

San Francisco's Alternative Water Supply Program

In Search of New and Diversified Supplies

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21 June 2022

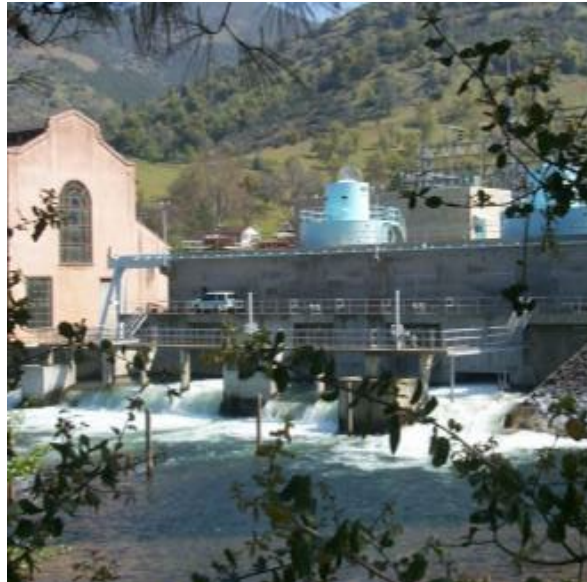
- **Current Water Resources Management**
 - Overview of San Francisco's Regional Water System
 - Managing Water Resources
 - OneWaterSF
- **Looking Ahead: Alternative Water Supplies**
 - Key Drivers for Future Planning
 - Meeting Needs with Alternative Water Supplies
 - Key Challenges
- **Common Themes**
 - Shared Experiences and Lessons in Planning

CURRENT WATER RESOURCES MANAGEMENT

San Francisco Public Utilities Commission (SFPUC)



Water: delivering high quality water every day to 2.7 million people



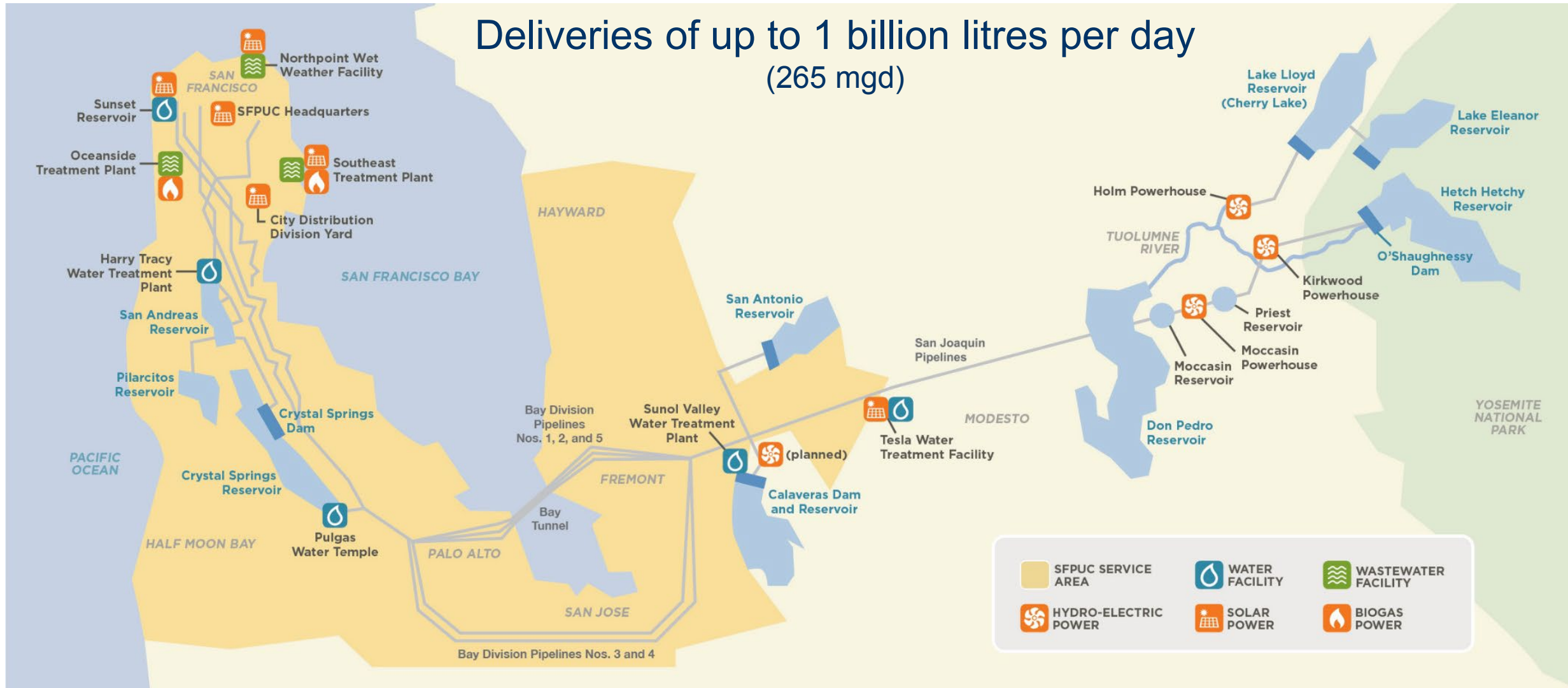
Power: generating hydropower and solar power



