



Monterey
One Water



Formed in 1972
and previously known as
the Monterey Regional Water
Pollution Control Agency



10 Member Entities
Serving **250,000**
Community Members

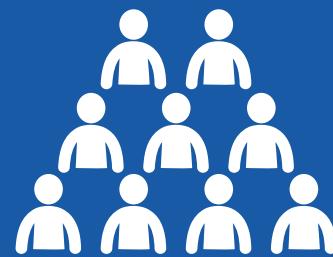


29.6 MGD
Primary/Secondary/Tertiary
treatment capacity



Monterey One Water
Providing Cooperative Water Solutions

17 MILLION Gallons,
on average, of wastewater
processed each day



90 EMPLOYEES



\$60 MILLION
Operating Budget

JOINT RESPONSIBILITY





WASTEWATER
What happens to your used water?

ONE REGIONAL TREATMENT PLANT



Regulated Ocean Discharge
Predominantly Wintertime



Non-potable Reuse
Agriculture Irrigation



Indirect Potable Reuse
Groundwater Replenishment

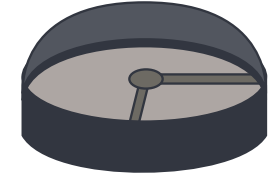
PRIMARY/SECONDARY TREATMENT



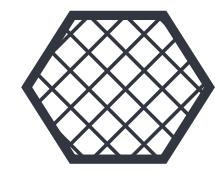
1
HEADWORKS



2
PRIMARY CLARIFIERS



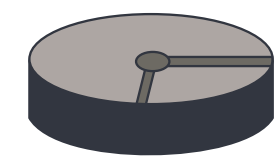
3
TRICKLING FILTERS



4
BIOFLOCCULATION



5
SECONDARY CLARIFIERS



PRIMARY/SECONDARY TREATMENT

OCEAN OUTFALL

- **Secondary Effluent Quality: Meets CA Ocean Plan**
- **Outfall Distance: RTP to Coastline + 2 miles into the Monterey Bay, 100 ft below the water's surface**
- **60 inch diameter**
- **Last ~1,000 ft include ports to disperse effluent**





