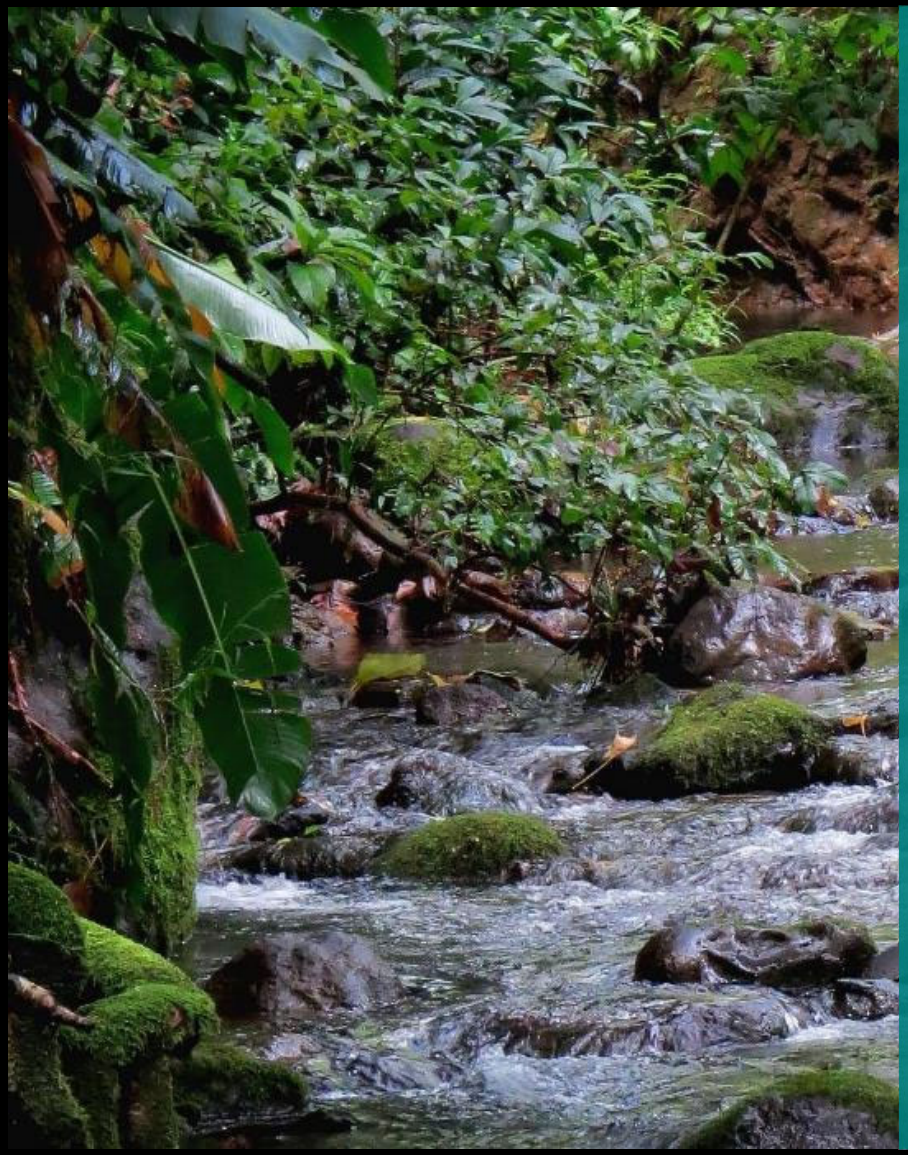


STAKEHOLDER ADVISORY GROUP

Board of Water Supply, City & County of Honolulu
October 15, 2026
Meeting 63



WELCOME & INTRODUCTIONS

DAVE EBERSOLD, FACILITATOR

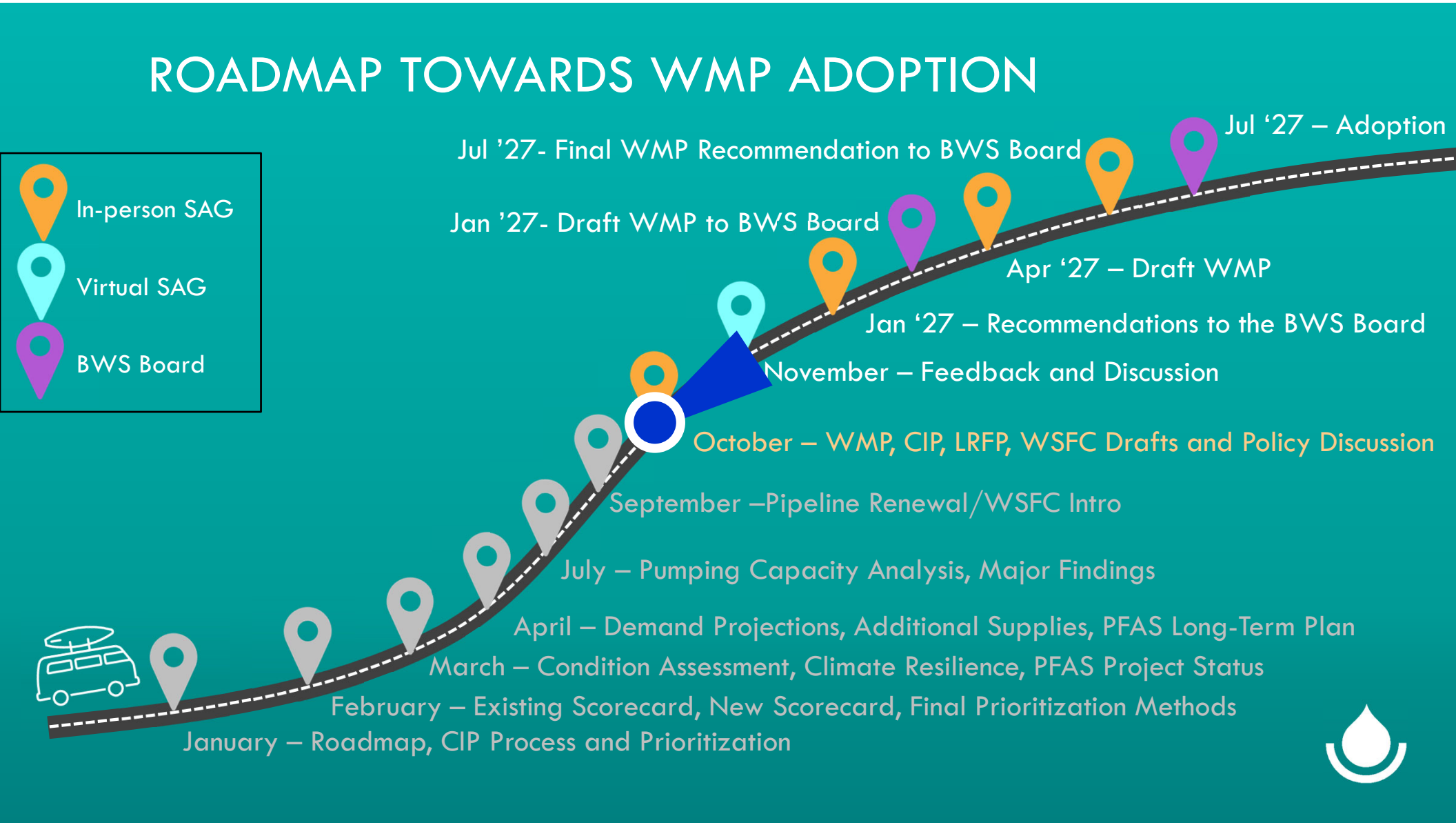
STAKEHOLDER ADVISORY GROUP MEETING 63

OCTOBER 15, 2026

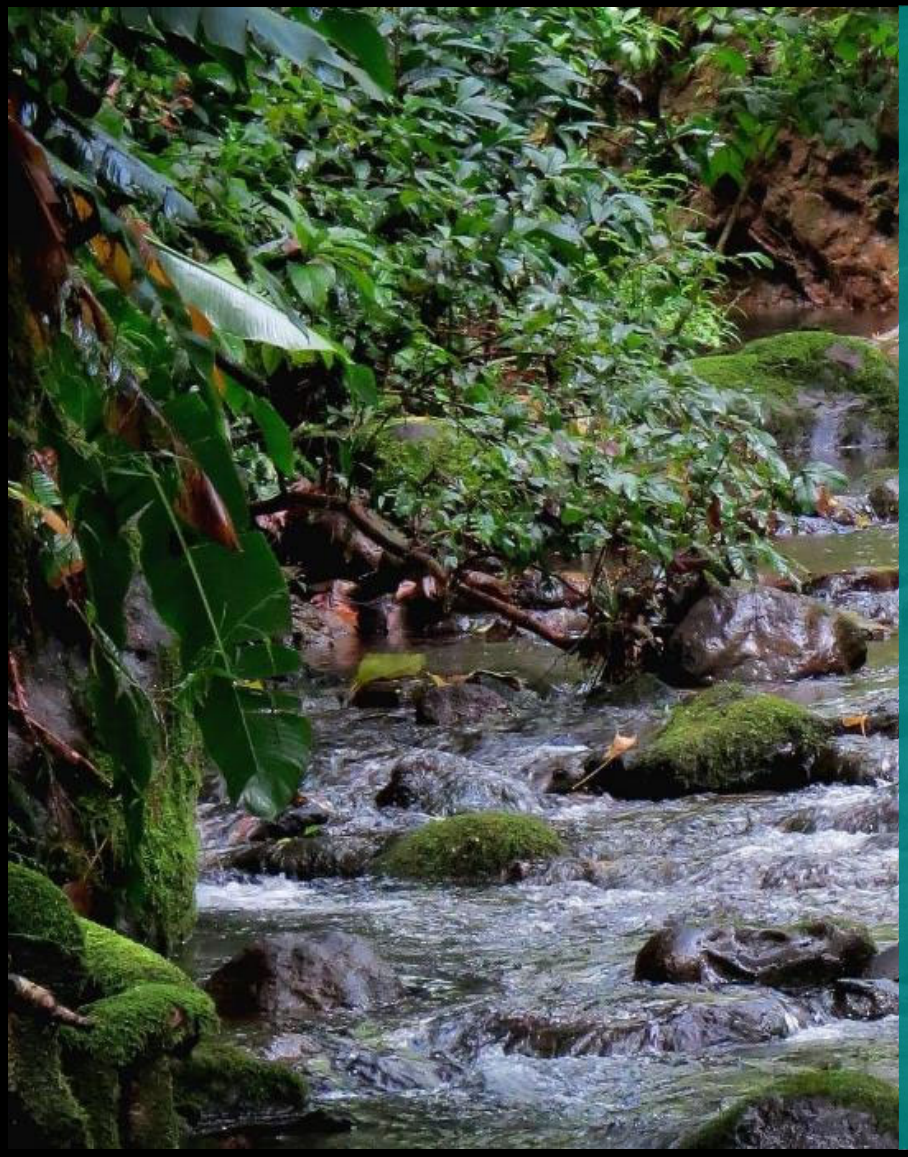
MEETING OBJECTIVES

- Welcome and public comment
- BWS updates
- Overview of Water Master Plan and Capital Improvement Program
- Accept notes from meeting #62
- Overview of Long-Range Financial Plan and Water Systems Facility Charge
- Receive feedback on overall plan and policy recommendations
- Adjourn

