



# Water System and Tariff On-Bill Program

March 21, 2024

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Pacific Institute and National Resource Defense Council — June 2014

# Untapped Savings

21<sup>ST</sup> CENTURY SOLUTIONS FOR A SUSTAINABLE WATER SUPPLY FOR CALIFORNIA



<https://www.nrdc.org/resources/untapped-potential-californias-water-supply>

# Water System

# Water Service Providers

Being a public water system means providing affordable, safe drinking water to your customers 24 hours a day, 7 days a week, 365 day a year.

This includes the associated legal, fiscal, and operational responsibilities, and future planning.

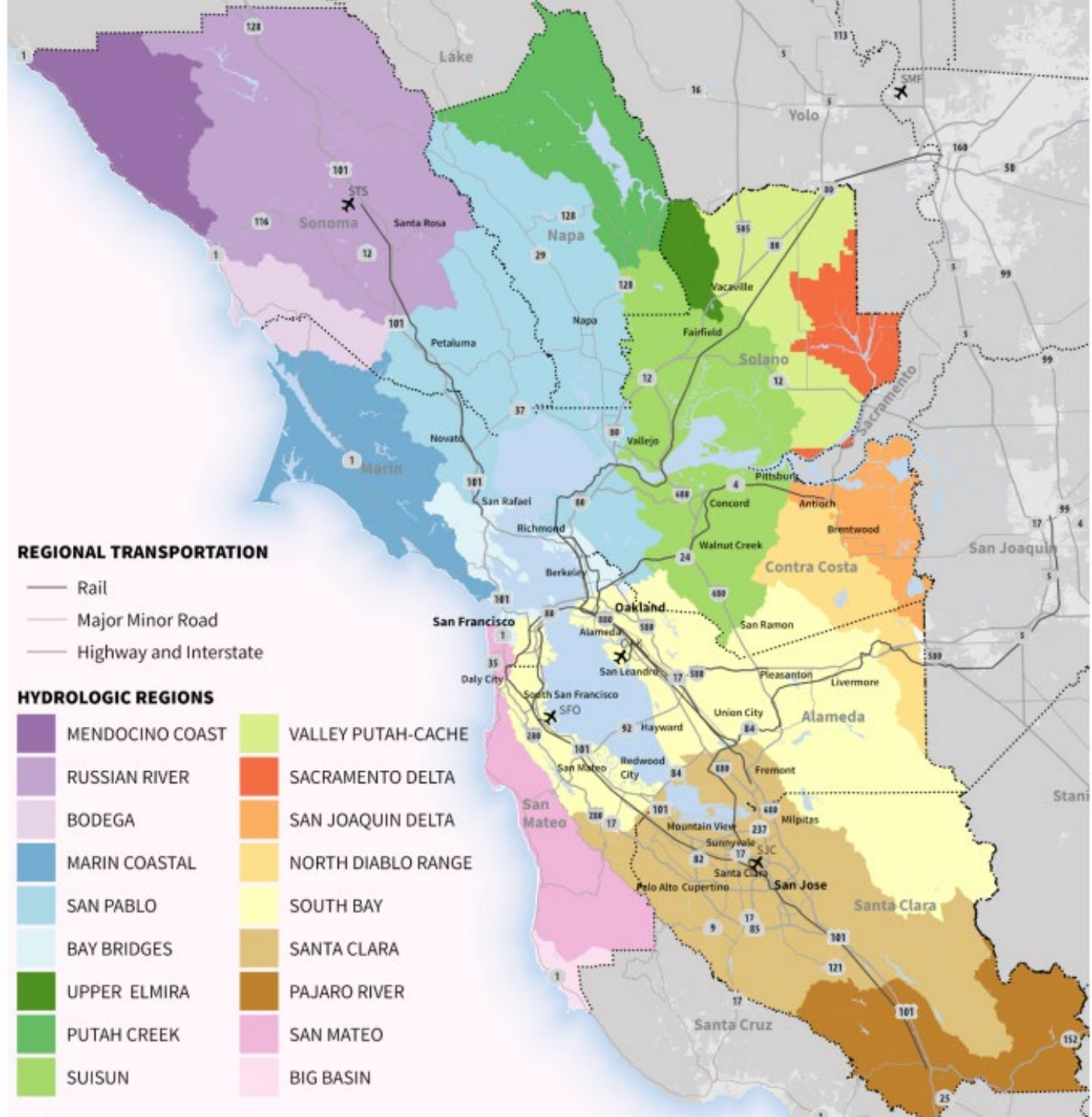
Public water systems typically are run more efficiently when costs can be spread out over a large group of people to obtain good economies of scale.

California Water Board, What is a Public Water System?