TERTIARY TREATMENT



1
FLOCCULATION




2
TERTIARY FILTERS






3
CHLORINE DISINFECTION

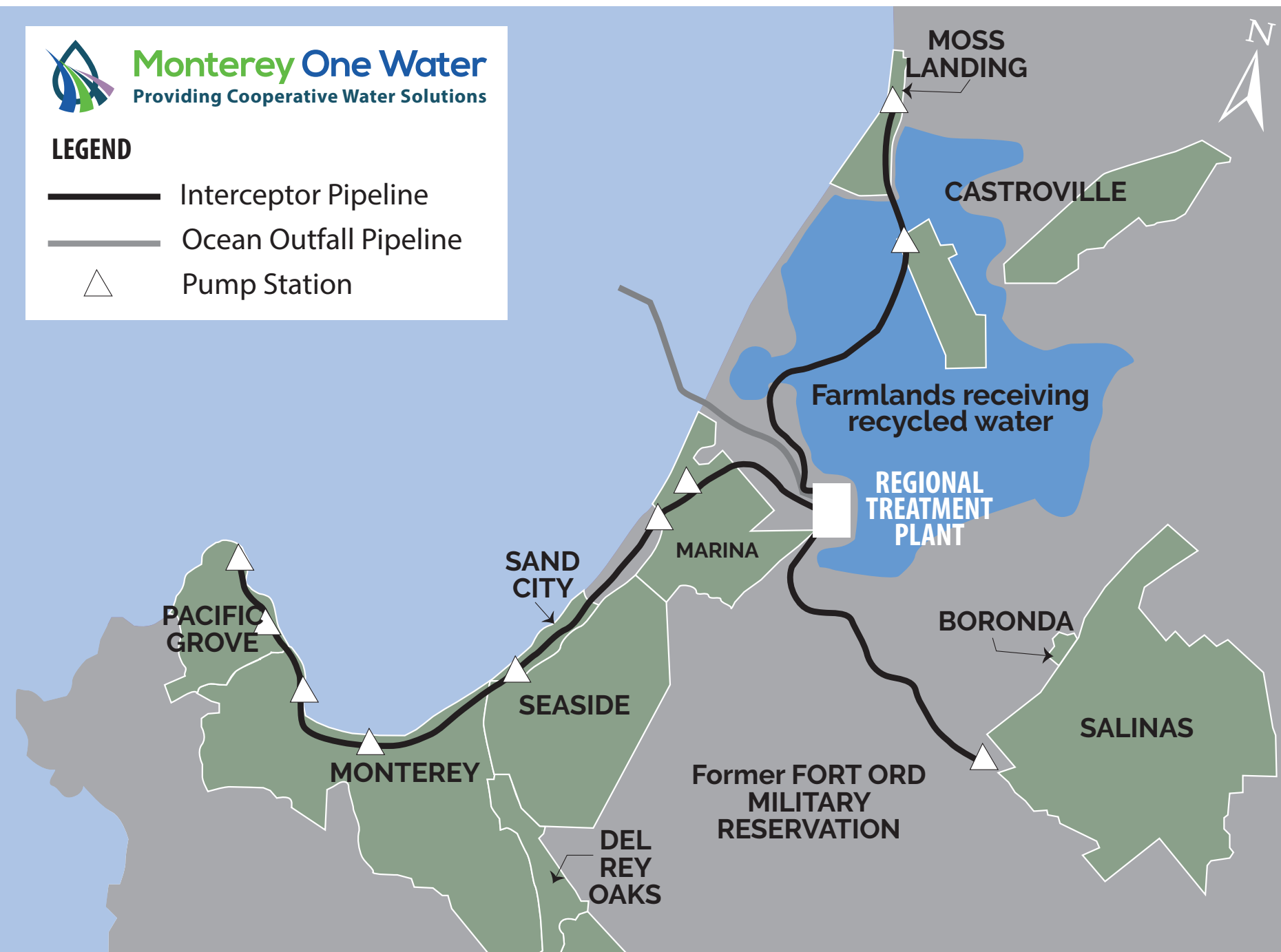


AGRICULTURE IRRIGATION WATER

 **Monterey One Water**
Providing Cooperative Water Solutions

LEGEND

-  Interceptor Pipeline
-  Ocean Outfall Pipeline
-  Pump Station



WHERE DOES THE WATER GO?

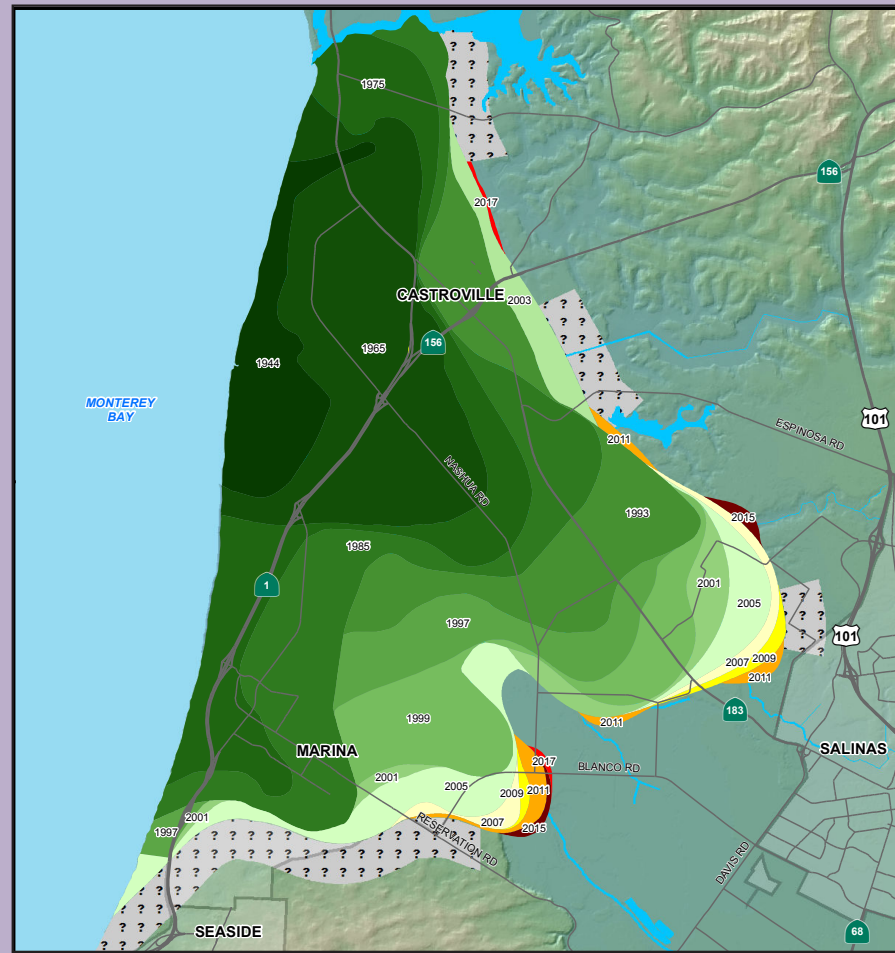
- **Distributed to 12,000 acres of farmland in northern Monterey County → CSIP**

