

CENTRAL ARIZONA PROJECT

2020 | 2021
BIENNIAL

Budget

Customer Budget Briefing
October 10, 2019
Chris Hall
Doug Dunlap

Agenda

- Key Budget Messages
 - Assumptions
 - Staffing
 - Water Deliveries
 - General Fund Overview
 - Capital Improvement Program Overview
 - Rate Reconciliation
- Strategic Reserves
 - CAWCD Underground Water Storage Program
 - CAGRD Account
 - Captive Fund
 - Supplemental Water Account

Key Budget Messages

- Revenue projections based on reconciled rates for long-term contracts
- All essential work for 2020/2021 is included in the budget
- Programs with a periodic or variable cost (e.g. MSCP, elections) account for approximately \$5.3 million expense in 2020 and \$6.8 million in 2021
- Extraordinary Maintenance projects total is \$160K in 2020; none in 2021
- No additional staff request from 2019 approved level; held at 487.5 FTE
- Capital expenditures are within current “Big R” rates
- Budget is \$0.46/ acre-foot under firm water delivery rate in 2020 and \$1.11/acre-foot over advisory water delivery rate in 2021
- Strategic reserves exceed target in 2019. Trend to continue in 2020/2021 based on consistent tax assumptions

Assumptions

- Budget was built up from Department detail
- No contingencies built into budget
- Average merit increases budgeted at 3% each year

General Fund

- CAP deliveries (excluding credits):
 - 1,352,778 a/f in 2019
 - 1,390,625 a/f in 2020 – Tier Zero
 - 1,452,769 a/f in 2021 – Tier Zero
- Delivery reduction programs:
 - Compensated Mitigation: 3,500 acre-feet in each 2020 and 2021 for MDWID
 - DCP Offset: GRIC ICS creation of 117,000 acre-feet in 2019 and 83,000 acre-feet in 2020
 - pre-paying Fixed OM&R so no current impact on rates

Assumptions

- Energy based on current long-term contracts and projections
 - Long term contracts account for ~ 20% of energy needs
 - Purchased ~70% of energy needs for 2020 and ~30% of needs for 2021
 - Remainder of cost is based on forward energy price indices
- Tax rates included at \$0.10 for the general ad valorem and \$0.04 for the water storage tax through the budget period
- \$6 million water storage tax transfers to AWBA for credit purchases in 2020
 - \$3M in Maricopa & \$3M in Pima

Assumptions (cont.)

CAGRD Fund

- \$20 million CAGRD Bond issuance in July 2019 (interest rate of 2.45%)
- Membership dues continued for budget period
- Revenue based on modified Tier Zero rates for 2021

Captive Account

- Premiums actuarially-based
- No unusual or extraordinary claim expenses

Supplemental Water Account

- No anticipated expenditures

Staffing (Year-End Full Time Equivalents)

| | 2017 Actual | 2018 Actual | 2019 Projection | 2020 Budget | 2021 Budget |
|---------------------------------|----------------|----------------|--------------------|----------------|----------------|
| Management Council | 14.6 | 14.0 | 12.0 | 13.0 | 13.0 |
| Water Policy | 16.9 | 16.1 | 15.8 | 17.0 | 17.0 |
| Finance & Administration | 83.7 | 84.9 | 85.9 | 89.0 | 89.0 |
| Public Affairs | 14.2 | 15.0 | 14.5 | 16.0 | 16.0 |
| Legal Services | 4.9 | 4.7 | 5.0 | 5.0 | 5.0 |
| Operations & Engineering | 84.3 | 82.1 | 85.7 | 89.0 | 89.0 |
| Centralized Maint & Reliability | 99.3 | 100.3 | 99.5 | 103.0 | 103.0 |
| Field Maintenance | 133.2 | 135.0 | 135.8 | 137.0 | 137.0 |
| Employee Services | 32.8 | 32.2 | 32.3 | 33.5 | 33.5 |
| Vacancy Savings Equivalent | | | (1.0) | (15.0) | (15.0) |
| Total | 483.9 | 484.3 | 485.5 | 487.5 | 487.5 |