# San Francisco Bay Hydrologic Region

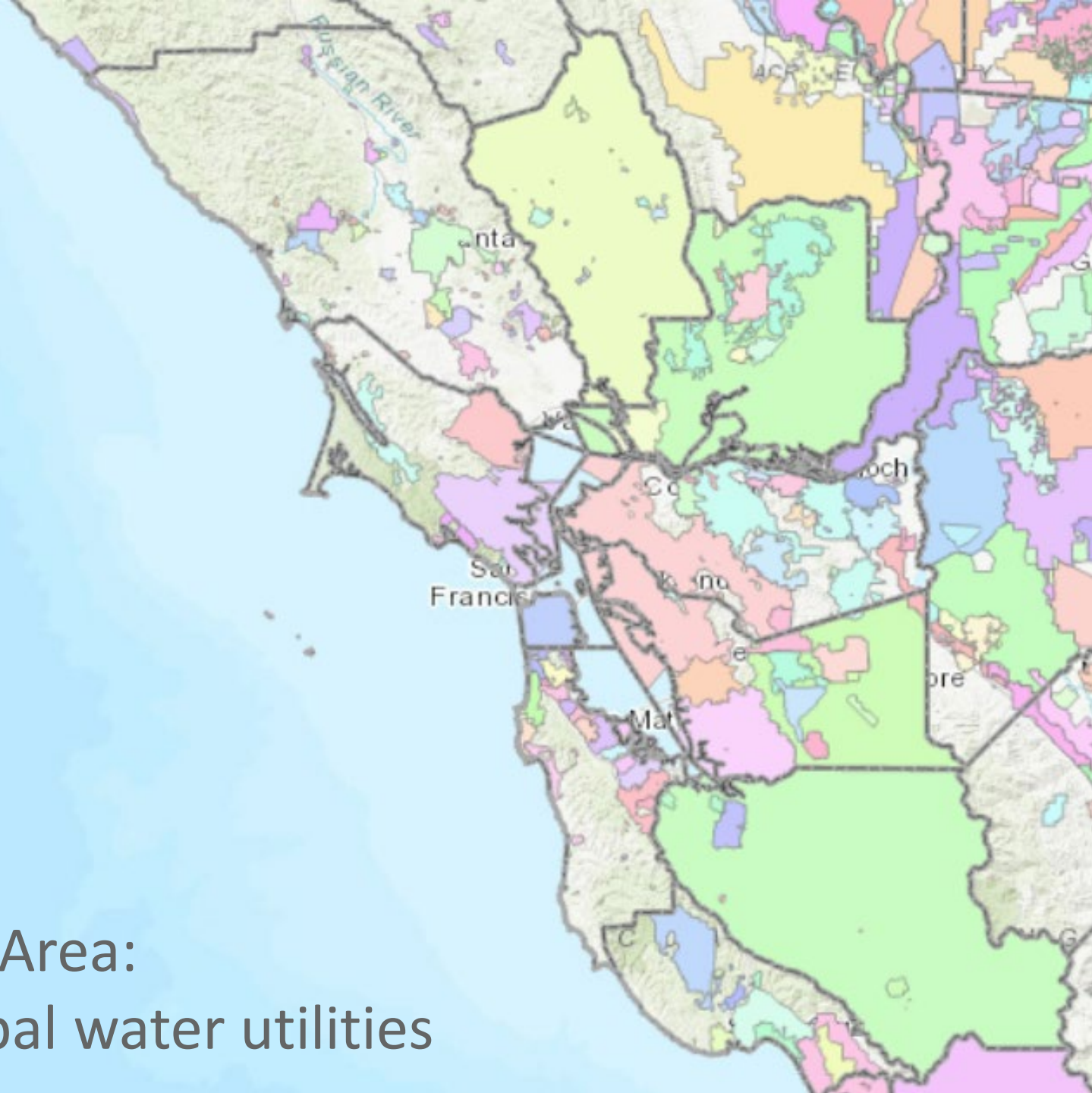
Plan Bay Area 2050, Chapter 3.14:  
[https://www.planbayarea.org/sites/default/files/documents/2021-06/3.14\\_Public%20Utilities\\_DEIR.pdf](https://www.planbayarea.org/sites/default/files/documents/2021-06/3.14_Public%20Utilities_DEIR.pdf)