AGRICULTURE IRRIGATION WATER

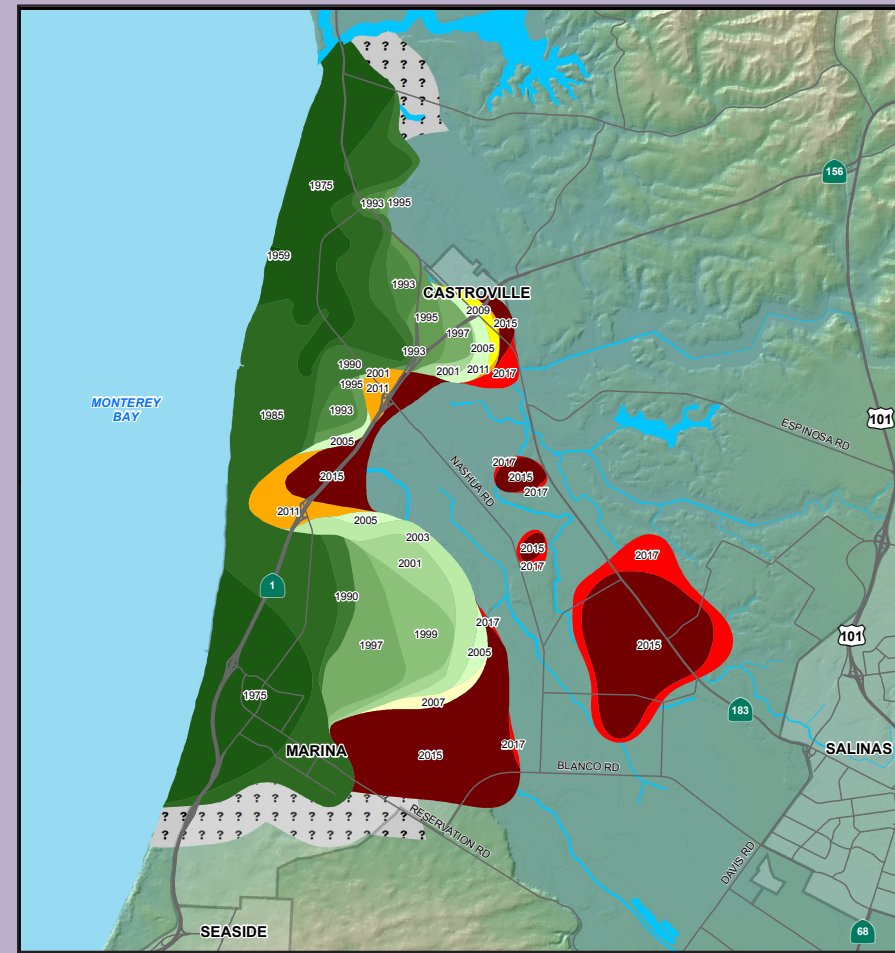
WHY DO WE NEED RECYCLED WATER FOR IRRIGATION?

- A decrease in groundwater pumping near the coast helps prevent seawater from moving into our clean supply

**180-Foot
Aquifer**



**400-Foot
Aquifer**



AGRICULTURE IRRIGATION WATER

WHY DO WE NEED RECYCLED WATER FOR IRRIGATION?

