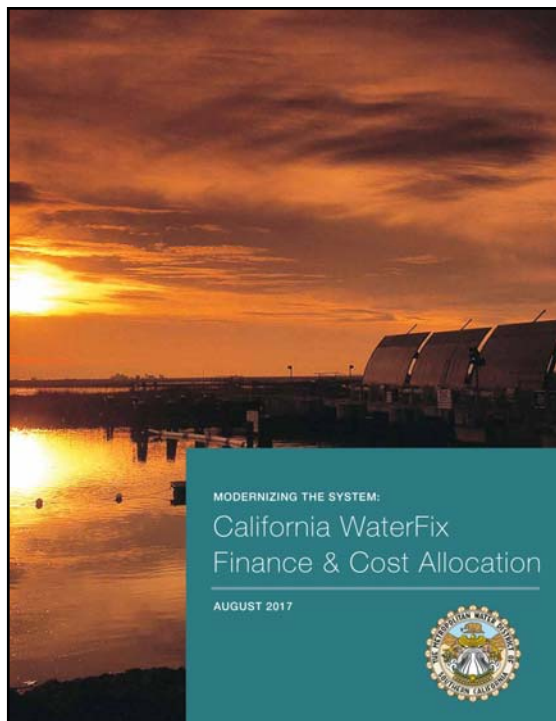


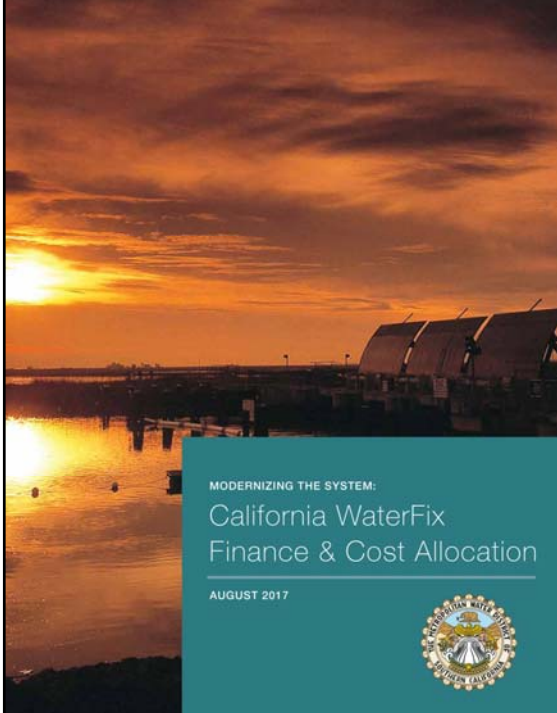
## California WaterFix – Finance & Cost Allocation