2019 Budget (net)

487.3

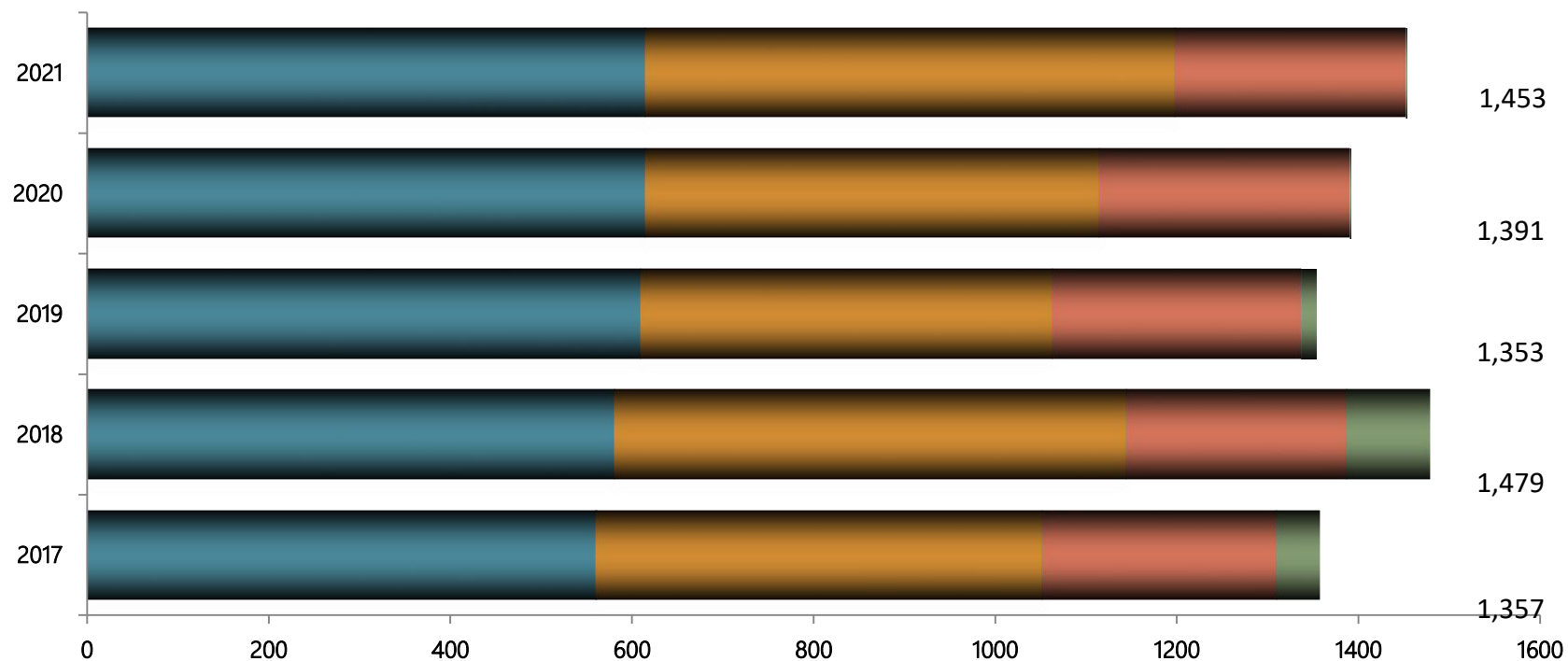
General Fund Key Points

- Rate schedule reflects current 2020 published rates and modified 2021 Tier Zero rates
 - Only impacts CAGRD Long-Term Storage Credit (LTSC) purchases as no excess is currently planned
- Fixed O&M rate
 - 2020 is \$0.66 lower than published rate
 - 2021 is \$1.23 higher than advisory rate (as modified)
- Energy rate
 - 2020 is \$0.20 per acre-foot higher than published rate
 - 2021 is \$0.12 per acre-foot lower than published rate
- Total Delivery rate
 - 2020 is \$0.46 per acre-foot lower than published rate
 - 2021 is \$1.11 per acre-foot higher than published rate

Water Deliveries (excluding credits)

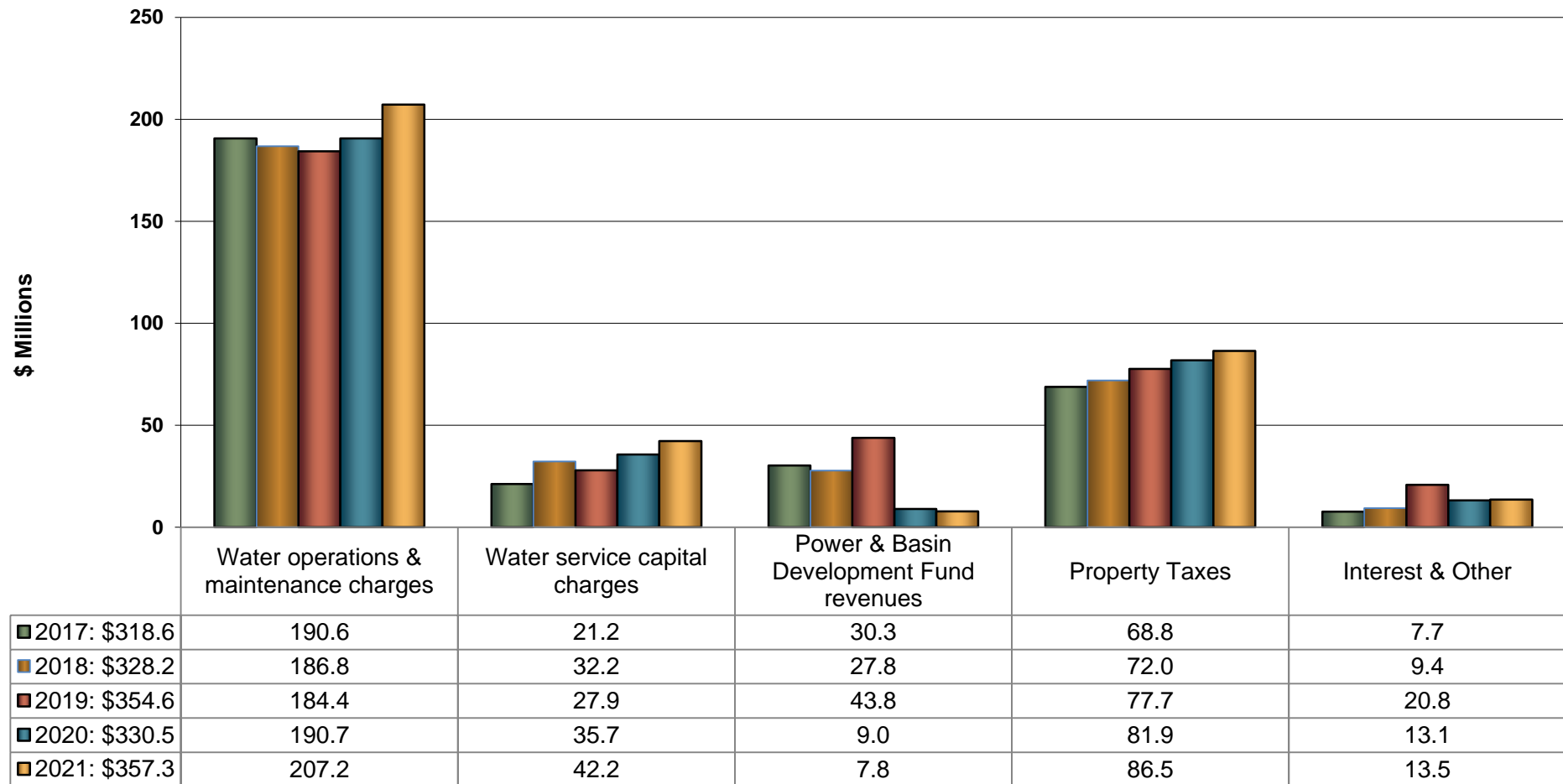
Water Deliveries

(Acre-feet in Thousands)