- **A secure water supply has diversified the type of crops grown in the CSIP area, including artichokes, cauliflower, strawberries, broccoli, lettuce, celery, and more**



ADVANCED PURIFICATION



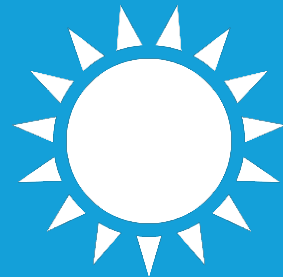
WATER SUPPLY PROJECT

3,500 ACRE FEET / YEAR
of Advanced Purified
Recycled Water

produced for injection into
the Seaside Groundwater Basin

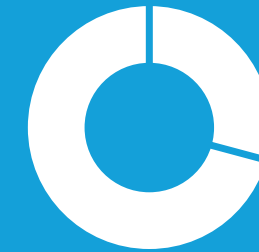


1 Acre Foot = 325,851 Gallons



1,000 ACRE FEET
potable water drought reserve
created to increase availability of
recycled water for ag use during dry years

Partners for Pure Water Solutions



~22-33% of the
Monterey Peninsula's
future water supply portfolio

New Source Waters

will help increase tertiary treated
recycled water for agricultural irrigation up to

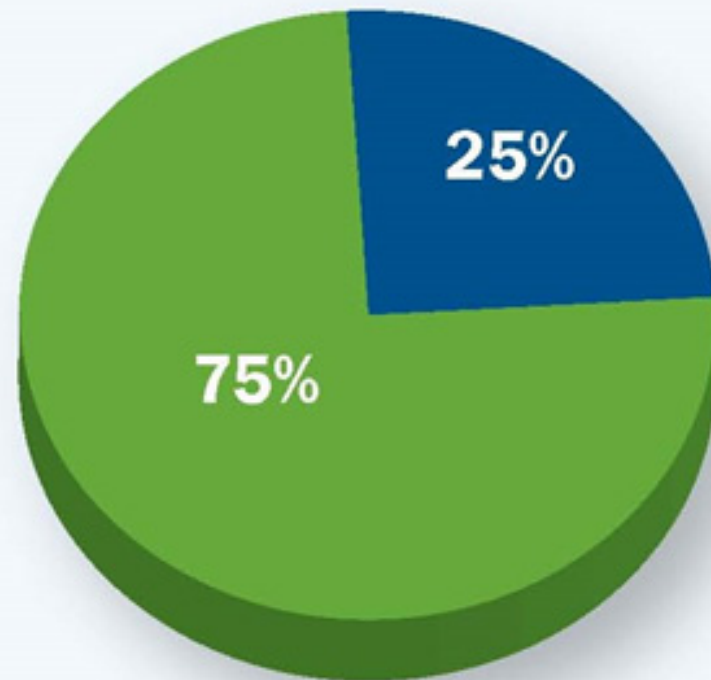
4,400 ACRE FEET / YEAR



WHY DO WE NEED PWM?

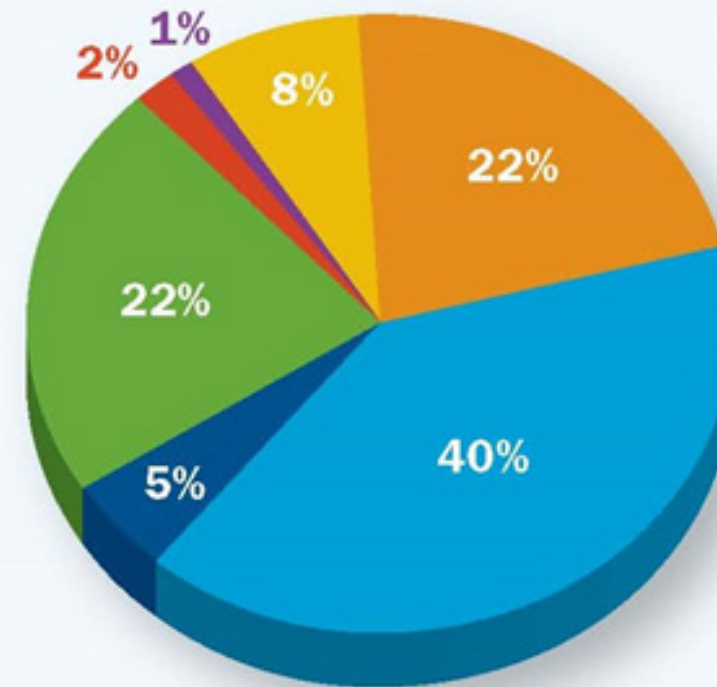
Water supply diversification and sustainability