ROADMAP TOWARDS WMP ADOPTION



PUBLIC COMMENT ON AGENDA ITEMS

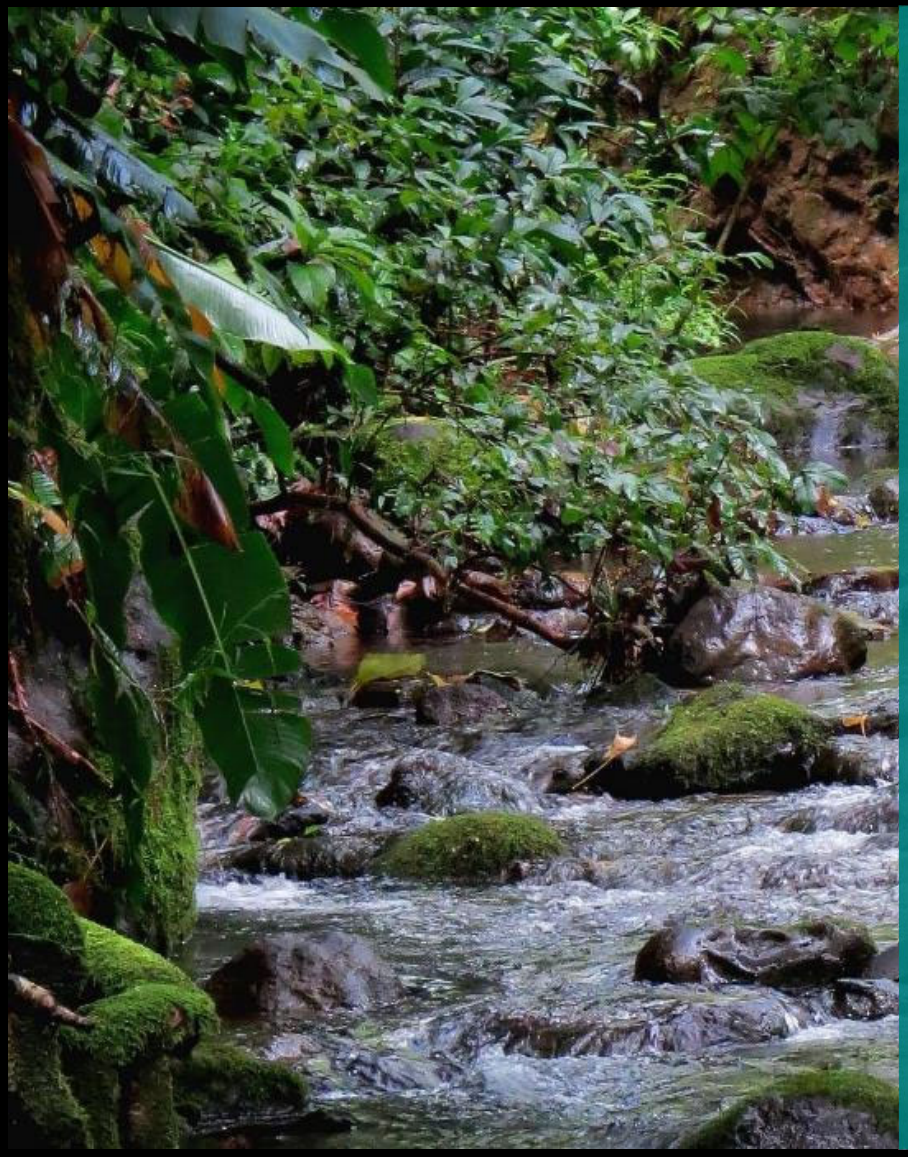


BWS UPDATES

Ernest Lau, PE
Manager and Chief Engineer

boardofwatersupply.com





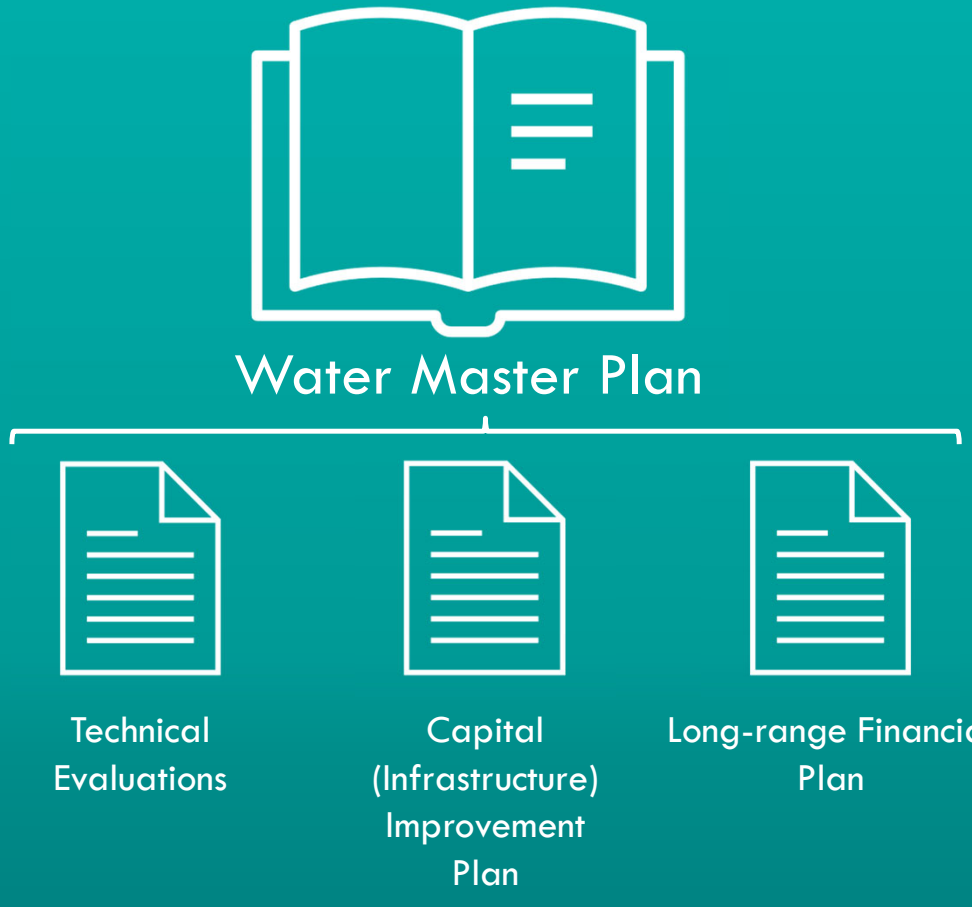
WATER MASTER PLAN

Carl Lundin, PE, PMP

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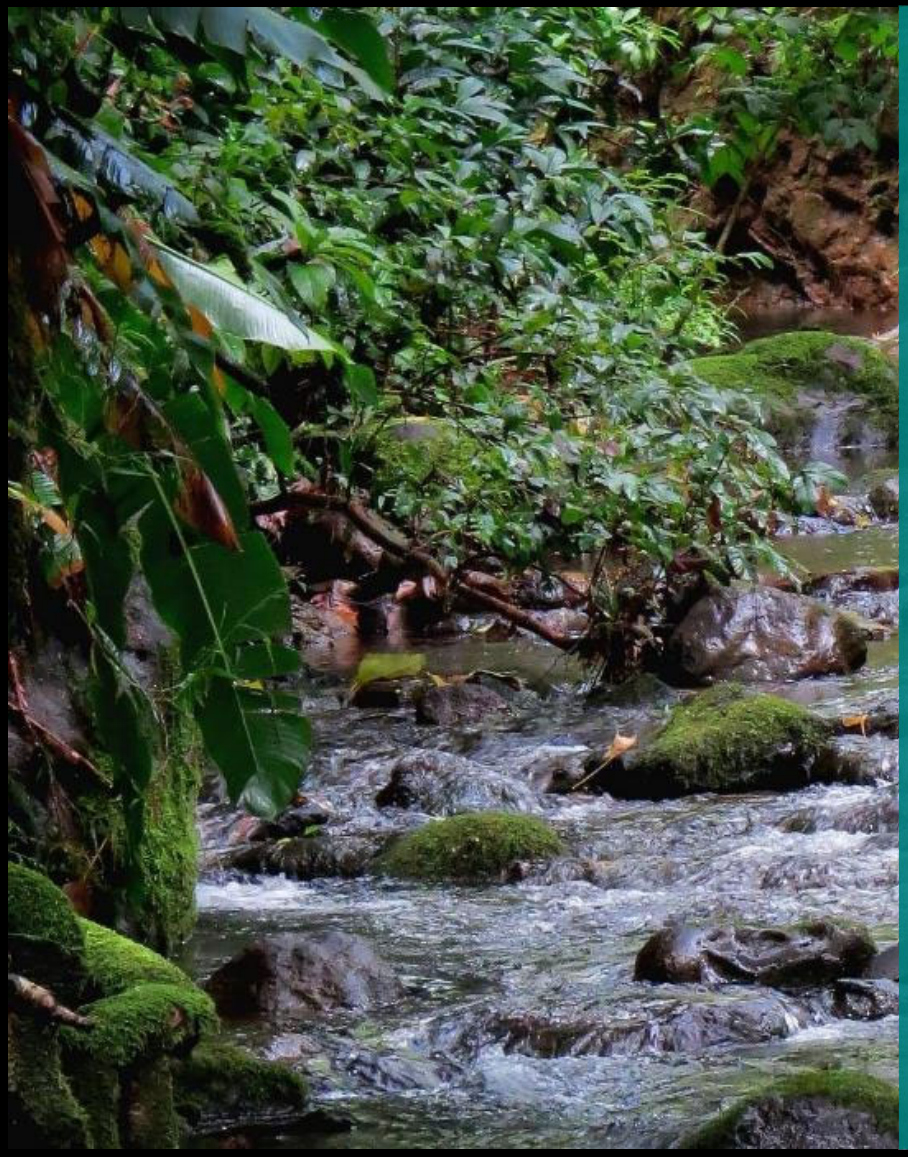


THE WMP LAYS OUT A 30-YEAR ROADMAP



PRIORITY THEMES OF RECENT TECHNICAL EVALUATIONS AND POTENTIAL METRICS

Reduce Pumps Offline	• Portion of pumps offline • Duration of repairs
Critical Replace/Rehab Reservoirs	• Number of reservoirs needing critical repair
Diversify/Solidify Source Portfolio	• Percentage of supply from drought tolerant sources
Keep up with Pipeline Replacement	• Main Breaks and Leaks • Total Risk
Reduce Water Loss	• Percentage Water Loss
Improve Climate Resiliency	• Portion of Pump Stations/Sources hardened



CAPITAL IMPROVEMENT PROGRAM

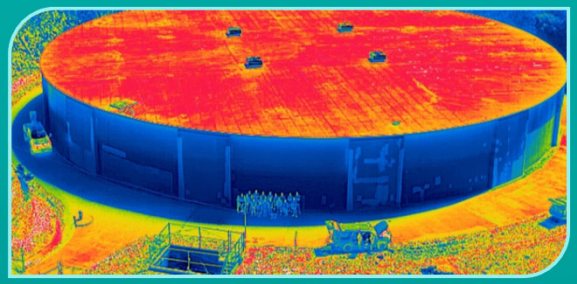
Carl Lundin, PE, PMP

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TECHNICAL EVALUATIONS FORM THE CORE GUIDANCE AND FEED THE CIP







DEMAND AND CAPACITY

Water Demand Projections