Sanitation: protecting public health and the environment

SFPUC's Regional Water System

Deliveries of up to 1 billion litres per day
(265 mgd)



Managing Water Resources

- ✓ Conservation
- ✓ Recycled water
- ✓ Onsite water reuse
- ✓ Minimizing losses
- ✓ Innovations

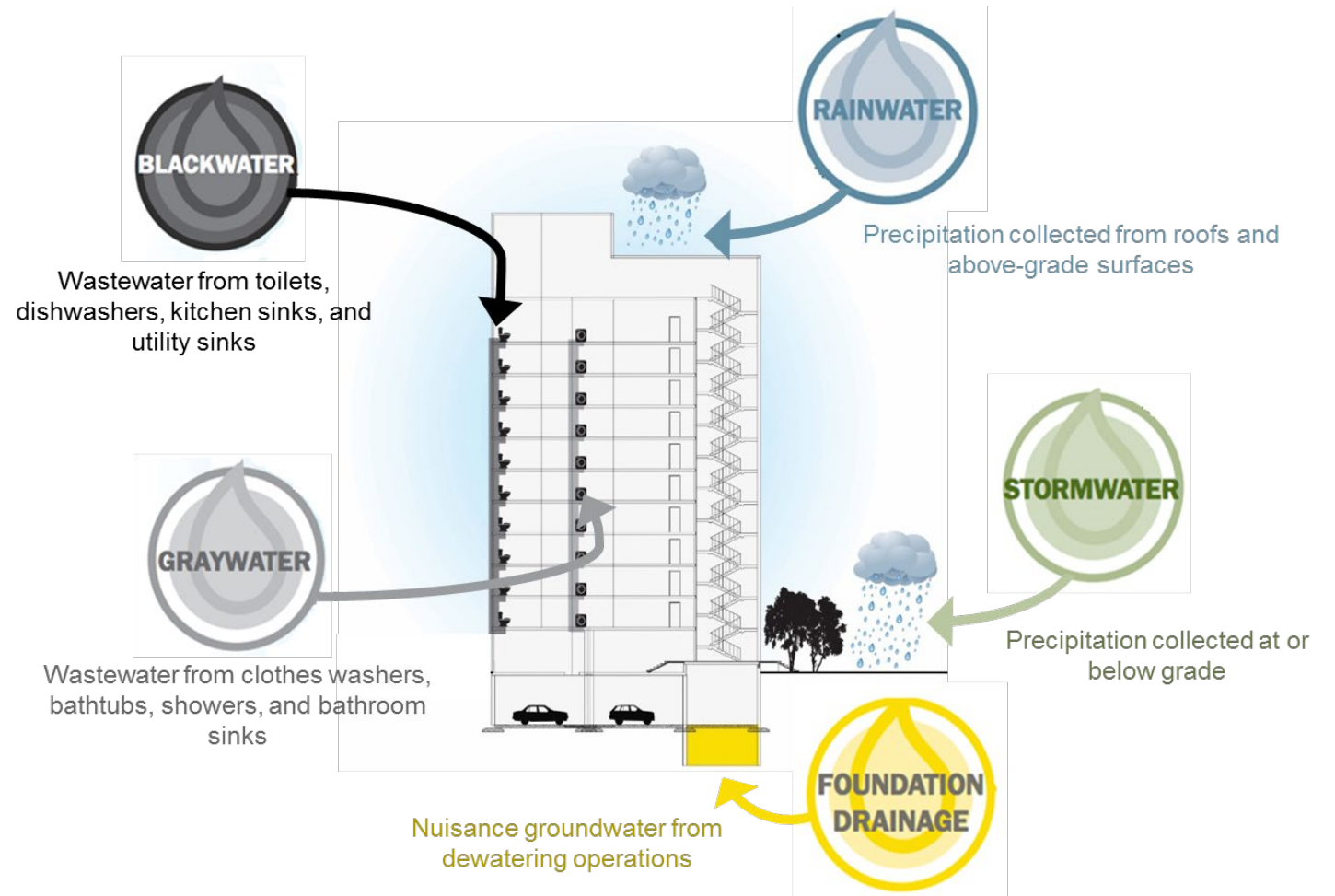
✓ **Conservation (*150-170 litres per day*)**