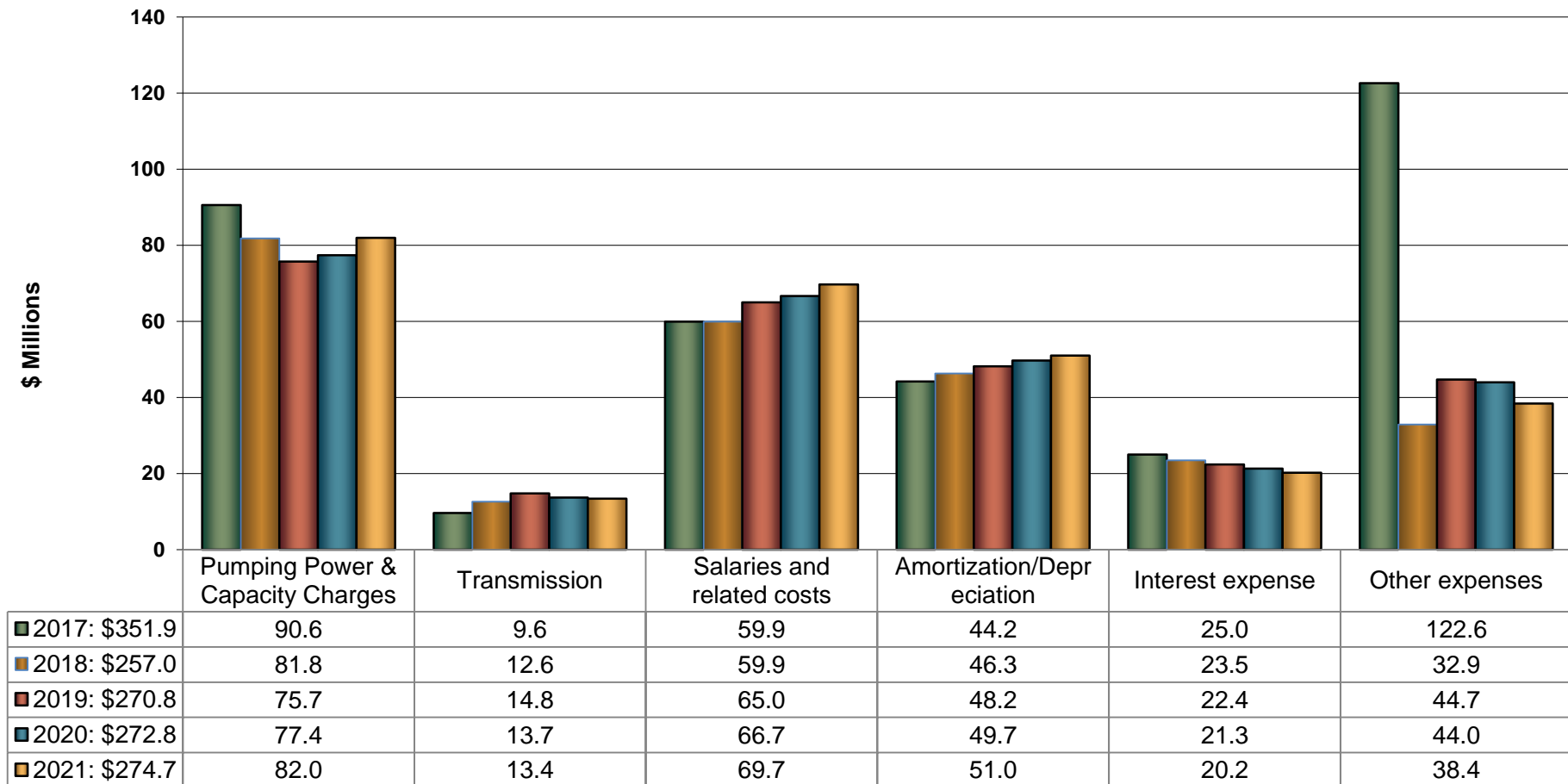


| | 2017 | 2018 | 2019 | 2020 | 2021 |
|---------------|------|------|------|------|------|
| M&I | 561 | 581 | 610 | 615 | 615 |
| Federal | 491 | 563 | 453 | 500 | 583 |
| Ag Settlement | 258 | 243 | 274 | 275 | 254 |
| Other | 47 | 92 | 16 | 1 | 1 |

General Fund Revenues



General Fund Expenses



Programs with a periodic or variable cost

| <i>(Thousands)</i> | 2020 Budget | 2021 Budget |
|---|----------------|----------------|
| Cloud Infrastructure Design Support | \$ 70 | \$ 400 |
| Data Analytics Initiative | \$ 500 | \$ 500 |
| Weather Modification Program | \$ 350 | \$ 350 |
| Board elections | \$ 600 | \$ - |
| Binational Conservation Project (BICS) | \$ - | \$ 1,670 |
| Pilot System Conservation Program | \$ 440 | \$ - |
| Compensated Mitigation | \$ 371 | \$ 406 |
| Recovery Capacity Agreements | \$ 2,500 | \$ 3,000 |
| CAP Enhancements for System Use Agreement | \$ 500 | \$ 500 |

