SFID Total Usage Characteristics

- **Comments on May Data Presentation**
  - Previous difficulty with service areas / census-designations / zip code(s) overlay that can impact data presented
- **Cost-of-Service review**
  - Presented information does not change previous recommendations for rate structure or potential outcome
  - Information presented by community does not impact cost-of-service review, only SFID total use characteristics
  - GPCD analysis is not useful for cost-of-service
  - HCF analysis is how cost-of-service is accomplished & how ratepayers are billed for usage

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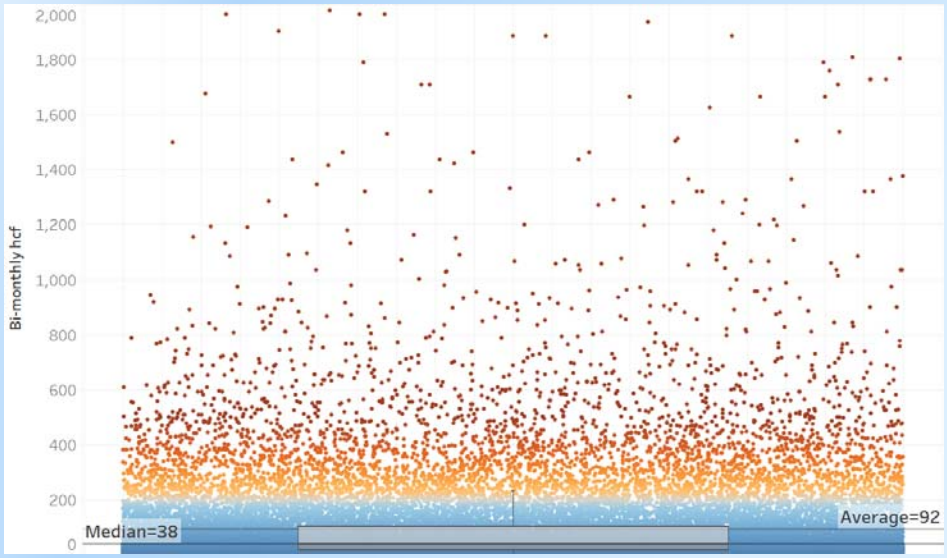
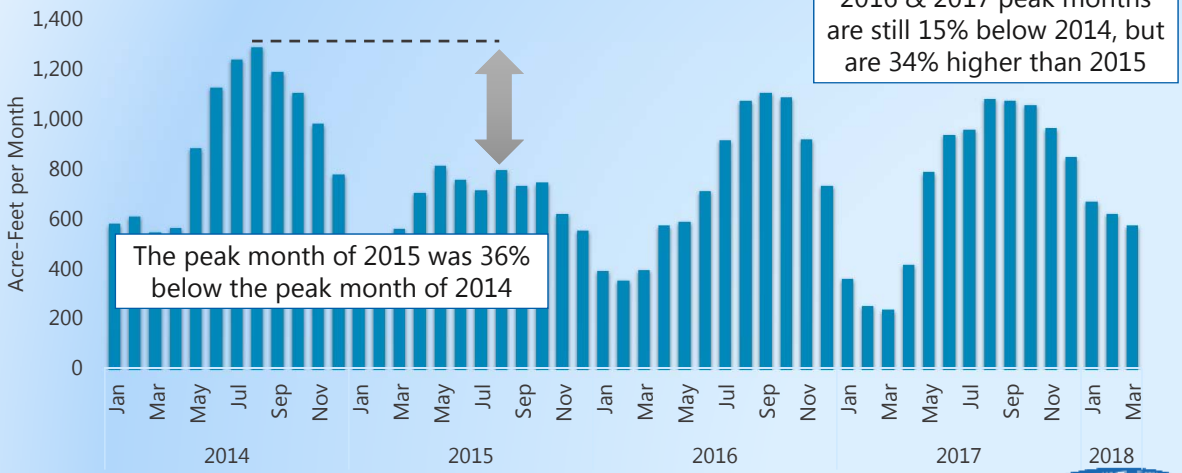
SFID Total Usage Characteristics



