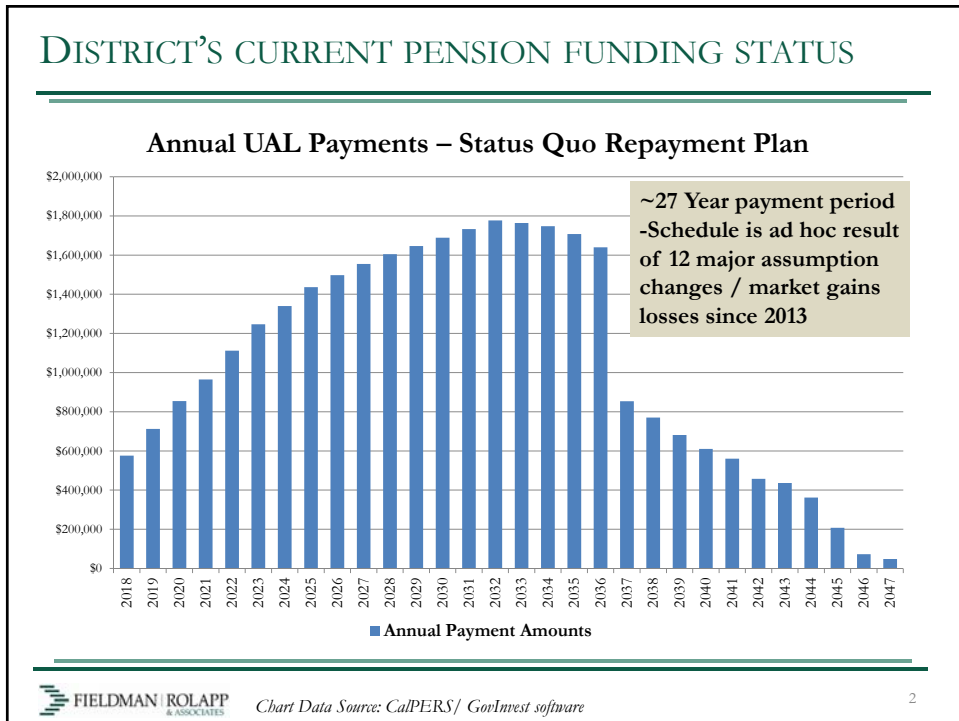


## Unfunded Pension Liability Accelerated Funding Options

May 29, 2018

131253



## BACKGROUND / OBJECTIVES

- Staff has identified \$4 million to be available in reserves above policy levels
  - ✓ Reduce net pension liability
  - ✓ Generate significant potential pension cost savings
- Reserves currently earning ~2.00%\*
  - ✓ Earnings long-term / historic outlook: 2.50%\*
- Objectives:
  - ✓ Reduce unfunded pension liabilities
  - ✓ Achieve higher economic benefit of cash reserves
  - ✓ Achieve annual pension cost savings

## PENSION UAL FUNDING OPTIONS

- “Accelerated Funding” in general means paying down the UAL sooner than the CalPERS standard payment schedule:
- **Fresh Start**
  - ✓ CalPERS will make a new, official UAL payment schedule of higher payments over a shorter term, e.g. 10 or 15 years
  - ✓ Once directed, new payment schedule cannot be changed back or altered, other than to further shorten payment period
- **Advance Funding Plan (AFP)**
  - ✓ Typically adopted periodically as a “plan”
  - ✓ Discretionary payments made annually (e.g. \$1 million per year)
  - ✓ CalPERS applies funds to reduce UAL and future payment schedule\*

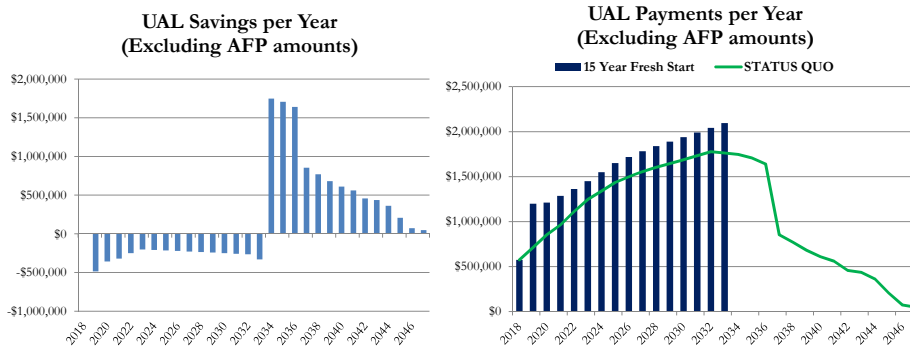
## PENSION UAL ADVANCE FUNDING OPTIONS

### Options Analyzed:

1. 15 Year Fresh Start
2. \$4 million one-time Advance Funding Plan
3. \$2 million per year Advance Funding Plan (2 years)
4. \$1 million per year Advance Funding Plan (4 years)

