact	Referral to other social assistance programs and or financial counseling
Shrink the Bills	5. Conservation programs	
	6. Billing practices	Bill timing or averaging
	7. Bill discounts	Eligibility & discount formulas to improve affordability
	8. Alternative restructures	
After-the-Fact Assistance and Recurrences	9. Effective intervention after-the-fact	Notices or outbound calls with information about crisis assistance
	10. Crisis assistance program	Outbound calls to promote self-cure, encourage customers to call for help, and offer easy payment methods
	11. Deferred payment plans	Provision of financial assistance and for payment deferral
	12. Minimizing recurrences	Customized payment plans
		Referral to other social assistance programs and/or financial counseling

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Causes for Non-Payment and Customer Assistance Programs (Part 2)

		Older housing with bad plumbing	Elderly or disabled customer limitations
Prevention Before the Fact	1. Analysis of customer data and other databases	Identify low-income accounts with high water use	Identify low-income elderly and disabled customer accounts
	2. Communication efforts	Promote awareness of conservation programs	Promote social assistance programs and encourage customers to call for help
	3. Customer service training	First point of contact readiness	First point of contact readiness
	4. Prevention before the fact		Promote elderly and disabled programs for referral to other social assistance programs
Shrink the Bills	5. Conservation programs	Audits and retrofits to reduce use	
	6. Billing practices		
	7. Bill discounts		Eligibility and discount formulas to improve affordability
	8. Alternative restructures	Mitigate negative impacts of conservation rates	Conservation or lifeline rates may be helpful
After-the-Fact Assistance and Recurrences	9. Effective intervention after-the-fact		Outbound calls with information about the elderly and disabled programs and provision of easy payment methods
	10. Crisis assistance program		
	11. Deferred payment plans	Require audits and retrofits as part of the payment plans	Customized payment plans
	12. Minimizing recurrences	Audits and retrofits to reduce use	Referral to other social assistance programs and/or financial counseling



Benefits of Addressing Affordability

“There are differing viewpoints about the role of utilities in addressing affordability issues. Like all issues, there are two ends to the spectrum of arguments that can be made about addressing affordability and the appropriateness of doing so.”

- Benefits of addressing affordability may include:
 - A reduction in negative customer interactions
 - Reduced water turn-offs and/or penalties
 - Positive impact on delinquent payments
 - Socially responsible in desiring to provide an essential service to all members of the community
- Utilities are not in the social service business and must make the “business case” to address affordability



Business Case – Water Research Foundation

- Issue: Should the utility simply resolve issues of non-payment or attempt to solve the endemic problem of non-payment?
 - A proactive approach is a more effective business strategy than simply waiting for accounts to be past due
 - Challenge of identifying and reaching out to families in need can be to integrate utility activities more closely with social service providers in the community
- Different solution oriented strategies available to provide direct assistance (e.g., crisis assistance, bill discounts, debt forgiveness, etc.) constituting a cross-subsidy

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2. TVWD SPECIFIC

-
- A diagram showing three items listed vertically, each preceded by a black water drop icon. A large right-facing curly bracket groups all three items. The items are: Service Area, Median Household Income, and Ranges of Income.
- Service Area
 - Median Household Income
 - Ranges of Income

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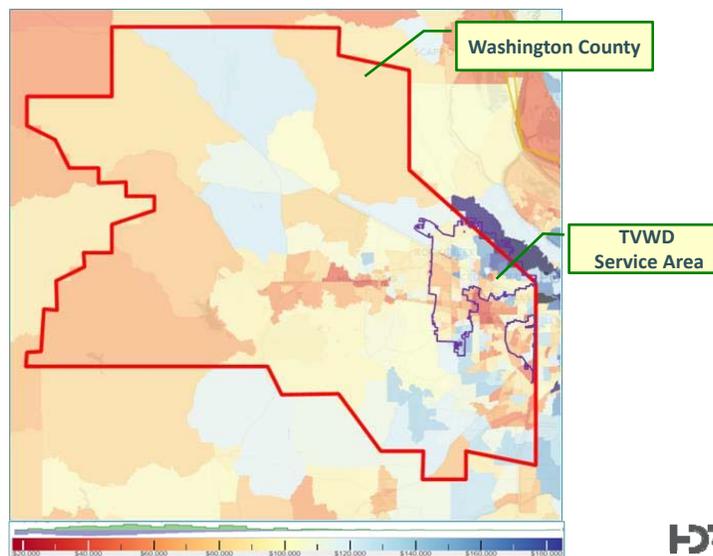
Development of TVWD Maps and Income Distributions for MHI

