Recycled Water Seasonal Storage: Selection of Preferred Alternative

Item 5A

August 1, 2016

Agenda

- Introduction
- Background, Basis of Design Report and Stakeholder Polling
- Public Outreach
- Funding and Financing Strategy
- Staff Recommendation
- Stakeholder/Public Comment

Jim Borchardt

Recycled Water Basis of Design Report

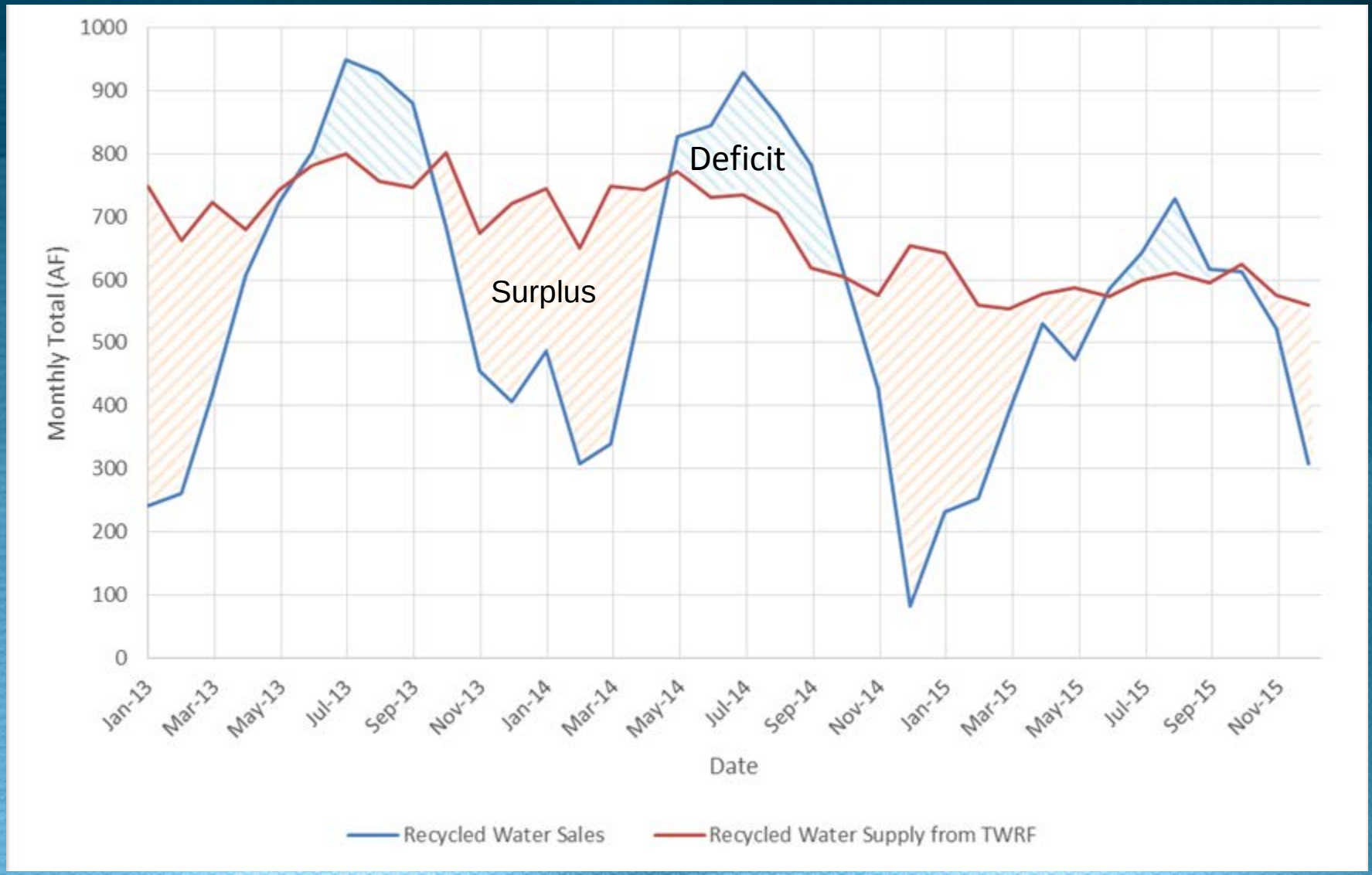
