

Meeting Objective No official decision is being asked for today.

Our purpose:

- Update on progress of KVID's Successful Future project
- Present the findings of the Rate Analysis process.
- Receive Board comment and direction on our progress.





The KVID Successful Future Project identifies three key elements for long-term success:

- Determine KVID's infrastructure condition and ongoing needs (complete).
- Develop a fair and reasonable rate structure that incorporates the needed investment in the utility to promote service reliability and financial stability (in progress).
- Consider and implement the appropriate governance model for the utility (pending).

Step One: Infrastructure Assessment (complete)

Water and Wastewater Master Plans

- Infrastructure inventory and assessment
- 20 year Capital Improvement Plan
- GIS mapping of the water and sewer system
- Working digital water and wastewater analytical models
- Operational recommendations

Step Two: <u>Rate Analysis</u> (in progress)

Based on Direction from the Board of Directors at our last work session on Feb. 8th, 2017, KVID Staff have worked with Thomas Bourassa, C.P.A. to analyze KVID's current financial capacity and provide projections on KVID's financial future and implementation of our infrastructure plan.



Step Three: <u>Governance Evaluation</u> (pending)

- KVID has engaged with an attorney (Steve Wene) to help evaluate and manage a transition process.
- KVID has engaged with potential Citizens Advisory Committee members to provide input on the rate analysis and the potential for governance transition.



KVID - The Last Eleven Years



KVID - The Last Eleven Years

Current Rate Structure

- Last rate increase was implemented January 1st, 2006
- Supported the utility's operational costs
- Provided needed reform to underground repair policies
- Provided over \$1.5 M in Capital Improvements to promote service reliability and efficiency for the utility.
- Notable improvements include: Sludge processing, AMI meter reading, SCADA system, WWTP blowers and aeration, and the constant pressure pump systems.

KVID – The Last Eleven Years

These investments have made for a more <u>reliable and cost-effective utility</u>. However, revenues have remained relatively unchanged while costs continue to climb and inflation accrues.



KVID - The Last Eleven Years

Total Revenues and Expenses FY06-FY16



11

KVID – Future State – Infrastructure



- Infrastructure Assessment conducted as part of our Master Planning process.
- Identified needed Capital Improvements over the course of the next 20 years through a Capital Improvement Plan (CIP).
- Cost for identified improvements is \$5.5M over the next 20 years.

- Infrastructure Needed Improvements
 - First 3 to 5 years:
 - Second Clarifier Construction (3 Phases, \$1.25M)
 - Provides needed redundancy for the existing clarifier, identified as a potential critical point of failure of the treatment plant.
 - Phase I New Sludge Handling
 - Phase II Second Clarifier
 - Phase III Original Clarifier Rehab
 - Replace Well Two with new, more reliable, higher capacity well (\$925,000).

- Infrastructure Needed Improvements (continued)
 - Replacement of aging Underground Infrastructure
 - Cost of \$3.4M over 20 years
 - Manhole Rehabilitation
 - Rehabilitation of Sewer Lift Stations
 - Sewer Collection System phased replacements
 - Additional Water Tank rehabilitation
 - Addition of backflow prevention on customer connections
 - Redesign and Replace Altitude valves
 - Water Distribution System phased replacements

KVID – Future State – Accounting Practices



Current KVID Accounting Practices

- Cash-based accounting
- Using County accounting codes and categories
- Adherence to County guidelines regarding capital expenditures and assets
- Recording connection and infrastructure fees as revenue



Additional Recommendations

- Use an accrual basis for accounting (common for water/wastewater districts)
- Accrual system better matches revenues and expenses
- Develop a Uniform System of Accounts (USOA), better suited to presentation and analysis
- Record capital expenditures as fixed assets and record depreciation
- Record non-refundable developer-paid connection fees and infrastructure fees as Contributions-In Aid of Construction (CIAC). These fees are capital related and can be amortized.



KVID – Revenue Requirements <u>A Rate Increase is Needed Now</u>

Reasons for the Needed Increase in Revenues:

- Increases in Operating Expenses
 - Inflation alone over the last 11 years would necessitate approximately 21% increase in expenses
- Funding the 20 Year Capital Improvement Plan
 - Approximately \$5.5M in Capital Improvements and ongoing investment in the existing infrastructure
- Financial Stability in order to Provide Safe and Reliable Service.