# Complex network of water providers

Water Management  
Planning Tool:  
<https://gis.water.ca.gov/app/boundaries/>

In the Bay Area:  
66 municipal water utilities



# Water Sector Stakeholders

## State

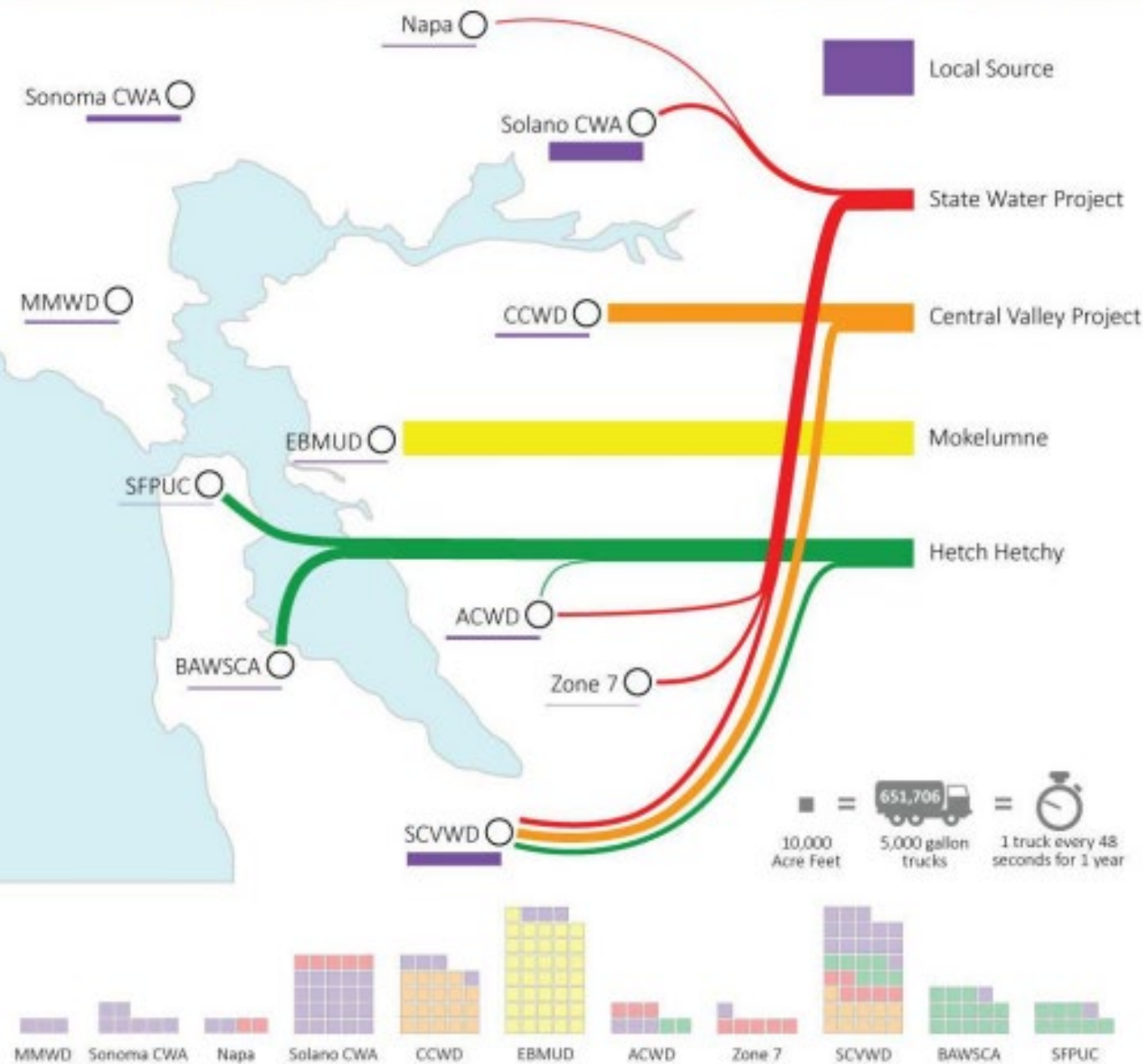
- Set policy and efficiency targets
- Run State water supply system
- Lead water/energy nexus initiatives/calculator

## Wholesale Water Suppliers

- Provide water to retail utilities; provide billing for members
- Run water efficiency programs
- Variety of funding models (markup, tax, unit fees)

## Retail Utilities (WUSave Partners)

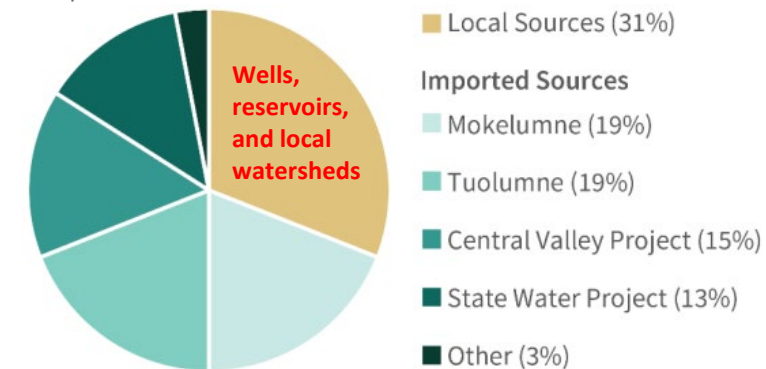
- Buy water and or use local supplies
- Use wholesaler programs, run local programs
- Funded by retail water sales and sewer fees