* *FY 2017 Usage Data, SFR only, all meter sizes*

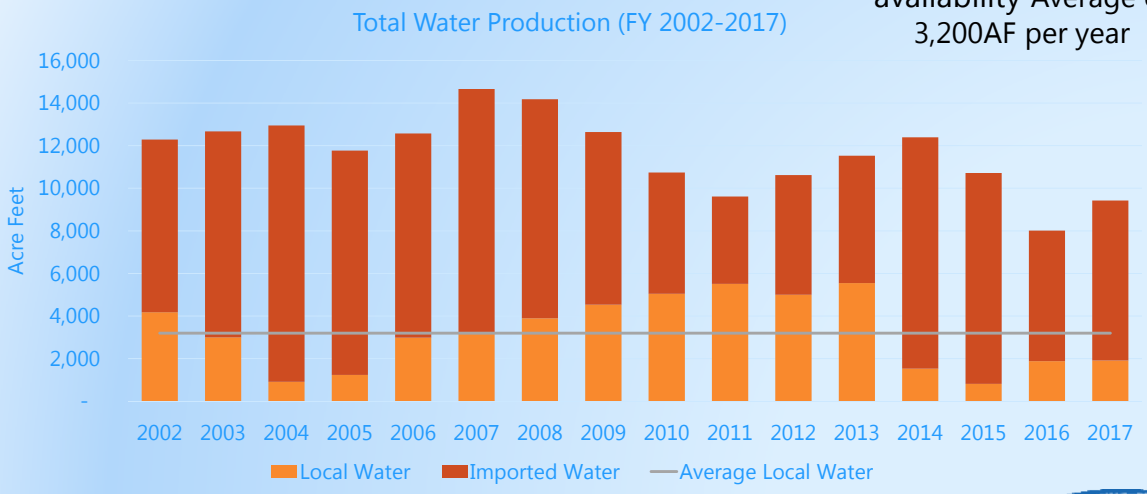
SFID Usage Characteristic Info

- Monthly water consumption is seasonal and shows a strong ability to conserve



SFID Usage Characteristic Info

Historical local water availability Average of 3,200AF per year



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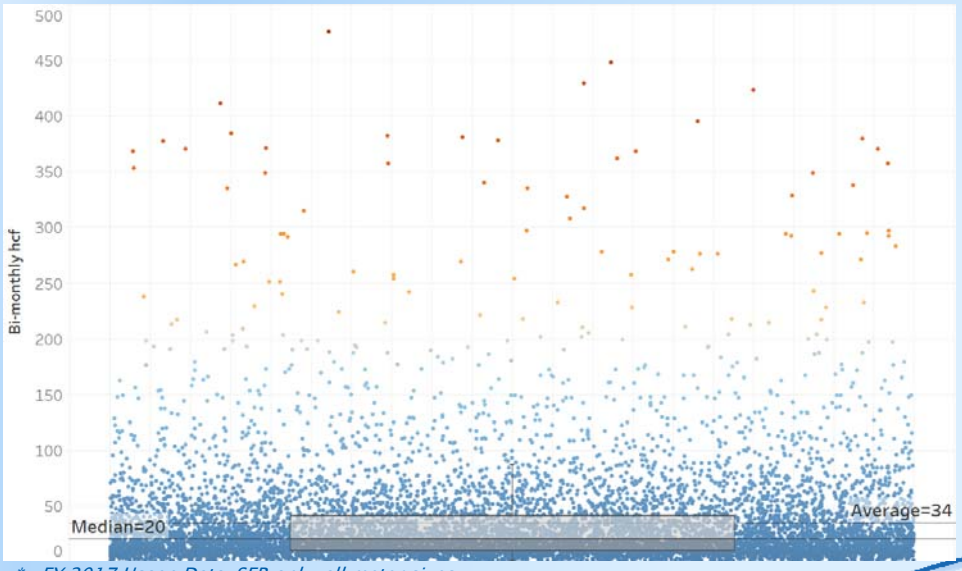
SFID Winter Use Characteristics**