Transmission Capacities

CONDITION ASSESSMENT

Physical Condition Inspections
Climate Vulnerability Assessment

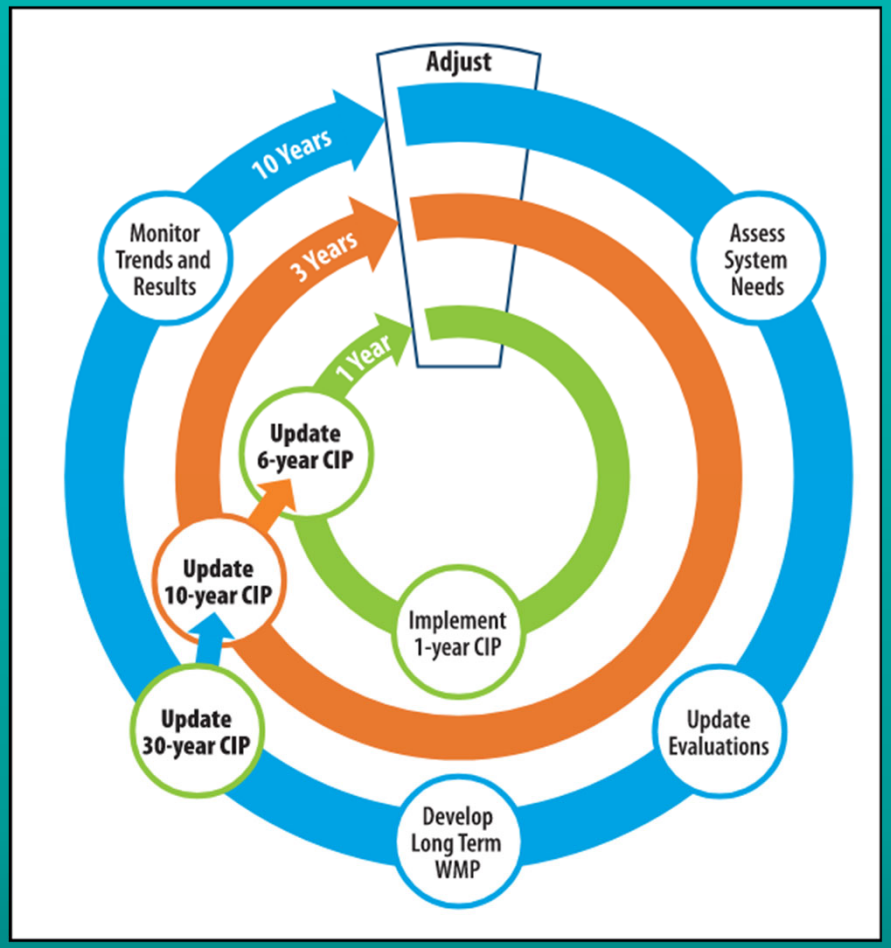
SOURCE ASSESSMENT

Water Resource Evaluation
New Source Requirements
Water Quality and Treatment Needs

Climate Modeling, Impact, Mitigation

CIP PROCESS

- Tech Evaluations identify required projects
- Costs/schedules are estimated
- Prioritization score is developed
- Projects are scheduled
- Prioritized 30-year CIP



CAPITAL IMPROVEMENT PLAN SETS CAPITAL COSTS FOR LONG RANGE FINANCIAL PLAN

Capacity Expansion – Growth related capacity expansion projects

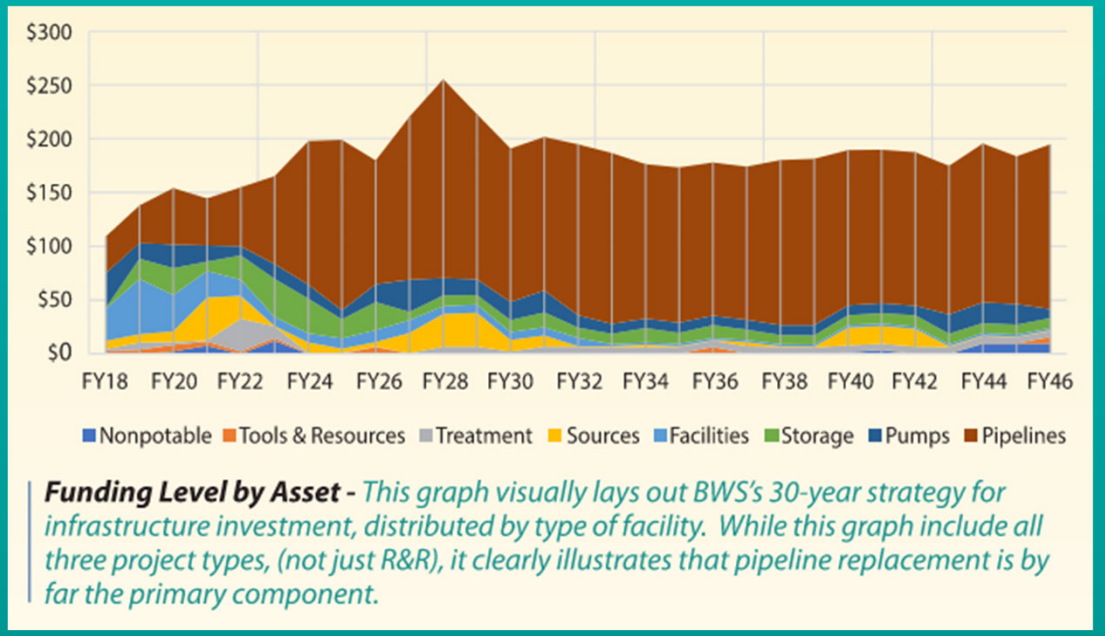
Renewal & Replacement – On-going rehabilitation and replacement

Research & Development – Planning, studies, and software

✓ Costs are estimated for all projects

✓ Projects scored for priority

✓ Anticipated timelines are developed



Funding Level by Asset *- This graph visually lays out BWS's 30-year strategy for infrastructure investment, distributed by type of facility. While this graph include all three project types, (not just R&R), it clearly illustrates that pipeline replacement is by far the primary component.*

