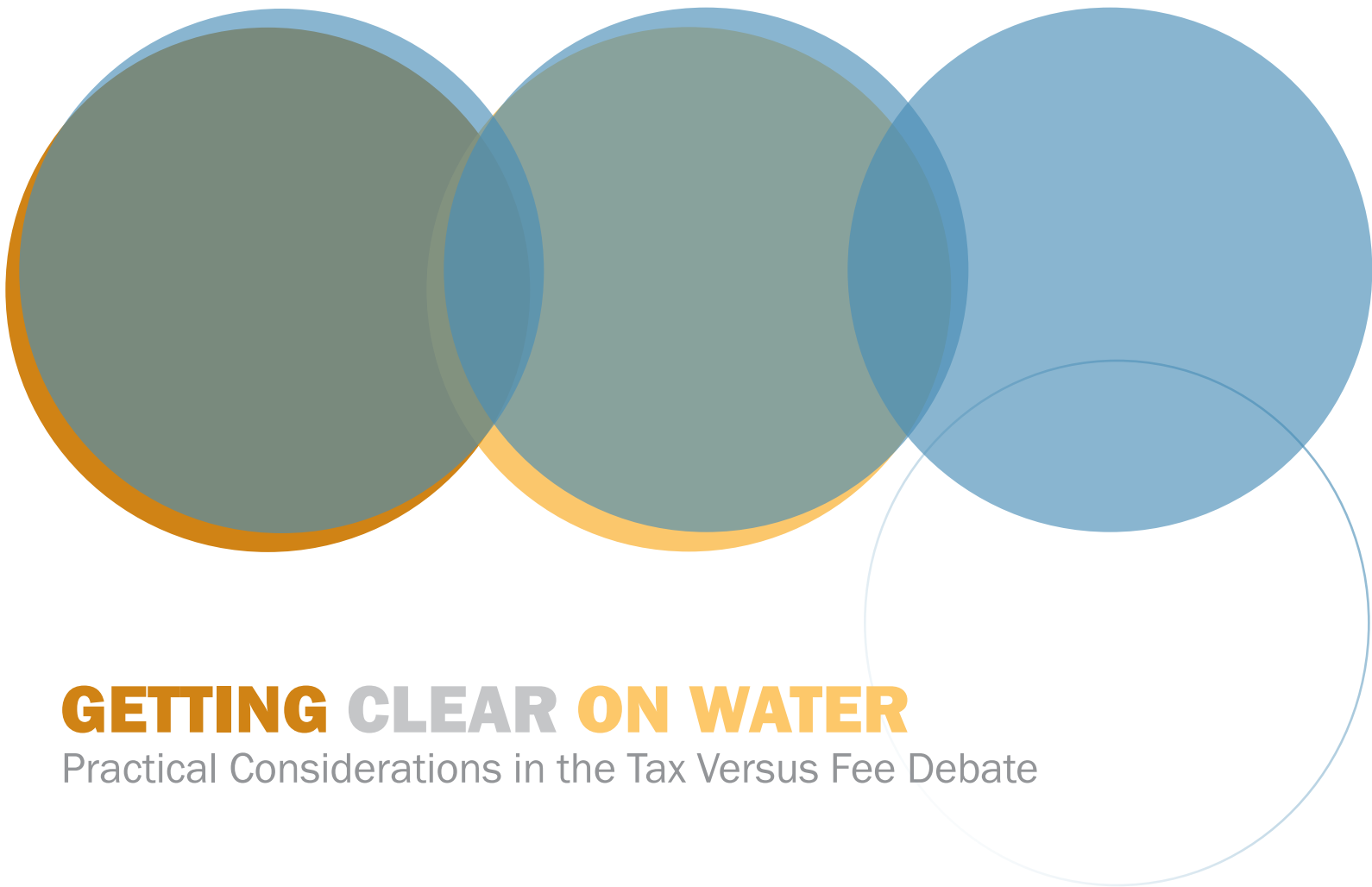




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GETTING CLEAR ON WATER

Practical Considerations in the Tax Versus Fee Debate

THE PAYING FOR WATER SERIES
PART IV - SEPTEMBER 2019

GETTING CLEAR ON WATER

Special thanks to

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INTRODUCTION

Utah ranks as one of the nation's driest states — and one of the fastest-growing. It is therefore essential that Utah's water is well managed to ensure the sufficiency of affordable, quality water into the future. Utah Foundation's series of water reports discusses Utah's reliance on both water rates and property taxes to fund water infrastructure, operations and maintenance.

