

BOARD WORKSHOP

Steven Palmer, General Manager

Georgetown Divide Public Utility District

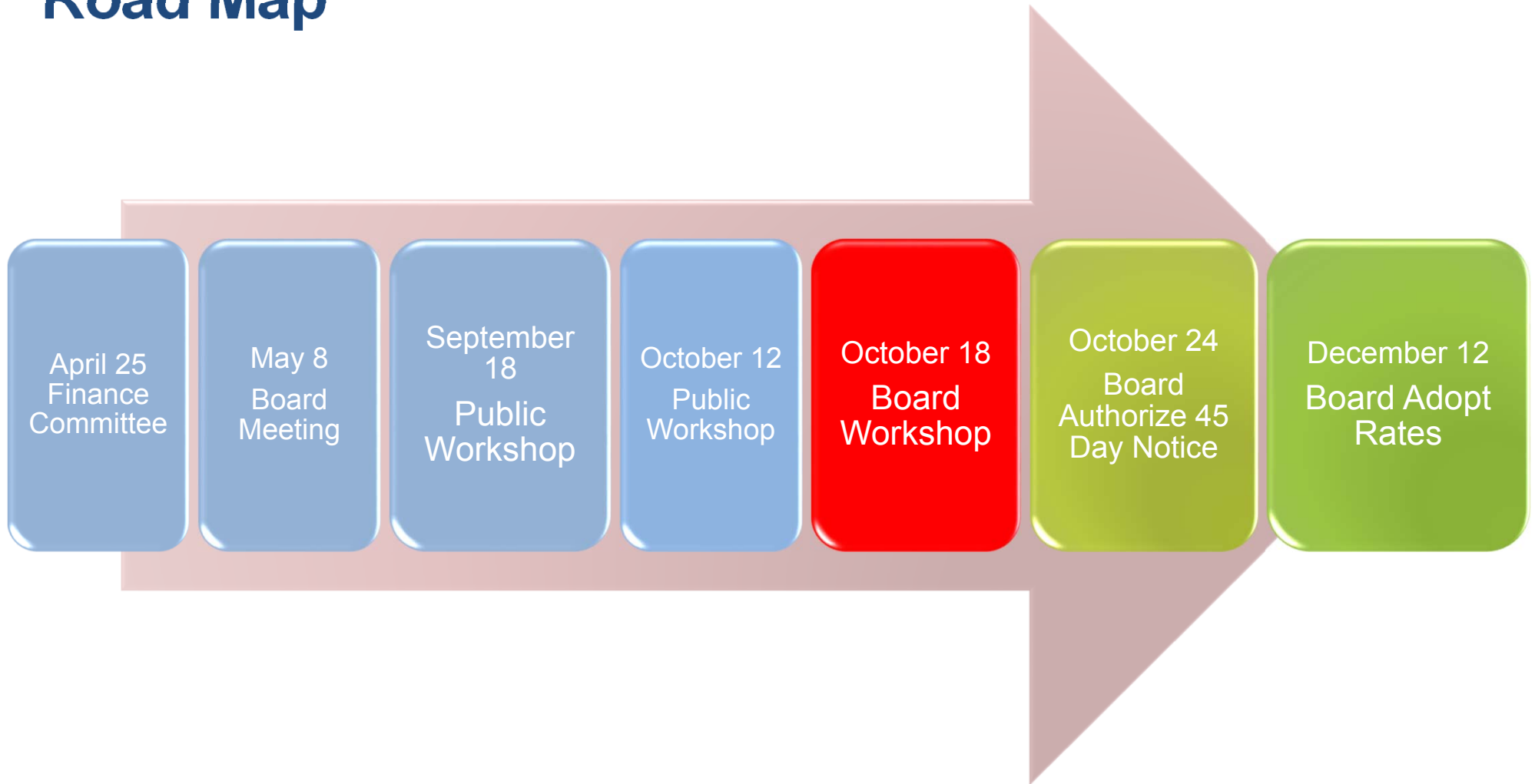
John Van den Bergh, Rural Development Specialist

Rural Community Assistance Corporation

Community & Environmental Services

October 18, 2017

Road Map



October 18 Board Workshop Objectives

Board's first time
Inform

- Rate Study
Methodology
- Rate Scenarios
- Workshop Summary

Direction



GDPUD Mission Statement

It is the purpose of the Georgetown Divide Public Utility District to:

- Provide reliable water supplies
- Ensure high quality drinking water
- Promote stewardship to protect community resources, public health and quality of life
- Provide excellent and responsive customer services through dedicated and valued staff
- Ensure fiscal responsibility and accountability are observed by balancing immediate and long term needs



Why Perform a Rate Study Now?

- Last updated in 2008
- No increase since 2011
- Industry standard is to review rates every 3-5 years
- Not enough reserves to pay for needed replacements and preventative maintenance
- Affordability ratio is too low to qualify for grants and loans
- Debt coverage ratio is too low to obtain loans

Why Perform a Rate Study Now?

- Current rates based on 2007 actuals only
- 2008 Study recommended rate increases to 2013
- 2008 Board only adopted increases to 2011

| | Adopted Maximum | Recommended Maximum |
|------------|------------------------|----------------------------|
| Treated | \$23.57 per month | \$26.49 per month |
| Irrigation | \$72.74 per MI per mo | \$88.01 per MI per month |

Public Workshop #1

- September 18, 2017 – 5:30pm at Georgetown Elementary School
- 30 attendees
- Staff presentation
 - Condition of water system
 - Condition of finances
 - Rate study methodology
 - Legal constraints
 - Policy questions
- Small Group Breakouts
 - Mission Statement
 - How to pay for repairs and maintenance – cash, grants, loans
 - Base rate versus usage rate
 - How to use property tax?
 - Property tax allocation to treated and irrigation

What We Heard – Workshop #1

- Agree with mission statement.
- Recognize the state of the water supply system is deficient.
- Recognize that the District's financial situation is unsustainable.
- Recognize the need to increase rates to fund operations and capital replacement
- They would like to avoid large rate increases during the first year.
- Recommend keeping the base rate low, and emphasize the usage rate.
- Want the District to be fiscally prudent.
- Believe there should be some consideration in the form of rate reduction for irrigation customers since they are subject to water being shutoff at any moment. For example, during droughts.
- Property tax should be used to fund capital reserves
- Property tax in capital reserves should be split between irrigation and treated water enterprises base on the relative asset value (85% treated, 15% irrigation).
- Use cash as much as possible, unless this makes rates too high.
- Reported to Board on October 3, 2017

Public Workshop #2

- October 12, 2017 – 5:30pm at Cool Community Hall
- 21 attendees
- Staff presentation
 - Brief overview of Workshop #1
 - Summary of comments from Workshop #1
 - Presented overall methodology and results for three scenarios:
 - Scenario 1 – Allocate property tax 85% to treated, 15% to irrigation
 - Scenario 2 – Allocate property tax 74% to treated, 26% to irrigation
 - Scenario 3 – Allocate property tax 50% to treated, 50% to irrigation
 - Presented detailed calculations for Scenario 2
- Answered questions
- Received written and oral comments from attendees

What We Heard – Workshop #2

- Concern that employee wages and benefits are too high.
- Concern that staffing at recommended level is too high
- Provide staff salary and benefits information on the website
- General Administration cost allocation is too high for irrigation water (31% irrigation, 67% treated, 2% wastewater)
- Other revenue such as leases and SMUD should be split between treated and irrigation water reserves.
- Base rate for 5/8", 3/4", and 1-inch meter customers should be the same. The usages are similar, 5/8" meters are being phased out by the District, and the 1-inch meters are typically only needed by residential customers for fire flows.
- Rates should consider that the water rights and ditches were originally meant for irrigation.
- The rate study should take into consideration that the increased volume of water used by irrigation customers secures those water rights
- Increased irrigation rates may result in loss of customers and less irrigation water use, thereby harming the environment. An Environmental Impact Report should be required because of this potential impact

What We Heard – Workshop #2

- Please provide rate calculations for typical water usage, instead of average bill.
- Compare the calculated rates to other agencies
- The base rate is too high. There should be no base rate and only usage rate. The usage rate should include establishing a drought reserve fund.
- Board meetings should be in the evenings so working people can attend.
- Goal should be to meet annual capital reserve contribution in 8 years instead of 5 years
- Reduce annual contributions to capital reserve
- Include a ballot with the Proposition 218 notice
- Support the scenario that split property tax revenue 85% to treated water and 15% to irrigation water.
- Cut hookup fees to increase new customers
- Would like to see treated water customers increased to between 4,000 and 4,500; and irrigation customers to 600

Rate Study Calculations

- John Van den Bergh, Rural Community Assistance Corporation
- Explain rate study calculations
- Three scenarios that were presented at Public Workshop #2
- Five new scenarios based on input from Public Workshop #2

Guiding Principles of this Rate Study

- Sustainable
- Fair
- Conservation
- Justifiable

Legal Issues

- No tiered rates, unless they can be justified with cost data
 - Capistrano Tax Payers Associations vs City of San Juan Capistrano
- No 2000 CF included in the Base rate
 - Article XIII D, Section 6: “A fee imposed on any parcel must not exceed the proportional cost of the service.”