- Fixture replacements
- Audits, free devices
- Rain barrel giveaways
- Laundry-to-landscape program
- Financial incentives (rebates, grants)



Offsetting Non-Potable Demands

- ✓ **Recycled water**
(centralized)
 - Irrigation, cooling towers
- ✓ **Onsite water reuse**
(decentralized)
 - Local ordinances
 - Technical assistance
 - Grants



Other Demand Management Actions

- ✓ **Minimizing losses (<10%)**
 - Leak detection
 - Pipeline replacement
 - Automated Meter Installation (AMI)

- ✓ **Innovations**
 - Atmospheric Water Generation



OneWaterSF: A New Approach

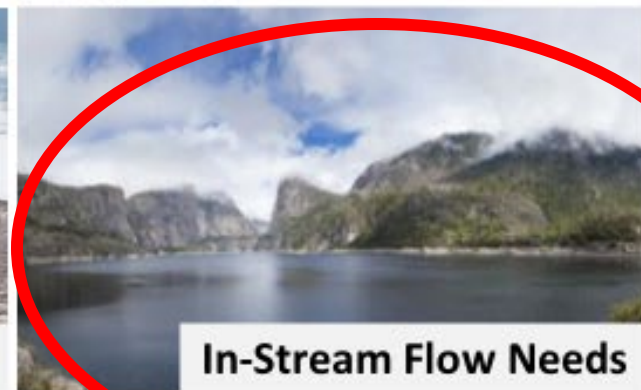