Traditional Sources



- Seaside Basin
- Carmel River

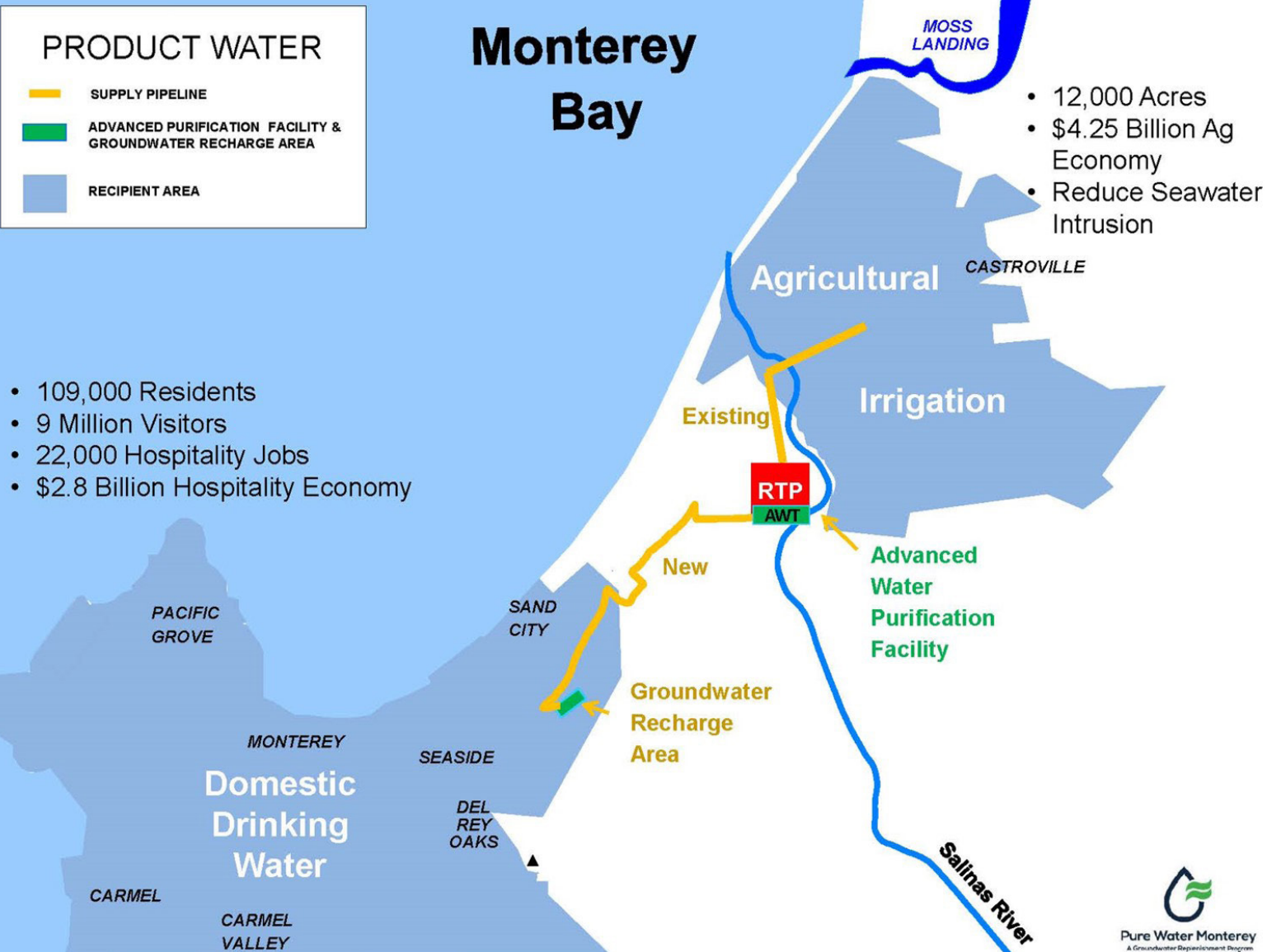
Proposed Water Sources



- Groundwater Replenishment
- Desalination
- Seaside Basin
- Carmel River
- Sand City
- Pacific Grove
- Aquifer Storage Recovery

WHY DO WE NEED PWM?