Extraordinary Maintenance Projects

| <i>(Thousands)</i> | 2019 Projection | 2020 Budget | 2021 Budget |
|---------------------------------------|--------------------|----------------|----------------|
| Manifold Relining at LHQ & Hassayampa | \$ 1,268 | \$ - | \$ - |
| Siphon Repairs at Salt River | \$ 6,220 | \$ 160 | \$ - |
| Total | \$ 7,488 | \$ 160 | \$ - |

General Fund

| | 2017 Actual | 2018 Actual | 2019 Projection | 2020 Budget | 2021 Budget |
|--|------------------|----------------|--------------------|-----------------|----------------|
| Operating Revenues | | | | | |
| Water operations & maintenance charges | \$ 190.6 | \$ 186.8 | \$ 184.4 | \$ 190.7 | \$ 207.2 |
| Water service capital charges | 21.2 | 32.2 | 27.9 | 35.7 | 42.2 |
| Power & Basin Development Fund revenues | 30.3 | 27.8 | 43.8 | 9.0 | 7.8 |
| Reimbursements and other revenues | 1.9 | 1.9 | 2.3 | 2.1 | 2.0 |
| Total Operating Revenues | 243.9 | 248.8 | 258.4 | 237.6 | 259.2 |
| Operating Expenses | | | | | |
| Salaries and related costs | (59.9) | (59.9) | (65.1) | (66.7) | (69.7) |
| Pumping power & Capacity Charges | (90.6) | (81.8) | (75.7) | (77.4) | (82.0) |
| Transmission | (9.6) | (12.6) | (14.8) | (13.7) | (13.4) |
| Amortization of permanent service right | (23.2) | (23.2) | (23.2) | (23.0) | (23.0) |
| Depreciation and Amortization | (21.0) | (23.1) | (25.1) | (26.7) | (28.0) |
| Other operating expenses | (104.8) | (30.2) | (37.8) | (37.4) | (37.8) |
| Total Operating Expenses | (309.0) | (230.8) | (241.5) | (245.0) | (253.9) |
| Operating Income/(Loss) | \$ (65.0) | \$ 18.0 | \$ 17.0 | \$ (7.4) | \$ 5.3 |
| Non-operating Revenues /Expenses | | | | | |
| Property taxes | 68.8 | 72.0 | 77.7 | 81.9 | 86.5 |
| Interest income and other revenues | 5.8 | 7.5 | 18.5 | 11.0 | 11.6 |
| Interest expenses and other expenses | (42.9) | (26.2) | (29.3) | (27.9) | (20.8) |
| Total Non-operating Revenues/(Loss) | 31.6 | 53.3 | 66.9 | 65.1 | 77.3 |
| Change in Net Position | \$ (33.4) | \$ 71.3 | \$ 83.8 | \$ 57.7 | \$ 82.6 |

Rate Reconciliation

CALCULATION OF RECONCILED WATER RATES

| | 2020 | | 2021 | |
|---|------------------|------------------|------------------|------------------|
| | Budget | Published Rate | Budget | Advisory Rate |
| Water Delivery Costs (Thousands) | | | | |
| Fixed O&M Expenses | \$ 104,857 | \$ 105,146 | \$ 113,829 | \$ 108,680 |
| Total Pumping Energy Expenses | 78,926 | 77,945 | 83,493 | 81,395 |
| Water Deliveries (Acre-Feet) | | | | |
| Total water deliveries with credits | 1,404,493 | 1,391,868 | 1,467,978 | 1,427,978 |
| Take or Pay adjustment | 6,000 | 6,000 | 6,000 | 6,000 |
| Billed Fixed OM&R Water Volume | 1,410,493 | 1,397,868 | 1,473,978 | 1,433,978 |
| Pumping Energy Rate 1 Water Volume | 1,404,493 | 1,391,868 | 1,467,978 | 1,427,978 |
| Water Delivery Rate (\$/AF) | | | | |
| Calculated Fixed O&M Rate | \$ 74.34 | \$ 75.00 | \$ 77.23 | \$ 76.00 |
| Capital Replacement Component ("Big R") | 24.00 | 24.00 | 24.00 | 24.00 |
| Total Fixed OM&R | 98.34 | 99.00 | 101.23 | 100.00 |
| Navajo Decommissioning Rate | - | - | - | - |
| Calculated Pumping Energy Rate | 56.20 | 56.00 | 56.88 | 57.00 |
| Total Pumping Energy Rate 1 | 56.20 | 56.00 | 56.88 | 57.00 |
| Total Delivery Rate | \$ 154.54 | \$ 155.00 | \$ 158.11 | \$ 157.00 |