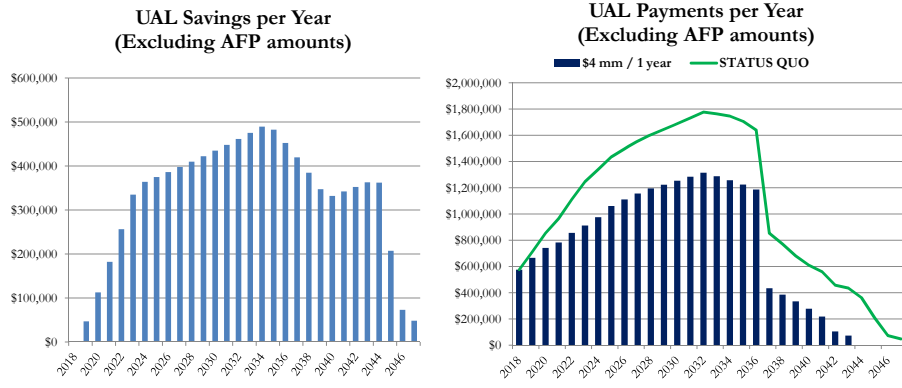
## 15 YEAR FRESH START (OPTION #1)

- Existing payment schedule compressed to 15 Years
- Savings of \$6.08 million (\$2.87 net present value)
- Payments increase in near-term and lacks flexibility – once adopted, cannot revert to longer period



## \$4 MILLION 1-TIME ADVANCE FUNDING (OPTION #2)

- Long-term savings of \$9.76 million total and \$2.83 million NPV
- Annual cost savings ramp up in proportion to UAL payments



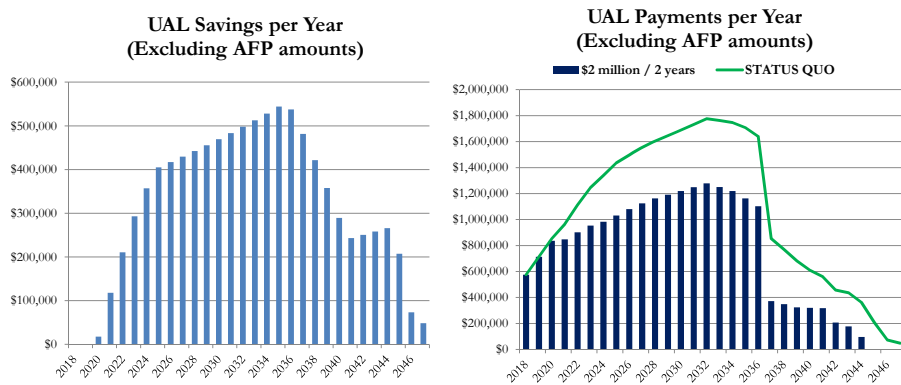
FIELDMAN ROLAPP & ASSOCIATES

\*Chart information per GovInvest. All figures rounded / approximate. NPV savings based on 2.5% discount rate.

7

## \$2 MILLION / 2 YEARS ADVANCE FUNDING (OPTION #3)

- Long-term savings of \$9.61 million total and \$2.78 million NPV
- Annual cost savings ramp up in proportion to UAL payments