Data Source: 2010 Urban Water Management Plans

# Bay Area Wholesalers

- Alameda County Water District
- Bay Area Water Supply/ Conservation Agency (BAWSCA)
- Contra Costa Water District
- East Bay Municipal Utility District (EBMUD)
- Marin Municipal Water District
- City of Napa Water District
- San Francisco PUC
- Santa Clara Valley Water District
- Solano County Water Agency
- Sonoma Water and Sonoma-Marín Saving Water Partnership
- Zone 7 Water Agency



Source: San Francisco Bay Area Integrated Regional Water Management Plan, 2019



# Wholesale Partner Examples

Feature	Marin Municipal Water District	East Bay Municipal Utilities District	Santa Clara Valley Water	Sonoma-Marín Saving Water Partnership
Wholesale water provider	Sonoma Water, Mt. Tamalpais watershed	Mokelumne River watershed, local sources	State, Central Valley, Hetch Hetchy RSW	Sonoma Water
Revenue source	CCF fee	CCF fee	Special District Tax	Gallon fee
Service Area	Central/southern Marin retail water service, watershed maintenance, and conservation services	Parts of Alameda and Contra Costa counties. Provide water and wastewater service, and conservation services	Santa Clara County. Wholesale water agency. Outdoor water efficiency programs and education	Recommends water efficiency projects and maximizes water efficiency program cost-effectiveness
Retail water utility	Marin Water (MMWD)	EBMUD	Municipal Members	Municipal Members
Regional programs	Education programs and budget	EBMUD programs and budget	Valley Water programs and budget	Partnership education programs and budget
Retail sewer utility	Variety of providers	EBMUD	Variety of providers	Municipal utilities

# Traditional Customer-Side Water Efficiency

- Indoor Rebates
  - DIY tool kits
  - Aerators
  - Showerheads
  - Toilets
- Outdoor Rebates
  - Mulch
  - Irrigation equipment
  - Irrigation controllers
  - Lawn conversion (sq./ft.)
  - Flow meters
  - Graywater/rainwater
  - Landscape design/QWEL
- Leak Detection/Repair
  - Residential leak detection
  - Repair assistance



# What is Water Upgrades Save?

Tariff On-Bill (TOB)

# CPUC Definition of Tariff On-Bill

- “Utility utilizes its established authority to add tariffs for system investments to customer bills as the collection mechanism”
- “Not categorized as a loan to the customer”
- “Does not add to the debt profile of the property owner in the way that a bank loan would”
- “Investment in (water and) energy savings is tied to the meter”
- “Transferable with the sale of the property or resumption of service by a new customer”