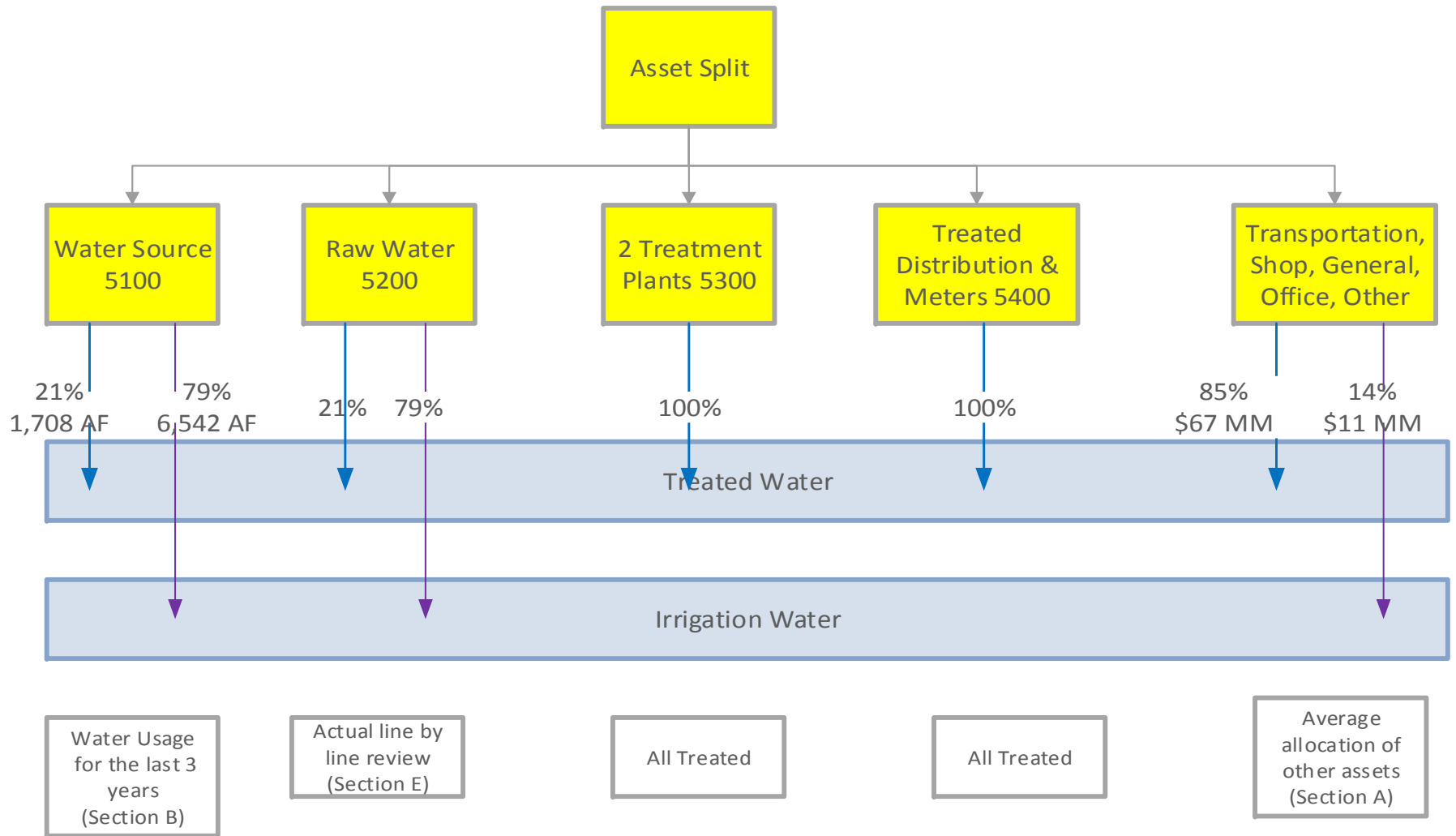
Treated vs Irrigation Water

Reasons for splitting

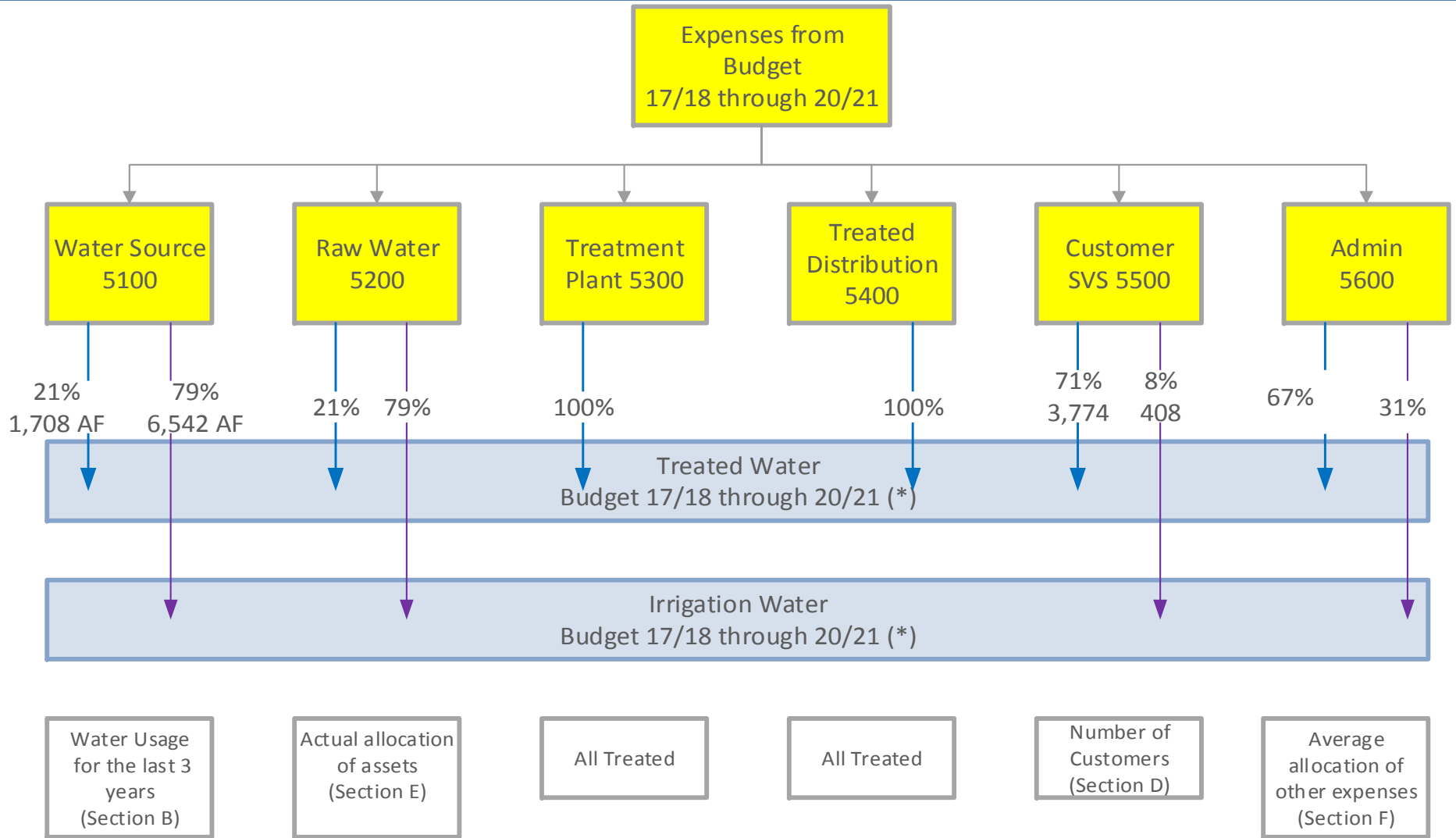
- Legal requirements
- Different assets
- Different cost structure
- Different rates