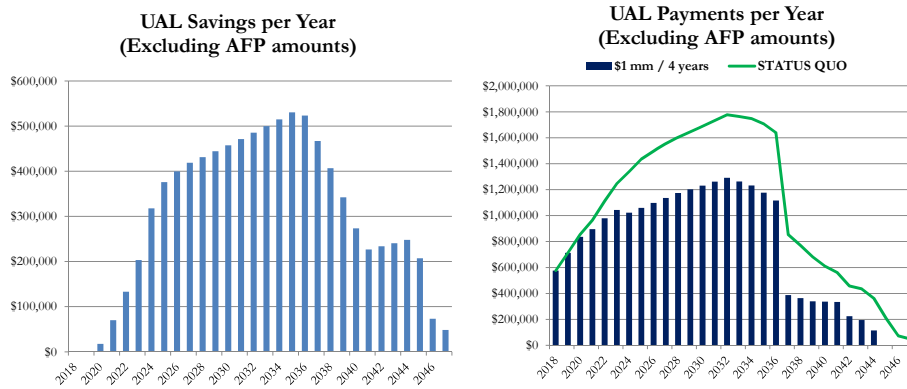
FIELDMAN ROLAPP & ASSOCIATES

\*Chart information per GovInvest. All figures rounded / approximate. NPV savings based on 2.5% discount rate.

8

## \$1 MILLION / 4 YEARS ADVANCE FUNDING (OPTION #4)

- Long-term savings of \$9.06 million total and \$2.44 million NPV
- Annual cost savings ramp up in proportion to UAL payments

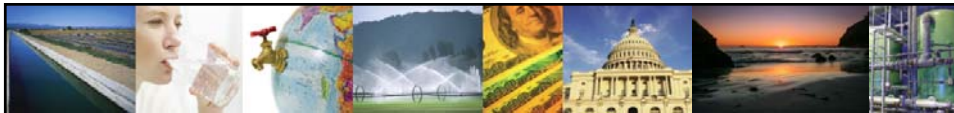


## OTHER CONSIDERATIONS

- All Options involve taking on additional risk of increased near-term exposure to CalPERS investment returns
  - ✓ Actual savings realized will vary due to market returns, potential future changes in CalPERS assumptions and UAL policies
- Advance Funding Plans allow flexibility; Fresh Start cannot be reversed
- Accelerated funding demonstrates strong, proactive financial management to rating agencies

## SUMMARY OF OPTIONS

| # | Option Description                 | Savings Potential*  | Pro   | Con  |
|---|------------------------------------|---|---|--|
| 1 | <b>15 Year Fresh Start</b>         | <ul style="list-style-type: none"> <li>UAL savings of \$6.08 million</li> <li>NPV savings of <b>\$2.87 million</b></li> </ul> | <ul style="list-style-type: none"> <li>Fastest UAL repayment term</li> <li>Highest NPV savings</li> </ul>                                 | <ul style="list-style-type: none"> <li>Lack of future flexibility</li> <li>Near-term payment increases</li> <li>Savings are “back-loaded”</li> </ul> |
| 2 | <b>AFP - \$4 million (1 time)</b>  | <ul style="list-style-type: none"> <li>UAL savings of \$9.76 million</li> <li>NPV savings of <b>\$2.83 million</b></li> </ul> | <ul style="list-style-type: none"> <li>Near-term savings gradually ramp up</li> <li>Substantially same NPV savings as Option 1</li> </ul> | <ul style="list-style-type: none"> <li>Near-term savings minimal</li> <li>Additional market exposure</li> </ul>                                      |
| 3 | <b>AFP - \$2 million (2 years)</b> | <ul style="list-style-type: none"> <li>Total savings of \$9.61 million</li> <li>NPV savings of <b>\$2.78</b></li> </ul>       | <ul style="list-style-type: none"> <li>Near-term savings gradually ramp up</li> <li>Ability to adjust plan in future</li> </ul>           | <ul style="list-style-type: none"> <li>Near-term savings minimal</li> <li>Lower NPV savings than 2</li> <li>Additional market exposure</li> </ul>    |
| 4 | <b>AFP - \$1 million (4 years)</b> | <ul style="list-style-type: none"> <li>UAL savings of \$9.06 million</li> <li>NPV savings of <b>\$2.44</b></li> </ul>         | <ul style="list-style-type: none"> <li>Less near-term market exposure</li> <li>Ability to adjust plan in future</li> </ul>                | <ul style="list-style-type: none"> <li>Lowest NPV savings</li> </ul>   |