Part 1 of this series provided an overview of how water is distributed and managed in Utah. Parts 2 and 3 focused on conservation and fairness issues, respectively.

Part 4 in this series addresses the remaining practical considerations. These include fiscal impacts, focusing on cost efficiency, price for consumers and revenue stability for water providers. The practical considerations also include local needs, transparency and representation.

REVENUE STABILITY FOR WATER PROVIDERS

The Stability of Property Taxes

As in private businesses, the revenue of water providers tends to fall during recessions. As incomes shrink during economic downturns, consumers become more conscious of where they are spending their money and how they can find ways to cut back. Yet revenues from property taxes are held relatively steady because of Utah tax policy — specifically, Truth in Taxation. Even if property values fall during a strong recession, property tax revenues do not because property tax rates are annually calibrated to rise or fall to produce the same amount of revenue.

However, recessions can significantly decrease water rate revenues. Among Utah's four largest conservancy districts (those with budgets above \$30 million), three of the four saw 4% to 6% decreases in water rate revenues from 2007 to 2011. By way of comparison, these providers saw annual average increases in water rate revenues from 5% to 8% from 2013 to 2017 — a time of economic growth.

In addition to recessions, water rate revenues also experience weather-induced volatility. Years with above-average precipitation reduce water use and consequently reduce



KEY FINDINGS OF THIS REPORT

- While water rate revenues are not as stable as property taxes, they are among the most stable relative to other possible revenue streams commonly used to support revenue bonds.
- Rainy day funds and decoupling of water rates from sales volume can help address budget volatility.
- While it stands to reason that property tax revenues might help push credit ratings higher and thereby make the overall cost of water cheaper, it is only likely to be the case to a marginal degree.
- Market distortions created by using property taxes for wholesale water may increase the overall cost of water.
- A mix of revenue sources allows for more local flexibility by allowing water providers to use the property tax as needed and to counterbalance drawbacks in water rates.
- A full reliance on water rates tends to provide stronger cost transparency because consumers can turn to a single source of information for their use and cost: monthly water bills.



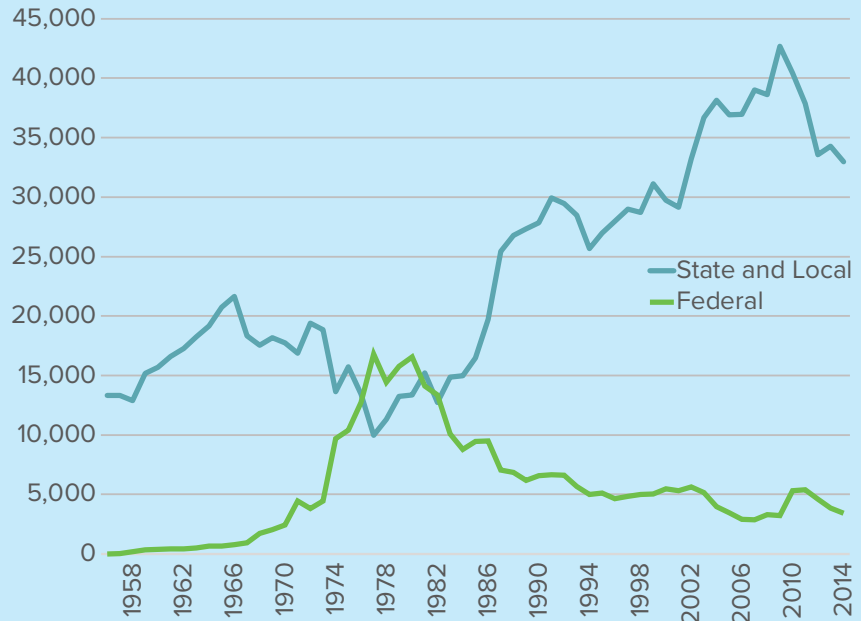
HISTORIC FEDERAL FUNDS

Many of Utah’s large water projects such as the Central Utah Project and the Weber Basin Project were funded in part with federal dollars. However, since the 1980s, the federal government has contributed less to the development of water and wastewater capital projects, leaving states and local governments to find different ways to replace federal dollars.

State and local spending on capital projects has increased in part to offset declines in federal spending since the 1980s.