MWDOC-MET Directors'  
Joint Board Workshop  
September 6, 2017



## Board Review Process

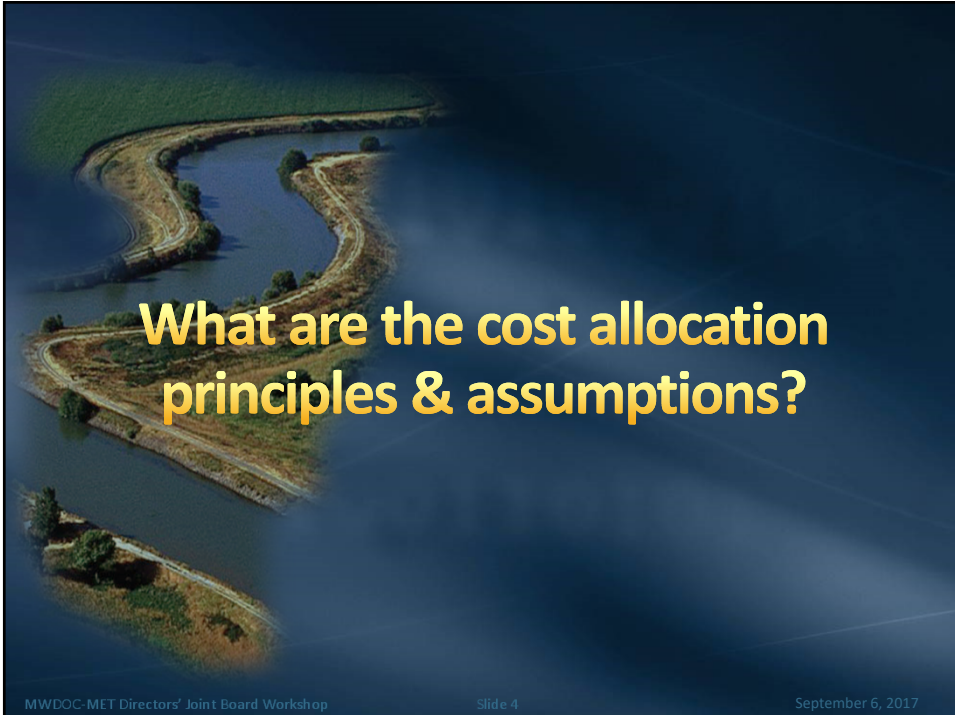

- Process
  - White Papers
  - Workshop
  - Board Action
- Three white papers
  - Infrastructure
  - Operations
  - Finance & Cost Allocation
- Focus of today



**Focus of Today**

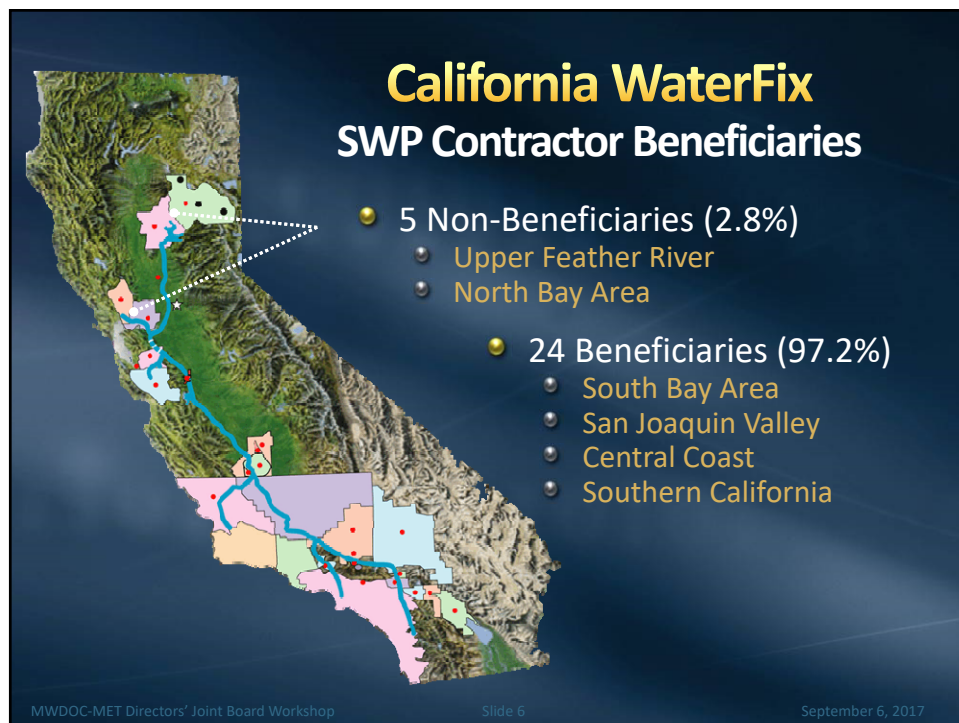
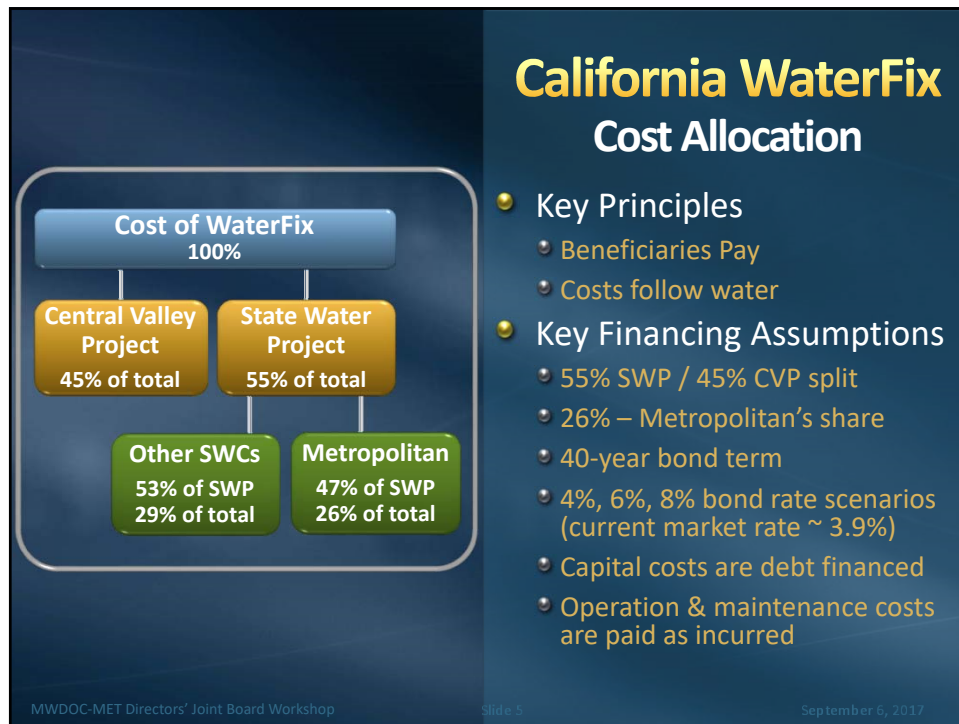
- What are the cost allocation principles & assumptions?
- What is the financing plan?
- How does it impact Metropolitan's costs and water rates?
- What is the cost of project alternatives?