CENTRAL ARIZONA PROJECT

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Budget

Capital Improvement
Projects Overview
Darrin Francom
Ryan Johnson

2020/2021 Budget Review

10/10/2019 16

Capital Expenditures

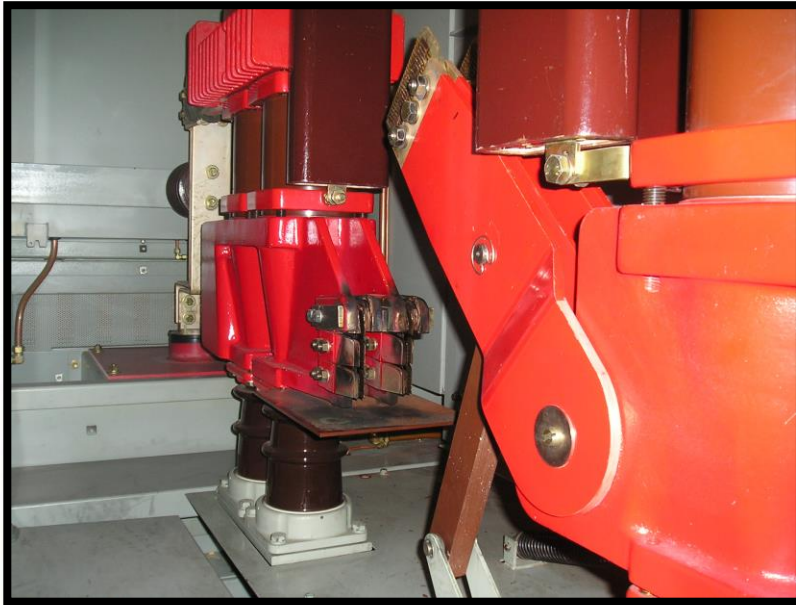
| (\$ Million) | 2017 Actual | 2018 Actual | 2019 Projection | 2020 Budget | 2021 Budget |
|-----------------------------|----------------|----------------|--------------------|----------------|----------------|
| Capital Improvement Program | 36.9 | 31.7 | 23.2 | 41.7 | 31.4 |
| Capital Equipment | 2.8 | 3.0 | 1.9 | 3.0 | 2.4 |
| Total | \$ 39.7 | \$ 34.7 | \$ 25.1 | \$ 44.7 | \$ 33.8 |

- Spending is above “Big R” published rates but brings collections and spending in alignment
- The Capital Improvement Program(CIP) includes 34 projects during the budget period
- Capital budget is managed by the Project Steering Committee (PSC)
- Mark Wilmer Unit 6 repair is funded by insurance, not “Big R”

Highlighted Projects

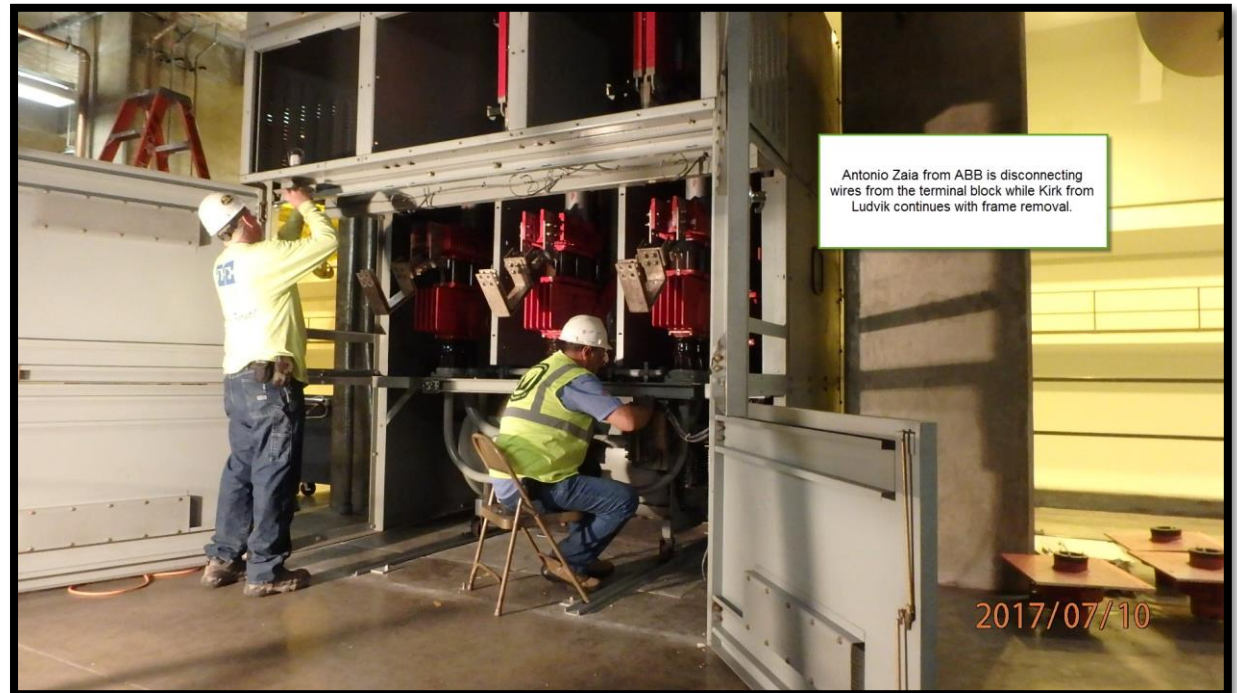
- **Mark Wilmer Pump Unit Circuit Breaker Replacements**
- **Backup Power System Replacement at Checks, Turnouts, and Microwaves**
- **Mark Wilmer HVAC Replacement**
- **Hassayampa Discharge Valve Replacement**
- **Elevator System Replacement – Phase 2**

Mark Wilmer Pump Unit Circuit Breaker Replacements



Project Scope

- Replace air-blast breakers with SF6 type breakers across all six units
- Eliminate intrusive maintenance requirements
- Address obsolete and non-supported equipment
- Highly critical system to reliable water delivery



Mark Wilmer Pump Unit Circuit Breaker Replacements



| 2020 | | | | Budget | 2021 | | | | Budget |
|--------|--------------|----|----|------------|-----------|----|----|----|--------|
| Q1 | Q2 | Q3 | Q4 | | Q1 | Q2 | Q3 | Q4 | |
| Design | Construction | | | \$1.38 Mil | Close Out | | | | \$24 K |

Backup Power System Replacement at Checks Turnouts and Microwave Sites

Project Scope

- Large system-wide program to replace original equipment that has exceeded useful life.
- Protect critical systems and operational uptime when power is interrupted.
- Replace original generators, propane tanks, automatic transfer switches, surge protection, and consolidate battery backup power system.
- All check structures, microwave sites, turnout buildings (71 total sites)