Matching the right resource to the right use



LOOKING AHEAD: ALTERNATIVE WATER SUPPLIES

Key Planning Drivers

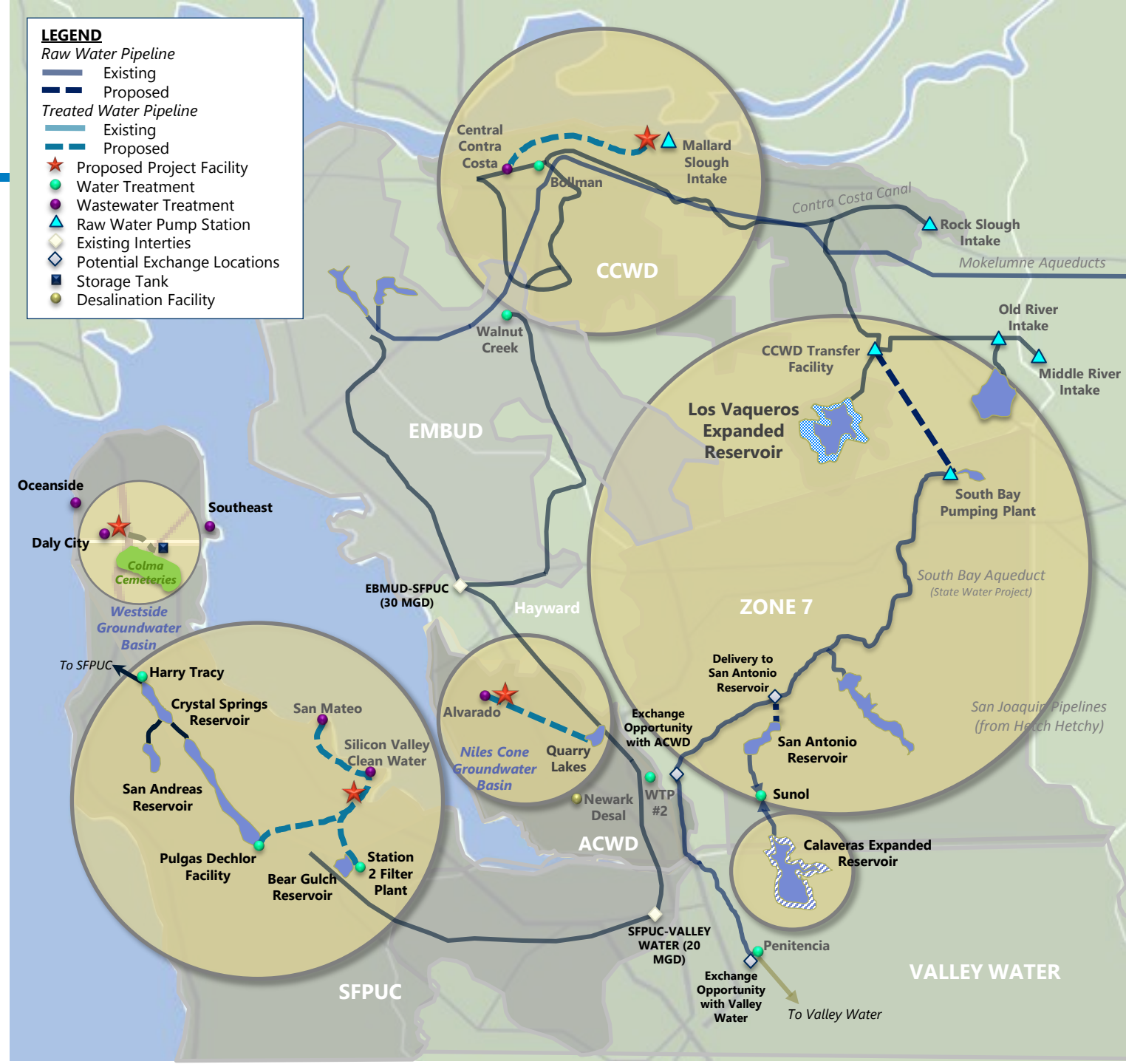


Meeting Future Needs



Alternative Water Supply Projects

- Distributed opportunities in the Service Area
- Various conveyance and delivery alternatives being considered for each project
- Leveraging existing infrastructure and regional partnerships



Limited Potable Supply Options

Transfers (7.6 mld or 2 mgd):

- Drought year transfers from Irrigation Districts or others

Purified Water (38-95 mld or 10-25 mgd):