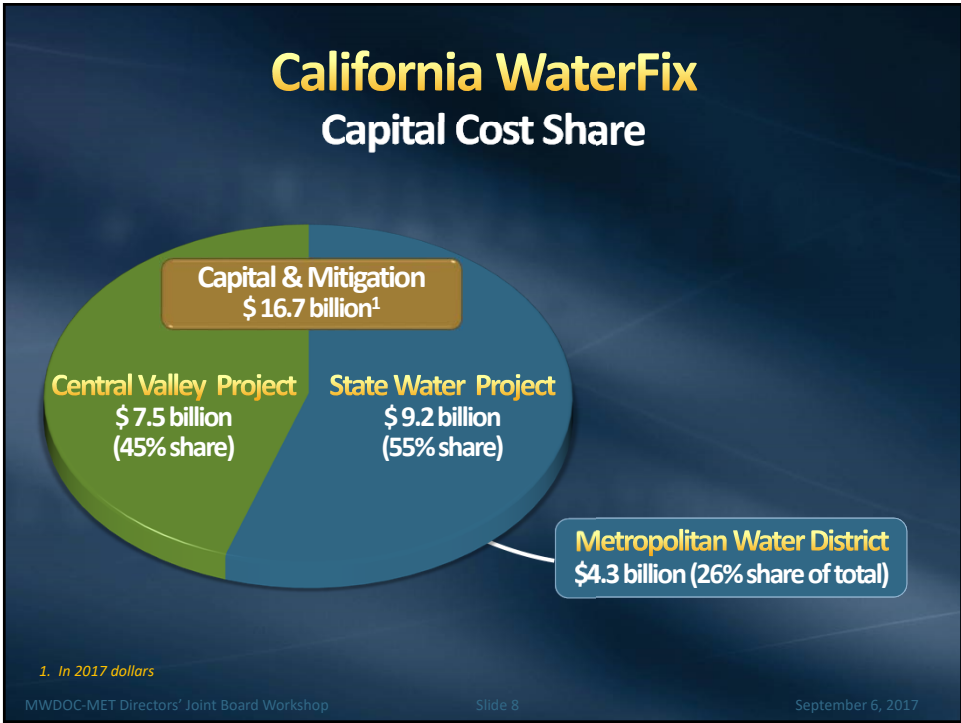
MODERNIZING THE SYSTEM:  
California WaterFix  
Finance & Cost Allocation  
AUGUST 2017