Executive Summary – August 1, 2016

MWH now part of Stantec

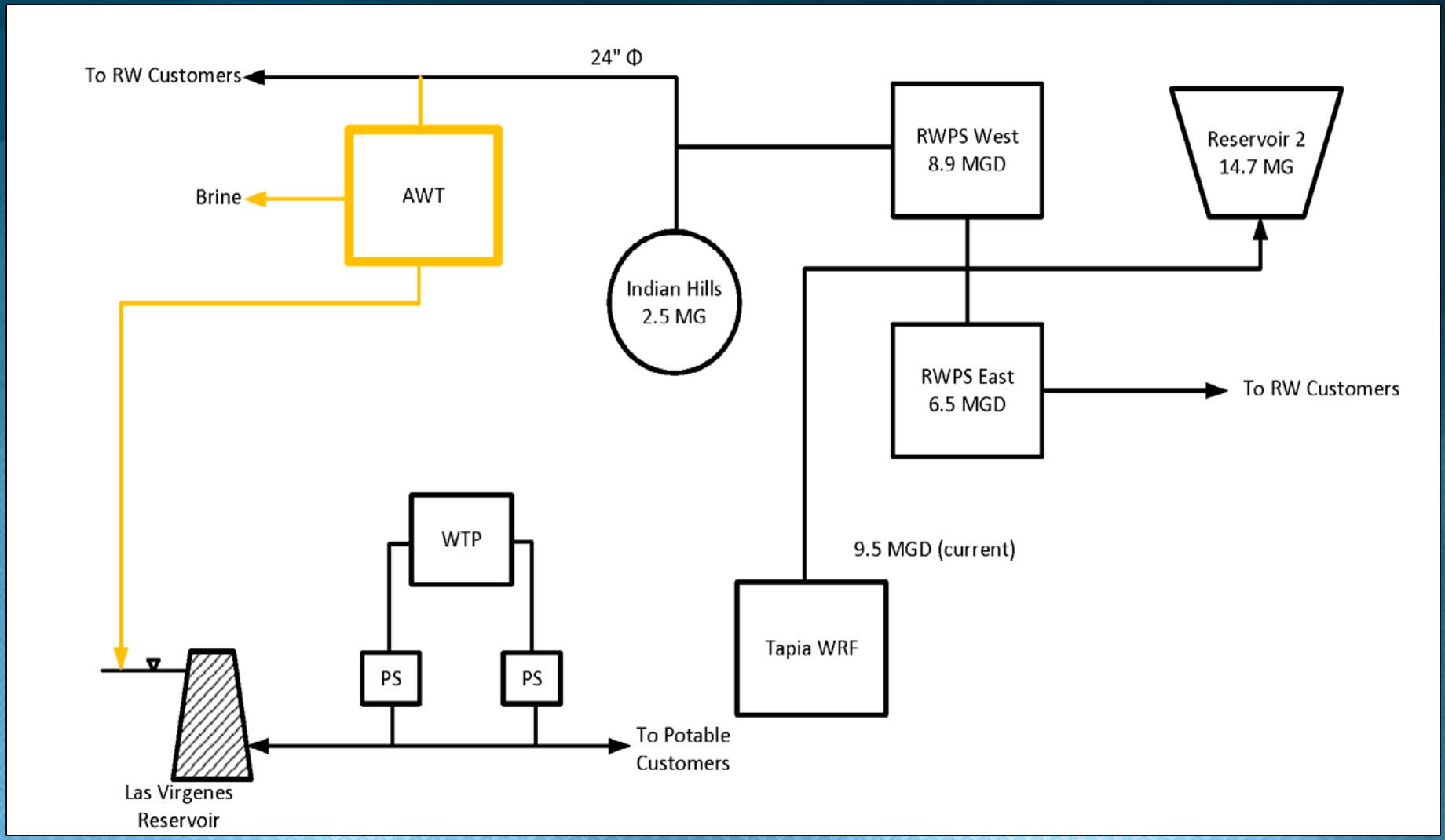
Background

- Increasing regulations for discharging to Malibu Creek
- June 2, 2015 – Guiding Principles
- June 19, 2015 – Plan of Action
- Basis of Design Report
  - Reservoir management strategy
  - Hydraulic analysis
  - Siting studies
  - Regulatory investigations
  - Schedule and cost development