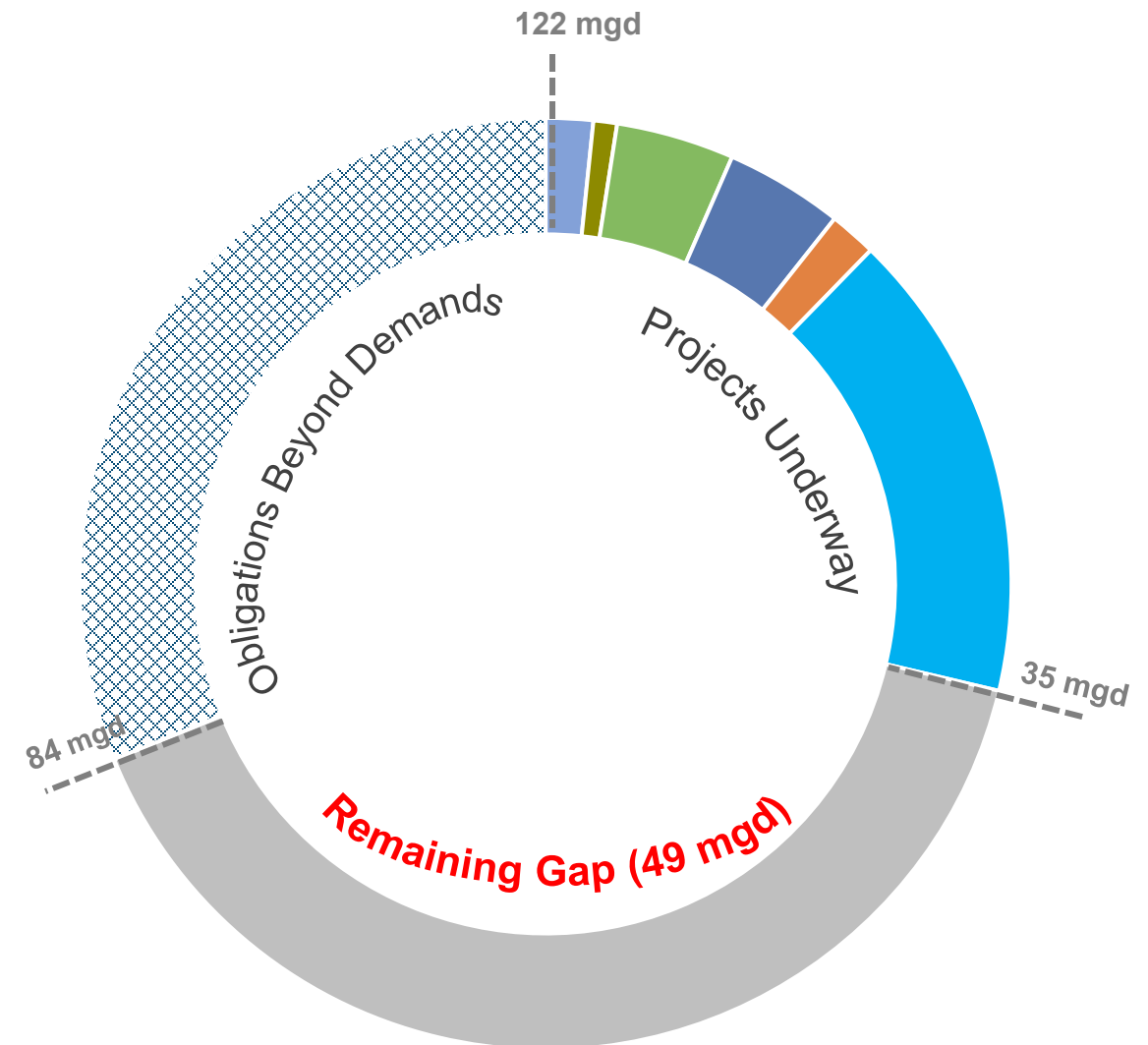
- Recycled water that has undergone full advanced treatment and is suitable for potable use or delivery through existing distribution