Split

- Assets
- Budget
- Reserves
- Debts



Split Criteria



Treated vs Irrigation Water

Reasons for splitting

- Legal requirements
- Different assets
- Different cost structure
- Different rates

Split

- Assets
- Budget
- Reserves
- Debts

Split of Water Source 5100 (Volume)

| | 2012 | 2013 | 2016 | Average |
|-------------------------|--------------|--------------|---------------------|--------------|
| Treated Sales | 1,591 | 1,671 | 1,262 | 1,508 |
| <u>Treated Loss</u> | <u>200</u> | <u>200</u> | <u>200</u> | <u>200</u> |
| Total Treated | 1,791 | 1,871 | 1,462 | 1,708 |
| | | | | |
| Irrigation Sales | 4,681 | 4,692 | 4,654 | 4,676 |
| <u>Irrigation Loss</u> | <u>2,000</u> | <u>1,800</u> | <u>1,800</u> | <u>1,867</u> |
| Total Irrigation | 6,681 | 6,492 | 6,454 | 6,542 |
| | | | % Treated | 21% |
| | | | % Irrigation | 79% |

Split of Raw Water 5200 (Assets)

| | Irrigation | Treated |
|---|--------------------------|-------------------------|
| Manual Review | \$ 280,374.35 | \$ 106,131.22 |
| Shared (\$ 7,354,148.20) (split by volume) | \$ 5,809,777.08 (79%) | \$1,544,371.12 (21%) |
| Total | \$ 6,112,052.53 | \$ 1,628,601.24 |

Split of Customer Service 5500 (Number of Customers)

| | | |
|------------------|-------|------|
| Treated Water | 3,774 | 71% |
| Irrigation Water | 408 | 8% |
| Wastewater | 1,099 | 21% |
| Total | 5,281 | 100% |

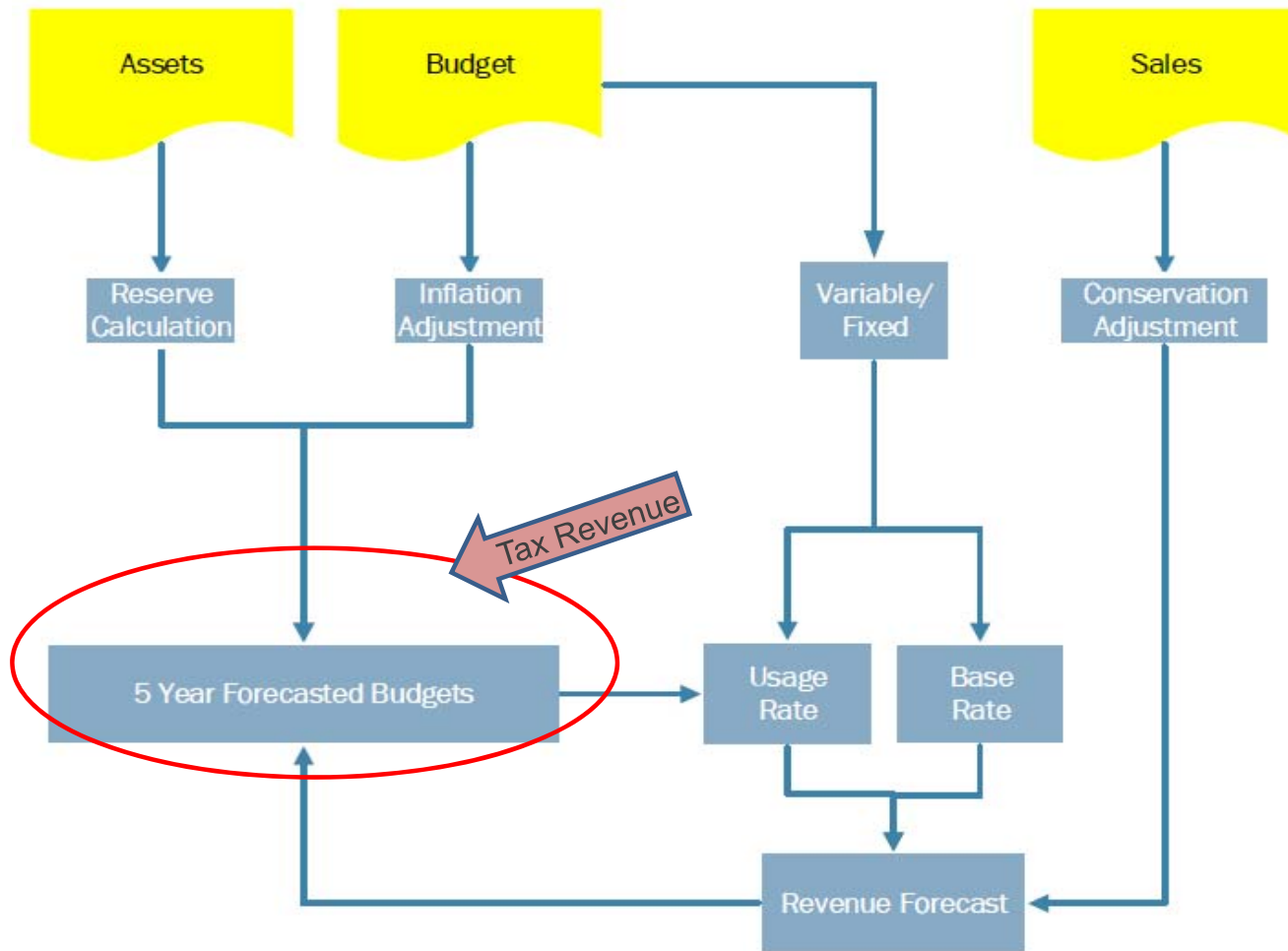
Split of Other Assets

| Description | Irrigation Water Current Value | Treated Water Current Value | Wastewater Current Value |
|--------------------------------------|--------------------------------|-----------------------------|--------------------------|
| Source of Supply Plant | \$ 8,429,083.56 | | |
| Lake Walton Plant | | \$ 4,354,198.53 | |
| Auburn Lake Trails Plant | | \$ 3,339,546.34 | |
| Transmission/Distribution Irrigation | \$ 2,143,708.19 | \$8,045,221.12 | |
| Meters and Meter Boxes | \$ 35,811.43 | \$ 316,860.95 | |
| Transmission/Distribution Treated | | \$ 48,487,228.12 | |
| Wastewater Collection Plant | | | \$ 1,035,876.51 |
| Total | \$10,608,603.18 (14%) | \$ 66,783,697.53 (85%) | \$ 1,035,876.51 (1%) |