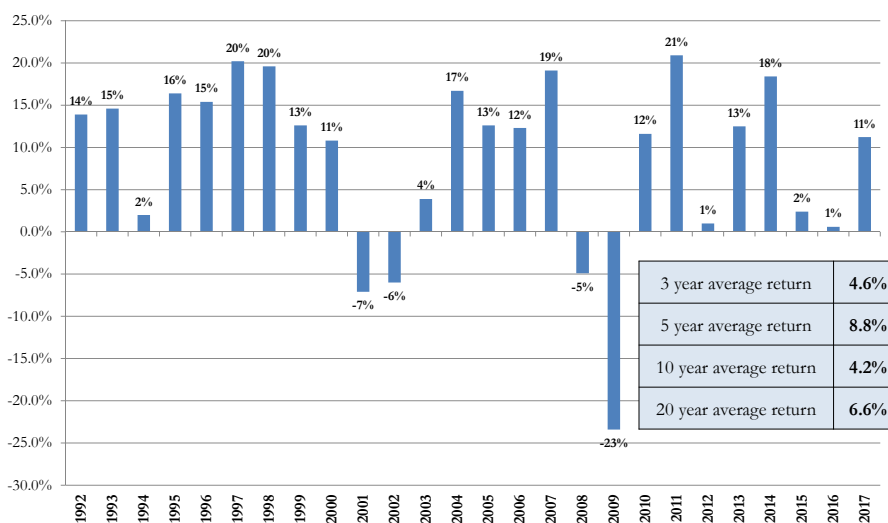


## APPENDIX / ADDITIONAL INFORMATION

## TERMINOLOGY / 101

- **UAL – Unfunded Accrued Liability.** Difference in total District pension financial assets with CalPERS versus present value of future pension benefits accrued and owed in future by District. Typically result of changes in CalPERS actuarial assumptions and / or adverse investment returns.
- **UAL Amortization or Payment Schedule.** If a public agency has a UAL, CalPERS produces a payment schedule requiring annual payments to reduce the UAL to zero over time (typically 20-30 years). Payment schedules lag actual UAL.\*
- **UAL Amounts Reported with lag\*.** Most current official value from CalPERS came out fall of 2017, reporting a value as of June 30, 2016, and updated UAL projections already differ.

## CALPERS HISTORIC RETURNS DATA



## PRESENTATION DISCLAIMERS

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- Information regarding the District's existing unfunded actuarial liability contained herein is based on the District's June 30, 2016 valuation report as of August, 2017 from CalPERS
- Scenarios and savings were generated as per GovInvest financial software / website, a customized pension analysis service the District subscribes to
- Certain assumptions, including future rate of return changes and CalPERS investment experience for FY2017, have been incorporated by GovInvest which were not reflected in the District's August 2017 valuation report



# Introduction to Cost of Service Water Rate Design

Meeting the requirements of CA Proposition 218 while maintaining revenue resiliency

Carollo Engineers | May 2018

**WATER**  
OUR FOCUS  
OUR BUSINESS  
OUR PASSION

**carollo**  
Engineers...Working Wonders With Water®

## Key objectives and takeaways for today's presentation

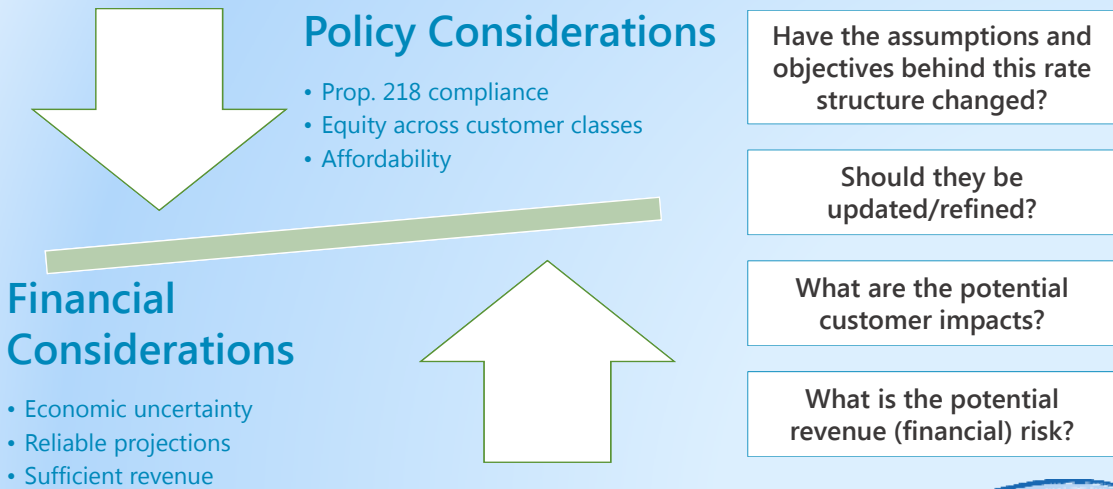
- General Considerations:** What is the industry doing
- SFID Characteristics:** What's the best fit
- Rate Alternatives:** What options are available