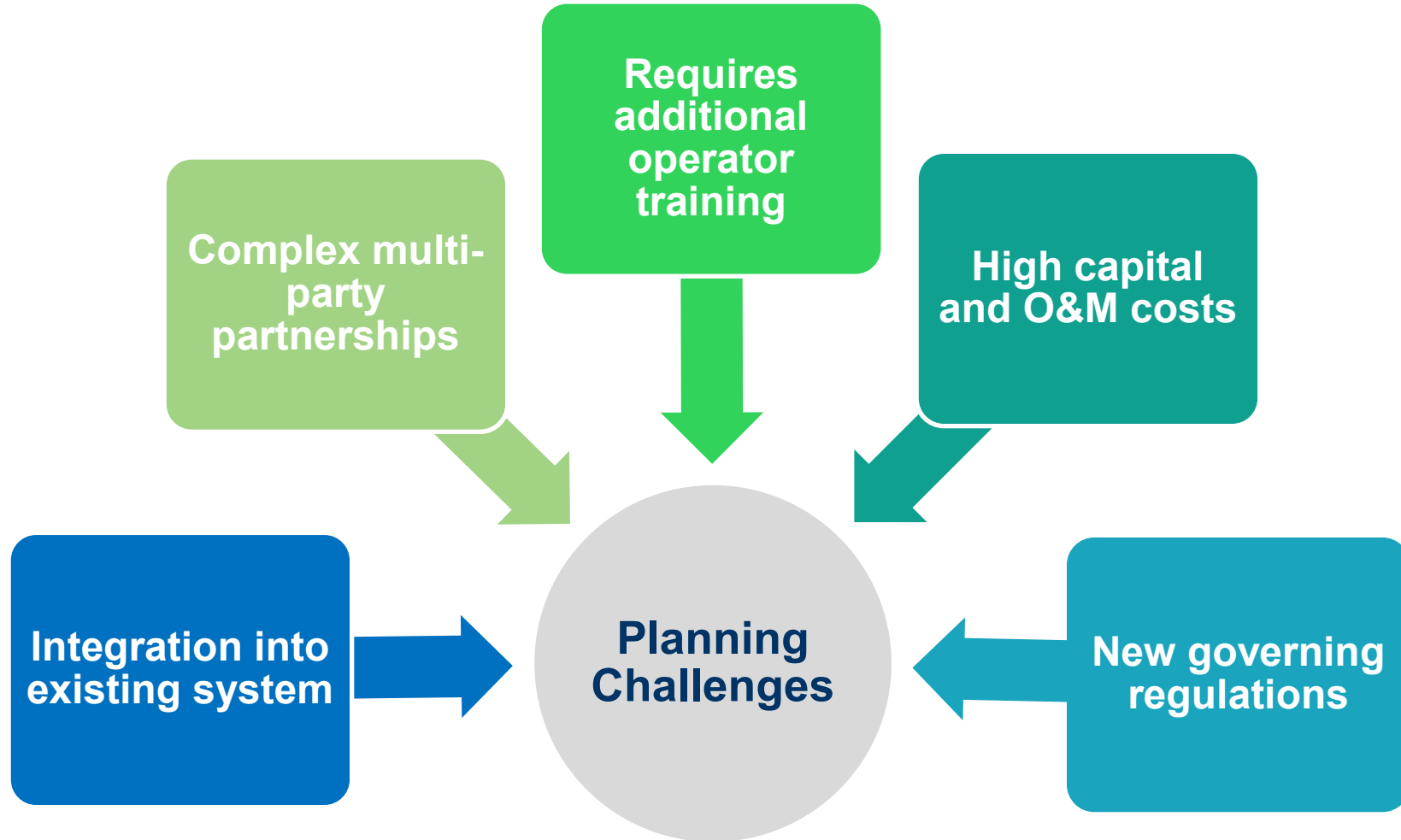
Desalination (19-57 mld or 5-15 mgd):

- Saltwater / brackish source for potable use or storage

Storage: (114 mld or up to 30 mgd)

- Above or below-ground option to save water for droughts





Alternative Water Supplies Require a Longer-Term Planning Horizon

COMMON THEMES

Shared Experiences and Lessons

- ✓ Maximize efficient use of existing supplies first
- ✓ Recycle water for non-potable uses where feasible
- ✓ Test innovations and technological improvements
- ✓ Prepare for the cost and complexity of new potable supplies
- ✓ Engage with the public and leaders to solicit support for new supplies

THANK YOU

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