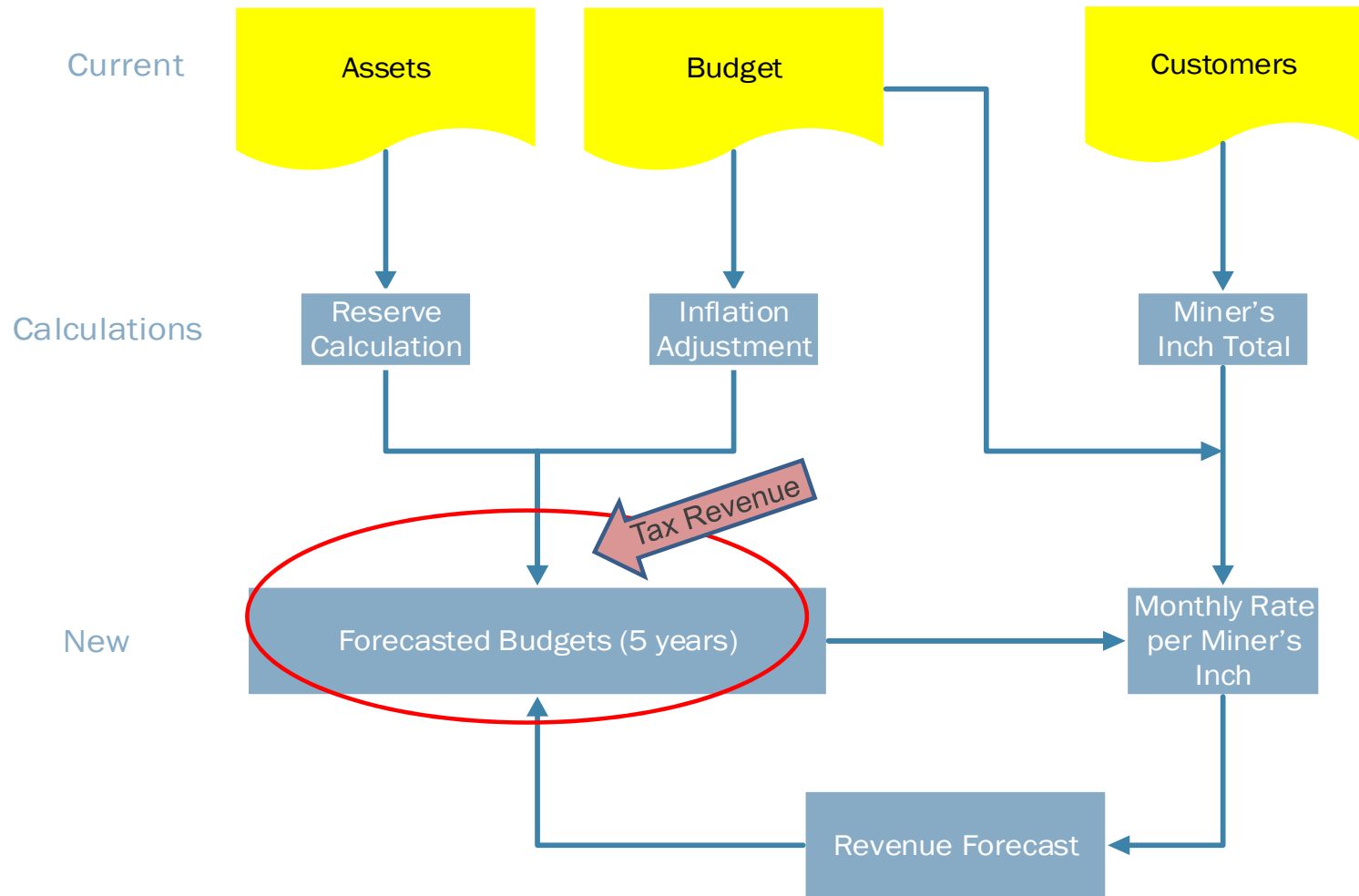
Split of Administration Costs

| | Source (5100) | Irrigation (5200) | Treatment (5300) | Treated Distribution (5400) | Customer Service (5500) | Admin (5600) |
|------------|---------------|-------------------|------------------|-----------------------------|-------------------------|--------------|
| Total | \$ 443,277 | \$ 730,715 | \$ 681,570 | \$ 901,293 | \$ 265,171 | \$ 1,198,350 |
| Treated | 20.702% | 21.040% | 100% | 100% | 71.464% | 66.772% |
| Irrigation | 79.298% | 78.960% | 0% | 0% | 7.726% | 31.402% |
| Wastewater | 0% | 0% | 0% | 0% | 20.810% | 1.826% |

Rate Setting using Water Meters



Rate Setting using Miner's Inches



Possible split of Tax Revenue (\$1,569,000) between Treated and Irrigation Water

1. Asset Value: 85% Treated, 15% Irrigation
\$1,333,650 / \$235,350
2. Costs: 74% - 26%
\$1,161,060 / \$407,940
3. Evenly: 50% - 50%
\$784,500 / \$784,500

SAMPLE CALCULATION - Scenario 2

2. Property Tax Allocation Based on Costs:

74% Treated - 26% Irrigation

\$1,161,060 / \$407,940

Reserve Calculation (Treated Water)

| Component | Year Acquired | Unit Cost (Historic, Current or Future) | Cost Type (H, C, F) | Estimated Historic Cost | Normal Estimated Life | Current Age | Estimated Current Cost | Planned Remaining Life | Estimated Remaining Life | Estimated Future Cost | Fund with Cash | Fund with Grant | Fund with Loan | Existing Reserves | Annual Reserve Required |
|---|---------------|---|---------------------|-------------------------|-----------------------|-------------|------------------------|------------------------|--------------------------|-----------------------|----------------|-----------------|----------------|-------------------|-------------------------|
| 5300 - Lake Walton WTP | | | | | | | | | | | | | | \$0 | |
| Lake Walton Plant Replacement (4) | 1992 | \$12,728,909 | C | \$7,681,448 | 50 | 25 | \$12,728,909 | 25 | 25 | \$20,883,124 | 25% | | 75% | \$817,318 | \$152,158 |
| Raw Water Bypass (1) | 1974 | \$500,000 | C | \$209,745 | 40 | 43 | \$500,000 | -3 | 19 | \$728,406 | 25% | | 75% | \$28,508 | \$7,250 |
| Lake Walton Outlet Works (1) | 1974 | \$50,000 | C | \$20,974 | 40 | 43 | \$50,000 | -3 | 19 | \$72,841 | 100% | | 0% | \$11,403 | \$2,900 |
| Lake Walton Dredging (1) | 1974 | \$500,000 | C | \$301,732 | 40 | 25 | \$500,000 | 15 | 22 | \$772,990 | 25% | | 75% | \$30,253 | \$6,522 |
| | | | | | | 43 | | -43 | | | | | | \$0 | |
| 5300 - AUBURN LAKE TRAILS PLANT | | | | | | | | | | | | | | \$0 | |
| ALT Water Treatment Plant (4) | 2018 | \$12,728,909 | C | \$12,988,683 | 50 | -1 | \$12,728,909 | 51 | 51 | \$34,946,199 | 25% | | 75% | \$1,367,714 | \$105,338 |
| | | | | | | | | | | | | | | \$0 | |
| | | | | | | | | | | | | | | \$0 | |
| 5400 T & D METERS & METER BOXES | | | | | | | | | | | | | | \$0 | |
| Automated Meter Reading and Meter Replacement Project (5) | 2018 | \$1,745,800 | C | \$1,781,429 | 20 | -1 | \$1,745,800 | 21 | 2 | \$1,816,330 | 25% | | 75% | \$71,087 | \$190,368 |

| Component | Year Acquired | Unit Cost (Historic, Current or Future) | Cost Type (H, C, F) | Estimated Historic Cost | Normal Estimated Life | Current Age | Estimated Current Cost | Planned Remaining Life | Estimated Remaining Life | Estimated Future Cost | Fund with Cash | Fund with Grant | Fund with Loan | Existing Reserves | Annual Reserve Required |
|---|---------------|---|---------------------|-------------------------|-----------------------|-------------|------------------------|------------------------|--------------------------|-----------------------|----------------|-----------------|----------------|-------------------|-------------------------|
| OFFICE EQUIPMENT (3) | | | | | | | | | | | | | | \$0 | |
| Computer Network | 2001 | \$3,254 | H | \$3,254 | 10 | 16 | \$4,468 | -6 | 5 | | 100% | | 0% | \$0 | |
| Canon Copier | 2002 | \$4,795 | H | \$4,795 | 10 | 15 | \$6,454 | -5 | 5 | \$7,125 | 100% | | 0% | \$1,115 | \$1,174 |
| Phone System (Equip&Software) | 2002 | \$4,744 | H | \$4,744 | 3 | 15 | \$6,385 | -12 | 5 | \$7,049 | 100% | | 0% | \$1,104 | \$1,161 |
| Dell Server & software | 2005 | \$2,185 | H | \$2,185 | 3 | 12 | \$2,771 | -9 | 5 | | 100% | | 0% | \$0 | |
| 5 DELL Computers | 2007 | \$4,637 | H | \$4,637 | 5 | 10 | \$5,652 | -5 | 5 | \$6,240 | 100% | | 0% | \$977 | \$1,028 |
| | | | | | | | | | | | | | | \$0 | |
| DISTRIBUTION (3) | | | | | | | | | | | | | | \$0 | |
| Pressure Reducing Valves | 1987 | \$2,455 | H | \$93,278 | 40 | 30 | \$168,960 | 10 | 10 | \$205,961 | 50% | 50% | 0% | \$16,122 | \$8,231 |
| Air Relief Valves | 1987 | \$709 | H | \$121,970 | 40 | 30 | \$220,932 | 10 | 10 | \$269,315 | 50% | 50% | 0% | \$21,081 | \$10,763 |
| Isolation Valves | 1987 | \$2,291 | H | \$966,816 | 40 | 30 | \$1,751,254 | 10 | 10 | \$2,134,769 | 25% | 75% | 0% | \$83,550 | \$42,656 |
| Other Valves | 1987 | \$2,018 | H | \$498,518 | 40 | 30 | \$902,997 | 10 | 10 | \$1,100,748 | 25% | 75% | 0% | \$43,081 | \$21,995 |
| Firehydrants | 1987 | \$3,273 | H | \$1,901,558 | 60 | 30 | \$3,444,410 | 30 | 30 | \$6,239,071 | 25% | 75% | 0% | \$244,183 | \$36,701 |
| Pressure Reducing Valves | 2017 | \$5,000 | C | \$100,000 | 40 | 0 | \$100,000 | 40 | 40 | \$220,804 | 50% | | 50% | \$17,284 | \$1,826 |
| | | | | | | | | | | | | | | \$0 | |
| Subtotal Existing Capital Assets | | | | \$45,444,111 | | | \$79,203,010 | | | \$124,327,988 | 26% | 6% | 67% | \$5,142,180 | \$1,995,633 |