Figure 1: Federal Versus State and Local Spending on Capital Water and Wastewater Projects, 1956-2014, in 2014 dollars

Source: Congressional Budget Office.



revenues generated from water rates. (The first half of 2019 was the second wettest six months on record in Utah.¹)

In short, property tax revenues can be substantially more stable than water revenues. A stable revenue source heightens the ability of water providers to endure recessions without having to lay off employees or find other ways to cut costs or manage volatility.

The Stability of Water Rates

There are many examples, both inside and outside the state, of successful water providers that do not rely on property taxes, demonstrating that property taxes are not necessary to maintain a functioning utility. In addition, culinary water is thought to produce one of the steadiest revenue streams among utility providers because it is both necessary for life and has no reasonable substitute.²

A volatile revenue source is not a problem unique to water providers. Countless government agencies around the country rely on sales tax revenues, which are more volatile. A common remedy is the use of a “rainy-day fund” to ensure reserves can cover budgetary shortfalls.

In an analysis of 245 water providers across the state, Utah Foundation found that they contributed an average of 17% of their operating revenues to an ongoing fund.³ These contributions could include one-time revenue sources, such as impact and other fees, as well as developer contributions (the monetary benefit of having developers install infrastructure required for distribution). Regardless, it demonstrates that Utah water providers commonly contribute to a perpetuating fund that can be used to cover temporary budget shortfalls.

Another approach is known as “decoupling,” whereby rates are adjusted up or down to meet an agency’s revenue target.⁴ During the 2011-2017 California drought, many water providers’ budgets fell unsustainably due to severe conservation efforts. As a result, they had to raise rates to ensure they had enough revenue to deliver their services. Rather than allowing the rate to determine the revenue, decoupling allows the needed revenue to set the rate – much like Utah’s Truth-in-Taxation law regarding property taxes.

Because most water providers do not collect profits, this is generally the approach used when water providers initially reevaluate their rates. However, once the rates are set, the total revenue they produce in a given year still varies as weather, climate and economic conditions influence how much water is purchased.

A surer way to maintain stable revenues would be through water rate flexible adjustments. This could be achieved by more frequent smaller rate adjustments, annually or even quarterly.

Alternatively, a water provider could set a range of tiered rates that would flexibly rise and fall each month, depending on the aggregate water provided. While water users might take time to acclimate to flexible rates, decoupling could be a solution for water providers that prioritize revenue stability.

Summary

Districts claim that property taxes are needed as a stable source of revenue. Property tax revenues are more stable than water revenues and much more stable than one-time revenues such as impact fees and developer contributions. Even so, water revenues are also relatively stable compared to other commonly used government revenue streams, and water providers in Utah and around the country compensate for increased volatility through the prudent use of reserve funds. Decoupling of rates from sales volumes is another option that could further stabilize water rate revenues.

COSTS FOR CONSUMERS

Utah has lower than average water costs, both compared to the nation at large and other Western states. This is explained in part by the fact that most of Utah’s population is located near water sources such as mountain snow and reservoirs. This reduces the cost of water in two ways. Gravity-fed water systems reduce the cost of pumping and pressure, and the close proximity results in fewer opportunities for pollution and contamination, reducing the cost of cleaning the water.⁵

Nonetheless, price is an important consideration for Utahns to examine, and changes in how water revenues are generated would have an effect.

How Property Taxes May Reduce Water Costs

Proponents of using property taxes argue that these revenues help keep the price of water low. With property tax revenues in the funding mix, some Utah water providers argue they can achieve higher bond ratings. Higher ratings mean lower interest rates for debt on infrastructure and, consequently, lower consumer prices.

**Property tax revenues are more stable than water revenues
Even so, water revenues are also relatively stable compared to
other commonly used government revenue streams.**



PROPERTY TAX DEDUCTIONS

The use of property taxes by water providers could slightly lower Utahns' income tax liability. Property taxes can be deducted from personal income taxes, while water rates cannot be deducted. For example, a \$250,000 home in West Jordan pays \$124 in property taxes to water agencies. If that family were to itemize their taxes, it would reduce their taxable income by \$124, saving a median-income family \$15. These marginal tax savings would be available only to those that itemize their deductions rather than use the standard deduction.