File name: ppt02

2



## Rate design analysis requires balancing often competing policy and fiscal objectives



File name: ppt04

## Typical Rate Structure: General considerations

- No single rate structure is best for all agencies
- Each structure is not viewed equally by all stakeholders
- Best structure is individual to each agency, based on:
  - Costs incurred to provide water to customers
  - Customer usage patterns
- Structures generally consist of two components:
  - Fixed (meter sized based charge)
  - Variable (commodity based rate)

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5

## Typical Cost Structure: Costs are largely fixed or “sticky”, with the exception of variable water purchases

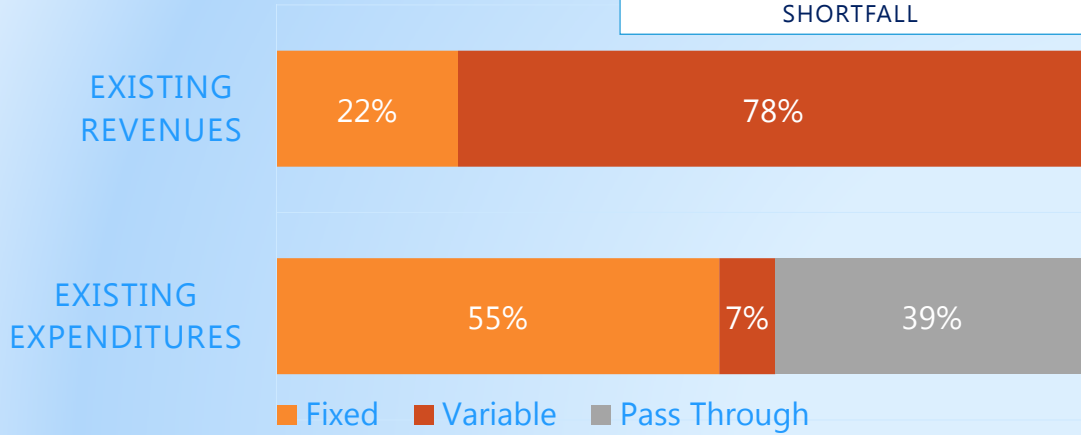
- Operating Expenses
  - Salary & Benefits
  - Professional Services
  - Materials & Supplies
  - Depreciation/Amort
  - Debt Payments
  - Utilities
  - Water Purchases
- Additionally, many agencies create a clearer cost nexus by implementing pass-through charges for water supply and power costs

File name: ppt/6

6

## Inverted Nexus: Widespread disconnect between SFID actual expenditures and revenues

INVERTED NEXUS ALLOWS  
POTENTIAL **33%** REVENUE  
SHORTFALL



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7

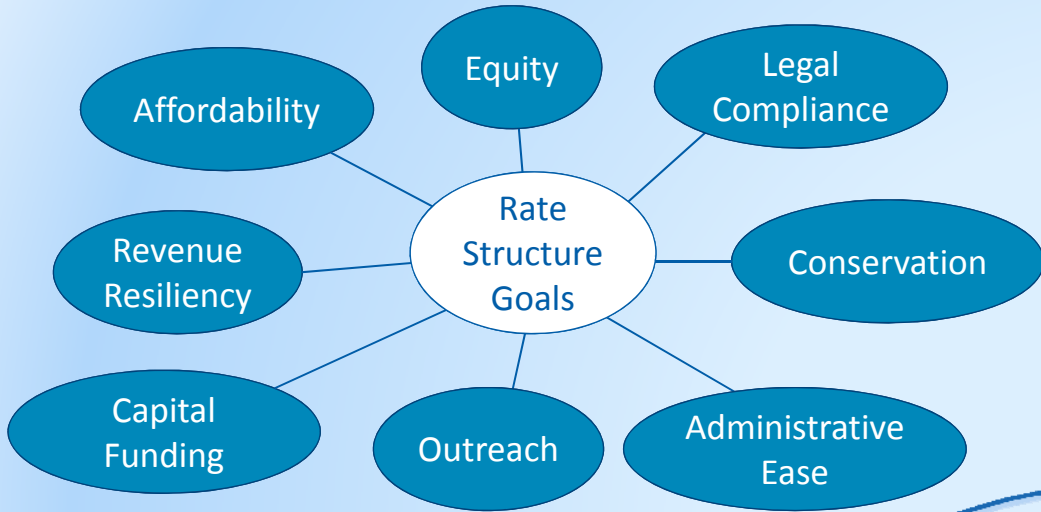
## Typical Rate Structure: While rates have adapted to address other challenges, agencies continue to rely on volumetric rates to recover majority of costs