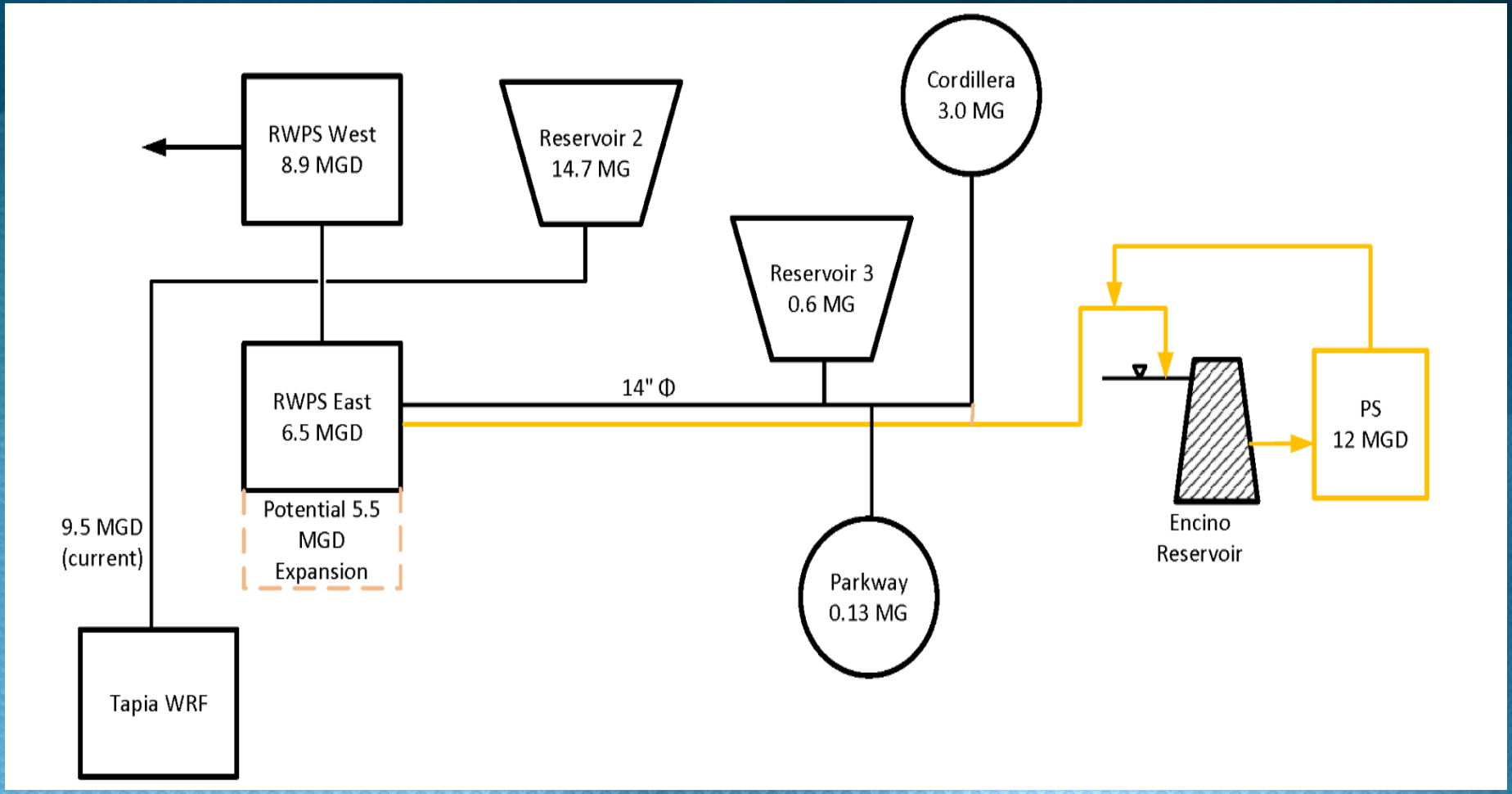
Project Driver:
Balancing Supply & Demand