* *FY 2017 Usage Data, SFR only, all meter sizes*

** January – March reads

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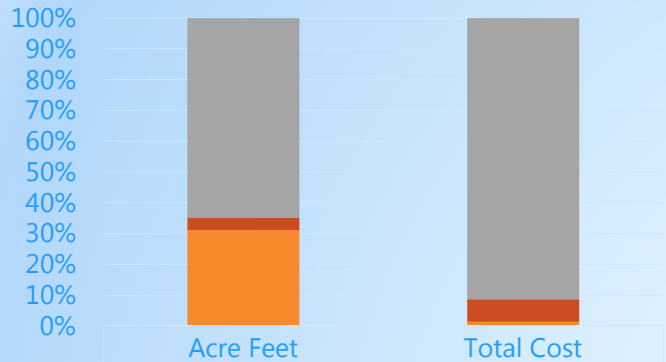
Forecasted CY 2019 Water Supply Costs



	Acre Feet	Total Cost
Untreated Imported	6,650	$6,842,621
Treated Imported	423	$551,634
Local Water Supply	3,200	$100,757

- Over 5X cheaper than peak imported water costs

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Addt'l SFID Usage Characteristic Info

		Average Local Water Level	FY19 Adopted Budget
A	Local Water - AF	3,200	1,720
B	Connections *	6,618	6,618
C=A/B	Local Water Per Connection - AF	0.5	0.3
D	HCF Per AF	435	435
E=C*D	HCF Per Connection	210	113
F=E/6	HCF Per Bi-Monthly Period	35	19

** Not including fire or recycle, as of June 20, 2018*

- Local water availability averages 27% of annual demand
- HCF per bi-monthly period w/ average local water is sufficient to provide SFR average winter use levels

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Rate Structure Review

- **May 29, 2018 Workshop & Carollo Review:**
  - Board of Directors interest in reviewing following structures:
    1. **Unitary Rate:**
       - Revenue nexus would not adequately align with how and why higher cost water is incurred
       - Higher levels of consumption are directly correlated with increased supply costs
    2. **Inclining Tier Rate:**
       - Allows revenue structure to better align with SFID characteristic of local water availability
    3. **Meter Based Rate:**
       - Equity and reasonableness concerns with SFID characteristics & meter inventory

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Rate Structure Preliminary Finding

Two Volumetric Tiers:

- Local Water & Treated Water Purchases (for annual plant maintenance)
- Imported (Untreated) Water

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Fixed Meter Charge

- **Fixed cost recovery percentage:**
  - Revenue generation is important for financial stability to agency
  - Impacts on ratepayers based on various levels of volumetric consumption
  - Level of fixed charge will have a converse impact on volumetric rate structure

SFID Characteristics

Single Family Customers		HCF			
Meter Size	# Accounts	1st Quartile	2nd Quartile (Median)	Average	3rd Quartile
0.75	3,381	12	23	37	42
1.00	1,624	36	84	121	167
1.50	641	58	147	226	320

** Does not include 75 meters of 5/8, 2, & 3"*

- Review of fixed costs for SFID and other local agencies for single-family residential based on usage

Fixed Rate Comparison – 3/4" Meters

3/4" Meter	0 HCF	1Quartile (12HCF)	2Quartile (23HCF)	Average (37HCF)	3Quartile (42HCF)	100HCF
Carlsbad	$ 66.72	$ 113.16	$ 158.19	$ 265.72	$ 261.16	$ 667.16
% Fixed	100.0%	59.0%	42.2%	25.1%	25.5%	10.0%
Del Mar	$ 89.46	$ 142.86	$ 191.81	$ 265.72	$ 294.42	$ 627.34
% Fixed	100.0%	62.6%	46.6%	33.7%	30.4%	14.3%
Helix	$ 47.87	$ 103.67	$ 156.65	$ 242.54	$ 276.49	$ 670.31
% Fixed	100.0%	46.2%	30.6%	19.7%	17.3%	7.1%
Poway	$ 39.33	$ 109.89	$ 168.69	$ 256.89	$ 286.29	$ 627.33
% Fixed	100.0%	35.8%	23.3%	15.3%	13.7%	6.3%
Santa Fe Irrigation District	$ 85.08	$ 113.88	$ 141.52	$ 185.32	$ 212.67	$ 529.93
% Fixed	100.0%	74.7%	60.1%	45.9%	40.0%	16.1%

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Fixed Rate Comparison – 1" Meters