While water rate revenues are more variable than property tax revenues, they are considered one of the more stable sources of revenue relative to other sources commonly used in revenue bonds.⁶ (By contrast, sales taxes are one of the riskiest revenue streams; local entities have limited ability to increase rates and revenues generated through sales taxes, which makes revenues much more volatile.⁷) As credit rating agencies analyze bond covenants, they take into account revenue stream variability and dozens of other factors such as the ability of the community to cover those costs, the current level of indebtedness, the historical fiscal prudence of the district, the ratio of revenue generated to bond payments, the size of the loan, the scope of the project, limits on expenditures, limits on taxation, and the condition of the local and national economies. While stable revenue is helpful, it is just a single factor in a complex decision.⁸

In 2015, Zions Bank carried out a study commissioned by the Metropolitan Water District of Salt Lake and Sandy to analyze the impact of losing the ability to collect property tax revenues. In this study, Zions Bank reached out to Fitch Ratings and Standard & Poor's, two of the three largest rating credit rating agencies in the United States. These two agencies considered property tax and water rate revenue streams to be equivalent, although in a review process, property tax revenues may positively influence the review if a water provider is right on the line between one rating and another.⁹ In a 2019 committee hearing of the Utah Executive Water Finance Board, a representative of Fitch Ratings reaffirmed that property tax revenues are considered as another source of stable revenue and generally considered neutrally or positively when providing a rating.¹⁰

Even without property tax revenues, there are mechanisms that could help lower the costs of borrowing funds in the municipal bond market. Utah could design a guarantee similar to the guarantee it offers for school districts that essentially allows districts to borrow on the state's top credit rating.¹¹ Another alternative might be to create a statewide entity that can package municipal bonds, similar to an arrangement found in Idaho.¹² This would diversify the risk, allowing for better credit ratings. Taxing power could be conditionally granted to this entity for the purpose of ensuring payments are met in order to further decrease the risk and improve the credit rating.

In addition, restricting water providers from using property taxes for maintenance and operation costs would not restrict the ability of water providers to issue general obligation bonds dedicated to funding capital and infrastructure improvements. These general obligation bonds would require voter approval. Using bonds in this more traditional fashion would allow water providers to continue to receive any financial benefit they may receive from general obligation bonds, while obtaining some of the other benefits associated by funding operations and management solely through water rates and fees.

With higher levels of conservation, more costly forms of procuring water can be delayed.

How Property Taxes May Increase Cost: Distortion in the Wholesale Market

When a wholesaler collects property tax revenues and correspondingly lowers its wholesale water rate, it introduces distortion into the market. For example, when a municipal water provider needs to secure additional water for its expanding community, it has several options. The cheapest option would be to encourage conservation, virtually expanding its water supply. It could also purchase water from another source; it could procure water from a wholesaler or obtain additional water rights from agricultural water right holders.

In many cases, growth in a municipality can displace agricultural land use and reduce the amount of agricultural water needed. That could mean that agricultural water would be readily available for the municipal water provider to convert into culinary water and meet the needs of its growing population.

While regional wholesalers can collect property taxes and lower wholesale prices, the owners of the agricultural water rights do not have access to property tax revenues and cannot lower their prices correspondingly. To the water retailer, this makes the wholesaler's water appear to be a better deal. But this is only because part of the cost is shifted to property owners in the wholesaler's jurisdiction.

As a result, the total cost of water (the cost at which the city is purchasing the water in addition to the collection of property tax revenues) is higher than if there were no property taxes collected and the city purchased agricultural water rights to convert to culinary use. These higher costs are ultimately passed on to consumers and property owners.

There may even be cases where a regional wholesaler's lower-priced water is cheaper than encouraging conservation among residents. This similarly distorts the market, increasing the broader cost of providing water.

There are additional cost reductions to the extent that a higher reliance on water rates encourages conservation. With higher levels of conservation, more costly forms of procuring water can be delayed. By deferring more expensive forms of water development until the population of the service area is larger, costs can be spread across the larger base, reducing average costs to consumers.