Annual Reserve Requirement: \$1,995,633

Funding of Projects

| Default Funding of CIP | | Cash | Grant | Loan |
|---------------------------------|--------------|---------|-------|------|
| \$0 | \$50,000 | 100% | 0% | 0% |
| \$50,001 | \$100,000 | 75% | 0% | 25% |
| \$100,001 | \$500,000 | 50% | 20% | 30% |
| \$500,001 | \$9,999,999 | 25% | 20% | 55% |
| \$10,000,000 | \$99,999,999 | 25% | 20% | 55% |
| Capitalization Threshold | | \$5,000 | | |

Budget (Treated Water)

| EXPENSES AND SOURCES OF FUNDS | 2017 | 2018 | 2019 | 2020 | 2021 |
|---|---------------------|---------------------|---------------------|---------------------|---------------------|
| OPERATIONS & MAINTENANCE EXPENSES | | | | | |
| Personnel Related | 1,999,518.21 | 2,081,721.95 | 2,168,566.51 | 2,251,341.22 | 2,296,368.04 |
| Materials and Supplies | 147,315.56 | 154,681.34 | 162,415.40 | 170,536.17 | 173,946.90 |
| Rental/Durable | 9,191.05 | 9,650.60 | 10,133.13 | 10,639.79 | 10,852.58 |
| Staff Development | 8,419.81 | 8,840.80 | 9,282.84 | 9,746.98 | 9,941.92 |
| Travel-Conference | 7,759.10 | 8,147.05 | 8,554.41 | 8,982.13 | 9,161.77 |
| Utilities | 180,729.69 | 189,766.18 | 199,254.48 | 209,217.21 | 213,401.55 |
| Vehicle & Equipment Maintenance | 2,627.81 | 2,759.20 | 2,897.16 | 3,042.02 | 3,102.86 |
| Vehicle Operations | 20,484.03 | 21,508.23 | 22,583.64 | 23,712.82 | 24,187.08 |
| Building Maintenance | 6,675.63 | 7,009.41 | 7,359.88 | 7,727.88 | 7,882.44 |
| Govt. Reg./Lab Fees | 55,904.33 | 58,699.55 | 61,634.53 | 64,716.25 | 66,010.58 |
| Outside Service/Consultants | 57,996.31 | 60,896.12 | 63,940.93 | 67,137.98 | 68,480.73 |
| | | 0.00 | 0.00 | 0.00 | 0.00 |
| Total Operation and Maintenance Expenses: | 2,496,621.52 | 2,603,680.43 | 2,716,622.91 | 2,826,800.44 | 2,883,336.45 |
| GENERAL & ADMINISTRATIVE EXPENSES | | | | | |
| Retiree Health Premium | 90,810.00 | 95,350.62 | 100,118.15 | 105,124.06 | 107,226.54 |
| Debt Reserve | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Operating Reserve | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Emergency Reserve | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Existing Capital Replacement Program | 1,995,633.36 | 1,991,412.99 | 1,823,748.89 | 1,823,748.89 | 1,823,748.89 |
| Funded Project Replacement Program | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Future Capital Improvement Program | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Debt Payments (Principle + Interest) | 59,348.26 | 59,348.26 | 144,112.12 | 144,112.12 | 144,112.12 |
| Legal, Audit, Insurance, | 125,567.54 | 131,845.92 | 138,438.21 | 145,360.12 | 148,267.33 |
| Other General & Administrative | 105,037.25 | 110,289.11 | 115,803.57 | 121,593.75 | 124,025.62 |
| Total General and Administrative Expenses: | 2,376,396.41 | 2,388,246.90 | 2,322,220.95 | 2,339,938.95 | 2,347,380.51 |
| TOTAL EXPENSES | 4,873,017.93 | 4,991,927.33 | 5,038,843.87 | 5,166,739.39 | 5,230,716.96 |

Rate Study Budget

- Based on recommended organizational chart from June 2017 Budget Presentation
- Addresses deficiencies:
 - Accounting and finance management
 - Contract administration
 - Human resources management
 - Records management
 - Succession planning
 - Drinking water quality oversight & reporting
 - Water rights monitoring, reporting, and permitting

Rate Study Budget

- Addresses deficiencies (continued):
 - Water rights monitoring, reporting, and permitting
 - Wastewater reporting and permitting
 - Storm water reporting and permitting
 - Capital project management
 - Capital project planning
 - Infrastructure master plan
 - Asset management

Rate Study Budget

- 5-Year Projections
 - From Draft Long Range Financial Forecast (April 2017)

| Revenue | Forecast Growth per Year |
|-----------------------|--------------------------|
| Water Sales | 1.1% |
| Property Tax | 3.0% |
| Misc (penalties, etc) | 2.5% |

| Expenses | Forecast Growth per Year |
|----------------------|--------------------------|
| Salary | 2.5% after 17/18 |
| Pension | 6.0% after 20/21 |
| Health Insurance | 6.0% |
| Payroll Tax | 2.5% |
| Materials & Supplies | 5.0% |

Fixed – Variable Expense Split

| | 2017 | % Fixed | \$ Fixed | \$ Variable |
|---|-----------------------|---------|-----------------------|---------------------|
| OPERATIONS & MAINTENANCE EXPENSES | | | | |
| Personnel Related | \$1,999,518.21 | 100% | \$1,999,518 | \$0 |
| Materials and Supplies | \$147,315.56 | 50% | \$73,658 | \$73,658 |
| Rental/Durable | \$9,191.05 | 50% | \$4,596 | \$4,596 |
| Staff Development | \$8,419.81 | 100% | \$8,420 | \$0 |
| Travel-Conference | \$7,759.10 | 80% | \$6,207 | \$1,552 |
| Utilities | \$180,729.69 | 5% | \$9,036 | \$171,693 |
| Vehicle & Equipment Maintenance | \$2,627.81 | 50% | \$1,314 | \$1,314 |
| Vehicle Operations | \$20,484.03 | 50% | \$10,242 | \$10,242 |
| Building Maintenance | \$6,675.63 | 100% | \$6,676 | \$0 |
| Govt. Reg./Lab Fees | \$55,904.33 | | \$0 | \$55,904 |
| Outside Service/Consultants | \$57,996.31 | 80% | \$46,397 | \$11,599 |
| 0 | \$0.00 | | \$0 | \$0 |
| Total Operation and Maintenance Expenses: | \$2,496,621.52 | | \$2,166,064 | \$330,558 |
| GENERAL & ADMINISTRATIVE EXPENSES | | | | |
| Retiree Health Premium | \$90,810.00 | | \$0 | \$90,810 |
| Debt Reserve | \$0.00 | 100% | \$0 | \$0 |
| Operating Reserve | \$0.00 | 100% | \$0 | \$0 |
| Emergency Reserve | \$0.00 | 100% | \$0 | \$0 |
| Existing Capital Replacement Program | \$1,995,633.36 | 100% | \$1,995,633 | \$0 |
| Funded Project Replacement Program | \$0.00 | 100% | \$0 | \$0 |
| Future Capital Improvement Program | \$0.00 | 100% | \$0 | \$0 |
| Debt Payments (Principle + Interest) | \$59,348.26 | 100% | \$59,348 | \$0 |
| Legal, Audit, Insurance, | \$125,567.54 | 90% | \$113,011 | \$12,557 |
| Other General & Administrative | \$105,037.25 | 90% | \$94,534 | \$10,504 |
| Total General and Administrative Expenses: | \$2,376,396.41 | | \$2,262,525.93 | \$113,870.48 |
| Total All Expenses | \$4,873,017.93 | | \$4,428,589.61 | \$444,428.32 |
| Fixed-Variable as % of all Expenses | | | 90.88% | 9.12% |