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8

Numerous challenges and opportunities can be at the core of a rate study

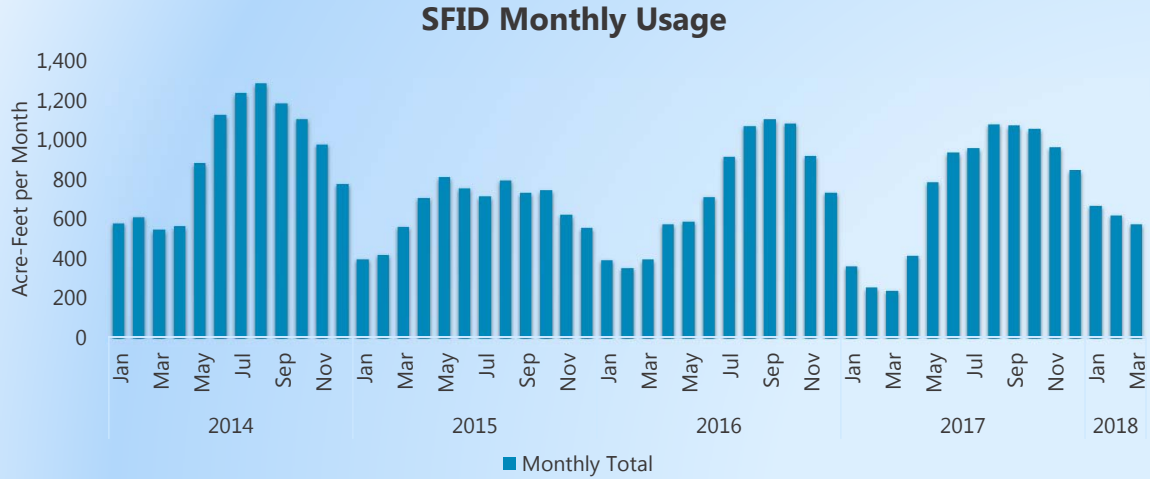


Financially

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# SFID Characteristics

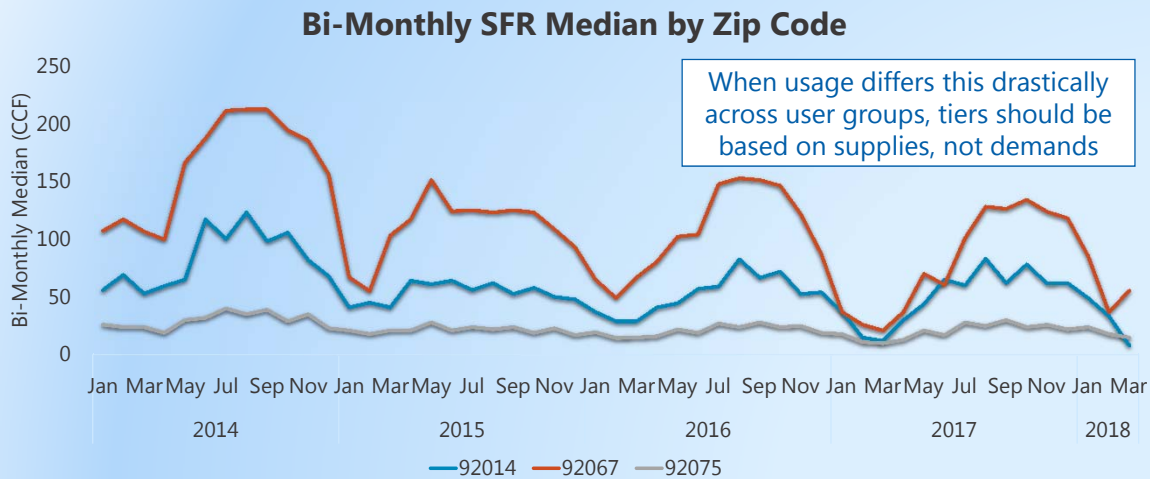
## Despite recent usage reductions, substantial usage is still used for irrigation