Scenario 4 -Schematic



Scenario 5 - Schematic



Available Recycled Water Projections for Scenario 4 and 5

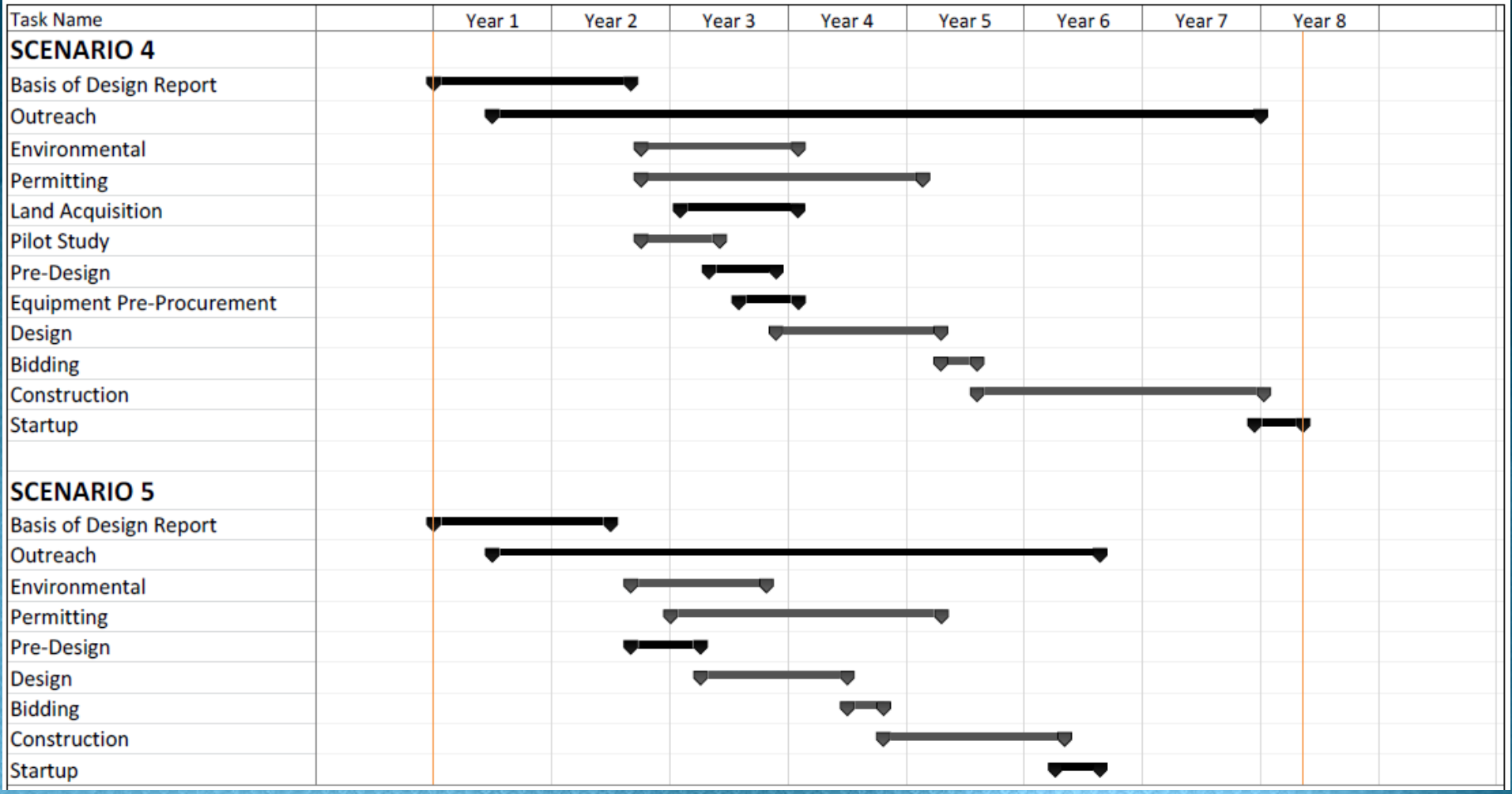
Scenario 4				
Year	**Supply**	**Supply plus Average Calculated Imported Supplement (AF)**	**Demand**	**Gross Surplus Recycled Water**
2016	7,060 - 9,361	7,349 - 9,650	6,547*	802 – 3,102
2035	10,590 – 12,320	10,879 – 12,609	6,547*	4,332 – 6,062
Scenario 5				
Year	**Supply**	**Supply plus Average Calculated Imported Supplement (AF)**	**Demand***	**Gross Surplus Recycled Water**
2016	7,060 – 9,361	7,349 – 9,650	6,547*	802 – 3,102
2035	10,590 – 12,320	10,879 – 12,609	8,942	1,937 – 3,667