Reserve Calculation (Irrigation Water)

| Component | Year Acquired | Unit Cost (Historic, Current or Future) | Cost Type (H, C, F) | Estimated Historic Cost | Normal Estimated Life | Current Age | Estimated Current Cost | Planned Remaining Life | Estimated Remaining Life | Estimated Future Cost | Fund with Cash | Fund with Grant | Fund with Loan | Existing Reserves | Annual Reserve Required |
|---------------------------|---------------|---|---------------------|-------------------------|-----------------------|-------------|------------------------|------------------------|--------------------------|-----------------------|----------------|-----------------|----------------|-------------------|-------------------------|
| Main Ditch #2 below ALT | 1964 | \$663,376 | C | \$227,375 | 40 | 53 | \$663,376 | -13 | 5 | \$732,421 | 25% | | 75% | \$10,814 | \$33,733 |
| Pilot Hill Ditch (Main) | 1964 | \$429,126 | C | \$147,084 | 40 | 53 | \$429,126 | -13 | 5 | \$473,790 | 50% | | 50% | \$13,990 | \$43,643 |
| Pilot Hill Ditch | 1964 | \$1,070,876 | C | \$367,047 | 40 | 53 | \$1,070,876 | -13 | 5 | \$1,182,334 | 25% | | 75% | \$17,456 | \$54,455 |
| Kelsey Ditch #1 | 1964 | \$571,625 | C | \$195,927 | 40 | 53 | \$571,625 | -13 | 5 | \$631,120 | 25% | | 75% | \$9,318 | \$29,068 |
| Kelsey Ditch #2 Imp | 1964 | \$1,112,565 | C | \$381,336 | 40 | 53 | \$1,112,565 | -13 | 5 | \$1,228,362 | 25% | | 75% | \$18,136 | \$56,575 |
| Spanish Dry Diggins Ditch | 1964 | \$37,375 | C | \$12,810 | 40 | 53 | \$37,375 | -13 | 5 | \$41,265 | 100% | | 0% | \$2,437 | \$7,602 |
| Taylor Mine Ditch | 1964 | \$36,563 | C | \$12,532 | 40 | 53 | \$36,563 | -13 | 5 | \$40,369 | 100% | | 0% | \$2,384 | \$7,437 |

Annual Reserve Requirement: \$369,748

Budget (Irrigation Water)

| EXPENSES AND SOURCES OF FUNDS | 2017 | 2018 | 2019 | 2020 | 2021 |
|---|---------------------|---------------------|---------------------|---------------------|---------------------|
| OPERATIONS & MAINTENANCE EXPENSES | | | | | |
| Personnel Related | 1,010,085.13 | 1,057,894.47 | 1,108,838.79 | 1,154,040.79 | 1,177,121.61 |
| Materials and Supplies | 28,784.44 | 30,223.66 | 31,734.85 | 33,321.59 | 33,988.02 |
| Rental/Durable | 15,808.95 | 16,599.40 | 17,429.37 | 18,300.84 | 18,666.86 |
| Staff Development | 3,232.67 | 3,394.31 | 3,564.02 | 3,742.22 | 3,817.07 |
| Travel--Conference | 2,708.41 | 2,843.83 | 2,986.02 | 3,135.32 | 3,198.03 |
| Utilities | 14,419.87 | 15,140.86 | 15,897.90 | 16,692.80 | 17,026.65 |
| Vehicle & Equipment Maintenance | 2,372.19 | 2,490.80 | 2,615.34 | 2,746.10 | 2,801.02 |
| Vehicle Operations | 15,015.97 | 15,766.77 | 16,555.11 | 17,382.87 | 17,730.53 |
| Building Maintenance | 2,669.15 | 2,802.61 | 2,942.74 | 3,089.88 | 3,151.68 |
| Govt. Reg./Lab Fees | 28,235.41 | 29,647.18 | 31,129.54 | 32,686.01 | 33,339.73 |
| Outside Service/Consultants | 46,167.03 | 48,475.39 | 50,899.15 | 53,444.11 | 54,512.99 |
| | | 0.00 | 0.00 | 0.00 | 0.00 |
| Total Operation and Maintenance Expenses: | 1,169,499.23 | 1,225,279.28 | 1,284,592.84 | 1,338,582.54 | 1,365,354.19 |
| GENERAL & ADMINISTRATIVE EXPENSES | | | | | |
| Retiree Health Premium | 42,706.00 | 44,842.00 | 47,084.00 | 49,438.00 | 50,426.76 |
| Debt Reserve | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Operating Reserve | 8,011.25 | 8,011.25 | 8,011.25 | 8,011.25 | 8,011.25 |
| Emergency Reserve | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Existing Capital Replacement Program | 369,747.83 | 364,974.01 | 364,974.01 | 364,974.01 | 364,974.01 |
| Funded Project Replacement Program | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Future Capital Improvement Program | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Debt Payments (Principle + Interest) | 1,043.74 | 1,043.74 | 0.00 | 0.00 | 0.00 |
| Legal, Audit, Insurance, | 58,056.40 | 60,959.22 | 64,007.18 | 67,207.54 | 68,551.69 |
| Other General & Administrative | 55,013.08 | 57,763.73 | 60,651.92 | 63,684.51 | 64,958.20 |
| Total General and Administrative Expenses: | 534,578.30 | 537,593.95 | 544,728.36 | 553,315.31 | 556,921.91 |
| TOTAL EXPENSES | 1,704,077.53 | 1,762,873.23 | 1,829,321.19 | 1,891,897.85 | 1,922,276.10 |

Setting the Rates

Base Rate Calculation for Treated Water

| Meter Size | Theoretical Base Rate by Meter Size, per 2M | Base Rate as % of Theoretical Rate | Existing Base Rate | Proposed Base Charge for Year 1 | Year 2 | Year 3 | Year 4 | Year 5 |
|------------|---|------------------------------------|--------------------|---------------------------------|------------|------------|------------|------------|
| | Future Increases | | | | 5.0% | 5.0% | 5.0% | 5.0% |
| 5/8" | \$82.68 | 90% | \$47.14 | \$ 74.41 | \$78.13 | \$82.04 | \$86.14 | \$90.45 |
| 3/4" | \$124.02 | 90% | \$47.14 | \$ 111.62 | \$117.20 | \$123.06 | \$129.21 | \$135.67 |
| 1" | \$206.70 | 90% | \$47.14 | \$ 186.03 | \$195.34 | \$205.11 | \$215.37 | \$226.14 |
| 1.5" | \$413.41 | 90% | \$47.14 | \$ 372.07 | \$390.67 | \$410.20 | \$430.71 | \$452.25 |
| 2" | \$661.45 | 90% | \$47.14 | \$ 595.31 | \$625.07 | \$656.32 | \$689.14 | \$723.60 |
| 3" | \$1,322.90 | 90% | \$47.14 | \$ 1,190.61 | \$1,250.15 | \$1,312.66 | \$1,378.29 | \$1,447.20 |
| 4" | \$2,067.04 | 90% | \$50.32 | \$ 1,860.34 | \$1,953.35 | \$2,051.02 | \$2,153.57 | \$2,261.25 |

Usage Rate Calculation

| Tier | Bottom of Tier | Top of Tier | Year 1, per 100 CF | Year 2 | Year 3 | Year 4 | Year 5 |
|-------------------------------------|------------------|-------------|--------------------|-----------|-----------|-----------|-----------|
| | Future Increases | | | 5.0% | 5.0% | 5.0% | 5.0% |
| 1 | - | 999,999 | \$2.2500 | \$2.36 | \$2.48 | \$2.60 | \$2.73 |
| Estimated profit/loss with new rate | | | -309,308 | -205,306 | -17,622 | 87,363 | 253,330 |
| Balanced Budget? | | | No | No | No | Yes | Yes |
| Estimate contribution to Reserves | | | 1,686,326 | 1,786,107 | 1,806,127 | 1,911,112 | 2,077,079 |
| Affordability Index MF | | 46,700.00 | 3.03% | 3.21% | 3.39% | 3.58% | 3.75% |
| Project funding \$30.16/2 months | | | 0.39% | 0.39% | 0.39% | 0.39% | 0.39% |
| Affordability of total rate | | | 3.42% | 3.59% | 3.78% | 3.96% | 4.14% |