Water supply diversification and sustainability



PURE WATER MONTEREY

Source Water Diversion Structures



Advanced Water Purification Facility



4 Components to PWM



Conveyance Pipeline



Injection Wells

PURE WATER MONTEREY

Municipal Wastewater



67%

Agricultural Wash Water



17%

PWM Source Waters



16%

Agricultural Drainage Water

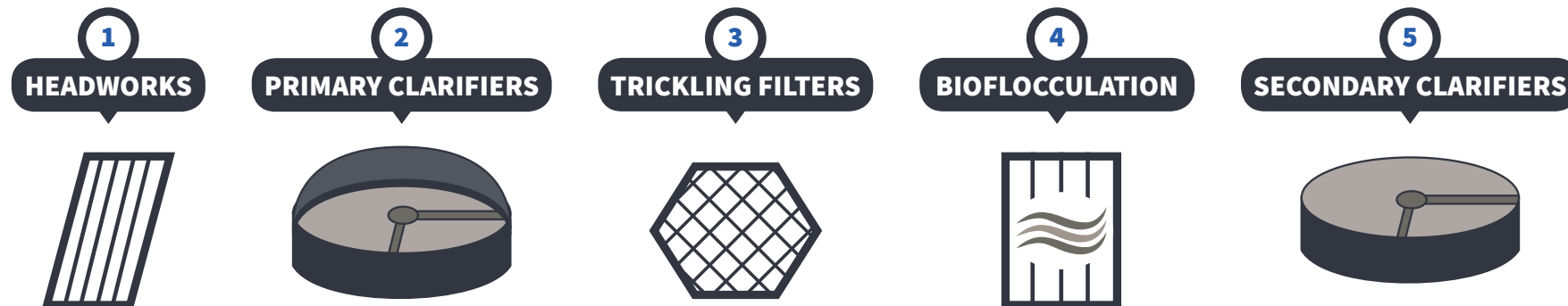


Urban Storm Water Runoff

ALL REUSE STARTS HERE



Primary/Secondary Treatment



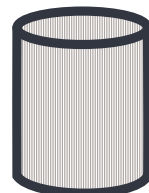
PURE WATER MONTEREY



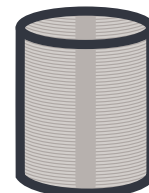
1
OZONE



2
MEMBRANE FILTRATION



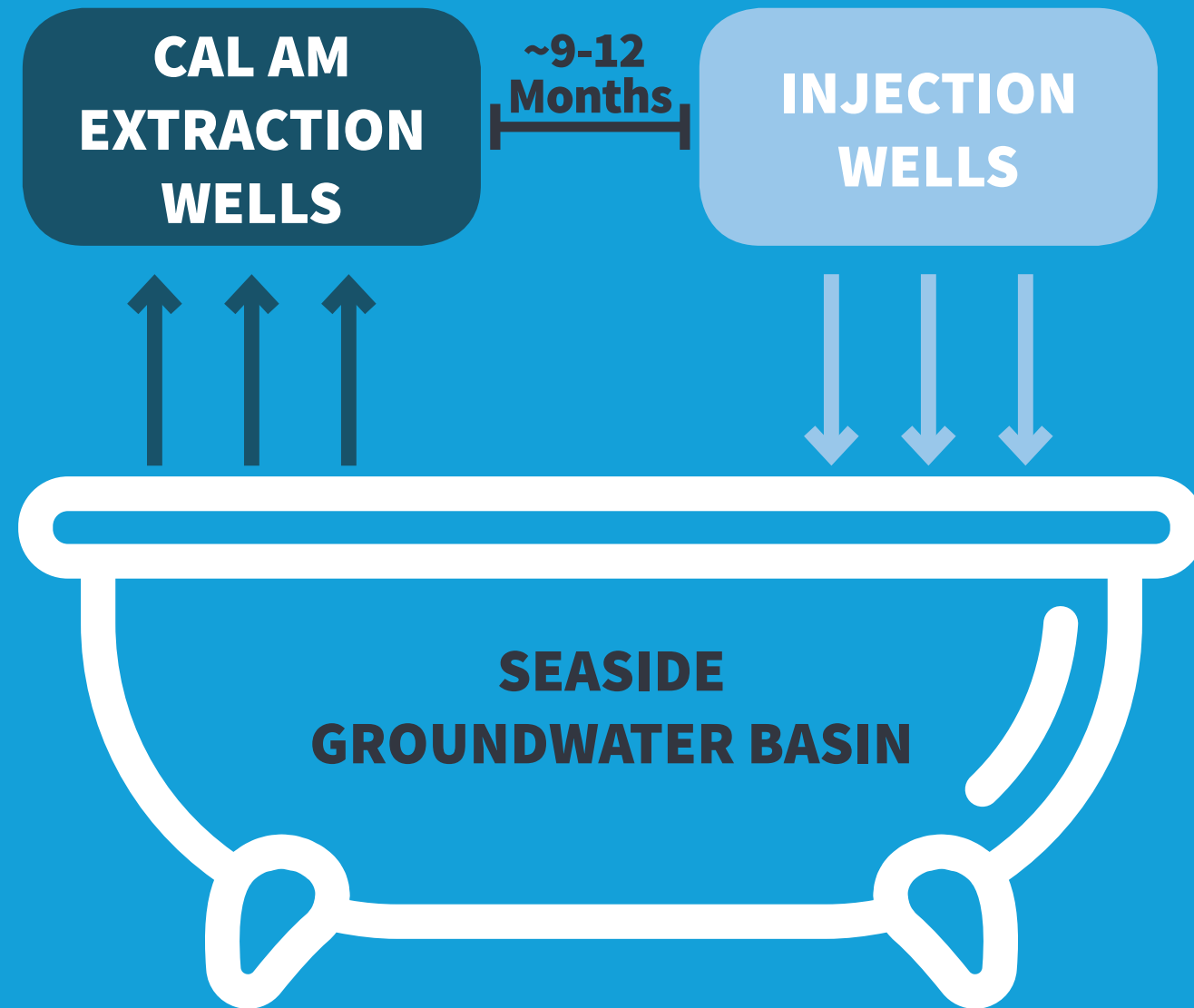
3
REVERSE OSMOSIS



4
UV + H₂O₂



PURE WATER MONTEREY



CROSS-DISTRICT COLLABORATION

FIND TIME



FIND OPPORTUNITIES



FIND RESOURCES



PURE WATER MONTEREY



Pure Water Monterey
A Groundwater Replenishment Project



OCEAN OUTFALL

- RTP to Coastline + 2 miles into the Monterey Bay & 100 ft below the water's surface
- Effluent meets CA Ocean Plan