- Using best available data, HDR developed a review of income distribution across communities (i.e. TVWD service area)
 - Data is not collected for TVWD-specific service area
 - Data from local communities has been used to provide a “snapshot” of the potential affordability issues
 - Borders used in maps are not precise – over-lay of different sources of information
 - Provides a reasonable approximation of the level of information needed by the RAC for this discussion

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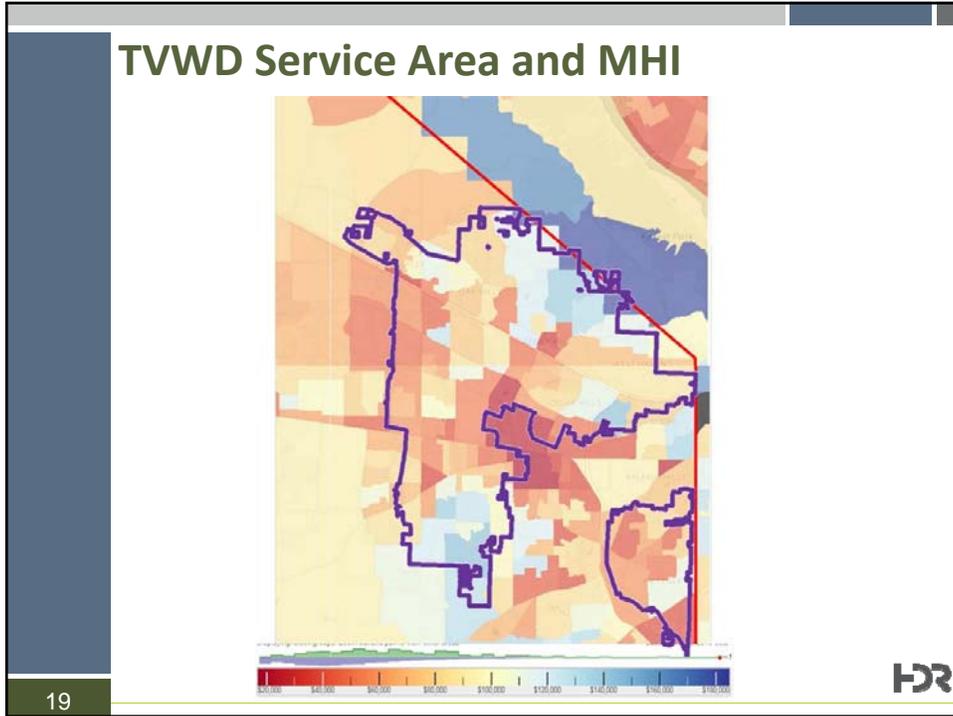
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Washington County and TVWD Service Area



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TVWD – Typical Bills, MHI and Affordability

Year	\$/Month
2017	\$40.71
2018	46.10
2019	52.21
2020	59.13
2021	66.97
2022	75.84
2023	85.89
2024	97.27
2025	110.16

TVWD Projected
Typical Monthly
Bills

Area	MHI	Range of Affordability - \$/Month		
		1.5%	2.0%	2.5%
Beaverton	\$57,068	\$71.34	\$95.11	\$118.89
Aloha	62,988	78.74	104.98	131.23
Tigard	60,849	76.06	101.42	126.77
Hillsboro	66,668	83.34	111.11	138.89
Cedar Hills	65,396	81.75	108.99	136.24
Cedar Mill	96,361	120.45	160.60	200.75
Washington County	65,272	81.59	108.79	135.98