Theoretical Base Rate Calculation

Date: 10/18/2017

| Meter Size (MI) | Meter Size (metric) | Number of Customers | Total MI | | % of Demand by MI Size | Total Costs Allocated by Meter Size | Theoretical Seasonal Rate by MI |
|-----------------|---------------------|---------------------|----------|--|------------------------|-------------------------------------|---------------------------------|
| A | B | C | D | | F= % of total D | G= % * total G | H=G/C |
| 1/2" | 0.500 | 38 | 19 | | 3.05% | \$52,054 | \$1,370 |
| 1" | 1.000 | 257 | 257 | | 41.32% | \$704,096 | \$2,740 |
| 1.5" | 1.500 | 21 | 32 | | 5.06% | \$86,300 | \$4,110 |
| 2" | 2.000 | 57 | 114 | | 18.33% | \$312,323 | \$5,479 |
| 2.5" | 2.500 | 11 | 28 | | 4.42% | \$75,341 | \$6,849 |
| 3" | 3.000 | 11 | 33 | | 5.31% | \$90,409 | \$8,219 |
| 3.5" | 3.500 | 0 | 0 | | 0.00% | \$0 | \$9,589 |
| 4" | 4.000 | 4 | 16 | | 2.57% | \$43,835 | \$10,959 |
| 5" | 5.000 | 4 | 20 | | 3.22% | \$54,793 | \$13,698 |
| 20" | 20.000 | 0 | 0 | | 0.00% | \$0 | \$34,793 |
| 25" | 25.000 | 1 | 25 | | 4.02% | \$68,492 | \$68,492 |
| 30" | 30.000 | 0 | 0 | | 0.00% | \$0 | \$82,190 |
| 40" | 40.000 | 0 | 0 | | 0.00% | \$0 | \$109,587 |
| 43" | 43.000 | 1 | 43 | | 6.91% | \$117,806 | \$117,806 |
| Total | | 408 | 622 | | 100.00% | \$1,704,078 | |

New Irrigation Rates

| Meter Size (MI) | Meter Size (metric) | Theoretical Seasonal Rate by MI | as % of Theoretical Rate | Proposed Base Charge for Year 1 | Year 2 | Year 3 | Year 4 | Year 5 |
|------------------|---------------------|---------------------------------|--------------------------|---------------------------------|----------|----------|-----------|-----------|
| Future Increases | | | | | 10.0% | 10.0% | 10.0% | 10.0% |
| 1/2" | 0.500 | \$1,370 | 65% | \$890 | \$979 | \$1,077 | \$1,185 | \$1,304 |
| 1" | 1.000 | \$2,740 | 65% | \$1,781 | \$1,959 | \$2,155 | \$2,370 | \$2,607 |
| 1.5" | 1.500 | \$4,110 | 65% | \$2,671 | \$2,938 | \$3,232 | \$3,555 | \$3,911 |
| 2" | 2.000 | \$5,479 | 65% | \$3,562 | \$3,918 | \$4,310 | \$4,740 | \$5,215 |
| 2.5" | 2.500 | \$6,849 | 65% | \$4,452 | \$4,897 | \$5,387 | \$5,926 | \$6,518 |
| 3" | 3.000 | \$8,219 | 65% | \$5,342 | \$5,877 | \$6,464 | \$7,111 | \$7,822 |
| 3.5" | 3.500 | \$9,589 | 65% | \$6,233 | \$6,856 | \$7,542 | \$8,296 | \$9,125 |
| 25" | 25.000 | \$68,492 | 65% | \$44,520 | \$48,972 | \$53,869 | \$59,256 | \$65,181 |
| 30" | 30.000 | \$82,190 | 65% | \$53,424 | \$58,766 | \$64,643 | \$71,107 | \$78,218 |
| 40" | 40.000 | \$109,587 | 65% | \$71,232 | \$78,355 | \$86,190 | \$94,809 | \$104,290 |
| 43" | 43.000 | \$117,806 | 65% | \$76,574 | \$84,231 | \$92,654 | \$101,920 | \$112,112 |

| | | | | | |
|---------------------------------------|--------------|--------------|--------------|--------------|--------------|
| Expenses from Budget | \$ 1,704,078 | \$ 1,762,873 | \$ 1,829,321 | \$ 1,891,898 | \$ 1,922,276 |
| Income Generated by the Selected Rate | \$ 1,107,650 | \$ 1,218,415 | \$ 1,340,257 | \$ 1,474,283 | \$ 1,621,711 |
| Net Gain or Loss | -188,487 | -128,359 | -64,643 | 15,294 | 141,002 |
| Balanced Budget? | No | No | No | Yes | Yes |
| Contributions to Reserve | \$ 189,272 | \$ 244,626 | \$ 308,342 | \$ 388,279 | \$ 513,987 |
| Target Contribution to Reserve | \$ 377,759 | \$ 372,985 | \$ 372,985 | \$ 372,985 | \$ 372,985 |

“New” Scenarios

- Based on feedback and input from Public Workshop #2
 - Initial - Scenario 2 from Public Workshop #2
 - A – All residential meters pay the same base rate
 - B – No Base Rate. All usage rate
 - C – Current staffing level (ie. Less than recommended)
 - D – Property tax revenue allocated 100% to irrigation
 - E – Property tax revenue split to provide equal percentage rate increase

Variables

- Meter sizes
- Split of tax revenue between Treated/Irrigation water
- Probability of Grants and Loans
- Staffing Level
- Base Rate vs Usage Charge
 - Fund fixed expenses with variable revenue
- Speed of rate increases over 5 years

Assumptions for all Scenarios

- CIP funding as approved
- Rates are shown for the 5th year
- No water included in Base
- No tiered Usage Charges
- Annual rate increases of 5% for the next 4 years.
- Reserves are not fully funded until the 4th year.

Initial Scenario

| Bi-Monthly Base Rate for Treated Water in Year 5 | | |
|--|---------------|------------|
| | Current | Initial |
| 5/8" | \$47.14 | \$90.45 |
| 3/4" | \$47.14 | \$135.67 |
| 1" | \$47.14 | \$226.14 |
| 1.5" | \$47.14 | \$452.25 |
| 2" | \$47.14 | \$723.60 |
| 3" | \$47.14 | \$1,447.20 |
| 4" | \$50.32 | \$2,261.25 |
| Usage per 100CF of Treated Water in Year 5 | | |
| All | \$1.38-\$2.21 | \$2.73 |
| Average Bi-Monthly Bill for 5/8" meter in Year 5, for 2100 CF | | |
| | \$84.18 | \$146.09 |
| | % Increase | 74% |
| Seasonal rate for Irrigation Water | | |
| 1 MI | \$363.70 | \$2,607.00 |
| | % Increase | 617% |

- Recommended staffing level
- Compounded annual increase since 2011:
 - Treated: 5.1%
 - Irrigation: 19.5%
- Tax revenue split according to need (expenses) 74% - 26%
- None of the scenarios consider:
 - Environmental impact
 - Past subsidies of irrigation water
 - Water rights

Alternative Scenario A

Bi-Monthly Base Rate for Treated Water in Year 5

| | Current | Initial | A |
|------|---------|------------|------------|
| 5/8" | \$47.14 | \$90.45 | \$103.32 |
| 3/4" | \$47.14 | \$135.67 | \$103.32 |
| 1" | \$47.14 | \$226.14 | \$103.32 |
| 1.5" | \$47.14 | \$452.25 | \$452.25 |
| 2" | \$47.14 | \$723.60 | \$723.60 |
| 3" | \$47.14 | \$1,447.20 | \$1,447.20 |
| 4" | \$50.32 | \$2,261.25 | \$2,261.25 |

Usage per 100CF of Treated Water in Year 5

| All | \$1.38-\$2.21 | \$2.73 | \$2.73 |
|-----|---------------|--------|--------|
| | | | |

Average Bi-Monthly Bill for 5/8" meter in Year 5, for 2100 CF

| | | | |
|------------|---------|----------|----------|
| | \$84.18 | \$146.09 | \$158.96 |
| % Increase | | 74% | 89% |