**What are the cost allocation principles & assumptions?**

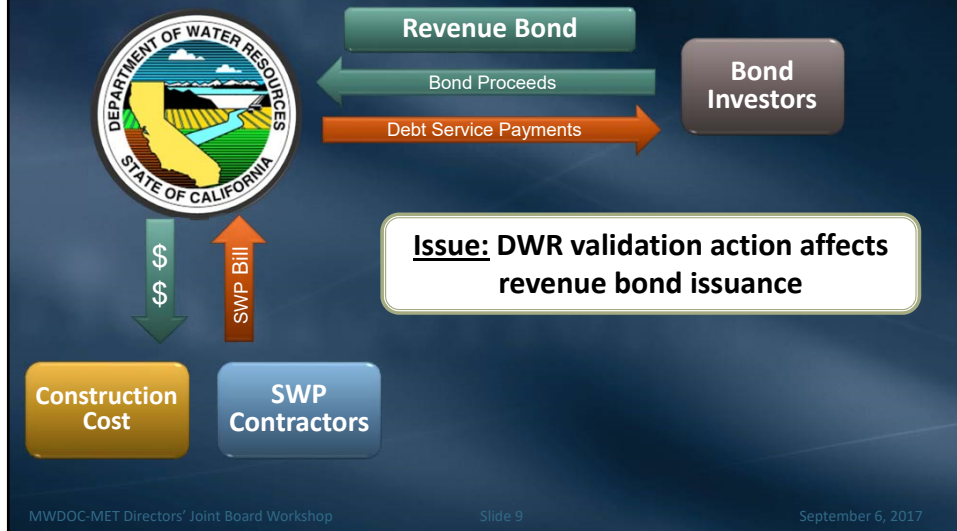
MWDOC-MET Directors' Joint Board Workshop      Slide 4      September 6, 2017





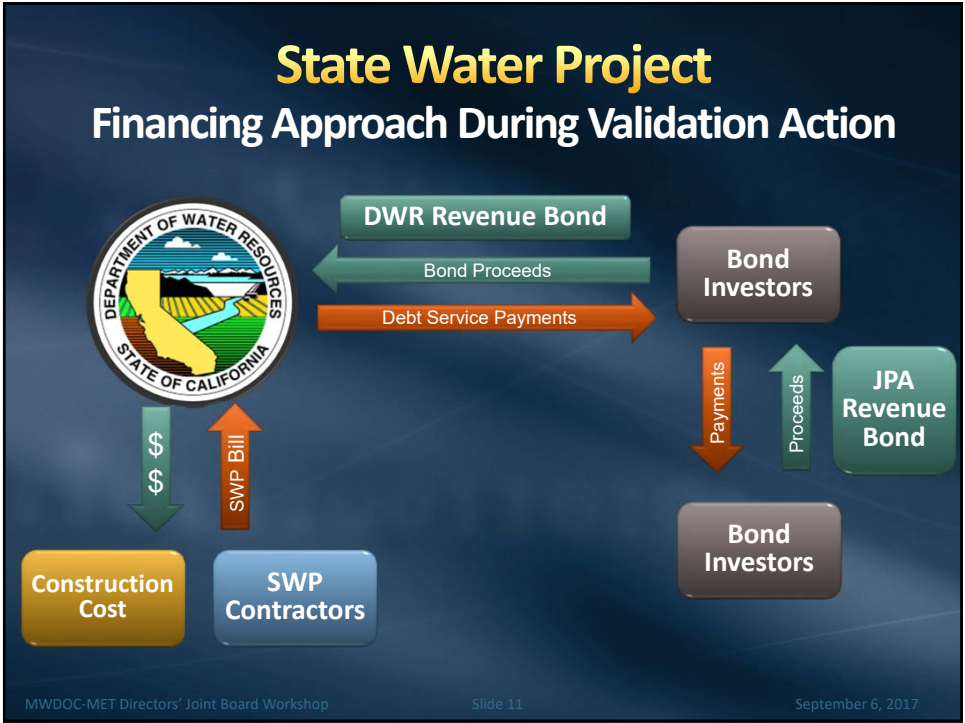


## State Water Project Current Financing Approach



## California WaterFix DWR Court Filed Validation Action

- Judicial proceeding to affirm a public agency's authority over finance matters (e.g. issuance of bonds)
- Common practice for public agencies to file validation action for major bond issuances & significant public financing actions
- DWR filed a validation with Sacramento County Superior Court regarding its authority to issue revenue bonds for California WaterFix
- Marketability of bonds affected during validation proceeding