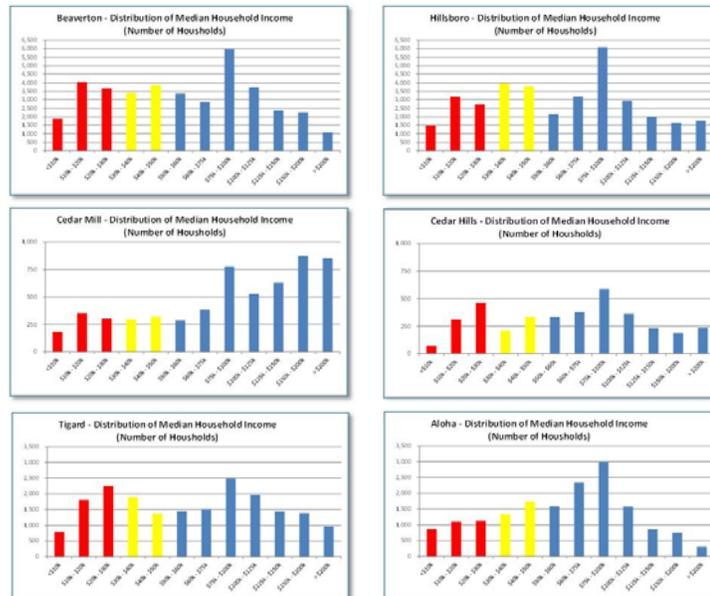
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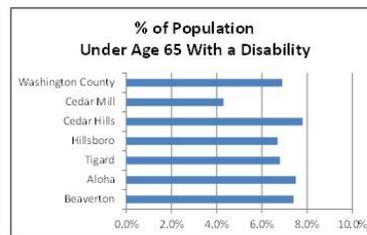
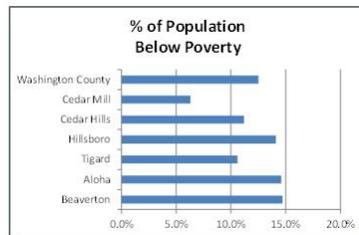
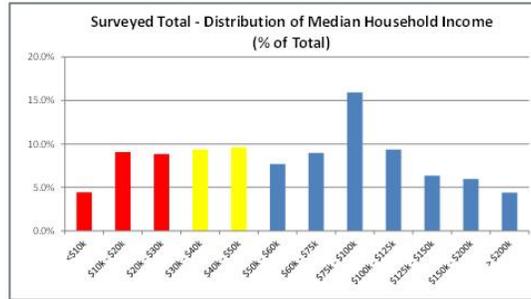
Ranges of Income by Community

- HDR reviewed the ranges of income across the communities
 - Not all communities included are entirely in TVWD’s service area (e.g., Beaverton)
- Intent is to provide a better understanding of the “shape” of income distribution across a community

Ranges of Income by Community



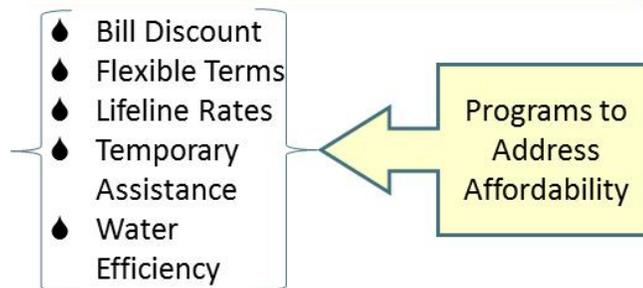
Summary/Cumulative Information



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3. MORE "BIG PICTURE"



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How Prevalent Are Customer Assistance Programs?

Type of Utility Reviewed	Number of Utilities Reviewed	Number of Utilities Found to Have One or More Programs
Large Utilities (> 100,000 people)	620	190 (30.6%)
Medium Utilities (10,000 to 100,000 people)	175	38 (21.7%)

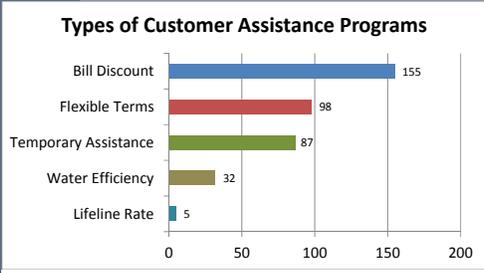
Source: EPA Survey, April 2016

- **Observations**
 - Larger utilities tend to provide assistance
 - Of the total utilities surveyed, 29% provide some form of assistance
 - An individual utility can provide more than one form of assistance



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Types of Assistance Programs



Program Type	Number of Utilities
Bill Discount	155
Flexible Terms	98
Temporary Assistance	87
Water Efficiency	32
Lifeline Rate	5

Source: U.S. EPA, Drinking Water and Wastewater Utility Customer Assistance Programs, p. 7

- **Bill Discount:** Reduction in bill, usually long-term; applied to rate structure
- **Flexible Terms:** Arrearage forgiveness, bill timing adjustment, moving from bi-monthly to monthly billing, etc.
- **Temporary Assistance:** Assistance provided on a short-term or one-time basis
- **Water Efficiency:** Utilities subsidize water efficiency measures (conservation)
- **Lifeline Rates:** A subsidized rate for a fixed amount of water (essential needs)