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11

## Reflecting the varying parcel and climate characteristics of the SFID service area, usage patterns vary substantially

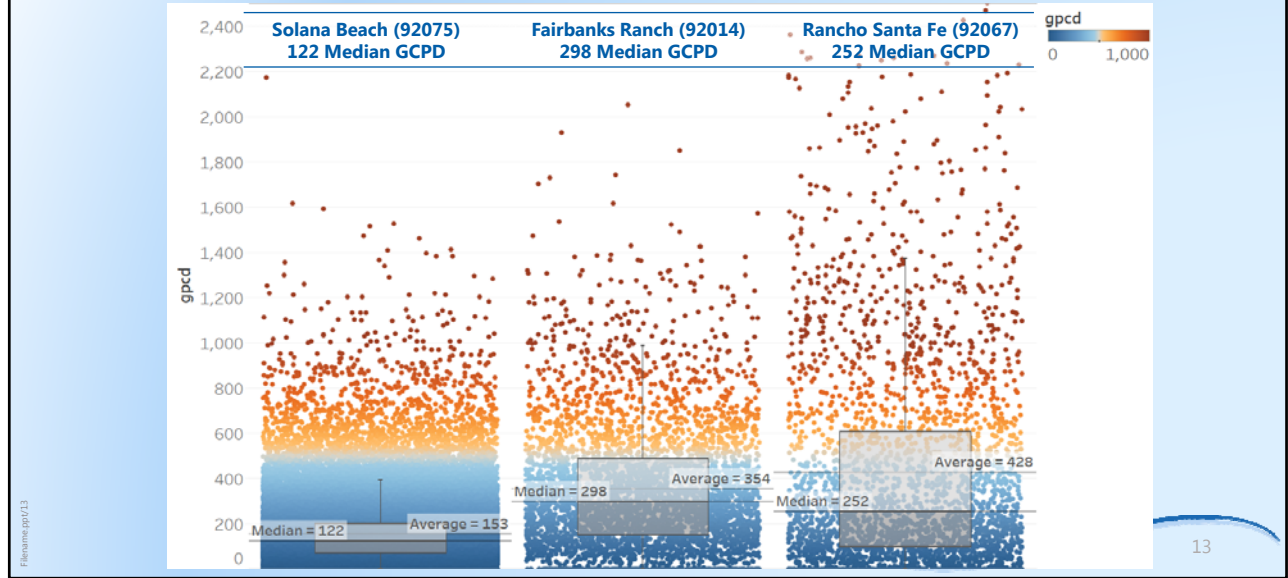


When usage differs this drastically across user groups, tiers should be based on supplies, not demands

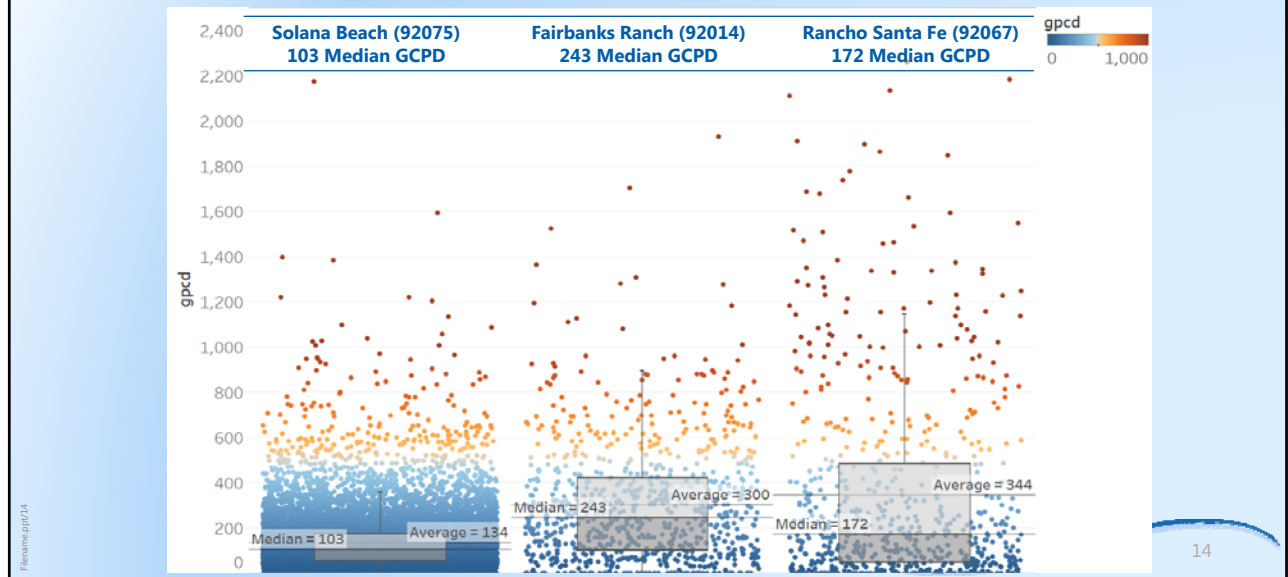
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12