*Based on fifteen year average of RW demand

Scenario Costs

Description	Scenario 4	Scenario 5
Estimated Total Capital Costs (rounded)	$ 95,313,000	$80,962,000
Estimated Year 1 O&M	$2,663,000	$910,000
Imported Water Savings	($2,373,000)	($714,000)
Net Total O&M (rounded)	$290,000	$196,000
Year 1 Unit Cost per AF	$1,720	$1,410
Present Worth of Annual Costs (Savings)	($80,685,000)	($21,309,000)
Net Present Worth (Rounded)	$13,504,000	$59,653,000

Facility Schedule



Polling Results

(Which Scenario is Preferred?)

	Scenario 4	Scenario 5
Guiding Principles		
Maximize Beneficial Reuse	22	5
Seek Cost Effective Solutions	22	11
Seek Partnerships beyond JPA	15	12
Gain Community Support	23	5
Govern with a Partnership	14	10
Be Forward Thinking	32	1
Subtotal	128	44
Objectives		
Reuse 100% of Our Water	25	7
Regional Partnerships	12	15
Public Support for Project	16	14
Cost/Benefit	21	9
Beneficial to Water Users Including Rate Payers	25	6
Maximize Funding Sources	16	12
Public Perception and Acceptance	12	18
Eliminate Unreasonable Use and Waste of Water	20	8
Transparency	18	6
Seasonal and Diurnal Equalization	17	8
Balance of Supply and Demand (Right Balance)	26	4
Reduce Reliance on Imported Water	30	2
Regulatory Constraints and Framework	7	19
TMDL Compliance in Malibu Creek and Santa Mor	14	6
Regulations	9	18
Sustainability	26	5
Siting of Reservoirs and other Infrastructure	16	11
Protecting Beneficial Uses in Malibu Creek	16	4
Environmental Stewardship and Leadership	23	3
Subtotal	349	175
Risk Concerns		
NIMBY	19	7
Agency Coordination	25	5
Project Costs	8	21
Demand	27	3
Water Quality	25	6
Drinking Water Standards	20	11
YUCK (Public Perception)	15	18
Brine Disposal	14	18
CEQA	18	6
Politics	21	5
Right of Way/LAND	17	10
Subtotal	209	110
Grand Total	686	329