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Administration of Assistance Programs

- Decision to provide customer assistance is a policy decision on the part of the governing body
- Administrative Issues
 - Development of the program
 - Screening for eligibility; internally and/or externally managed
 - Recovery of subsidies (equity and fairness)
- Cost Issues
 - A 2010 survey found that 65% of utilities spent less than \$25,000 on administrative costs; in other cases, costs can be extensive based upon the program offered



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Survey of Customer Assistance Programs

Utility Name	Population Served	Bill Discount	Flexible Terms	Lifeline Rate	Temporary Assistance	Water Efficiency
State of Oregon						
Tualatin Valley Water District	217,000				▲	
Astoria Public Works Dept.	9,516	▲				
Clackamas Co. Water Envir. Svcs.	134,591	▲				
Eugene Water & Elec. Board	178,100	▲	▲		▲	
City of Gresham	117,538	▲			▲	
Clean Water Services	342,641		▲			
City of Medford	135,520	▲	▲			
Portland Water Bureau	564,600	▲	▲		▲	▲
Salem Public Works	189,000	▲			▲	
Other Utilities						
Calif. Water Serv. Bakersfield	246,371	▲				
Glendale (CA) Water & Power	201,893	▲				
City of Aurora (CO)	351,200					▲
Dist. of Columbia W&S Auth.	617,996		▲	▲	▲	
City of Henderson (NV)	275,000	▲				
Las Vegas Valley Water Dist.	1,347,550				▲	
Granger-Hunter Impr. Dist (UT)	106,000	▲	▲			
Alderwood W&S District (WA)	171,500	▲				
Seattle Public Utilities	1,400,000	▲			▲	
City of Spokane (WA)	200,000				▲	
Tacoma Public Utilities (WA)	318,403	▲	▲			
City of Vancouver (WA)	231,000	▲			▲	



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Overview of Bill Discount Programs

Bill Discounts	
<i>Reduces bills on an on-going basis usually by a percentage or dollar amount. This broad category encompasses a diverse array of programs</i>	
<p>Opportunities –</p> <ul style="list-style-type: none"> • Targets households that have difficulty paying water and/sewer bills. • Offers flexibility to structure in a variety of ways, including a sliding scale; can apply to any type of rate structure. <p>Challenges –</p> <ul style="list-style-type: none"> • Revenue impact may be greater because programs are generally designed to provide assistance long-term. • Can be confusing to customers if program-related outreach and education isn't provided. 	<p>Considerations –</p> <ul style="list-style-type: none"> • Administrative burden is low if utility can partner with an existing social service program for eligibility determination and enrollment; the administrative burden can be higher if a partnering opportunity is not available. • A percentage discount can give households using more water a larger subsidy, creating concerns of equity and providing a disincentive to use water efficiently. • Does not take into account other factors that might be causing long-term high water usage, such as older appliances and fixtures.

Surveyed Utilities – Bill Discount Programs

Utility Name	Bill Discount	Description	Summary Overview of Bill Discount
State of Oregon			
Tualatin Valley Water District	N/A		
Astoria Public Works Dept.	•	Low-Income	Financial assistance for current bill – low-income qualification.
Clackamas Co. Water Envir. Svcs.	•	Low-Income	Offers reduction off bill – low income qualification
Eugene Water & Elec. Board	•	Military Assist.	Provides assistance for military personnel called to active duty
City of Gresham	•	Low-Income	Low-income discount on stormwater fees
City of Medford	•	Payment Discount	Offers a 3.5% discount if 12 months of estimated utility fees are paid up front.
Portland Water Bureau	•	Low-Income	Discounts on utility bills for qualifying low-income customers
Salem Public Works	•	Low-Income	Offers wastewater discounts for qualifying low-income seniors and low-income disabled
Other Utilities			
Calif. Water Serv. Bakersfield	•	Low-Income	Up to 50% discount on meter charge for qualifying low-income customer
Glendale (CA) Water & Power	•	Low-Income	Qualified customers exempt from City tax
City of Henderson (NV)	•	Low-Income	Waive monthly service charge for qualifying seniors
Granger-Hunter Impr. Dist (UT)	•	Military Assist.	Provides a discount for qualifying service men and women serving in full-time active duty
Alderwood W&S District (WA)	•	Low Income	Low-Income disabled discount
Seattle Public Utilities	•	Low-Income	Up to 50% discount for qualifying low-income customers; must not receive a Section 8 housing voucher or live in subsidized housing
Tacoma Public Utilities (WA)	•	Low-Income	30% discount for qualifying low-income seniors, low-income disabled persons
City of Vancouver (WA)	•	Low-Income	Waiver for low-income seniors to minimum sewer flow rate.