— CPUC Rulemaking 20-08-022

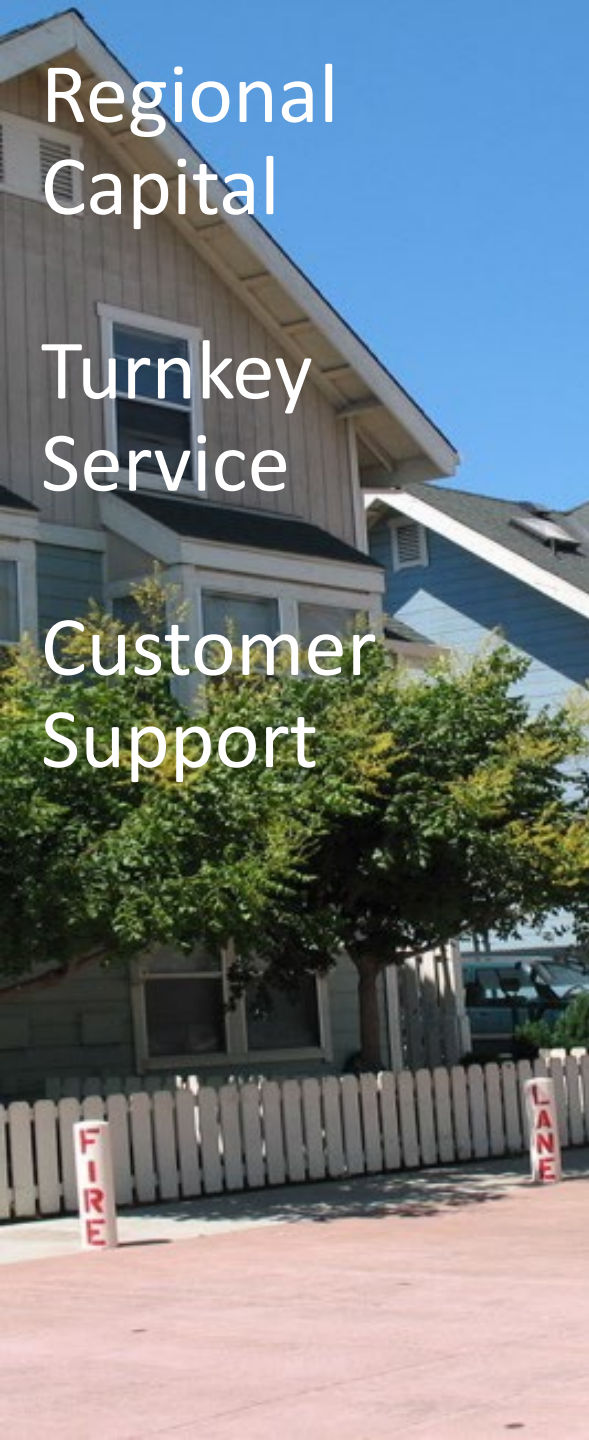
# Tariff On-Bill for Public Benefit

Water efficiency service.

Not a consumer loan.

Not a rebate.

- ❑ **Investment.** Retail water utility uses its authority to set rates/fees to invest in customer-side upgrades.
- ❑ **Control.** Utility decides which customers to target and how much to reduce demand.
- ❑ **Turnkey Service.** Program qualifies, installs, and verifies projects. Minimal utility staff time, no utility budget. Program-negotiated prices. Vetted contractors.
- ❑ **Capital.** ABAG Finance Service pays for “services rendered” to complete projects. Capital recycles through system.