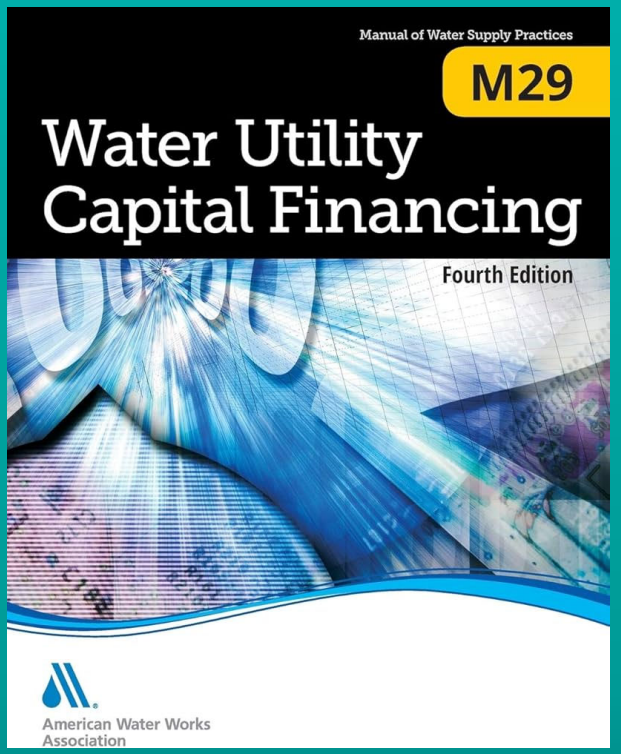
2016 Infrastructure Investment Plan

PROJECT PRIORITIZATION

- 2016 CIP Prioritization was based on AWWA M29 best practices tailored to BWS-specific needs
- M29 metrics focus on risk-based scoring

Likelihood of Failure ✖ Consequence of Failure = Total Risk

→ Planning to maintain similar framework



PROJECT PRIORITIZATION

- **Renewal & Replacement projects:** based on risk (likelihood of failure x consequence of failure)
- **Research & Development projects:** risk and schedule-based
- **Capacity Expansion projects:** date they must be operational

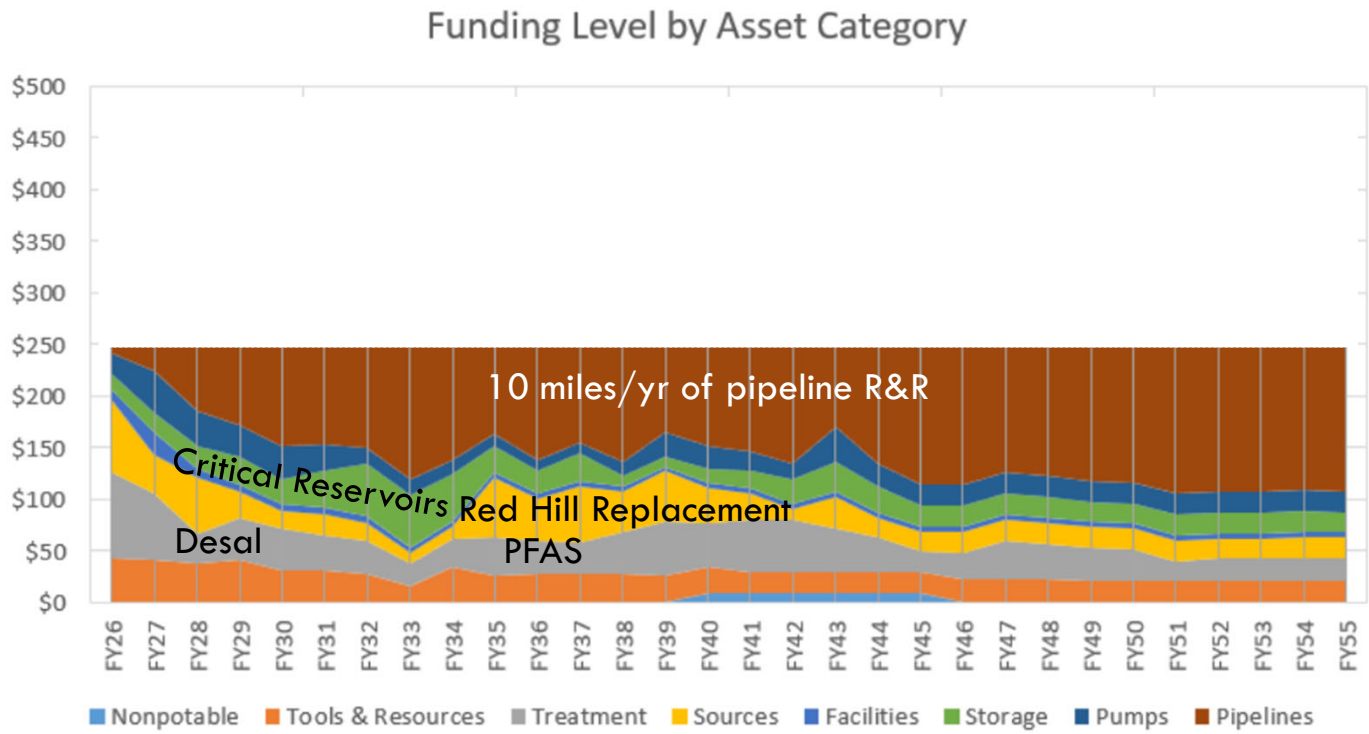
- Risk evaluation varies by asset type.
- Previous condition assessment scoring is retained unless new data is available

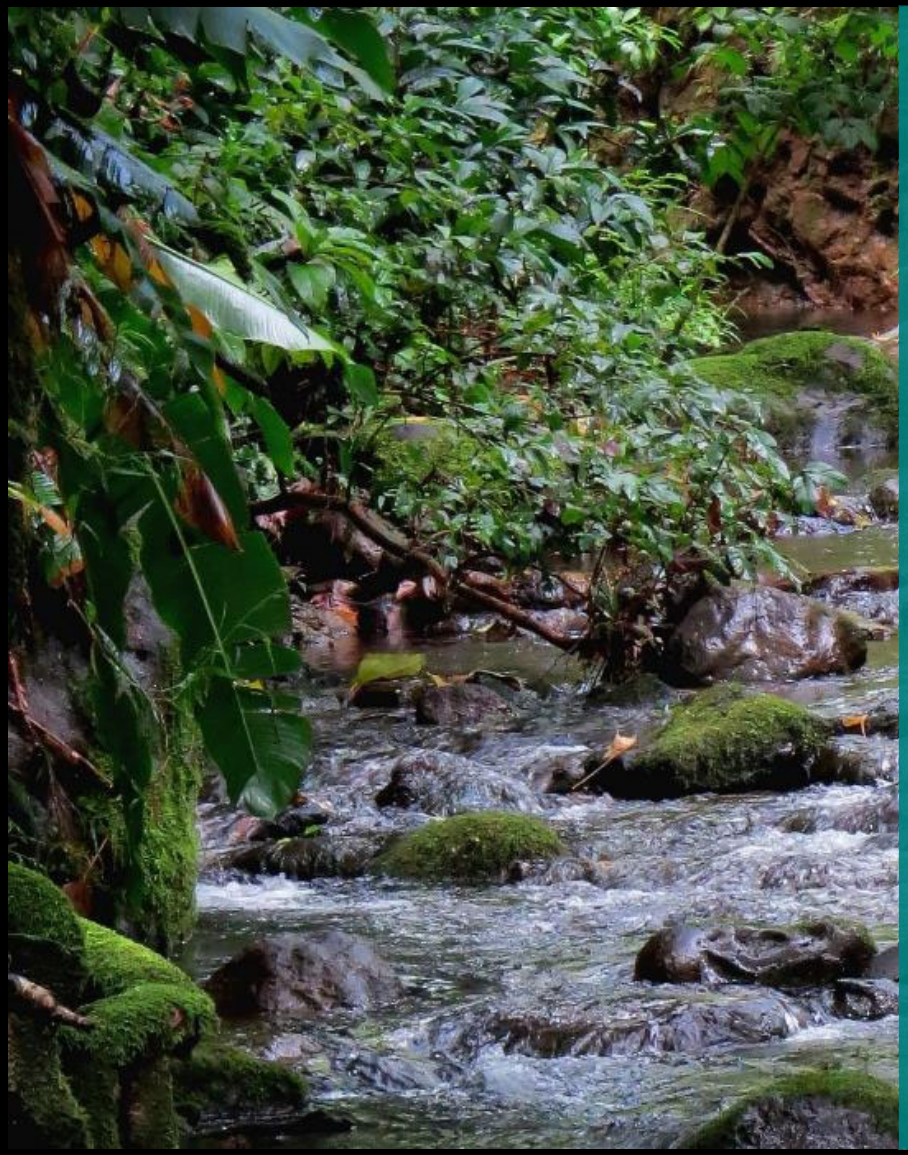
Criteria	Metric	Safe	Dependable	Affordable
System Reliability	Outages		💧	
	Loss of Redundancy		💧	
	Excessive Surge		💧	
System Adequacy	Fire Flows		💧	
	Low Service Pressures		💧	
	Use Restrictions		💧	
Regulatory Compliance	Regulatory Violation	💧		
	Water Quality	💧		
	Health and Safety	💧		
Cost and Efficiency	Energy Use			💧
	Outside Match Funding			💧
	Board Direct Financial Impact			💧
	Reduced O&M Costs			💧
Public Confidence	Billing or Collection Issues		💧	
	Public Support	💧	💧	
	Customer Satisfaction	💧	💧	💧
	Community Financial Impact		💧	
	Security Breach	💧	💧	
Water Resource Sustainability	Reduced Water Resource Use		💧	
	Watershed Protection	💧	💧	
	Water Resource Adequacy		💧	
Agency Coordination and Other Considerations	Coordination Benefit			💧
	Implementability			💧
	Other Considerations			