Overview of Flexible Terms Programs

Flexible Terms	
<i>Helps customers stay current with bills by waiving penalties, fees, interest, and/or changing how they are billed over time</i>	
Opportunities – <ul style="list-style-type: none"> Highly effective and popular for gas and electric utilities. Few legal or policy barriers make implementation relatively low-cost and easy. Can reduce administrative costs for utility. Challenges – <ul style="list-style-type: none"> Can diminish the effectiveness of water conservation pricing. Can reduce revenue for the utility. 	Considerations – <ul style="list-style-type: none"> Increasing billing frequency does not require the utility to change the frequency of meter reading; however, some utilities may find it necessary. Monthly billing allows for predictability in planning. Levelized billing works well when it is voluntary or other utility bills are also levelized. Some measures, like levelized billing and bill timing, are revenue neutral. Other tools, such as forgiving arrears and interest free payment plans, lower (potential) revenue. Reduced fee programs can improve collectability of revenue. New technology, such as prepaid meters and smart meters, give utilities more options for designing flexible terms that customers can use to help remain current on their bills.

Surveyed Utilities – Flexible Terms Programs

Utility Name	Flexible Terms	Description	Summary Overview of Flexible Terms
State of Oregon			
Tualatin Valley Water District	N/A		
Eugene Water & Elec. Board	💧	Budget Billing	Receive monthly bill equal to the average bill for the prior 12-month period – all residential customers are eligible.
Clean Water Services	💧	Payment Plan	Targets financial hardship households and creates a payment plan.
City of Medford	💧	Payment Plan	Customers may pre-pay for 12 months to receive a 3.5% discount.
Portland Water Bureau	💧	Payment Plan	Offers ability to arrange payments to be extended up to 30 days if billed monthly.
Other Utilities			
Dist. of Columbia W&S Auth.	💧	Budget Billing	Qualifying customers receive monthly bill equal to the average bill for the prior 12-month period.
Granger-Hunter Impr. Dist (UT)	💧	Budget Billing	Receive monthly bill equal to the average bill for the prior 12-month period – all residential customers are eligible; sign up during January & February.
Tacoma Public Utilities (WA)	💧	Budget Billing	Qualifying customers receive monthly bill equal to the average bill for the prior 12-month period.

Overview of Lifeline Rates

Lifeline Rates	
<i>Reduces bill for a set quantity of water on an ongoing basis to allow essential usage</i>	
<p>Opportunities –</p> <ul style="list-style-type: none"> Can be targeted to specific eligible households, resulting in lower costs (bills). Can promote water conservation. <p>Challenges –</p> <ul style="list-style-type: none"> Targeting only eligible households makes implementation more difficult. Eligible households may be more likely to use more water for basic needs. 	<p>Considerations –</p> <ul style="list-style-type: none"> Consider adjusting the size of the lifeline block to take into account the number of people in the household. Some ratepayers will be subsidizing (through higher rates) the ratepayers who qualify for the lifeline program.

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Surveyed Utilities – Lifeline Rates

Utility Name	Lifeline Rate	Description	Summary Overview of Lifeline Rates
State of Oregon			
Tualatin Valley Water District	N/A		
Other Utilities			
Dist. of Columbia W&S Auth.	💧	Lifeline	Discount of up to 400 c.f. of sewer services per month. Must be eligible to qualify.

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Overview of Temporary Assistance Programs

Temporary Assistance	
<i>Reduces bill one time or on a short-term basis to help customers deal with urgent, unexpected hardship</i>	
<p>Opportunities –</p> <ul style="list-style-type: none"> Targeted assistance helps customers during their time of greatest need. One time nature can make the program relatively inexpensive. Partnering with other agencies and organizations can lessen administrative burden. <p>Challenges –</p> <ul style="list-style-type: none"> Can become long-term assistance unless limits are implemented. Might be insufficient to prevent service disconnection. Can have relatively high administrative costs. 	<p>Considerations –</p> <ul style="list-style-type: none"> Water and sewer utilities often partner with other organizations (e.g., a public assistance agency or local charity) to administer the program. Resources for this type of program often come from outside government agencies, social service agencies, or voluntary contributions from other ratepayers.