Karen Snyder

Brian Thomas

Seasonal Storage Project
Phase 1: Identifying and Evaluating Funding Options

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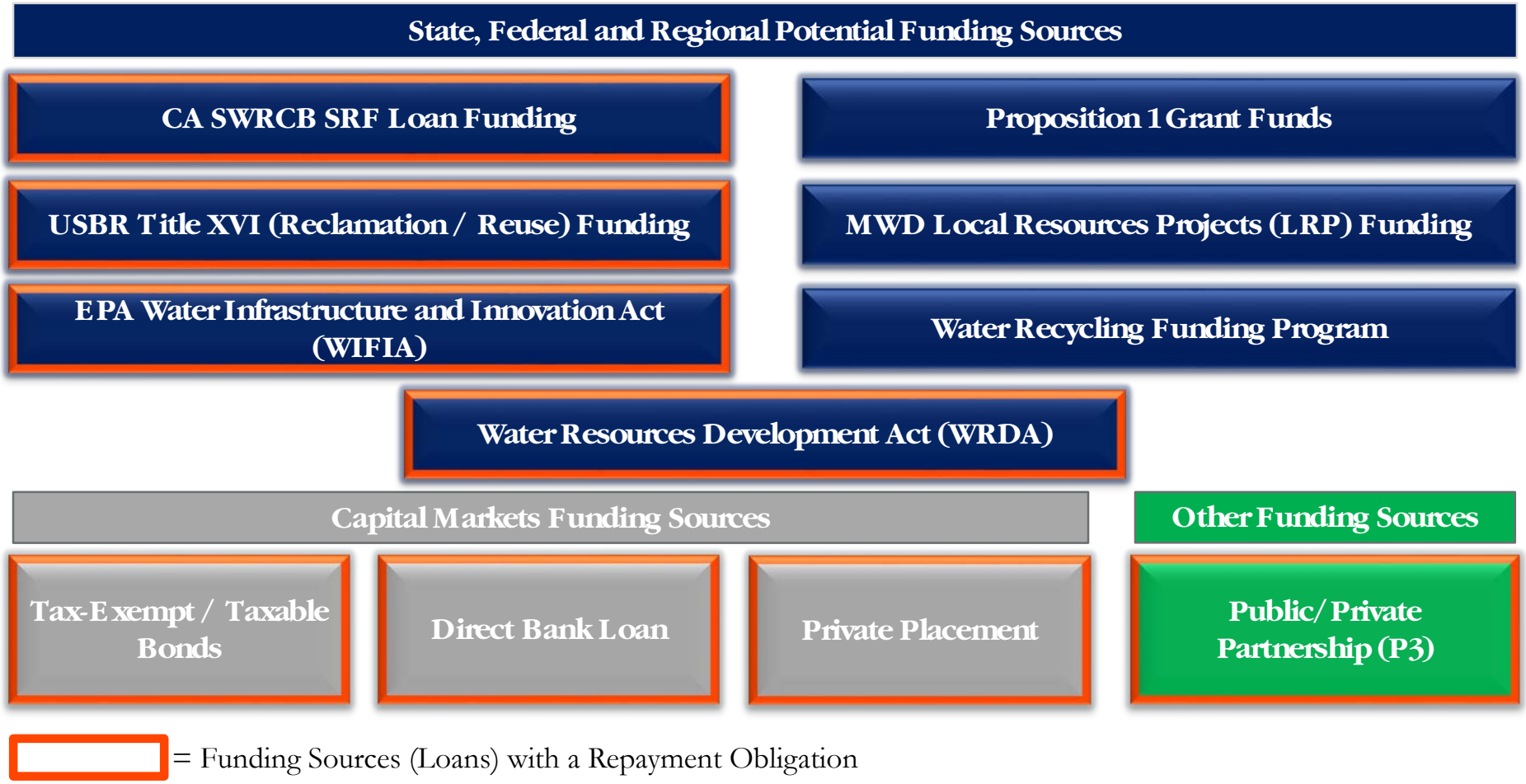
Identifying Potential Funding Sources

- Potential funding sources for the seasonal storage project include grants, low-cost loans, debt placed in the capital markets and private equity
  - Must be Eligible Project for grant / low-cost loan programs