CIP STATUS

Holding ~$230M/yr CIP results in 10mi/yr avg pipeline R&R

21mi/yr results in CIP ~$350M/yr



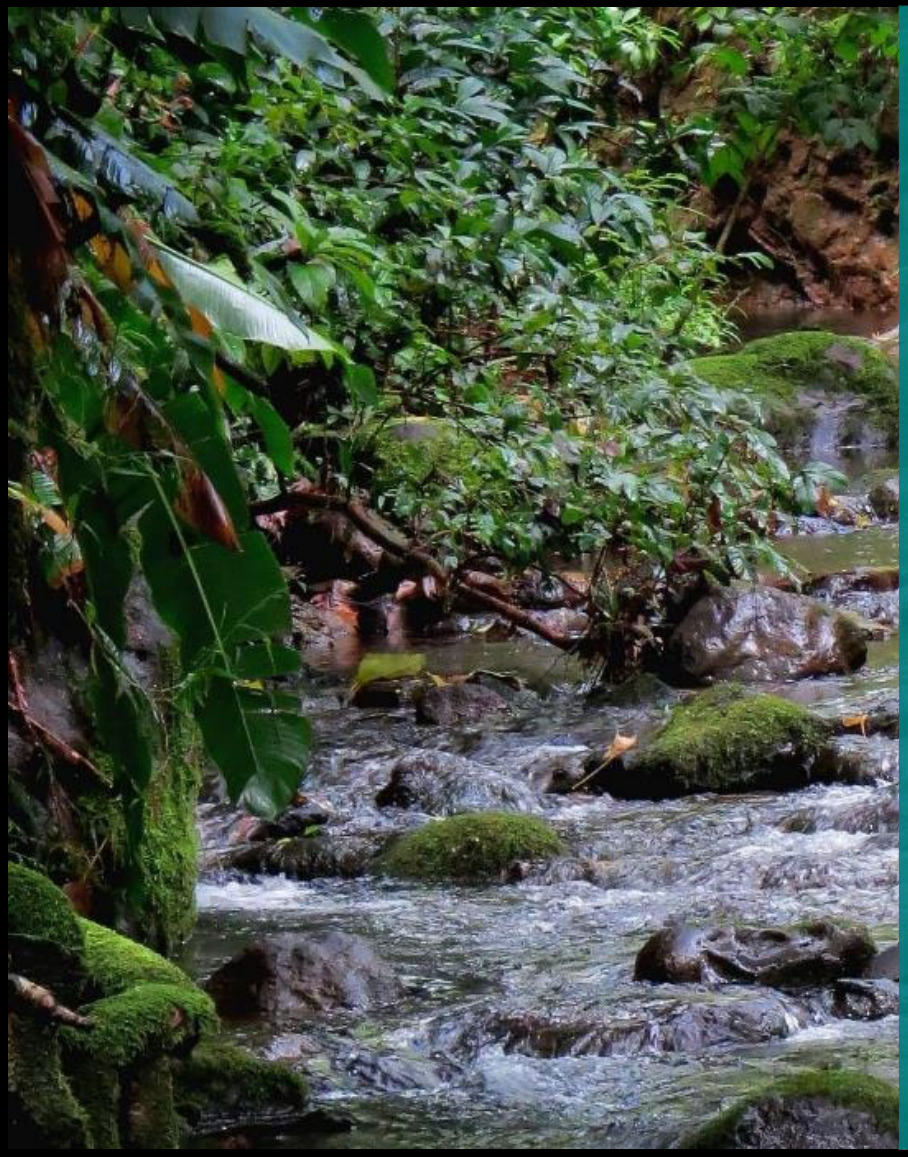


ACCEPT MEETING NOTES FROM MEETING 62

David Ebersold
Facilitator

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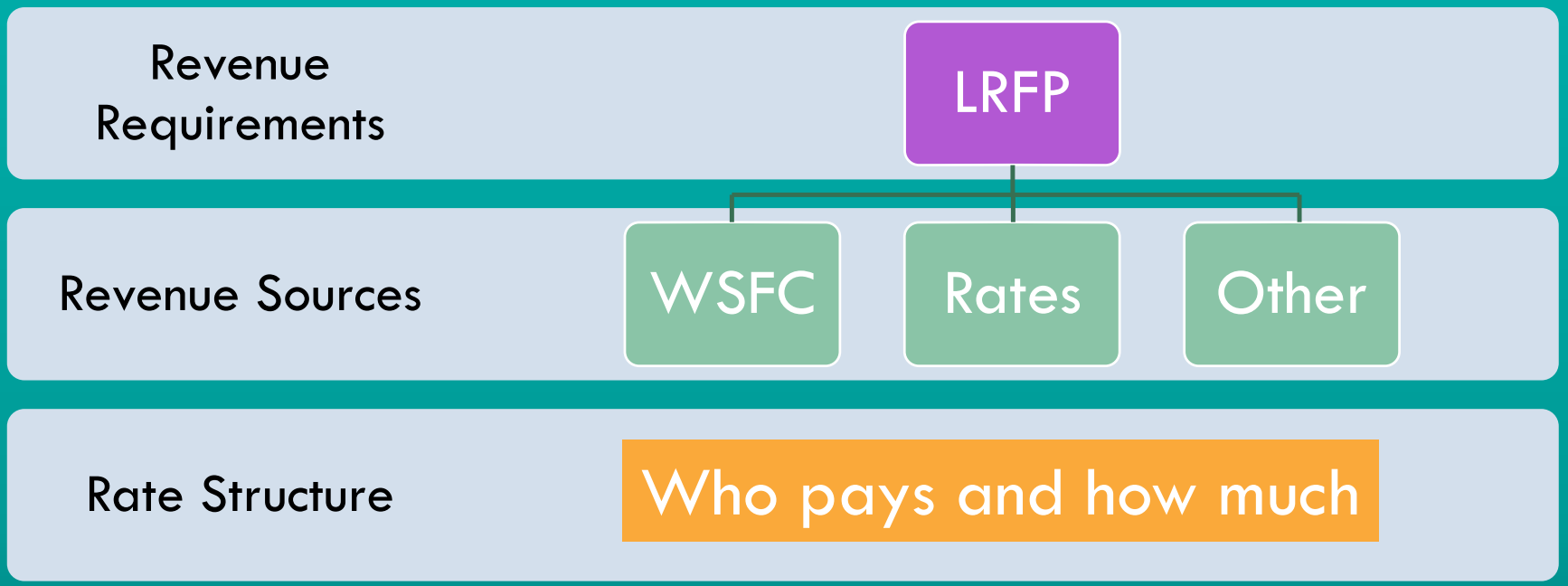
LONG-RANGE FINANCIAL PLAN

Carl Lundin, PE, PMP

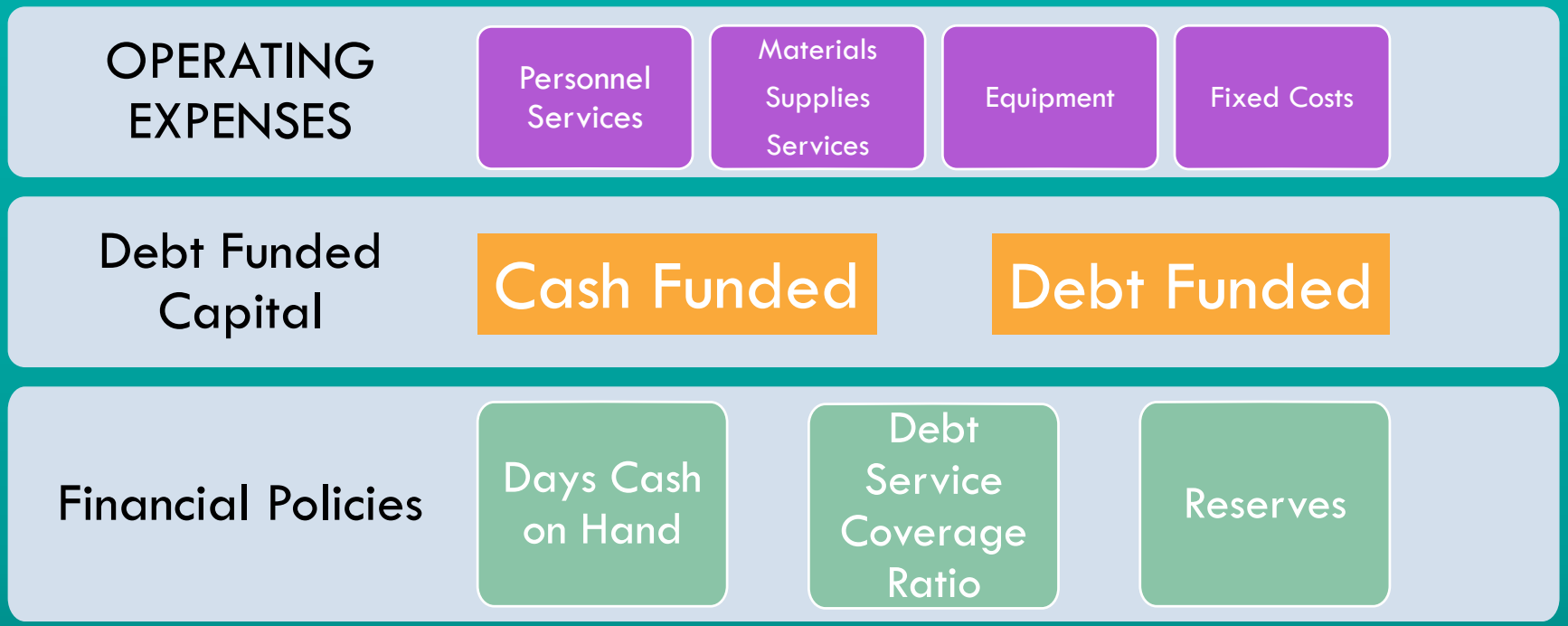
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WATER RATES AND CHARGES ARE THE MAJOR SOURCE OF REVENUE



LONG RANGE FINANCIAL PLAN IDENTIFIES THE REVENUE REQUIREMENTS



LRFP HELPS ANSWER KEY QUESTIONS

Are current financial policies appropriate for the next planning period?