Backup Power System Replacement at Checks Turnouts and Microwave Sites



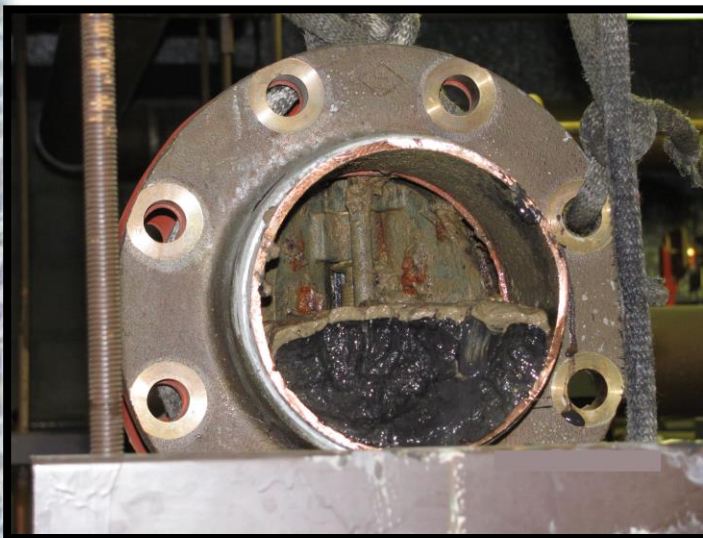
| 2020 | | | | Budget | 2021 | | | | Budget |
|--------------|----|----|----|------------|--------------|----|----|----|------------|
| Q1 | Q2 | Q3 | Q4 | | Q1 | Q2 | Q3 | Q4 | |
| Construction | | | | \$3.09 Mil | Construction | | | | \$2.68 Mil |

Mark Wilmer HVAC Replacement

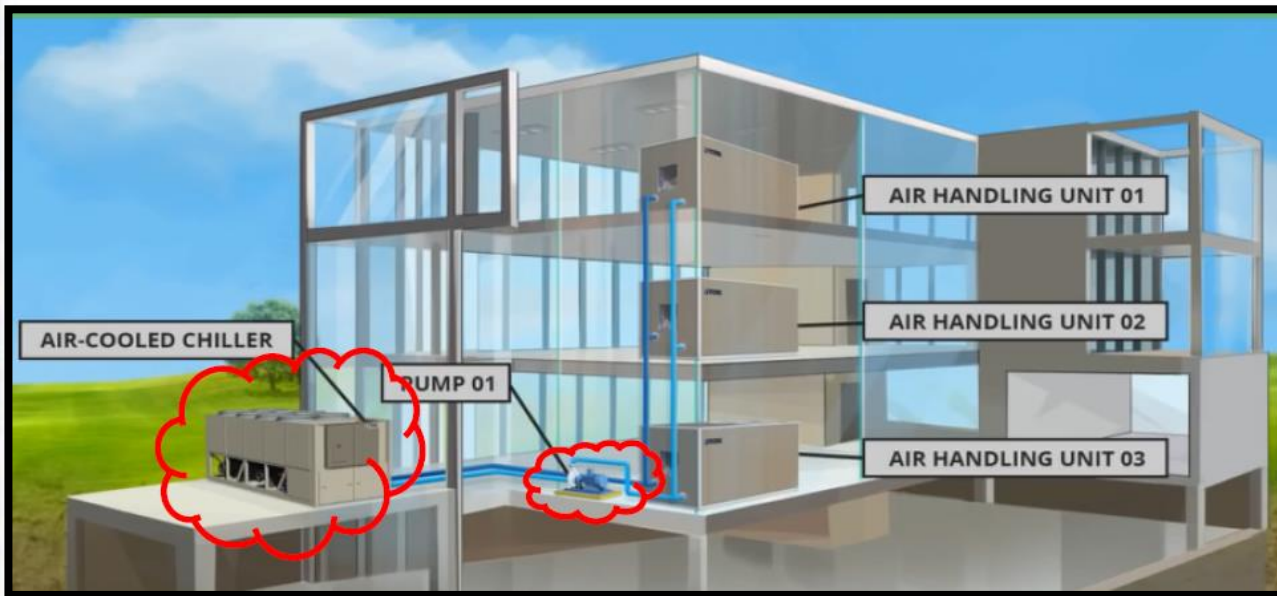
Project Scope

- Remove two water-cooled chillers, air handler coils, water pumps, and isolation valves - all at end of useful service life
- Raw water utilized from forebay used to exchange heat
- Corrosion and clogging of chiller condensers due to silt, salts, and weeds in the raw water
- Poor efficiency and frequent maintenance
- Install two new air-cooled chillers, air handler components, water pumps and valves.

Raw Water Supply Sediment



Mark Wilmer HVAC Replacement



| 2020 | | | | Budget | 2021 | | | | Budget |
|--------|----|----|----|---------|--------------|----|----|----|-----------|
| Q1 | Q2 | Q3 | Q4 | | Q1 | Q2 | Q3 | Q4 | |
| Design | | | | \$670 K | Construction | | | | \$1.4 Mil |
| | | | | | Close Out | | | | |

Hassayampa Discharge Valve Replacement

Project Scope

- Replace 6 Discharge Valves at Hassayampa
- Replace 2 Discharge Valves at Little Harquahala
- Four: 90-inch
- Two: 66-inch
- Two: 48-inch
- Original valves are old and obsolete equipment and leaking
- Cost-effective solution