## California WaterFix Capital Cost

ITEM	2014 (\$ Billions)	2017 (\$ Billions)
<b>Conveyance Facility</b>		
• Construction	9.5	10.4
• Contingency for construction (~36%)	3.4	3.7
• Program Mgmt.   Construction Mgmt.   Engineering	1.9	2.1
• Land acquisition (includes 20% contingency)	.15	.16
<b>Subtotal</b>	<b>14.9</b>	<b>16.3</b>
<b>Mitigation</b>	<b>.37</b>	<b>.40</b>
<b>Total</b>	<b>\$15.3 B</b>	<b>\$16.7 B</b>

MWDOC-MET Directors' Joint Board Workshop

Slide 13

September 6, 2017

## California WaterFix Operations & Maintenance

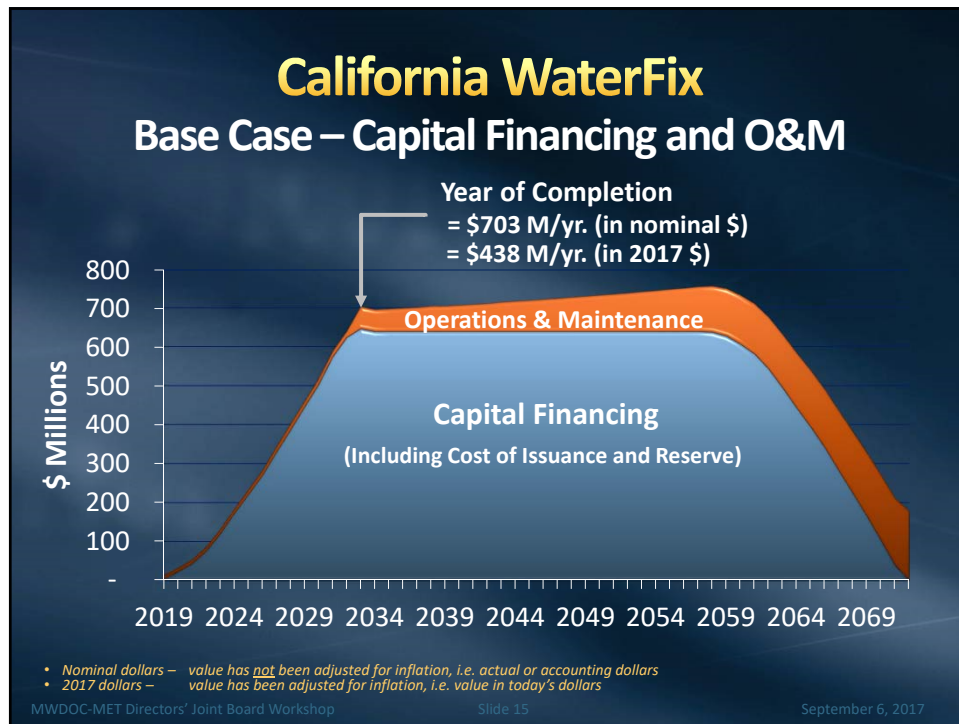
ITEM	2014 (\$ M/yr.)	2017 (\$ M/yr.)
<b>Conveyance Facility</b>		
• Facility Operations & Maintenance <sup>1</sup>	20.0	21.9
• Power <sup>1</sup>	6.6	7.2
• Capital Replacement <sup>1</sup>	13.7	15.0
<b>Subtotal</b>	<b>40.3</b>	<b>44.1</b>
<b>Mitigation</b>	<b>18.6</b>	<b>20.3</b>
<b>Total</b>	<b>\$58.9 M/yr.</b>	<b>\$64.4 M/yr.</b>

<sup>1</sup> When project is fully operational

MWDOC-MET Directors' Joint Board Workshop

Slide 14

September 6, 2017



## Cost Impact Summary in 2017 Dollars

	Base Case 4% Interest	6% Interest Scenario	8% Interest Scenario
<b>State Water Project Share</b>			
• SWP Total Annual Costs (Capital + O&M)	\$438 M	\$567 M	\$709 M
<b>Metropolitan's Share Annual Project Cost</b>			
• Total Costs (47.13% of SWP)	\$207 M	\$268 M	\$334 M
<b>Metropolitan's Cost Impact</b>			
• Metropolitan's Overall Cost Increase <sup>1</sup>	13%	17%	21%
• Annual Cost Increase (spread over 15-yrs)	0.9%	1.1%	1.4%
• Average Cost Increase per AF <sup>2</sup>	\$122/AF	\$157/AF	\$196/AF