## Statistical GPCD analysis reveals key usage characteristics (FY2013 – FY 2018)









## Statistical GPCD analysis reveals key usage characteristics (FY 2017)



# Potential / Recommended Rate Alternatives

## Rate Structure Comparison: Volumetric Component

|  | Equity Perception                                | Conservation     | Easy to Understand      | Administrative Ease          | Revenue Stability | Cost Nexus  |
|--|--|------------------|-------------------------|------------------------------|-------------------|---|
|  Flat Rate            | "Water's free, pay flat fee for distribution"    | No               | Yes                     | Yes                          | 100%              | Doesn't address water purchases                         |
|  Uniform Rate         | "Use more pay more"                              | Yes (moderate)   | Yes                     | Yes                          | Somewhat          | Yes, but may not reflect higher costs at greater usages |
|  Declining Tiers      | "Economies of Scale"                             | No               | Easy                    | Easy                         | Somewhat          | Yes, if water resources are not limited                 |
|  Inclining Tiers      | "Dis-economies of Scale"                         | Yes              | Easy                    | Easy                         | Limited           | Yes, if based on system design and reasonableness       |
|  Budget Based (Tiers) | "Need more get more"                             | Yes (Efficiency) | Communication Necessary | Expensive and Time intensive | Limited           | Yes, if efficiency can be appropriately priced          |
|  Meter Based (Tiers)  | "Tier size should be proportional to meter size" | Yes (Efficiency) | Easy                    | Easy                         | Somewhat          | Yes, if based on system design and reasonableness       |

File name: ppt15



## Rate Structure Comparison: Fixed Component

|                             | Equity Perception                                   | Conservation | Easy to Understand      | Administrative Ease | Revenue Stability | Cost Nexus |
|-----------------------------|---|--------------|-------------------------|---------------------|-------------------|------------|
| ✓ <b>Customer Component</b> | "Sending out a bill costs the same"                 | No           | Yes                     | Yes                 | 100%              | Yes        |
| ✓ <b>Capacity Component</b> | "More capacity pays for more infrastructure"        | No           | Yes                     | Yes                 | Somewhat          | Yes        |
| ✓ <b>Demand Component</b>   | "Use of capacity, rather than potential, pays more" | Yes          | Communication Necessary | Easy                | Somewhat          | Yes        |

File name: ppt17

17

## Rate Structure Comparison: Miscellaneous Components

|  | Premise  | Easy to Understand | Administrative Ease | Revenue Stability   | Cost Nexus |
|--|--|--------------------|---------------------|---|------------|
| ✓ <b>Volume Management (Drought) Rates</b> | Temporary Surcharge that can be added to the volumetric rate at times of lower demands/sales | Yes                | Yes                 | Limits potential revenue shortfalls   | Yes        |
| ✓ <b>Pass-Through Rates</b>                | Costs from a 3 <sup>rd</sup> party can be directly passed-on to customers                    | Yes                | Yes                 | Increases transparency and mitigates need to forecast 3 <sup>rd</sup> party increases | Yes        |
| ✓ <b>Supply Management Rates</b>           | Separate rate and reserve fund to moderate variability in sources of supply                  | Yes                | Yes                 | Supports greater revenue and rate stability   | Yes        |

File name: ppt18

18

## Rate Structure and Design Considerations...

- Rate Information w/ Full AMI Implementation
- SDCWA Pass Through
- Volume Management Rates
- Supply Management Rate
- Fixed Cost Recovery
- Fixed Charge Components (*Customer | Capacity | Demand*)
- Volumetric Design (*Uniform | Tiers*)

File name: ppt/13

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