Hassayampa Discharge Valve Replacement

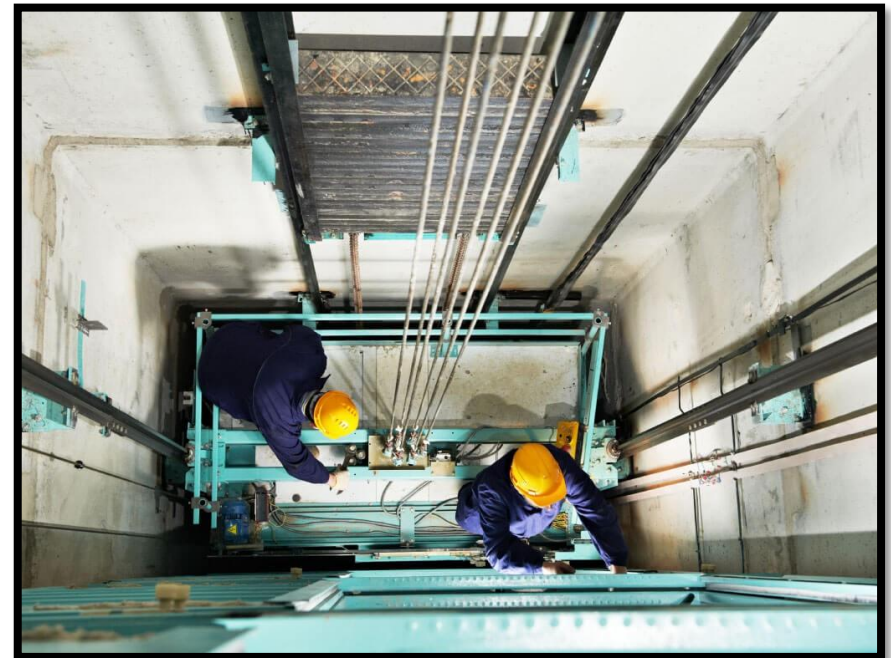


| 2020 | | | | Budget | 2021 | | | | Budget |
|------|--------------|----|----|---------|------|--------------|----|-----------|---------|
| Q1 | Q2 | Q3 | Q4 | | Q1 | Q2 | Q3 | Q4 | |
| | Construction | | | \$924 K | | Construction | | Close Out | \$843 K |

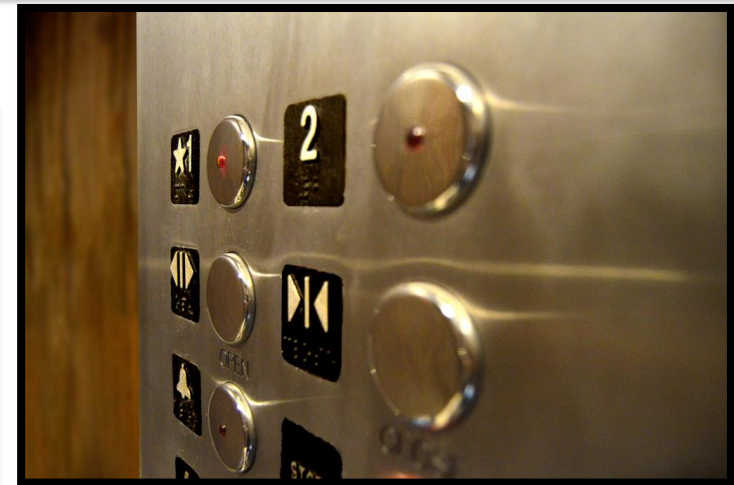
Elevator System Replacement – Phase Two (7 sites)

Project Scope

- Mark Wilmer, Bouse, Hassayampa, Waddell, Red Rock, Brawley, San Xavier
- Replace obsolete and outdated equipment
- Critical support system for safety and maintenance
- Controls, cables, hoists, motors, doors, fire alarm recall control, braking, switching



Elevator System Replacement – Phase Two (7 sites)



| 2020 | | | | Budget | 2021 | | | | Budget |
|--------------|--------|----|----|------------|--------------|----|----|-----------|------------|
| Q1 | Q2 | Q3 | Q4 | | Q1 | Q2 | Q3 | Q4 | |
| Construction | Design | | | \$2.84 Mil | Construction | | | Close Out | \$2.45 Mil |



End of Capital Improvement Projects Overview

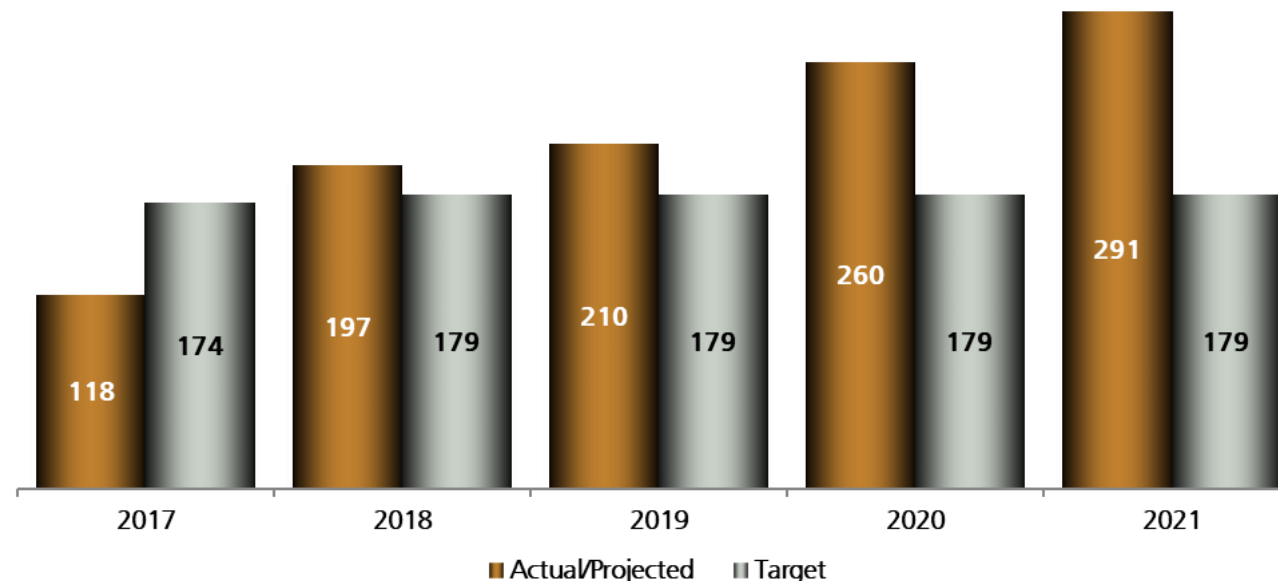
Questions?