1" Meter	0 HCF	1Quartile (36HCF)	2Quartile (84HCF)	Average (121HCF)	3Quartile (167HCF)	200HCF
Carlsbad	$ 202.48	$ 248.92	$ 293.95	$ 325.36	$ 396.92	$ 802.92
% Fixed	100.0%	81.3%	68.9%	62.2%	51.0%	25.2%
Del Mar	$ 149.10	$ 202.50	$ 251.45	$ 325.36	$ 354.06	$ 686.98
% Fixed	100.0%	73.6%	59.3%	45.8%	42.1%	21.7%
Helix	$ 69.95	$ 125.75	$ 178.73	$ 264.62	$ 298.57	$ 692.39
% Fixed	100.0%	55.6%	39.1%	26.4%	23.4%	10.1%
Poway	$ 63.12	$ 133.68	$ 192.48	$ 280.68	$ 310.08	$ 651.12
% Fixed	100.0%	47.2%	32.8%	22.5%	20.4%	9.7%
Santa Fe Irrigation District	$ 136.32	$ 165.12	$ 192.76	$ 236.56	$ 263.91	$ 581.17
% Fixed	100.0%	82.6%	70.7%	57.6%	51.7%	23.5%

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SDCWA Fixed Charges

Rate Component	SDCWA Apportionment Methodology	Current Collection Methodology	CY 2019 Cost	CY 2019 Bill Impact
Supply Reliability Charge	5-yr Rolling Average (usage)	Meter Equivalents	$572,916	$8.88
Storage Charge	3-yr Rolling Average (usage)	Meter Equivalents	1,261,500	$19.55
Customer Service	3-yr Rolling Average (usage)	Meter Equivalents	456,804	$7.08
MWD CRC	5-yr Rolling Average (Peak)	Meter Equivalents	183,064	$2.84
MWD RTS	10-yr Rolling Average (usage)	Meter Equivalents	281,340	$4.36
Infrastructure Access	Meter Equivalents	Meter Equivalents	377,676	$6.02
			$3,133,300	**$48.72/MEU**

Notes: 10,757 Forecasted MEUs. IAC based on Proposed CY 2019 CWA Rates and Charges.

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SDCWA Recovery Preliminary Findings

Rate Component	Apportionment Methodology	Proposed Collection Methodology	Unit Rate ($/CCF)
Supply Reliability Charge	5-yr Rolling Average (usage)	Billed Usage	$0.13
Storage Charge	3-yr Rolling Average (usage)	Billed Usage	0.09
Customer Service	3-yr Rolling Average (usage)	Billed Usage	0.10
MWD CRC	5-yr Rolling Average (Peak)	Billed Usage	0.29
MWD RTS	10-yr Rolling Average (usage)	Billed Usage	0.04
			$0.65
Infrastructure Access	Meter Equivalents	Meter Equivalents	$6.02/MEU

Notes: Current forecasted usage of 4,408,890 CCF. IAC based on Proposed CY 2019 CWA Rates and Charges.

Recommended change in collection methodology more closely aligns with how the cost is incurred.

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Fixed Charge Preliminary Finding(s)

- Fixed cost charge can be adjusted or maintained
- Though Demand Management Rates should be considered, reduction in fixed charges would further necessitate adoption to ensure revenue sufficiency with declining consumption
- SDCWA primary recovery though fixed charge shifted to volumetric component & potential "backfill" with other fixed costs

COST-OF-SERVICE ADDITIONAL INPUTS & DISCUSSION

Board of Directors

June 27, 2018

Additional Inputs for Discussion

- **Length of cost-of-service period**
  - Three year rate study
- **Local water availability during cost-of-service period**
  - Reserve utilization
- **Operation and maintenance expenditures**
- **Debt financing for capital improvement program**
  - Details of financing timeline & additional items

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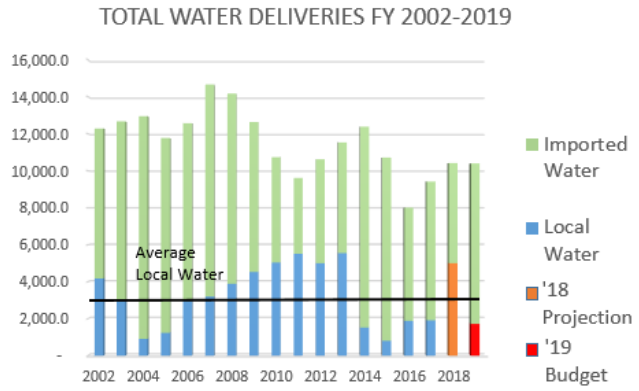
Local Water Availability