(1) Based on Metropolitan's 2017/18 Revenue Requirement of \$1,574 M  
 (2) Based on Metropolitan's 2017/18 sales budget of 1.70 million acre-feet

MWDOC-MET Directors' Joint Board Workshop      Slide 16      September 6, 2017



## Metropolitan Cost Impact

- Calculation Method and Assumptions
  - Annual cost increase to Metropolitan = \$207 Million (Base Case)
  - 2017/2018 Budgeted Water Sales = 1.7 Million AF
  - Cost impact per acre-foot = Annual Cost / 1.7 Million AF
- Cost Impacts
  - Base Case 4% Interest
    - \$122 per AF = \$207M / 1.7 Million AF
  - 6% Interest Case
    - \$157 per AF = \$268M / 1.7 Million AF
  - 8% Interest Case
    - \$196 per AF = \$334M / 1.7 Million AF

MWDOC-MET Directors' Joint Board Workshop

Slide 17

September 6, 2017

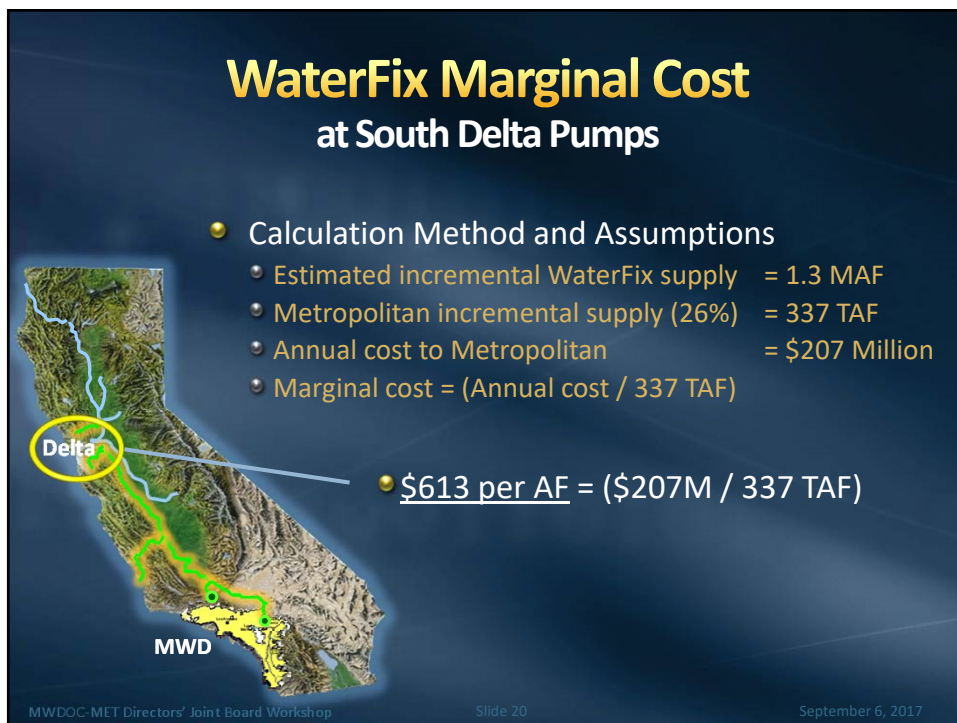
## California Water Fix Comparison to 10-Year Financial Forecast



MWDOC-MET Directors' Joint Board Workshop


Slide 18

September 6, 2017



## WaterFix Marginal Cost


### Delivered & Treated to MWD Service Area



- Calculation Method and Assumptions
  - Marginal cost of WaterFix at Delta pumps = \$613/AF
  - Marginal cost to convey & treat SWP supply = \$227/AF
    - Power for transportation = \$197/AF
    - Variable treatment costs = \$ 30/AF
  - Marginal cost in MWD Service Area
    - Marginal Costs at Delta Pumps + Power & Variable Treatment