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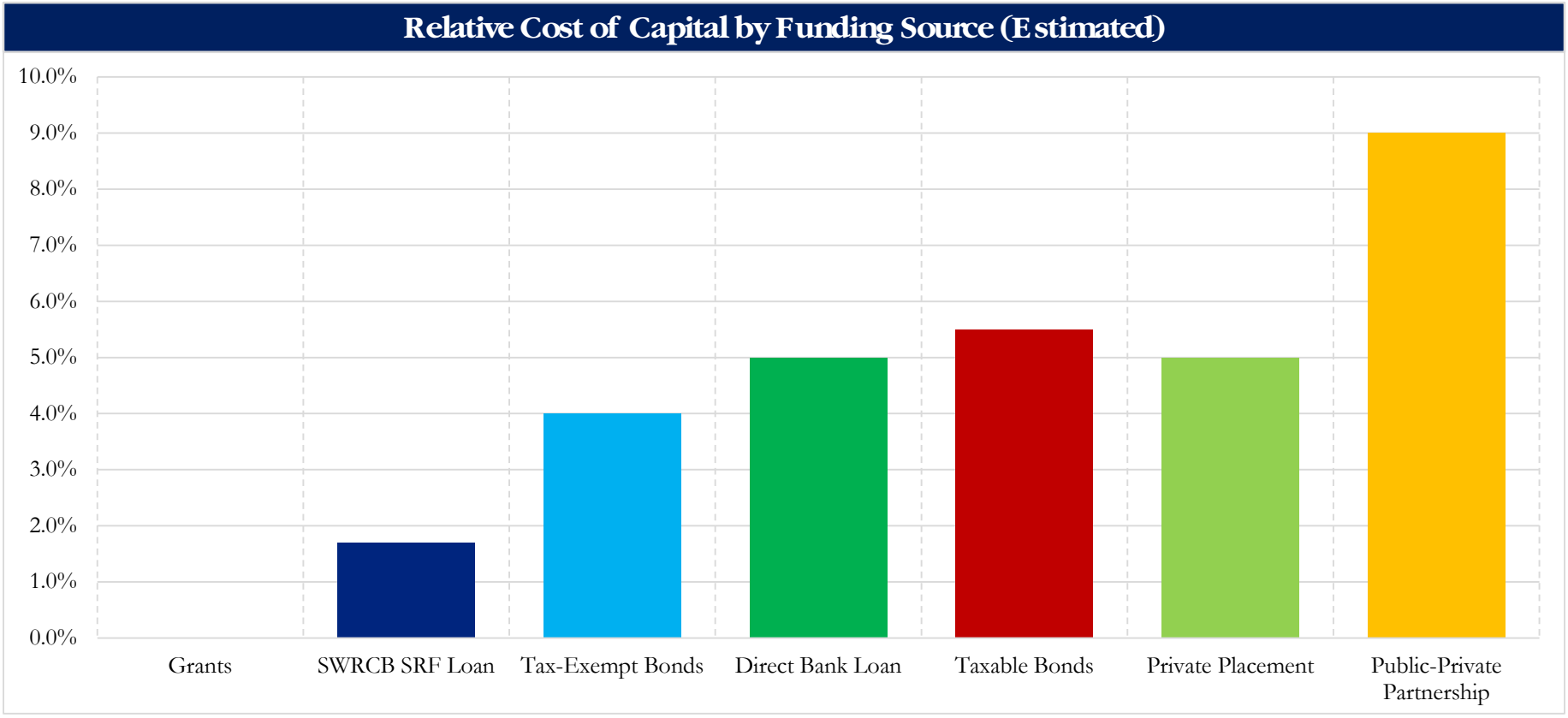
Funding Source Relative Cost Comparison

- The relative cost of capital varies between different funding sources
  - Each funding source has a unique cost / risk profile
- Grants and SRF loans currently provide the lowest capital cost
  - Subject to capacity limits and increased competition



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Scenario Analysis

- Scenario 1 (combination of grants and SRF loans) represents the lowest cost of funds with a weighted average cost of capital of 1.66%
- Scenario 2 represents the most likely scenario with funding procured from three sources (grants, SRF loans, and tax-exempt municipal bonds) and still produces an attractive cost of funds

Potential Funding Scenarios			
Scenario	**Scenario 1**	**Scenario 2**	**Scenario 3**
Description			
Funding Sources	Grants / SRF	Grants / SRF/ T-E Bonds	Grants / T-E Bonds
Total Capital Cost		$95,000,000	
Pay-Go Contribution	$10,000,000	$10,000,000	$10,000,000
Grant Funding	$15,000,000	$15,000,000	$15,000,000
SRF Loan (1.663%)	$70,000,000	$35,000,000	N/A
Municipal Bond (4.000%)	N/A	$35,000,000	$70,000,000
Repayment period	30 yrs	30 yrs	30 yrs
Financing Statistics			
Total Principal Paid	$73,684,986	$76,617,493	$79,550,000
Total Interest Paid	$18,434,676	$34,943,628	$51,391,034
Total Debt Service Paid	$92,119,662	$111,561,121	$130,941,034
NPV of Debt Service (3.50%)	$51,585,775	$62,481,332	$73,377,212
Average Annual Debt Service	**$3,400,000**	**$4,100,000**	**$4,820,000**
Weighted Average Cost of Capital	**1.66%**	**2.83%**	**4.00%**