- Revenue Scenarios and Rate Models
 - Looking at the identified needs, Staff is presenting three potential scenarios regarding our Revenue Requirements.
 - Options for potential Rate Models to capture the needed revenue will be discussed later.

<u>Scenario 0</u> – No change in rates as KVID pursues the identified improvements



Scenario 0 – Results

 Current predictions indicate that if KVID maintains current operations and pursues the recommended Capital Improvements, then KVID will run out of cash by 2020.



Scenario 1 – PayGo

- Spreading out CIP items as much as is advisable to accommodate a <u>pay as you go</u> approach.
- Address critical items (sludge handling, clarifier, altitude valves) immediately using the revenue stream and some existing fund balance, moving on to the infrastructure replacement as the fund balance recovers.
- Accommodate expected operational costs and potential governance transition.
- Maintain fund balance reserves of \$750,000

- Scenario 1 PayGo Results
 - Overall additional revenue requirements increased by 59.7% (\$690,000 annually).
 - Suggested three-year phase in:
 - Year One 23.88% increase in costs to customers
 - Year Two 16.00% increase in costs to customers
 - Year Three 13.51% increase in costs to customers

Scenario 2 – Financing

- Address critical items (sludge handling, clarifier, altitude valves) immediately with financing to implement needed items sooner, then implementation of overall infrastructure replacement over time.
- Pursue debt financing through WIFA (20 year terms at approximately 3%).
- Accommodate expected operational costs and potential governance transition.
- Maintain fund balance reserves of \$750,000

- Scenario 2 Financing Results
 - Overall additional revenue requirements increased by 51.48% (\$595,000 annually).
 - Suggested three-year phase in:
 - Year One 20.59% increase in costs to customers
 - Year Two 14.00% increase in costs to customers
 - Year Three 12.05% increase in costs to customers

Cash Projections - includes recommended revenue increase in 2023



KVID - Rate Model



KVID – Rate Model – Current State

With an understanding of our new Revenue Requirements, the next focus is on the Rate Models, the method we will be using to capture the needed revenue.

Evaluation of potential Rate Models required an analysis of how our current rate structure is working and who our customers are.

KVID - Rate Model - Current State

- **Current Rate Structure**
 - Six Block Inverted Tier Structure to promote conservation
 - Few customers ever reach the higher Tiers of our current rate structure
 - 73% of revenue captured from the fixed charge of the base rate (combined water and sewer)
 - 97% of revenue captured by Tiers one and two
 - Only 3% of revenue captured by tiers three through six

KVID - Rate Model - Current State

Current Rate Structure (continued)

- 98.6% of our customers are Single Family Residential (SFR) with average monthly usage of around 2,800 gallons.
- The current water and sewer bill for KVID's average SFR customer at 2,800 gallons is about \$60 per month.
- The 2,800 gallon a month SFR customer pays about \$46 on the base rates and \$14 on usage.



KVID - Rate Model - Current State

Customer Base

- Most billings (60%) are for less than 3,000 gallons (Tier 1).
- More than 90% of billings are less than 6,000 gallons (Tier 2).
- 69% of all water sold is within the Tier 1, with 92% of all water sold by the Tier 2 (by gallons).
- SFR connections make up 98.6% of customers.
- SFR customers average monthly usage is about 2,800 gallons, about half of the national average.

KVID – Rate Model – Current State

<u>Conclusion</u> – Kachina Village residents are conserving water and most have little discretionary usage.





With the increased cost of operations and pursuit of the identified Capital Improvements necessitating an increase in revenue, the next step has been to develop Rate Models that will capture the needed revenue.



Potential Rate Models <u>Model 1 – Increases Across the Board</u>

- Retains Inverted Tier Structure to promote continued conservation
- Existing Tier Structure remains unchanged
- All water rates (fixed and commodity) increase by about 93.2% for Scenario 1 and about 85.8% for Scenario 2.
- All wastewater rates (fixed and commodity) increased by about 39.1% for Scenario 1 and about 29.9% for Scenario 2.
- Overall increase of about 53% at the average usage on all utility bills for SFR customers.