- ❑ **On-Bill Charge.** Utility collects on-bill charge at Participating meters to repay invested capital.
- ❑ **Pay as they save.** Participating customers use utility bill savings to pay on-bill charge.

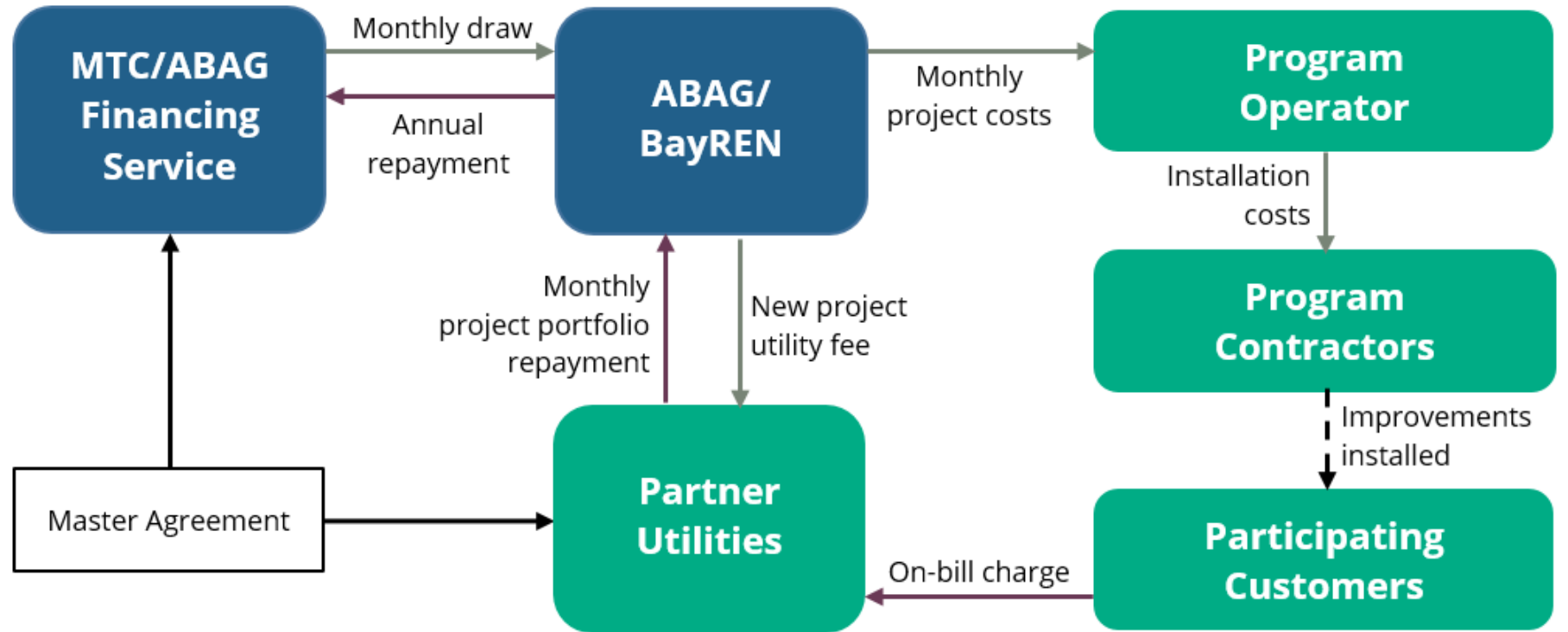


Regional  
Capital

Turnkey  
Service

Customer  
Support

# BayREN Water Upgrades Save



- ❑ Water, sewer, water-heating bill savings
- ❑ Toilet, showerhead, aerators
- ❑ Single family, multifamily, commercial
- ❑ Two regional Partner Utilities to-date
- ❑ Three pilots (2010 to Present)
- ❑ Regional program (2021 ongoing)
- ❑ Tariff On-Bill expertise

# What is the customer offer?

And why it works.