What would revenue requirements be under various capital and financing scenarios?

What risks affect the financial plan?

What is the appropriate amount of debt for BWS to issue to fund the capital plan?

What decisions need to be made now and what can be deferred?

LONG-RANGE FINANCIAL PLAN HELPS ACHIEVE BWS'S MISSION



LONG RANGE FINANCIAL PLAN INFORMS FUTURE RATE STUDY

Updated WSFC

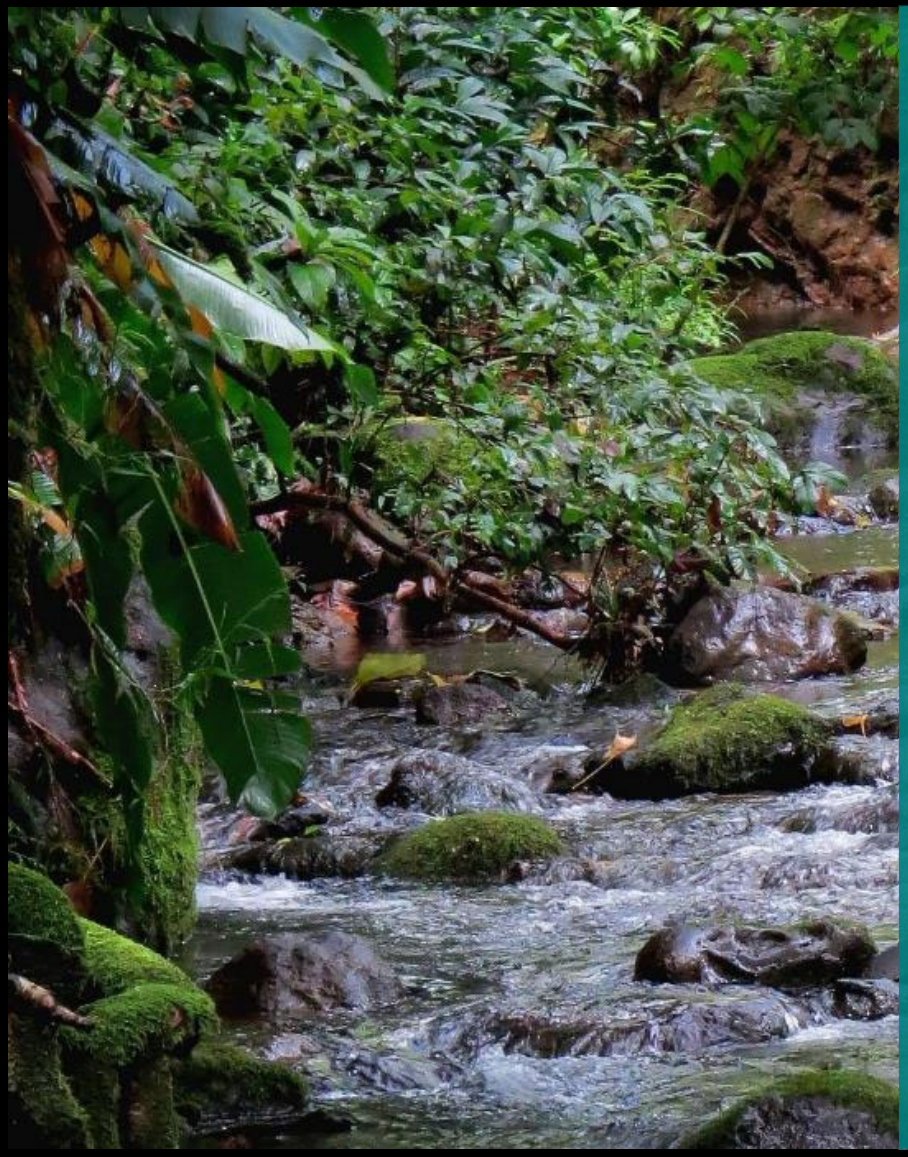
Long Range Financial Plan

30-year Look Ahead

Capital Costs	Operational Costs	Debt Service	Working Capital	Financial Policies

Revenue Requirements for 5-year Rates Study





WATER SYSTEM FACILITIES CHARGE

David Ebersold

boardofwatersupply.com



WATER SYSTEMS FACILITY CHARGE INPUT

- **Should growth-related capital projects be paid for entirely by the development creating the growth?**
  Why or why not?
- **What types of developments, if any, should be discounted or exempt?**
  What would be the goal of those discounts or exemptions?
- **Should a particular customer class be discounted or exempt?**
  For example, agricultural customers.
- **Should changes to the charge be phased in over a period of years?**

WATER SYSTEM FACILITIES CHARGE (WSFC) IS:

A one-time charge based on how much water capacity a property needs

Applies to:

New development that needs water from the Board of Water Supply (BWS) system

Added capacity for an existing water service

Does not apply to:

Developments that paid for and installed an entire water system

The portion a developer installed, such as source, transmission or storage

WHY UPDATE THE WSFC NOW?

1993



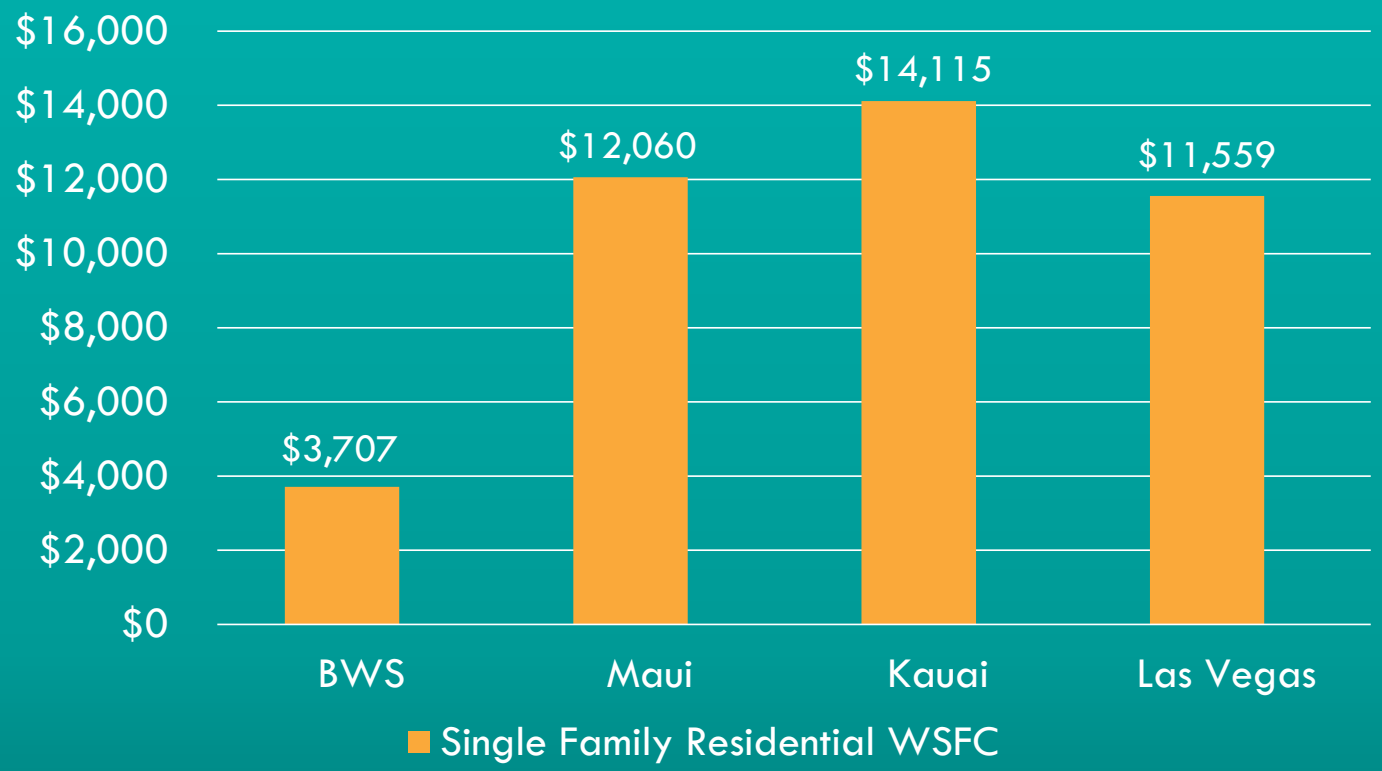
Current charges adopted in 1993

Unchanged for more than 30 years

Today

- Water use patterns have changed
- Growth needs have changed
- Available capacities in existing system have changed
- Costs have increased
- Technical analysis needs to be updated
- WSFC revenues do not cover costs of growth-related projects

RESIDENTIAL WSFC COMPARISON



A 3x increase in the BWS WSFC would move Honolulu closer to peer-market norms without fundamentally changing the economics of homebuilding

WSFC SHORTFALL:
ABOUT $30 MILLION PER YEAR



$10.3 million per year

WSFC money collected, 2015–2020 average

$41.8 million per year

Projected annual cost of growth-related improvements, 2021–2026 average

CUSTOMERS SUBSIDIZE THE SHORTFALL



Honolulu BWS's low water system facility charge (WSFC) means growth is subsidized by existing ratepayers — about **$98** per customer, per year.

New development benefits from lower upfront charges.

Current customers help cover the cost through higher water rates.

That adds up to about $98 per year for every customer.