Strategic Reserves

Main drivers for the increase in strategic reserves:

- Maintaining \$0.10 tax rate and increasing valuations
 - with \$0.075 going to strategic reserves and \$.025 going to Extraordinary Cost Reserve
- 2019 rate reconciliation refunds of ~\$8 million not paid until April 2020
- Energy payments shifting from pre-payment to post-payment in 2019

Strategic Reserves
(\$ Millions)



CAWCD Underground Water Storage Program

| (Thousands) | 2017 Actual | 2018 Actual | 2019 Projection | 2020 Budget | 2021 Budget |
|--|----------------|----------------|--------------------|----------------|----------------|
| Water Deliveries (acre-feet in thousands) | 106 | 119 | 102 | 98 | 93 |
| Total revenues | \$ 1,393 | \$ 1,633 | \$ 1,354 | \$ 1,368 | \$ 1,293 |
| Total expenses | (1,342) | (1,145) | (1,138) | (1,208) | (1,161) |
| Change in net position | \$ 51 | \$ 488 | \$ 216 | \$ 160 | \$ 132 |
| Expense Summary | | | | | |
| Agua Fria | \$ (135) | \$ (123) | \$ (96) | \$ (116) | \$ (101) |
| Hieroglyphic Mountains | (249) | (267) | (173) | (289) | (217) |
| Lower Santa Cruz | (369) | (298) | (356) | (372) | (415) |
| Pima Mine Road | (245) | (144) | (140) | (149) | (142) |
| Superstition Mountain | (273) | (222) | (334) | (221) | (223) |
| Tonopah | (71) | (91) | (39) | (61) | (63) |
| Total expenses | \$ (1,342) | \$ (1,145) | \$ (1,138) | \$ (1,208) | \$ (1,161) |

CAGRD Account

| <i>(Thousands)</i> | 2017 Actual | 2018 Actual | 2019 Projection | 2020 Budget | 2021 Budget |
|--|----------------|----------------|--------------------|----------------|----------------|
| Operating Revenues | | | | | |
| Reimbursements & other operating revenues | \$ 35,671 | \$ 38,515 | \$ 44,055 | \$ 50,745 | \$ 58,712 |
| Operating Expense | | | | | |
| Salaries and related costs | (1,157) | (1,162) | (1,046) | (1,216) | (1,252) |
| Depreciation | - | (61) | (61) | (61) | (61) |
| Outside services | (612) | (312) | (564) | (402) | (450) |
| Overhead | (1,179) | (1,174) | (1,062) | (1,266) | (1,304) |
| Water for recharge | (16,785) | (2,806) | (15,178) | (14,162) | (17,329) |
| Other expenses | (29) | (26) | (39) | (41) | (31) |
| Total operating expenses | (19,762) | (5,541) | (17,950) | (17,148) | (20,427) |
| Operating Income | 15,909 | 32,974 | 26,105 | 33,597 | 38,285 |
| Non-Operating Revenues/Expenses | | | | | |
| Interest Income | 613 | 1,396 | 960 | 606 | 632 |
| Interest Expense | - | - | (214) | (453) | (367) |
| Total non-operating revenue/expenses | 613 | 1,396 | 746 | 153 | 265 |
| Change in Net Position | \$ 16,522 | \$ 34,370 | \$ 26,851 | \$ 33,750 | \$ 38,550 |
| Obligations (year reported)-000 acre-feet | 31.2 | 32.5 | 32.2 | 35.1 | 37.9 |

Captive Fund

| <i>(Thousands)</i> | 2017 Actual | 2018 Actual | 2019 Projection | 2020 Budget | 2021 Budget |
|---|----------------|----------------|--------------------|----------------|----------------|
| Operating Revenues | | | | | |
| Reimbursements and other operating revenues | \$ 8,848 | \$ 9,131 | \$ 10,125 | \$ 10,115 | \$ 10,733 |
| Operating Expense | | | | | |
| Outside Services | (171) | (207) | (253) | (252) | (257) |
| Other Expense | (8,696) | (11,319) | (9,500) | (9,159) | (9,128) |
| Total Operating Expense | (8,867) | (11,526) | (9,753) | (9,411) | (9,385) |
| Operating Income | (19) | (2,395) | 372 | 704 | 1,348 |
| Non-Operating Revenues | | | | | |
| Interest Income | 7 | 17 | 15 | 9 | 9 |
| Change in Net Position | \$ (12) | \$ (2,378) | \$ 387 | \$ 713 | \$ 1,357 |

Supplemental Water Account

| <i>(Thousands)</i> | 2017 Actual | 2018 Actual | 2019 Projection | 2020 Budget | 2021 Budget |
|------------------------------------|----------------|----------------|--------------------|----------------|----------------|
| Operating Revenues/Expenses | \$ - | \$ - | \$ - | \$ - | \$ - |
| Non-Operating Revenues | | | | | |
| Interest Income | 118 | 154 | 392 | 234 | 240 |
| Change in Net Position | \$ 118 | \$ 154 | \$ 392 | \$ 234 | \$ 240 |
| Cash Balance at Year End | \$ 8,353 | \$ 8,507 | \$ 8,899 | \$ 9,133 | \$ 9,373 |

Questions?