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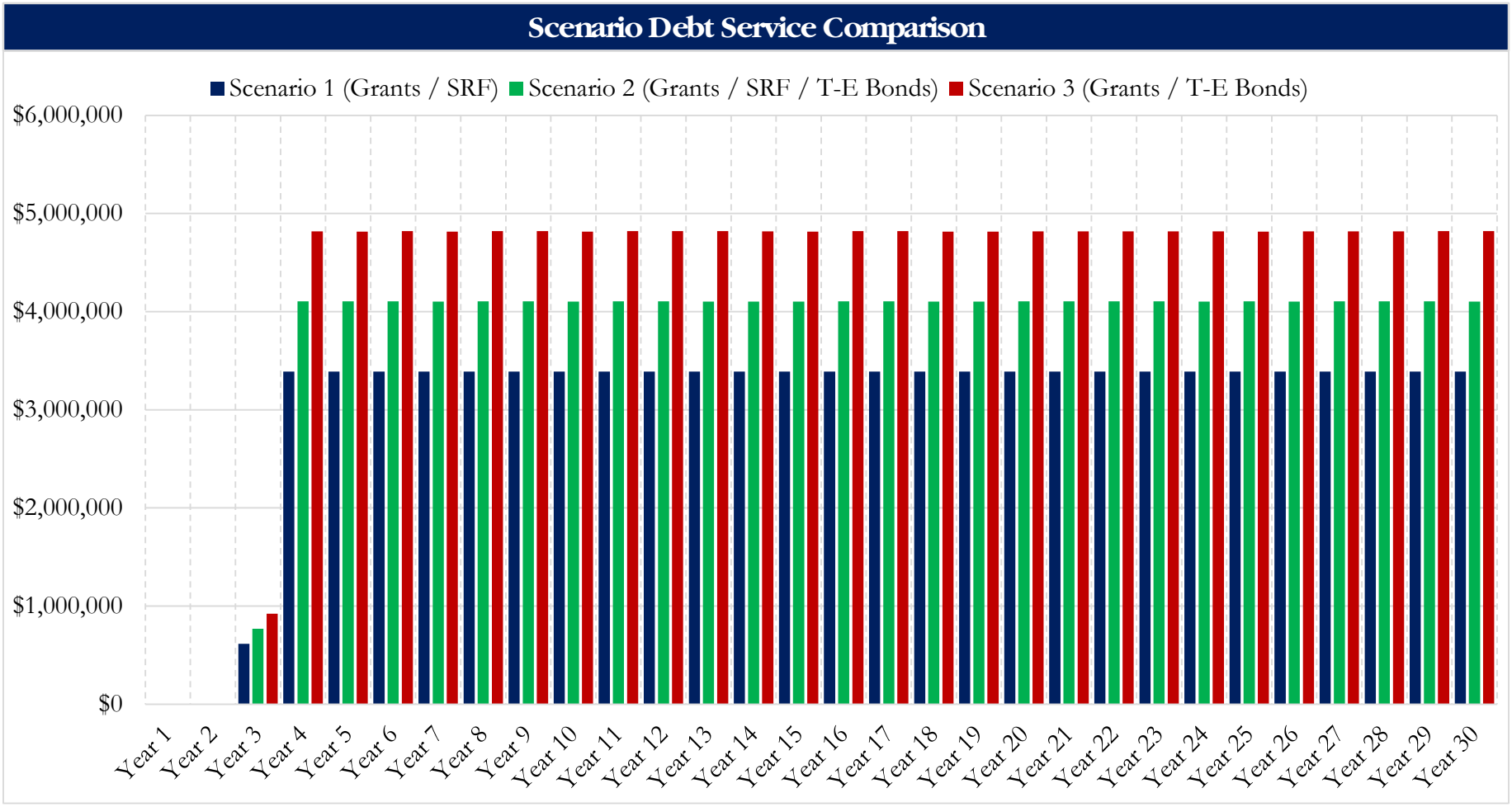
Scenario Debt Service

- Each scenario capitalizes interest until the project becomes operational (assumed 3-year construction)
- Scenario 3 produces average annual debt service costs of $4.8 million compared to $3.4 million for Scenario 1



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Project Objectives and Next Steps

- Seasonal Storage Project financing objectives
  - Obtain the lowest cost of borrowing
  - Minimize net impact to rate payers

- Risk Assessment
  - Determine the degree of risk transfer, if any
    - Financing risk
    - Construction risk
    - Operating risk

- Financing Structure
  - JPA financed
  - Individually financed

- Next steps include an assessment of the impact on overall revenues and rates

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Discussion