Summary

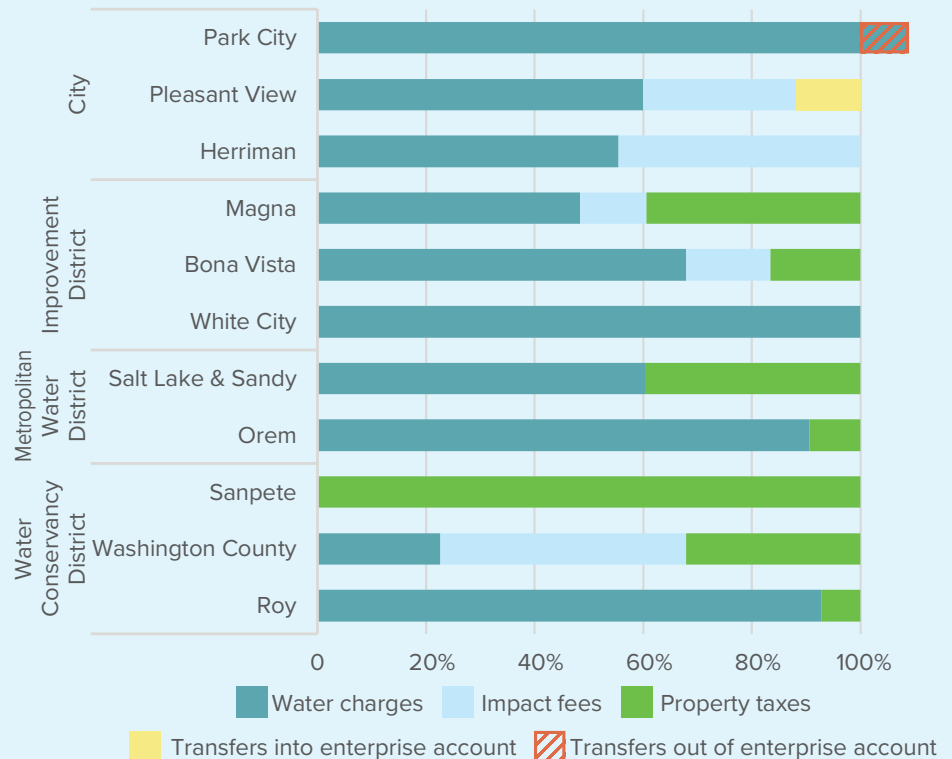
Despite the greater stability of property tax revenues, it is not clear that relying on them lowers water prices for customers by consistently helping water providers receive better bond ratings. Customers may benefit from property tax deductions on their income taxes, but only marginally.

To the degree that collecting property tax revenues enables wholesale water suppliers to sell water cheaply, market distortions may occur as water from these providers can cost less than conservation or agricultural conversion. When this distortion occurs, property taxpayers and water users face higher overall costs.

To the degree that water rates inspire conservation, water providers can defer the potentially expensive development of new water sources. Consumers would enjoy cheaper water in the short term because there will not be demand for more expensive forms of water development. Consumers would enjoy cheaper water in the long term because the costs of more expensive forms of water development will be borne by a larger population.

Water providers vary widely in their mix of revenues sources.

Figure 2: Share of Revenues from Water Charges, Impact Fees, and Property Taxes or Transfers, 2014-2017



Source: Utah Foundation calculations based on water district financial reports posted on the Utah State Auditor's website, 2014-2017.

In this case, the mechanism of these cost savings is not directly the use of water rates or property tax revenue, but rather conservation. Consequently, the cost savings will only occur to the degree that water rates encourage conservation. Similarly, lower costs may be achieved through conservation independent of how revenues are generated. (See Part 2 of this series.)

FLEXIBILITY IN ADDRESSING LOCAL NEEDS

Different water providers wrestle with different challenges. For instance, the needs of water providers along the Wasatch Front differ from the needs of water providers in Iron County. But these differences in needs extend beyond Utah's mix of urban and rural districts. The availability of water in these districts is strongly linked to geography, which varies across the state. Counties along the Wasatch Front can access water from the Wasatch Mountains. In the state's eastern counties, water is accessible from the Colorado River. Western counties are forced to rely more heavily on groundwater.

A Variety of Funding Approaches

Water providers can use an assortment of revenues from property taxes, water rates, and impact fees in seeking to best fund water in their district. Figure 2 displays a sample of water providers and how different areas rely on different methods to fund their water providers. Currently, local areas have the flexibility to decide what mix of funding is appropriate for them.

A Question of Flexibility

When relying solely on water rates, water providers have flexibility in how they structure those rates. They also have a degree of flexibility in how they assess impact fees, classify commercial and residential properties, determine the steepness of their tiered pricing, and charge for fixed costs.

However, some water providers consider property taxes to be a valuable additional tool, even if they use it solely for infrastructure development through voter-approved general obligation bonds. They may also see property taxing authority as a means of counterbalancing drawbacks particular to water rates.

In short, property taxes add another revenue-generator, allowing greater flexibility for local leaders and water providers to balance revenues between property taxes and water rates to best meet their needs.

TRANSPARENCY

It is a common economic principle that when costs are transparent, markets can operate more efficiently. Transparency also promotes accountability to the public.

How Transparent are Property Taxes?

Taxpayers can find property tax rates for each water district on the Utah State Tax Commission's website.¹³ They can also review water taxes among the various other property tax rates and liabilities when county assessors send out annual itemized property tax reports.