RO Concentrate
• ~20% Rejection Rate

SOURCE WATERS

- 1 Wastewater (67%)**
- 2 Agricultural Drainage Water (16%)**
- 3 Agricultural Wash Water (17%)**
- 4 Stormwater**

PWM AWPf: Advanced Purification (Indirect Potable Reuse)

- Daily Capacity: 5 MGD
- Annual Yield: 3,500 AF + 200 AF (drought reserve)
- 4,300 AF Source Water → 3,500 AF Product Water

Secondary Effluent

M1W REGIONAL TREATMENT PLANT (Primary/Secondary)

• Max Capacity: 29.6 MGD

SVRP: Tertiary Treatment (Ag Irrigation)

- Max Capacity: 29.6 MGD
- Min Operational Production: 5 MGD



DISTRIBUTION SYSTEM

- 12,000 acres of farmland
- 9 wells + booster stations

CAL AM EXTRACTION WELLS

INJECTION WELLS

CONVEYANCE PIPELINE

~9-12 Months

- ~10 mile pipeline
- Lead Partner: Marina Coast Water District
- Turnouts included for future MCWD landscape irrigation customers



SEASIDE GROUNDWATER BASIN

- Travel time between injection and extraction wells is ~9-12 months
- Injection wells are located near General Jim Moore Blvd and Coe Ave

QUESTIONS