- **Level of water to be available from Lake Hodges**
  - One of the most critical inputs into SFID rate study



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Local Water Availability

- **Cost-of-Service Year 1:** 1,720 AF
- **Cost-of-Service Year 2:** 2,490 AF
- **Cost-of-Service Year 3:** 3,200 AF

- **? Utilization of long-run average or more conservative figure**
  - Rate change impacts
- **? Utilization of rate stabilization to "smooth" local water amount**
  - Maintain long-run average, while recognizing low current availability
  - Impact from FY 2018 financial outcome / local water use
- **? Separate reserve fund**

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O&M & Cost-of-Service Inputs

	FY 2019	FY 2020	FY 2021	FY 2022
Account Growth	-	0.0%	0.0%	0.0%
Water Demand Change [1]	-	0.5%	0.5%	0.5%
Water Sales (Acre Feet) [2]				
Potable	10,400	10,450	10,500	10,550
Recycle	500	500	500	500
Water Purchases (Acre Feet)				
Imported Treated	500	500	500	500
Imported Raw	7,698	7,360	6,638	6,301
Local Water (Acre Feet)	1,720	2,105	2,875	3,260
Other Revenue Assumptions				
Capacity Fees [3]	Budget	$ 75,000	$ 75,000	$ 75,000
Other Revenues [3]	Budget	$ 200,000	$ 200,000	$ 200,000
Expense Escalation Assumptions				
General	Budget	3.0%	3.0%	3.0%
Salary	Budget	3.0%	3.0%	3.0%
Benefits	Budget	4.0%	4.0%	4.0%
Benefits - Medical	Budget	10.0%	10.0%	10.0%
Benefits - CalPERS	Budget	5.0%	5.0%	5.0%
Chemicals	Budget	4.0%	4.0%	4.0%
Utilities	Budget	5.0%	5.0%	5.0%
Capital	Budget	3.0%	3.0%	3.0%

1 - Based on UWMP 2020-2040 growth rate

2 - Assumed 2% non-revenue water, FY 2018 YE projection of 10,350AF sales. 2015 UWMP projected 10,478AF of potable and raw water in 2020.

3 - Based on long-run revenue average

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Debt Financing for Capital Program

- **Debt Issuance Positive Impacts:**
  - Intergenerational repayment for long-term asset(s)
  - Reduced need for pay-go / rate impacts
- **Debt Issuance Considerations:**
  - Covenant requirements
  - Maintenance of quality credit / rate impacts
  - Debt capacity limits / large capital projects
  - Potential tax implications
  - Rising interest rate environment
  - Complexity on securitizing improvements of joint facilities (two bond issuances ?)

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Debt Financing for Capital Program

- **Debt issuance approximate timeline:**
  - January 2019: Development of RFP for Financial Advisor and financing syndicate
  - March 2019: Financial Advisor award / begin development of preliminary official statement
  - May 2019: Financial structure & preliminary official statement development
  - Aug. 2019: Final disclosure review / official statement completion / credit rating review
  - Sept./Oct. 2019: Marketing / pricing / sale of bonds

- **Proceeds not to be expected for capital program until fall 2019**
- **Reimbursement resolution possible, with increase in complexity**

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Debt Financing for Capital Program

$ in thousands - inflated @ 3.1%	FY 2019	FY 2020	FY 2021	FY 2022
SFID Total Projects	$ 5,736.7	$ 5,647.2	$ 5,525.7	$ 5,768.4
Joint Facilities Projects - SFID Share	$ 3,357.5	$ 3,318.1	$ 2,076.6	$ 2,312.6
TOTAL CIP	$ 9,094.2	$ 8,965.3	$ 7,602.3	$ 8,081.0

- **Cash flow generation through rates**
  - District reserve levels & cash on hand balance
  - Greater return on capital with alternative use than pay-go (i.e. CalPERS)
- **Significant impact on rates not anticipated in current cost-of-service timeframe**
  - Greater impact on rates over long-term capital borrowing program

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Questions?