● \$840 per AF = \$613 + \$227

MWDOC-MET Directors' Joint Board Workshop      Slide 21      September 6, 2017



## Alternative Resource Costs

### Member Agency Examples

<ul style="list-style-type: none"> <li>● California WaterFix               <ul style="list-style-type: none"> <li>● Delivered &amp; Treated<sup>1</sup></li> </ul> </li> </ul>	\$840/AF
<hr style="border: 0.5px dashed #ccc;"/>	
<ul style="list-style-type: none"> <li>● Recycled Water               <ul style="list-style-type: none"> <li>● Edward C. Little Water Recycling Facility<sup>2</sup></li> <li>● Local Resources Program (avg. of projects)<sup>3</sup></li> <li>● San Diego Pure Water Project<sup>4</sup></li> </ul> </li> </ul>	\$1,739 /AF \$2,240/AF \$1,975 – \$2,375/AF
<ul style="list-style-type: none"> <li>● Seawater Desalination               <ul style="list-style-type: none"> <li>● Carlsbad Desalination Project<sup>5</sup></li> </ul> </li> </ul>	\$2,412/AF
<ul style="list-style-type: none"> <li>● Groundwater Recovery               <ul style="list-style-type: none"> <li>● Local Resources Program (avg. of projects)<sup>3</sup></li> </ul> </li> </ul>	\$1,157/AF

1. WaterFix in 2017 dollars; includes costs to deliver and treat water to MWD's Service Areas (Power=\$197/AF; Variable treatment=\$30/AF)  
 2. Unit cost from LRP FY2013/14 reconciliation with grants  
 3. Project unit cost from the Local Resources Program FY13/14 reconciliation; grants included in cost; in 2013 dollars  
 4. Unit costs in 2011 dollars and before grants or netting out avoided costs (from the June 14, 2012, SDCWA Board presentation); in 2011 dollars  
 5. Estimated unit cost from the June 2017 SDCWA Board presentation; in 2017 dollars

MWDOC-MET Directors' Joint Board Workshop      Slide 22      September 6, 2017

## Household Impacts

### WaterFix

- Calculation Method and Assumptions
  - Residential water use = ~70% of total regional water use
  - Metropolitan's service area = ~6.2 million occupied households
  - Household impact calculation:
    - Monthly Impact = (Annual Cost x .70) / 6.2 million / 12 months
- Household Impacts
  - Base Case
    - \$1.90 = (\$207M x .70) / 6.2 Million / 12
  - 6% Interest Case
    - \$2.50 = (\$268M x .70) / 6.2 Million / 12
  - 8% Interest Case
    - \$3.10 = (\$334M x .70) / 6.2 Million / 12

MWDOC-MET Directors' Joint Board Workshop

Slide 23

September 6, 2017

## Water Supply Alternatives

### Average Cost Impact

Alternatives	Average Cost Impact	
	Household <sup>1</sup>	Metropolitan <sup>2</sup>
California WaterFix	\$1.90 / month	13% increase
Recycling Focus	\$4.50 / month	31% increase
Desalination Focus	\$6.90 / month	47% increase

1. Household impact based on 6.2 million occupied residential households in MWD Service area, 70% residential / 30% industrial split  
 2. Based on Metropolitan's 2017/18 Revenue Requirement of \$1,574 million

MWDOC-MET Directors' Joint Board Workshop

Slide 24

September 6, 2017



## Summary

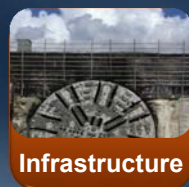
- ✓ California WaterFix is consistent with Board principles that costs follow water and beneficiaries pay
- ✓ Finance plan utilizes the existing State Water Contract structure and a Finance JPA
- ✓ Cost impact is already factored into the existing Metropolitan 10-Year Financial Forecast
- ✓ California WaterFix compares favorably to the costs of other alternative supply projects

MWDOC-MET Directors' Joint Board Workshop

Slide 25

September 6, 2017

## California WaterFix Board Review



Topic	Board/Committee Meeting	Date
Infrastructure	Special Committee on Bay-Delta Water Planning and Stewardship	Jul 10
Operations	Special Committee on Bay-Delta Water Planning and Stewardship	Jul 25
Finance/Cost Allocation	Special Committee on Bay-Delta Water Planning and Stewardship	Aug 14
Board Questions & Follow Up	Special Board Meeting	Sep 26
Board Action	Special Board Meeting	Sep 26

MWDOC-MET Directors' Joint Board Workshop

Slide 26

September 6, 2017