When water providers want to increase the revenue collected through property taxes, they must engage in the Truth-in-Taxation process to ensure transparency. The process requires providers to publish ads in local newspapers and hold mandatory public meetings.

How much property taxes contribute to water operations and maintenance in cities is less transparent. The total amount collected by cities is transparent, but the extent to which those funds are used to support water delivery can be clarified only by searching out a city's annual financial report and examining a long document to verify whether funds were transferred into or out of an enterprise fund. Further, it may not be clear where those transfers came from or where they went.

Overlapping jurisdictions add additional difficulty. Many communities in the northwest quadrant of the Salt Lake Valley pay property taxes to three different water providers in addition to their water bills. While the amount collected from these entities is clear, property owners might not understand that they are paying in four different ways.

Transparency is also limited for individuals or businesses that rent because it is unclear how much their rent covers the owners' property taxes. It is even less transparent if renters do not pay their own water bills. While it is likely that a portion of rent is used to cover the property tax levied on landowners, how much property owners are passing on to renters is a matter of debate.

Some water providers consider property taxes to be a valuable additional tool, even if they use it solely for infrastructure development through voter-approved general obligation bonds. They may also see property taxing authority as a means of counterbalancing drawbacks particular to water rates.

Legislation that becomes effective in 2021 adds provisions to ensure that retail customers have the opportunity to participate in public meetings when water rate increases are up for consideration.

How Transparent are Water Rates?

For water providers that rely solely on water rates, the price of water is available to customers in a single source with regular updates – the users’ monthly water bills. But the level of transparency tends to vary based on the water provider; water bills can vary in transparency depending on how they are formatted and what information is included or excluded.

While water providers must go through the rigorously programmed Truth-in-Taxation process if they want to raise additional revenues through property taxes, the process to raise water rates is less standardized. Municipalities appear to be able to approve rate increases without any requirements for public meetings. Utah’s state code simply states that municipalities “may fix the rates to be paid for the use of water furnished by the city.”¹⁴ However, all meetings of the municipalities’ governing bodies are required to be open and public meetings.¹⁵ Moreover, 2019 legislation that becomes effective in 2021 adds provisions to ensure that retail customers have the opportunity to participate in public meetings when water rate increases are up for consideration.¹⁶ Many water providers will seek to be transparent about their process regardless of requirements. They might hold open meetings about their decision-making process, seek public feedback, and notify customers of changes on monthly water bills. However, such practices will likely vary by water provider. Provisions for local districts depend on the type of district, but local districts seeking to impose or increase fees are generally required to do so through a public meeting process.¹⁷

Summary

Both property taxes and water rates offer transparency, though in different forms. A reliance on water rates would be more transparent in that the cost of water is completely available from a single source with regular, measurable updates based on meter readings. On the other hand, property taxes are subject to more rigorous transparency requirements with regard to decision-making on increases.

REPRESENTATION

Citizens’ ability to determine who governs them – especially those who control their taxes – is an important premise of a representative democracy. Representation can also be considered an important consideration in water pricing.

The governance of water providers differs based on the type of organization. Municipal water utilities are governed by the municipalities’ elected leaders. Multi-county water conservancy districts are governed by boards of local individuals. These individuals are nominated by county commissioners, selected by the Utah Governor and ratified by the Utah State Senate.¹⁸ Often, the individuals nominated to the board hold elected office in the area.

For other single-county governing boards and local districts, governing boards can be appointed by local officials or elected directly by the local residences, or a mix, depending on the type of district and how the board was organized.

These governing boards approve property tax rates and water rates. Some Utahns are concerned when unelected, appointed officials have the ability to levy taxes, considering it a form of taxation without representation. While still subject to the Truth-in-Tax-

ation process, there is less recourse for users or citizens to replace these officials if citizens disapprove of their actions.

By relying solely on water rates, non-elected officials in local districts lack the ability to tax. However, they maintain the ability to control water rates. In some ways, this provides even less accountability since the process for increasing water rates is less rigorous than raising property taxes. Citizens or users would still have limited recourse to replace water officials if they disapproved of how the water providers were being run.

Summary

While those who disagree with using property tax revenues might argue that the status quo is taxation without representation, relying on water rates does not really fix the underlying concern. However, officials in charge of determining water rates may have even less accountability to citizens or users.

OTHER PRACTICAL CONSIDERATIONS

There are also a number of other practical considerations involved in the property tax versus water rate debate. Water infrastructure projects can be expensive. Often, these infrastructure projects can take decades to develop and substantial funds must be spent before any water is delivered.