*Assumes 50:50 debt to cash funding of capital improvements

44% OF HOUSEHOLDS ARE ALICE OR BELOW

- **A**sset **L**imited
- **I**ncome **C**onstrained
- **E**mployed

United Way Aloha United Way

UNITED FOR ALICE

Bank of Hawai'i Foundation

ALICE in the State of Hawai'i:

	Total	Total Below ALICE Threshold	Percent Below ALICE Threshold	Poverty / ALICE / Above ALICE Threshold
ALL HOUSEHOLDS	493,475	216,554	44%	10% / 33% / 56%

For many in Honolulu County $98 impacts whether other essential bills are paid on time or not.

WSFC DISCOUNTS/EXEMPTIONS/PHASING

- WSFC creates a legal allowable upper limit
- Discounts, Exemptions, Phasing can change amount/timing
- Possible Examples:
  - Current: Homeless/Affordable Housing
  - Others?
- An increase could be phased in over multiple years

WAIVER OF FEES FOR AFFORDABLE AND HOMELESS PROJECTS / FIRE SPRINKLER RETROFIT - SUMMARY

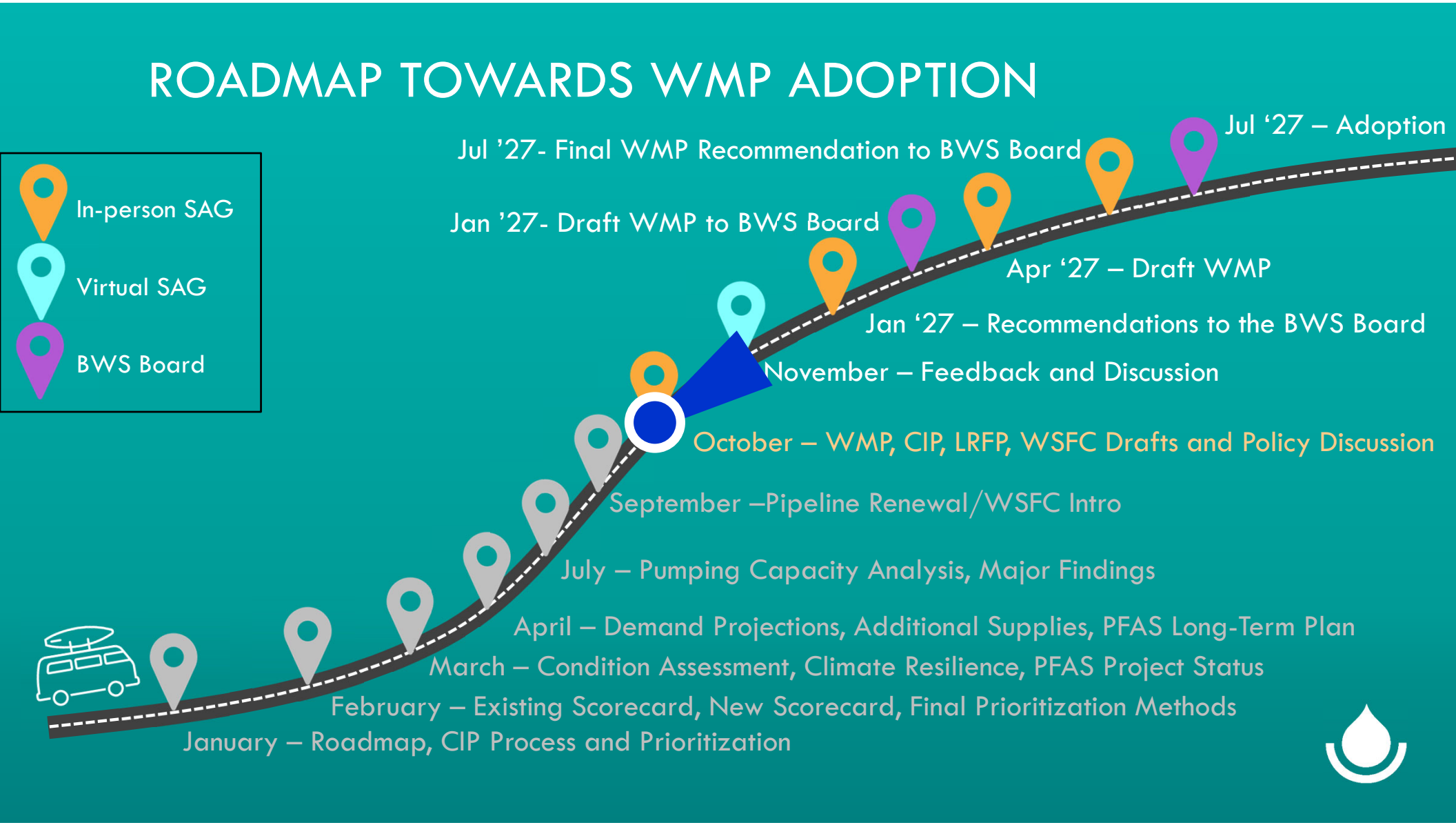
Fiscal Year	# Affordable Projects	# Affordable Dwelling Units	# Homeless Dwelling Units	# Total Qualified Units	$ Waived WFSC	$ Waived Meter Costs	$ Annual Fees Waived
FY 2018 – 2019	5	76	102	178	$103,432.03	$10,332.00	$113,764.03
FY 2019 – 2020	6	302	0	302	$489,770.41	$14,608.00	$504,378.41
FY 2020 – 2021	4	578	0	578	$776,239.47	$10,675.00	$786,914.47
FY 2021 – 2022	8	514	0	514	$647,032.54	$2,844.00	$649,876.54
FY 2022 – 2023	5	267	1	268	$393,332.21	$1,610.00	$394,942.21
FY 2023 – 2024*	12	1,439	0	1,439	$1,917,036.14	$37,193.00	$1,954,229.14
FY 2024 – 2025	5	583	0	583	$472,190.28	$8,485.00	$480,675.28
FY 2025 – 2026	14	528	0	528	$777,373.06	$9,192.00	$786,565.06
FY 2026 – 2027	4	527	0	527	$727,880.92	$3,784.00	$731,664.92
TOTALS to date	**63**	**4,814**	**103**	**4,917**	**$6,304,287.06**	**$98,723.00**	**$6,403,010.06**
Average per FY	*7*	*535*		*546*	*$700,476.34*	*$10,969.22*	*$711,445.56*

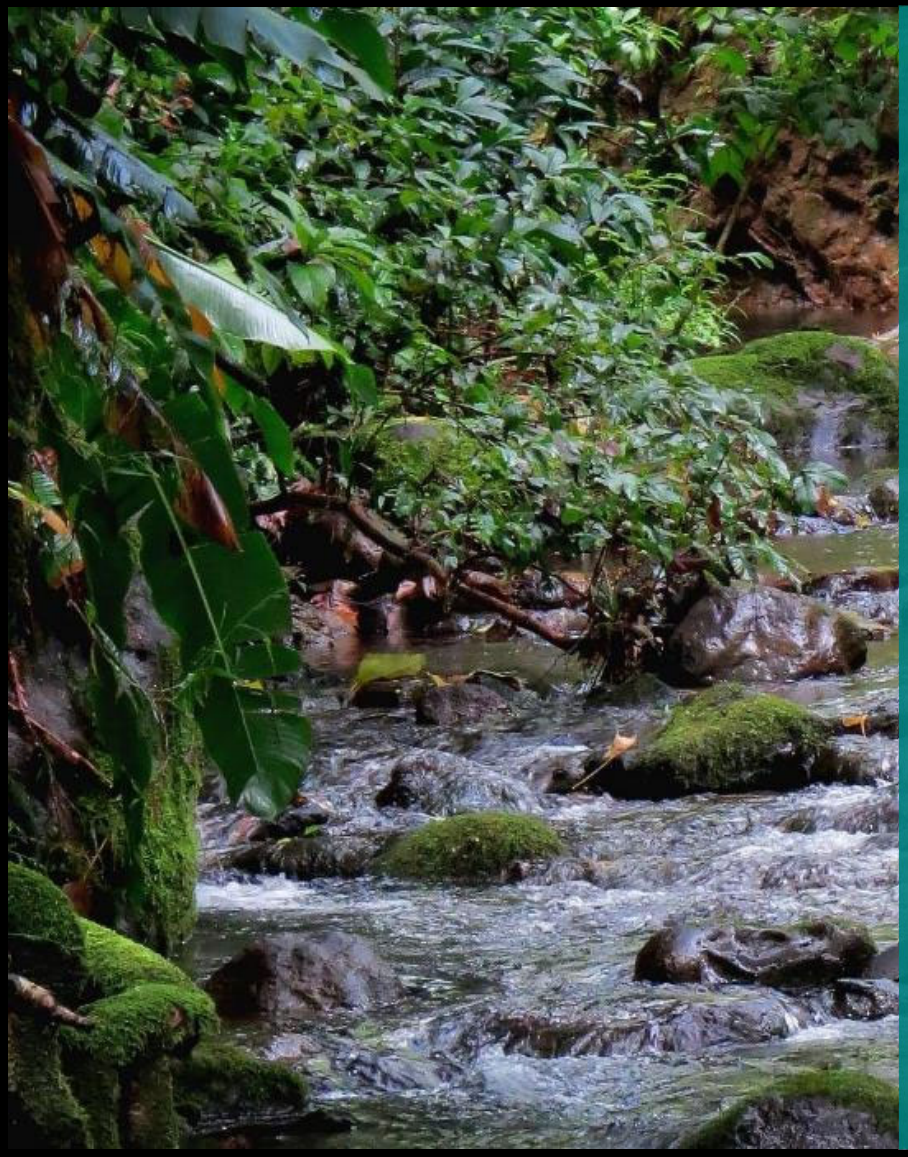
*Revised 06/27/2025, FY 2023-2024 Note: The 500-unit threshold was exceeded by 939 units due to an administrative oversight in tracking waiver approvals. BWS honored the waivers that had already been granted and subsequently implemented additional controls to prevent a recurrence.