# Water Upgrades Save — Customer Offer

Municipal water utility customers can install water and energy efficiency upgrades with **little to no up-front cost** — using a monthly utility-approved on-bill charge **that is significantly lower than the estimated savings**.

## Participant assurances:

- Little to no up-front payment, no new debt, no credit checks, and no liens.
- Participants pay only while they are a utility customer at the project location.
- Guarantee that any failed measure is repaired or charge stops.
- Turnkey service for project design, install, and inspection.
- Immediate utility bill savings.

### A Simple Offer

- ✓ Save more than you pay
- ✓ Little-to-no upfront costs
- ✓ No new debt
- ✓ No credit check

### It's Easy!

- Select your upgrades
- Install with a certified contractor
- Pay a monthly charge on a lower water bill

### Lasting Rewards!

- Immediately lower your utility bills
- Upgrade your home
- Save water and energy

**Enroll today!**

[www.waterupgradessave.org](http://www.waterupgradessave.org)



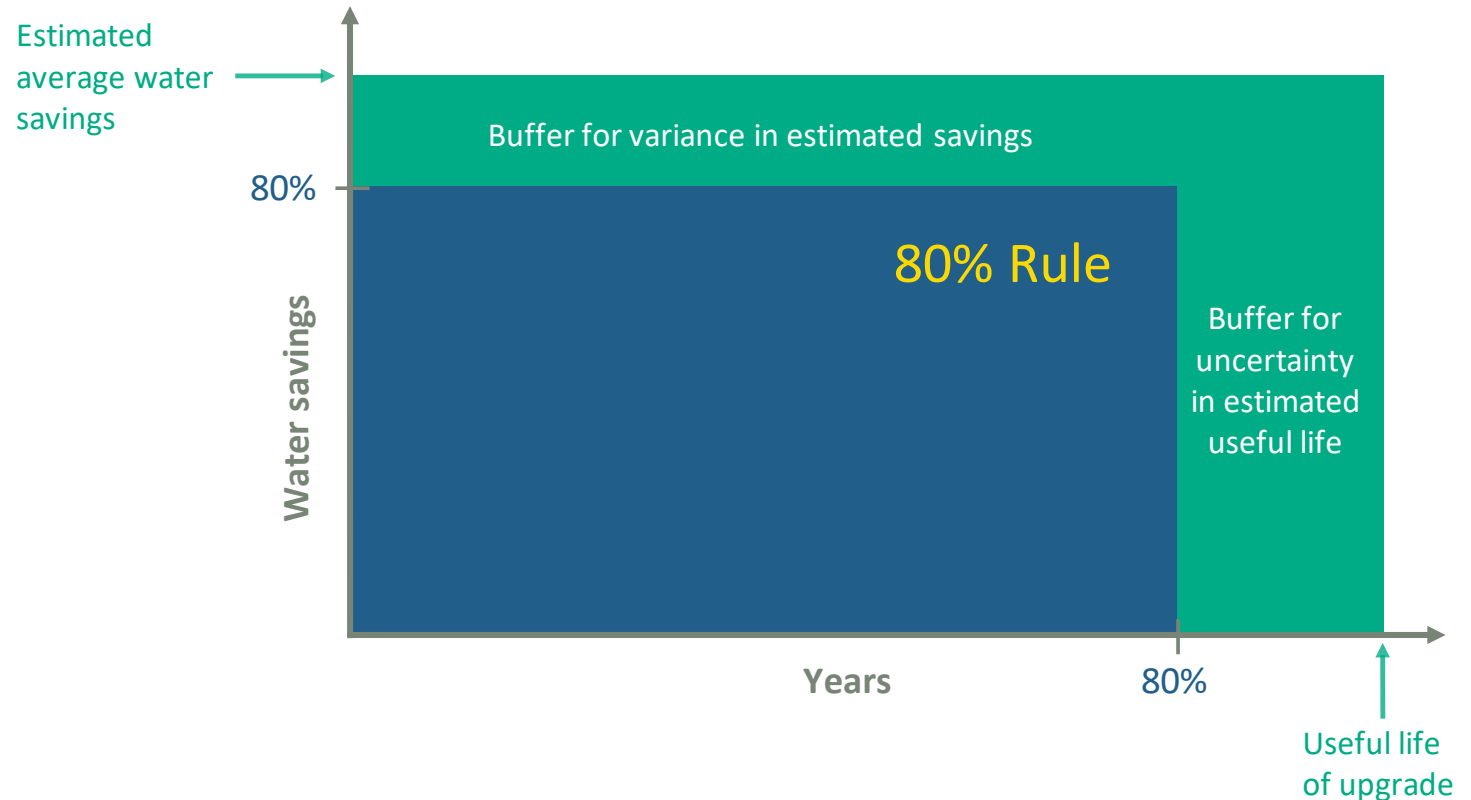
# 80 Percent Rule — Equity in Action

80 Percent Rule ensures customer gets to keep at least 20 percent of their estimated annual savings.

Uses only:

- Water, sewer, water heating bill savings
- Proven technologies,
- Site-specific usage data and billing history
- Current volumetric utility rates
- 10-year cost recovery period

## Assurance of Net Savings via Tariff On-Bill Investment



Customer Buffer Calculation

$$80\% * 80\% = 64\%$$

*\*Based on characteristics of the Water Upgrades Save Program*

# Available Upgrades

Onsite assessment includes leak inspection.

Sector		
Single Family	Basic Package	Customer Choice
Multifamily	Basic Package	Customer Choice
Commercial (2024)	Select equipment upgrades	Customer Choice

Indoor Upgrades (Basic Package <sup>1</sup> )	Outdoor Upgrades (2024)
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- A 1.06-gallon per flush or better toilet<sup>2</sup>
- A high efficiency (typically 1.5-gpm) showerhead
- A 1.0-gpm bathroom faucet aerator
- A 1.5-gpm kitchen faucet aerator
- Recirculation pump

- Turf removal and preparation for drought tolerant landscaping (plantings paid with rebates or co-pays)
- Irrigation system installation
- Irrigation system repair
- Weather-based irrigation controllers

1 - The Basic Package meets or exceeds requirements of the Water Conservation Act of 2009 (SB X7-7) and can help properties comply with the 2017 (single family) and 2019 (multifamily and commercial) time-of-sale requirements created by SB 407.

2 - Program toilets must have a Maximum Performance (MAP) rating of 600 grams or more.

State standards for outdoor water conservation will be adopted by June 2022 per SB 606 (Hertzberg) and AB 1668 (Friedman).

# Turnkey Service — Water Customer

## Customer

- Receives program invitation
- Schedules free audit

## Water Specialist

- Visits home
- Verifies estimated savings
- Helps select upgrades
- Schedules contractor

## Program Contractor

- Installs upgrades

## Program Operator

- Inspects project
- Pays contractor
- Tells utility project is complete and on-bill charge can begin