Seasonal rate for Irrigation Water

| | | | |
|------------|----------|------------|------------|
| 1 MI | \$363.70 | \$2,607.00 | \$2,607.00 |
| % Increase | | 617% | 617% |

- 5/8", 3/4" and 1" all pay the same base rate
- Recommended staffing level
- Tax revenue is split according to Expenses (TW/IW 74% - 26%)

Alternative Scenario B

| Bi-Monthly Base Rate for Treated Water in Year 5 | | | |
|--|---------------|------------|------------|
| | Current | Initial | B |
| 5/8" | \$47.14 | \$90.45 | \$0.00 |
| 3/4" | \$47.14 | \$135.67 | \$0.00 |
| 1" | \$47.14 | \$226.14 | \$0.00 |
| 1.5" | \$47.14 | \$452.25 | \$0.00 |
| 2" | \$47.14 | \$723.60 | \$0.00 |
| 3" | \$47.14 | \$1,447.20 | \$0.00 |
| 4" | \$50.32 | \$2,261.25 | \$0.00 |
| Usage per 100CF of Treated Water in Year 5 | | | |
| All | \$1.38-\$2.21 | \$2.73 | \$7.60 |
| Average Bi-Monthly Bill for 5/8" meter in Year 5, for 2100 CF | | | |
| | \$84.18 | \$146.09 | \$160.42 |
| | % Increase | 74% | 91% |
| Seasonal rate for Irrigation Water | | | |
| 1 MI | \$363.70 | \$2,607.00 | \$2,607.00 |
| | % Increase | 617% | 617% |

- No Base Rate. All Usage.
- Recommended staffing level
- Tax revenue is split according to Expenses (TW/IW 74% - 26%)

Alternative Scenario C

Bi-Monthly Base Rate for Treated Water in Year 5

| | Current | Initial | C |
|------|---------|------------|------------|
| 5/8" | \$47.14 | \$90.45 | \$81.28 |
| 3/4" | \$47.14 | \$135.67 | \$121.92 |
| 1" | \$47.14 | \$226.14 | \$203.20 |
| 1.5" | \$47.14 | \$452.25 | \$406.37 |
| 2" | \$47.14 | \$723.60 | \$650.19 |
| 3" | \$47.14 | \$1,447.20 | \$1,300.38 |
| 4" | \$50.32 | \$2,261.25 | \$2,031.84 |

Usage per 100CF of Treated Water in Year 5

| | Current | Initial | C |
|-----|---------------|---------|--------|
| All | \$1.38-\$2.21 | \$2.73 | \$2.73 |

Average Bi-Monthly Bill for 5/8" meter in Year 5, for 2100 CF

| | Current | Initial | C |
|------------|---------|----------|----------|
| | \$84.18 | \$146.09 | \$136.92 |
| % Increase | | 74% | 63% |

Seasonal rate for Irrigation Water

| | Current | Initial | C |
|------------|----------|------------|------------|
| 1 MI | \$363.70 | \$2,607.00 | \$1,814.00 |
| % Increase | | 617% | 399% |

- Current staffing level
- Tax revenue is split according to Expenses (TW/IW 74% - 26%)

Alternative Scenario D

Bi-Monthly Base Rate for Treated Water in Year 5

| | Current | Initial | D |
|------|---------|------------|------------|
| 5/8" | \$47.14 | \$90.45 | \$100.51 |
| 3/4" | \$47.14 | \$135.67 | \$150.75 |
| 1" | \$47.14 | \$226.14 | \$251.24 |
| 1.5" | \$47.14 | \$452.25 | \$502.50 |
| 2" | \$47.14 | \$723.60 | \$804.01 |
| 3" | \$47.14 | \$1,447.20 | \$1,608.00 |
| 4" | \$50.32 | \$2,261.25 | \$2,512.50 |

Usage per 100CF of Treated Water in Year 5

| All | \$1.38-\$2.21 | \$2.73 | \$4.90 |
|-----|---------------|--------|--------|
| | | | |

Average Bi-Monthly Bill for 5/8" meter in Year 5, for 2100 CF

| | | | |
|------------|---------|----------|----------|
| | \$84.18 | \$146.09 | \$200.17 |
| % Increase | | 74% | 138% |

Seasonal rate for Irrigation Water

| | | | |
|------------|----------|------------|----------|
| 1 MI | \$363.70 | \$2,607.00 | \$361.00 |
| % Increase | | 617% | -1% |

- Recommended staffing level
- All tax revenue goes to subsidize irrigation water
- Tax revenue is split according to Expenses (TW/IW 74% - 26%)

Alternative Scenario E

Bi-Monthly Base Rate for Treated Water in Year 5

| | Current | Initial | E |
|------|---------|------------|------------|
| 5/8" | \$47.14 | \$90.45 | \$100.51 |
| 3/4" | \$47.14 | \$135.67 | \$150.75 |
| 1" | \$47.14 | \$226.14 | \$251.24 |
| 1.5" | \$47.14 | \$452.25 | \$502.50 |
| 2" | \$47.14 | \$723.60 | \$804.01 |
| 3" | \$47.14 | \$1,447.20 | \$1,608.00 |
| 4" | \$50.32 | \$2,261.25 | \$2,512.50 |

Usage per 100CF of Treated Water in Year 5

| All | Current | Initial | E |
|-----|---------------|---------|--------|
| | \$1.38-\$2.21 | \$2.73 | \$4.03 |

Average Bi-Monthly Bill for 5/8" meter in Year 5, for 2100 CF

| | Current | Initial | E |
|------------|---------|----------|----------|
| | \$84.18 | \$146.09 | \$188.30 |
| % Increase | | 74% | 124% |

Seasonal rate for Irrigation Water

| 1 MI | Current | Initial | E |
|------------|----------|------------|----------|
| | \$363.70 | \$2,607.00 | \$842.34 |
| % Increase | | 617% | 132% |

- Tax revenue is split between Treated and Irrigation to create an equal % rate increase (15% - 85%)
- Recommended staffing level

| Bi-Monthly Base Rate for Treated Water in Year 5 | | | | | | | |
|--|---------------|------------|------------|------------|------------|------------|------------|
| | Current | Initial | A | B | C | D | E |
| 5/8" | \$47.14 | \$90.45 | \$103.32 | \$0.00 | \$81.28 | \$100.51 | \$100.51 |
| 3/4" | \$47.14 | \$135.67 | \$103.32 | \$0.00 | \$121.92 | \$150.75 | \$150.75 |
| 1" | \$47.14 | \$226.14 | \$103.32 | \$0.00 | \$203.20 | \$251.24 | \$251.24 |
| 1.5" | \$47.14 | \$452.25 | \$452.25 | \$0.00 | \$406.37 | \$502.50 | \$502.50 |
| 2" | \$47.14 | \$723.60 | \$723.60 | \$0.00 | \$650.19 | \$804.01 | \$804.01 |
| 3" | \$47.14 | \$1,447.20 | \$1,447.20 | \$0.00 | \$1,300.38 | \$1,608.00 | \$1,608.00 |
| 4" | \$50.32 | \$2,261.25 | \$2,261.25 | \$0.00 | \$2,031.84 | \$2,512.50 | \$2,512.50 |
| Usage per 100CF of Treated Water in Year 5 | | | | | | | |
| All | \$1.38-\$2.21 | \$2.73 | \$2.73 | \$7.60 | \$2.73 | \$4.90 | \$4.03 |
| Average Bi-Monthly Bill for 5/8" meter in Year 5, for 2100 CF | | | | | | | |
| | \$84.18 | \$146.09 | \$158.96 | \$160.42 | \$136.92 | \$200.17 | \$188.30 |
| | % Increase | 74% | 89% | 91% | 63% | 138% | 124% |
| Seasonal rate for Irrigation Water | | | | | | | |
| 1 MI | \$363.70 | \$2,607.00 | \$2,607.00 | \$2,607.00 | \$1,814.00 | \$361.00 | \$842.34 |
| | % Increase | 617% | 617% | 617% | 399% | -1% | 132% |

Next Steps

- Board Questions for Staff
- Public Comment
- Board Discussion and Direction to Staff
 - Prepare final report based on one of the scenarios presented today; OR
 - Analyze a different scenario
- Future Meeting - Board Review Final Report & Authorize 45-Day Notice
- Future Meeting - Public Hearing