Model 1 - Increases Across the Board - Impacts

- Maintains the same structure as our current rates
- 73% of revenue captured from the fixed charge of the base rate (water and sewer combined)
- Approximately 97% of revenue captured by the 2nd Block
- All customers, regardless of classification, will see the same percentage of an increase to their bills (assuming their usage remains unchanged).



Model 1 - Increases Across the Board

 The 2,800 gallon average Single Family Residential user's monthly bill (combined water and sewer) of approximately \$60 will increase to approximately:

- <u>Scenario 1 PayGo</u>
- \$74 per month in 2018
- \$85 per month in 2019
- \$96 per month in 2020

- <u>Scenario 2 Financing</u>
- \$72 per month in 2018
- \$81 per month in 2019
- \$91 per month in 2020

<u>Model 2 – Mitigating Increases for Average Single Family</u> <u>Residential Customers</u>

- Retains Inverted Tiers to promote continued conservation
- Existing Tier Structure reduced to only 5 Tiers (additional higher Tiers proved unnecessary as few customers used enough water)
- Base rates for water were raised less than the commodity rates (as a percentage).
- The 1st Tier Commodity Rate is increased less (as a percentage) than other Tier commodity rates to help mitigate the impact on the average customer

<u>Model 2 – Mitigating Increases for Average SFR Customers –</u> <u>Impacts</u>

- Maintains a similar structure as our current rates, the Tiers remain unchanged for most customers
- Reduction to only 65% of revenue captured from the fixed charge of the base rate for both water and sewer
- Approximately 95% of revenue captured by the 2nd Block



<u>Model 2 – Mitigating Increases for Average Single Family</u> <u>Residential Customers</u>

- The 2,800 gallon average Single Family Residential user's monthly bill (combined water and sewer) of approximately \$60 will increase to approximately:
- <u>Scenario 1 PayGo</u>
- \$72 per month in 2018
- \$81 per month in 2019
- \$90 per month in 2020

- <u>Scenario 2 Financing</u>
- \$70 per month in 2018
- \$78 per month in 2019
- \$86 per month in 2020

Model 3 - Targeted Increases

- Retains Inverted Tier Structure to promote continued conservation
 Existing Tier Structure reduced to only 5 Tiers (additional higher
- Tiers proved unnecessary as few customers used enough water)
- Base rates for water and wastewater were raised less than the commodity rates (as a percentage). Commodity rate for 1st Tier increased by same percentage as other tiered commodity rates.



Model 3 - Targeted Increases - Impacts

- Maintains a similar structure as our current rates, the Tiers remain unchanged for most customers
- Reduction to only 65% of revenue captured from the fixed charge of the base rate for both water and sewer combined
- Approximately 96% of revenue captured by the 2nd Block for both water and sewer



Model 3 - Targeted Increases

 The 2,800 gallon average Single Family Residential user's monthly bill (combined water and sewer) of approximately \$60 will increase to approximately:

- <u>Scenario 1 PayGo</u>
- \$73 per month in 2018
- \$83 per month in 2019
- \$93 per month in 2020

- <u>Scenario 2 Financing</u>
- \$71 per month in 2018
- \$80 per month in 2019
- \$88 per month in 2020

Recommendation:

- Staff recommends bringing current Revenue Requirement Scenarios and Rate Models forward to the Citizens Advisory Committee
- Staff considers <u>Revenue Requirement Scenario 2 Financing</u> and <u>Rate Model 3 – Targeted Increases</u> to be the frontrunners of this process, as they mitigate the impact of the rate increase and protect the utility's financial future.
- This recommendation supports investment in KVID's critical infrastructure needs, operational costs, and the potential of a governance transition.

Next Steps

- Bringing our Rate Analysis and Recommendations to the Public
 - Citizens Advisory Committee (September 2017)
 - Open House and Public Forums (Concurrent with the CAC)
- Prepare Citizen Recommendations and Present to the Board (November 2017)
- Official Public Comment Period (November to December 2017)
- Final Board Approval (by January 1, 2018 new rates implemented)

Questions and Discussion