## Utility

- Collects on-bill charge paid by customer
- Repays Program Finance Service

## Customer

- Begins saving right away
- *80% of savings covers on-bill charge*

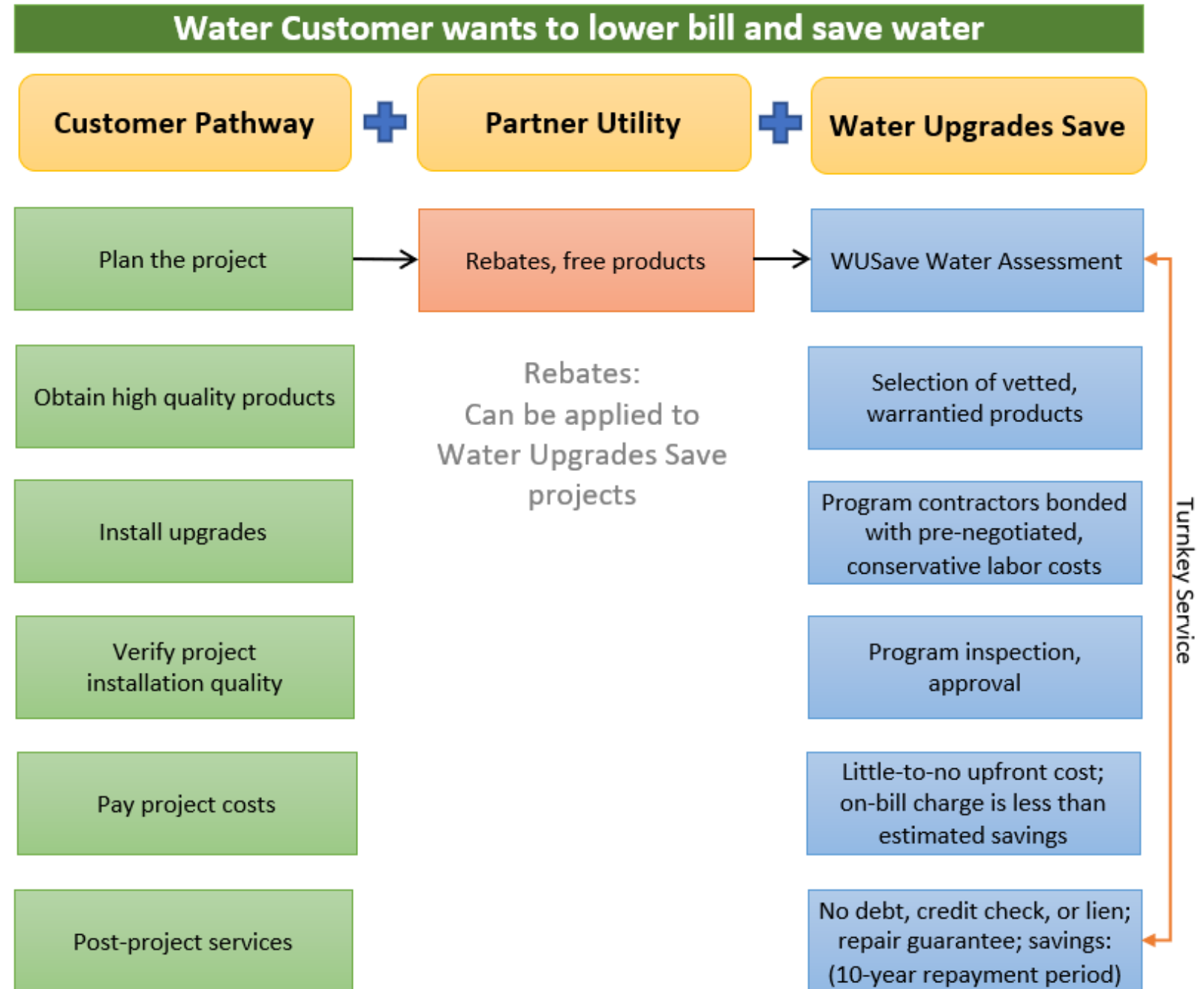
## Successor Customer

- If customer moves, next customer continues to save and pays on-bill charge till cost recovery is complete

# Turnkey service:

- Customers
- Utility

WUSave and Utility program can be integrated to expand value for water customers.



# Expanded services

## For the Utility

- Turnkey program administration
  - Capital service
  - Customer enrollment campaign
  - Project installation oversight
  - Ongoing customer support
  - Low to no utility staff/no budget
- Expands customer benefit
- Supports energy/water/equity goals
- Extends utility conservation resources
- Optional Utility Fee for billing activities

## For the Customer

- Turnkey service for all project steps
  - Online enrollment
  - Onsite project assessment
  - Pre-negotiated labor/materials cost
  - Bonded insured contractor(s)
  - Vetted warrantied products
  - Repair guarantee
  - Program support during repayment
- No *buy-out* required if customer moves before project cost is repaid

**Remove  
Barriers**

**Minimize  
Risk**

**Protect  
Customer**

**Increase  
Participation**



# Easy to Participate

- No upfront cost.
- Immediate net savings based on Program Operator savings estimate.
- No consumer loan, no credit check or lien required.
- No income disclosure required.
- Property owners and renters can participate.

# Affordable, Warrantied Projects

- Fixtures selected based on quality, efficiency, and price.
- Customers offered a selection of vetted fixtures.
- Fixtures include 10-year warranty equal to repayment term.
- Install cost based on pre-negotiated contract with licensed, bonded Program Contractor.
- If a fixture fails, it will be repaired, or the on-bill charge ends.



# Professional Turnkey Service

- Independent Operator collects data onsite to generate cost-effective offer.
- Fixtures installed by licensed, bonded Program Contractor.
- Projects inspected by Program Operator for quality installation before approval and contractor payment.

# Savings Pay for On-Bill Charge

- Estimated utility bill savings are more than on-bill charge.
- On-bill charge ends if:
  - Customer moves away,
  - Project cost repayment is complete, or
  - Fixture fails and cannot be repaired.
- If customer moves, continued utility bill savings/on-bill charge transfer to successor customer.



Proven water efficiency program  
that drives customer \$avings



### We do the work!



- ✓ Market program
- ✓ Enroll customers
- ✓ Manage installs
- ✓ Finance projects
- ✓ Monitor quality
- ✓ Support customers

### Simple for Utility!

- Sign up
- Set targets
- Align billing
- Guide outreach



### Utility & Customer get the rewards!

- Increase affordability
- Maximize water supply
- Reduce waste
- Exceed current code
- Meet State targets

## For more information:

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### Water Upgrades Save

Bay Area Regional Energy Network (BayREN)

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(707) 413-SAVE (7283)

[waterupgradessave.org](http://waterupgradessave.org)