FIVE BASIC STEPS TO UPDATING THE WSFC



ROADMAP TOWARDS WMP ADOPTION





DISCUSSION

boardofwatersupply.com



DISCUSSION

- WMP – Metrics and Targets
- CIP – Size, focus
- Financial Plan – Targets
- WSFC – Subsidies

Metrics drive the cost of CIP and make pipeline replacement more discretionary (target risk reduction, bundle)

Separately tracking leaks/breaks only 3 years old

[CDL: find economic justification on PL replacement]

WATER MASTER PLAN

Themes:

- Reduce Pumps Offline
- Replace/Rehab Critical Reservoirs
- Diversify/Solidify Source Portfolio
- Keep up with Pipeline Replacement
- Reduce Water Loss
- Improve Climate Resiliency

Example Metrics:

- Pump Offline Duration
- Main Breaks, Leaks, Total Risk
- Water Loss
- Portion of Pump Stations/Sources that are hardened against climate impacts

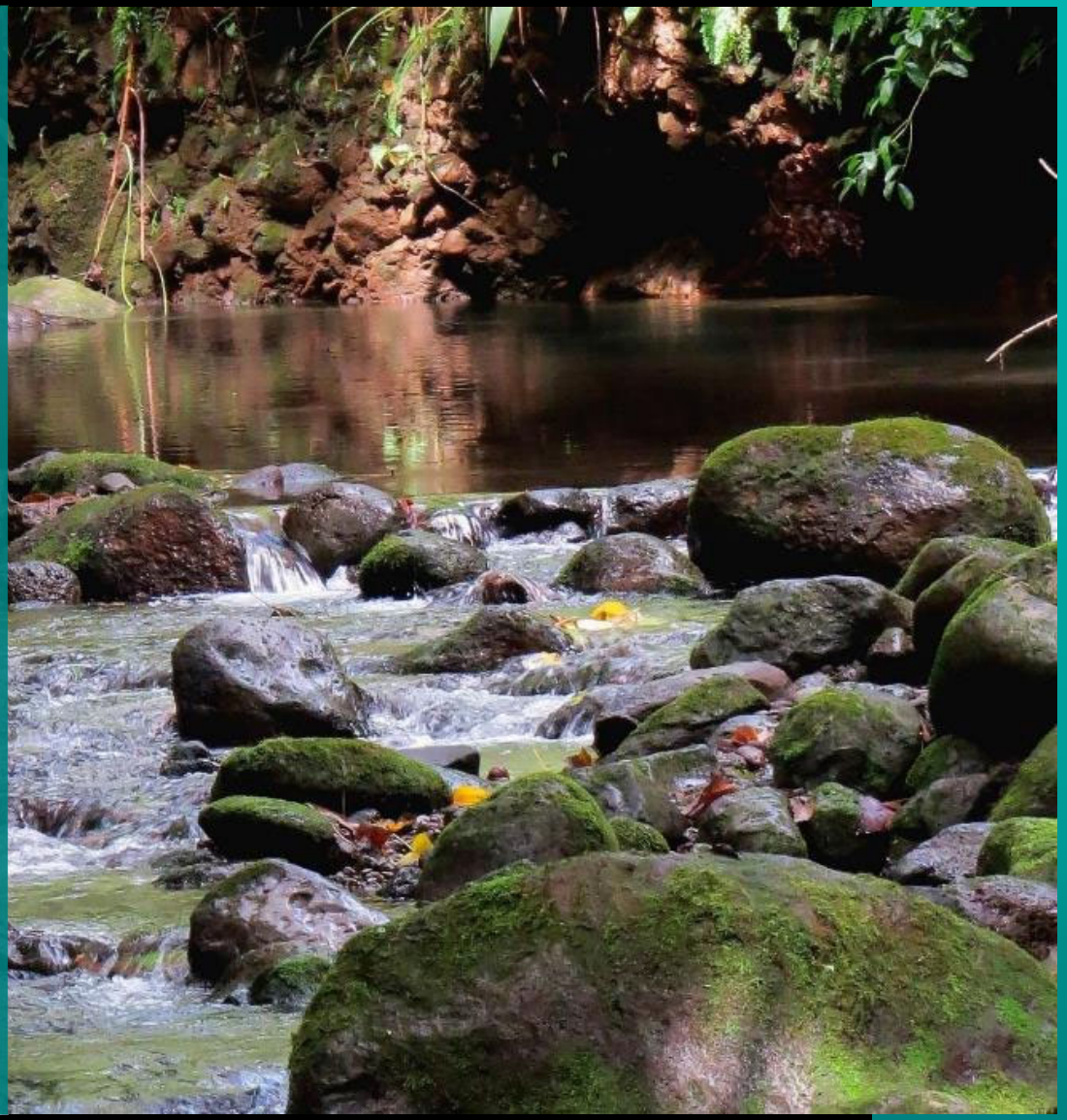
CAPITAL IMPROVEMENT PROGRAM

- If holding steady at ~$230 million per year, XX miles of pipe
- If holding 21 miles of pipe replacement per year, $XX per year CIP

LONG RANGE FINANCIAL PLAN

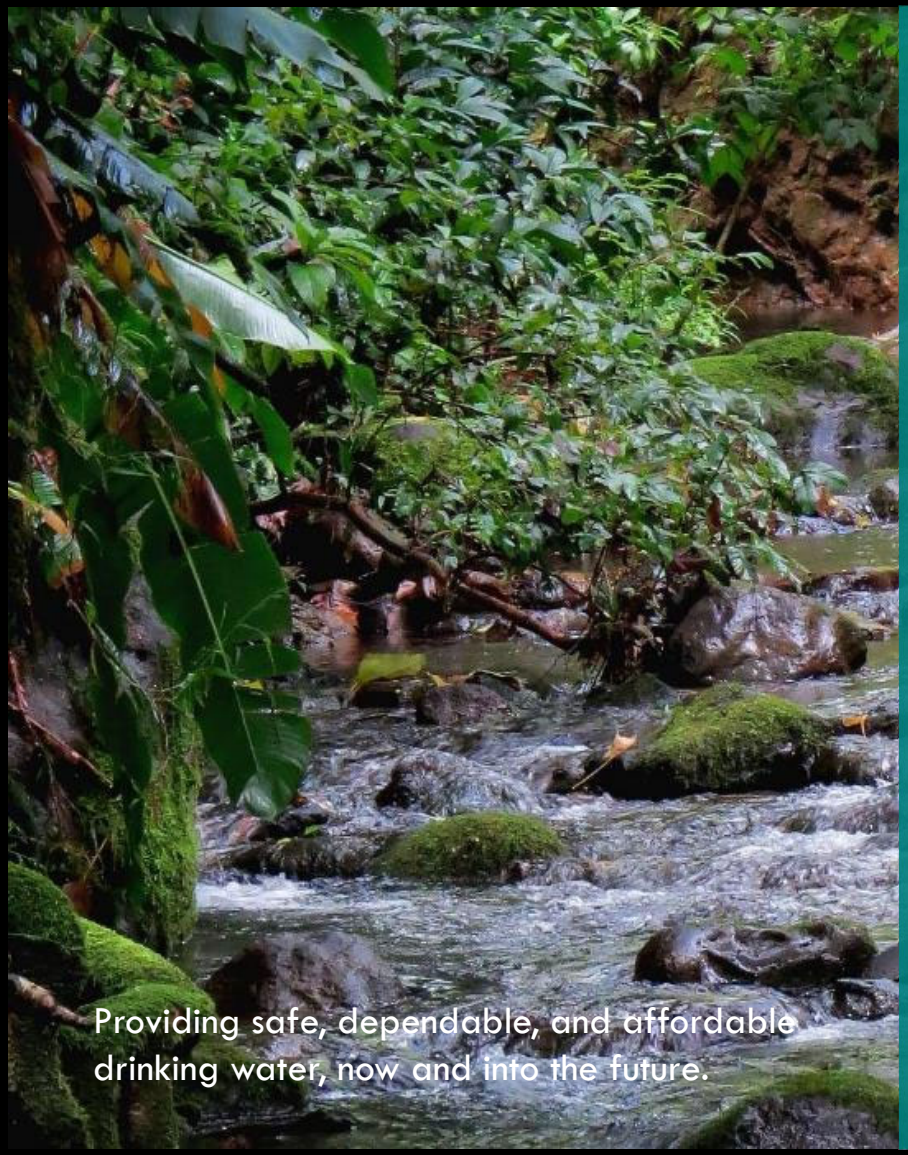
- Debt Service Coverage Ratio
- Days Cash on Hand

QUESTIONS?



UPCOMING STAKEHOLDER MEETINGS THROUGH 2027

Type	Date	Topic	Stakeholder Input
In-Person	15-Oct-26	Draft Reports and Policy Feedback: WMP, CIP, LRFP, WSFC	Feedback on overall plan and policy recommendations to BWS Board
Virtual	19-Nov-26	Feedback and Discussion	Feedback on overall plan and policy recommendations to BWS Board
In-Person	21-Jan-27	Recommendations to the Board: WMP, CIP, LRFP, WSFC	Feedback on overall plan and policy recommendations to BWS Board
In-Person	15-Apr-27	Draft WMP Final Review	Concurrence with Board-approved Draft WMP
In-Person	15-Jul-27	Final WMP and Summaries (pending Board Adoption)	Recommendation for Board adoption of Final WMP



Providing safe, dependable, and affordable drinking water, now and into the future.

Mahalo!