Surveyed Utilities - Temporary Assistance Programs

Utility Name	Temporary Assistance	Description	Summary Overview of Temporary Assistance
State of Oregon			
Tualatin Valley Water District	◆	Emergency Relief	Provides emergency assistance. Funded by voluntary donations. Administered in partnership with Care to Share.
Eugene Water & Elec. Board	◆	Low / Limited Income Assistance	Financial aid, up to \$200/year to qualifying limited income customers. Aid credited directly to their account. Funded from rates/contributions. Administered by Lane County Human Services Div.
City of Gresham	◆	Emergency Relief	Provides limited emergency funds for customers experiencing financial hardship. Income at or below 150% of the federal poverty guidelines. Funded from contributions from residents, businesses and employees
Portland Water Bureau	◆	Crisis Vouchers	Low-income vouchers for up to \$150 in assistance every 12 months. Customer must be enrolled in the City's low-income assistance program and pay a portion of the bill to receive assistance.
Salem Public Works	◆	Low Income Assistance	Helps customers experiencing short-term need for payment assistance. Customer may only receive assistance for one bill during a 12-month period. Administered by the Salvation Army and St. Vincent de Paul (who determines eligibility).
Other Utilities			
Dist. of Columbia W&S Auth.	◆	Financial Hardship	Serving People by Lending a Supporting Hand (SPLASH) provides help in times of financial emergencies. Fully funded from contributions from customers and the community.
Las Vegas Valley Water Dist.	◆	Emergency Relief	Provides help to customers who are having difficulty paying bill. Utility determines eligibility.
Seattle Public Utilities	◆	Emergency Relief	Provides a 50% credit for a customer's delinquent bill, up to \$371 for the 2016 program. Customers may only receive one credit per 12 month period. Customer must have received an Urgent Notice or Final Shut-off notice or water has been shut off.
City of Spokane (WA)	◆	Emergency Relief	UHelp provides low-income customers with one-time emergency financial assistance. Administered by the Salvation Army (who determines eligibility).
City of Vancouver (WA)	◆	Emergency Relief	Provides help to customers who are having difficulty paying bills due to crisis situations.

Overview of Water Efficiency Programs

Water Efficiency	
<i>Reduces bill by directly implementing water saving measures, such as repairing or replacing leaking or outdated pipes and/or fixtures.</i>	
Opportunities – <ul style="list-style-type: none"> Disadvantaged customers are more likely to have old fixtures and/or poor plumbing. Can be a long-term solution for lowering bills that empower homeowners. Can use outreach materials and partnerships with other utilities through WaterSense. Challenges – <ul style="list-style-type: none"> Can impact a utility's revenue. Rebates for new devices and appliances may be less likely to help low income households. 	Considerations – <ul style="list-style-type: none"> Coupling water efficiency programs with increasing block pricing can be very effective. Programs can be designed and structured in numerous ways, from rebates to service contracts with local providers. Low income customers are more likely to take advantage of programs that provide in-house services as opposed to programs that require them to buy their own equipment or services.

Surveyed Utilities – Water Efficiency Programs

Utility Name	Water Efficiency	Description	Summary Overview of Water Efficiency
State of Oregon			
Tualatin Valley Water District	N/A		
Portland Water Bureau	💧	Low Income	Provides financial assistance for the repair of leaky toilets, faucets, plumbing and underground leaks to eligible customers who own and occupy their homes. To qualify, the customer must be enrolled in the City's low income assistance program.
Other Utilities			
City of Aurora (CO)	💧	Low-Income	Qualifying customers can receive replacement of old fixtures with new high-efficiency fixtures. Can replace up to two toilets, two showerheads, and three faucet aerators with water saving devices.

4. RAC INITIAL FEEDBACK

- ◆ Problem?
- ◆ Need to Expand Assistance?
- ◆ Most suitable programs?

Key question: Should TVWD augment its customer assistance program and rates to better address the issue of affordability?

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RAC Initial Feedback

Based Upon What You Know and Understand Today:

1. Is affordability an issue – now or in the future?
2. Should TVWD continue its current policy of addressing affordability?
3. TVWD's current customer emergency assistance program (CEAP) – adequate or need to be modified?
4. Should TVWD explore other customer assistance programs? Yes or No – If yes, which programs?
 - a. Bill discount
 - b. Flexible terms
 - c. Lifeline rates
 - d. Temporary assistance
 - e. Water efficiency

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