Consider the financial pressures on a town deciding to provide a municipal water service. Before it can generate any revenue from water rates, it has to figure out how to pay for the infrastructure to capture, treat, purify, convey, pump, store and distribute water to its citizens. Even if the town takes the simplest route and outsources most of these water services to a wholesaler, it will have to use a substantial amount of money to lay the infrastructure required to distribute water to its residents. In these cases, property taxes are the main revenue stream available.

Rapidly growing areas in Utah face similar pressures. Substantial infrastructure investment is required before anyone moves in. In addition, contribution from undeveloped landowners can improve efficiency as growth occurs. For example, if a water provider is expanding its services past a parcel of undeveloped land, it could theoretically use the property tax revenues from that parcel to upgrade its infrastructure as it initially installs it. This means the water provider could avoid the costly expense of replacing existing infrastructure with higher capacity pipes when the parcel eventually does develop.

In both newly developing systems and rapidly growing systems, municipal bonds can help fund these projects. However, they might need to rely on property tax revenues to be considered creditworthy or cover gaps in funding before water revenue is available.

As mentioned in Part 1 of this series, property tax revenues can be collected by water providers via two mechanisms. State law authorizes collection of property taxes for local districts. Similarly, cities that provide water services can transfer revenues from their general funds, which could be supported by property or sales taxes. Water providers also have a second option of issuing general obligation bonds with voter approval. Proponents of water rates push back against the first method of obtaining property tax revenues, but will sometimes concede that there are times when infrastructure development is needed, and voter-approved general obligation bonds may be the best way to meet those needs.

One example is the Central Utah Project. The project, started 60 years ago, was designed to bring water from the Uintah Mountains to the Wasatch Front. The federal government loaned the state funds for the project on the condition that repayment would be backed by property taxes. Without the use of property taxes to obtain financing from the federal government, it would have been difficult for the state alone to build such a project. In 2017, the Central Utah Water Conservancy District provided more than 25% of the water used by culinary water providers in Salt Lake County.¹⁹ Salt

Lake County might look substantially different if it had a quarter less water to spread around to culinary water providers.

While property taxes can be the only revenue source available when first building infrastructure, as areas grow and urbanize water providers become increasingly capable of supporting their services through water rates.

Under the circumstances outlined above, the Central Utah Water Conservancy District and a few other conservancy districts made contracts with the federal government that specified property taxes would be used to repay the Bureau of Reclamation. These districts could still limit the use of property taxes to the amount needed for repayment under these contracts. Alternatively, they could seek contract amendments allowing for a transition to water rates for repayment.²⁰

CONCLUSION

While water rates are less stable than property taxes, they are more stable than other revenue sources, such as sales taxes. The fact that so many water providers both nationally and within Utah do without property taxes illustrates the feasibility of relying on water rates alone. Water providers can protect against revenue instability by building larger reserves or possibly through decoupling to create flexible water rates.

There are reasonable claims that property taxes may allow for cheaper borrowing. However, rating agencies indicate that the difference is marginal. Meanwhile, with reduced reliance on property taxes, increased conservation induced by higher water rates could also lower costs by deferring larger investments until a larger population is present to share in those costlier developments. Furthermore, property tax collections by water wholesalers may create price distortions that ultimately raise the cost of providing water.

Although the range of possibilities for structuring water rates allows water providers significant flexibility, the option of using property taxes adds flexibility. The populations served, geographies, local preferences and local economies vary among water providers, and property taxing authority allows an additional tool for providers to determine the best way to deliver services.

Overall, relying solely on water rates would tend to create a higher level of cost transparency. However, state requirements on property tax rates create a higher level of transparency when it comes to revenue increases.

Those same property tax requirements help create a higher level of accountability to the public. If citizens do not like property tax increases, they can replace those elected officials if desired. However, officials of local taxing districts may be either elected or appointed, depending on the district. Appointed officials with the power to levy property taxes are a concern to some. While a higher reliance on water rates might allay those concerns, appointed officials still set water rates and citizens may have little direct influence to replace these officials if desired.

Ultimately, there are tradeoffs in terms of revenue stability, consumer costs, provider flexibility, and consumer transparency and representation. These tradeoffs must be weighed alongside the conservation and fairness issues discussed in Parts 2 and 3 of this series to determine the future of Utah water revenue policy.

Overall, relying solely on water rates would tend to create a higher level of cost transparency. However, state requirements on property tax rates create a higher level of transparency when it comes to revenue increases.

ENDNOTES

- 1 National Centers for Environmental Information, “Climate at a Glance,” *National Oceanic and Atmospheric Administration*, 2019, www.ncdc.noaa.gov/cag/statewide/mapping/110/pcp/201906/6/rank.
- 2 Crandall, John. Executive Vice President & Co-Head of Public Finance of George K Baum & Company, interviewed on 1 August 2017.
- 3 These water providers are the 245 that had posted their financial reports on the State Auditor’s website and had financial information posted on revenues from water rates and operating revenues from 2014-2017.
- 4 See National Association of Water Companies, “Decoupling,” www.nawc.org/state-utility-regulation/regulatory-practices/decoupling.aspx.
- 5 Klotz, Eric, Gregory Williams, Eric Jones, and Lyle Summers, “The cost of water in Utah: Why are our water costs so low?” *Utah Division of Water Resources*, (2010), https://water.utah.gov/wp-content/uploads/2019/01/The-Cost-of-Water-in-Utah_2010.pdf.
- 6 Crandall, John. see note 2; Guzman, Tatyana, and Temirlan Moldogaziev “Which bonds are more expensive? The cost differentials by debt issue purpose and the method of sale: An empirical analysis.” *Public Budgeting & Finance* 32, no. 3 (2012), pp. 79–101.
- 7 Examples of other revenue bonds with volatile revenue sources include healthcare, economic development, and housing. Jun Peng, and Peter F. Brucato Jr., “An empirical analysis of market and institutional mechanisms for alleviating information asymmetry in the municipal bond market,” *Journal of Economics & Finance*, 28, no.2 (2004), pp. 226–38.
- 8 Palumbo, George, and Mark P. Zaporowski, “Determinants of Municipal Bond Ratings for General-Purpose Governments: An Empirical Analysis.” *Public Budgeting & Finance* 32, no. 2 (2012), pp. 86–102.
- 9 Zions Public Finance, “Review of property tax alternatives,” Prepared for the Metropolitan Water District of Salt Lake and Sandy, (2015).
- 10 Groff, Shannon, “Fitch Ratings presentation,: Presentation, Executive Water Finance Board,” 8 August 2019.
- 11 Utah State Treasurer’s Office, “School Bond Guarantee Program,” (2019), <https://treasurer.utah.gov/investor-information/school-bond-guarantee-program/>.
- 12 Idaho State Treasurer’s Office, “Idaho Bond Bank Authority,” (2019), <https://sto.idaho.gov/Debt-Management/Idaho-Bond-Bank-Authority-IBBA>.
- 13 See <https://propertytax.utah.gov/>.
- 14 Utah State Code Sec. 10-8-22.
- 15 Utah State Code Sec. 10-3-601.
- 16 Utah State Code Sec. 10-8-22.
- 17 Utah State Code Sec. 17B-1-643.
- 18 Bitter, Legrand, Executive Director of the Utah Association of Special Districts, interviewed 13 March 2018.
- 19 This may be overstating the case. In reviewing CUWCD’s annual report, roughly half was labeled project water and half was labeled non-project water. While it is clear that project water would not be available without the Central Utah Project, it is less clear if non-project water would be available. It is not clear that there would be infrastructure in place to transport that water north, or if that non-project water would even be available for use in Salt Lake County without being offset by project water available for Utah County. See Central Utah Water Conservancy District, “Annual report 2017,” (2018), <http://cuwcd.com/assets/documents/AnnualReports/Final2017AnnualReport.pdf>; Salt Lake County data gathered from Utah Department of Water Resources, “Utah’s 2917 municipal and industrial water use data mapping application,” (2018) <https://utahdnr.maps.arcgis.com/apps/webappviewer/index.html>.
- 20 Gardner, B. Delworth “The economic effects of using property taxes in lieu of direct user fees to pay for water,” in *Aquonomics: Water Markets and the Environment*, ed. B. Delworth Gardner and Randy T. Simmons, Transaction Publishers, 2012), pp. 225-246.



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Granite School District
HDR Engineering
Holland & Hart

J Philip Cook, LLC
Key Bank
Kirton | McConkie
Love Communications
Magnum Development
my529
Ogden City
Revere Health
Salt Lake Community College
Sandy City
South Jordan City
Snow College
Stoel Rives

Thanksgiving Point Institute
United Way of Salt Lake
Utah Farm Bureau Federation
Utah Hospital Association
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