



TODAY'S SESSION IS HOSTED BY

Mission Springs Water District

- Established in 1953
- More than 1.25 million feet of pipelines, 13 water wells, and 24 reservoirs
- Serving over 40,000 people in about 135 square miles
- Serves award-winning water to customers in Desert Hot Springs, North Palm Springs, and portions of the Whitewater area





WELCOME





WATER QUALITY ANALYSIS & ASSURANCE / GOLF AND NONPOTABLE WATER SUPPLIES INTRODUCTIONS

April Scott

PROGRAMS AND PUBLIC AFFAIRS SPECIALIST,
MISSION SPRINGS WATER DISTRICT





Wil Gonzalez

LABORATORY DIRECTOR, COACHELLA VALLEY WATER DISTRICT

Wil has worked with CVWD for 34 years. In his current role as Laboratory Director where he leads the laboratory team in the analysis and reporting of various types of water including drinking water, groundwater, surface water, stormwater, irrigation water, and wastewater.



Water Quality Testing and Assurance



Wilfred Gonzalez, Laboratory Director
Coachella Valley Water District

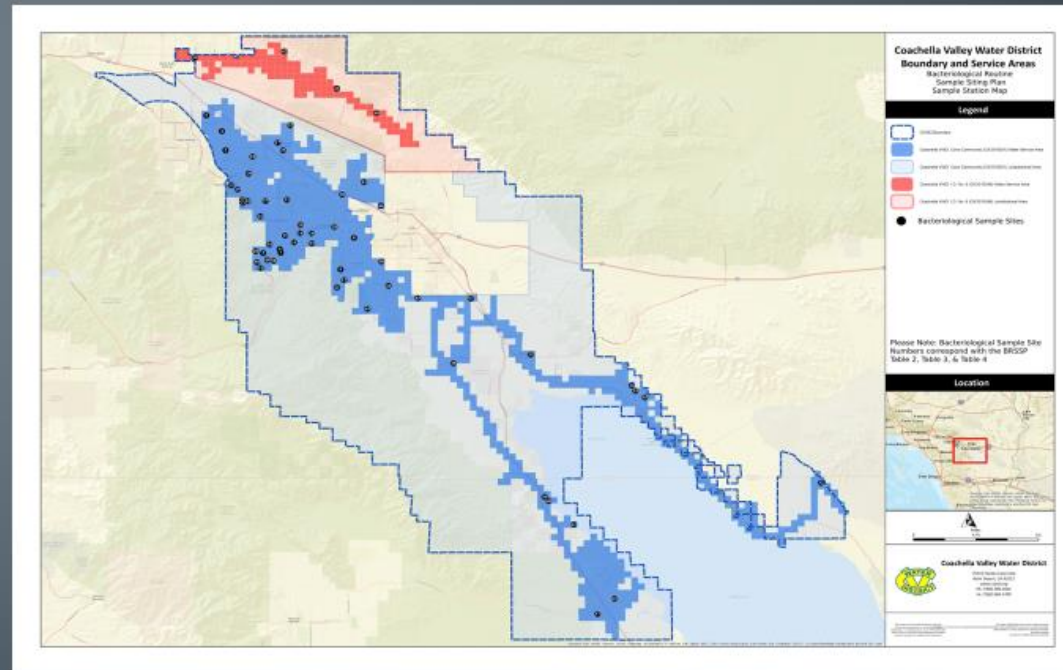
Safe Drinking Water Act (SDWA) - 1974

- Federal Regulation to protect the quality of drinking water in the United States
- Act authorizes EPA to establish minimum standards to protect tap water
- Requires all PWS to comply
- State governments can be approved to implement



California State Water Resources Control Board Division of Drinking Water (DDW)

- DDW regulates public drink water systems in California
- CVWD has about 100 permitted drinking water wells serving 2 public water systems



Drinking Water Maximum Contaminant Levels

NOTE: This publication is meant to be an aid to the staff of the State Board's Division of Drinking Water and cannot be relied upon by the regulated community as the State of California's representation of the law. The published codes are the only official representation of the law. Refer to the published codes—in this case, 17 CCR and 22 CCR—whenever specific citations are required. Statutes related to the State Board's drinking water-related activities are found in the California Health & Safety Code, the Water Code, and other codes.

**Table 64431-A
Maximum Contaminant Levels
Inorganic Chemicals**

Chemical	Maximum Contaminant Level, mg/L
Aluminum	1
Antimony	0.006
Arsenic	0.010
Asbestos	7 MFL*
Barium	1
Beryllium	0.004
Cadmium	0.005
Chromium	0.05
Cyanide	0.15
Fluoride	2.0
Mercury	0.002
Nickel	0.1
Nitrate (as nitrogen)	10.
Nitrate+Nitrite (sum as nitrogen)	10.
Nitrite (as nitrogen)	1.
Perchlorate	0.006
Selenium	0.05
Thallium	0.002

* MFL=million fibers per liter; MCL for fibers exceeding 10 µm in length.

§64432. Monitoring and Compliance—Inorganic Chemicals.

(a) All public water systems shall monitor to determine compliance with the nitrate and nitrite MCLs in table 64431-A, pursuant to subsections (d) through (f) and Section 64432.1. All community and nontransient-noncommunity water systems shall monitor to determine compliance with the perchlorate MCL, pursuant to subsections (d), (e), and (i), and section 64432.3. All community and nontransient-noncommunity water systems shall also monitor to determine compliance with the other MCLs in table 64431-A, pursuant to subsections (b) through (n) and, for asbestos, section 64432.2. Monitoring shall be conducted in the year designated by the State Board of each compliance period beginning with the compliance period starting January 1, 1993.

(b) Unless directed otherwise by the State Board, each community and nontransient-noncommunity water system shall initiate monitoring for an inorganic chemical within six months following the effective date of the regulation establishing the MCL for the chemical and the addition of the chemical to table 64431-A. If otherwise performed in accordance with this section, groundwater monitoring for an inorganic chemical

Domestic Water Supply Permit Amendment



State Water Resources Control Board
Division of Drinking Water

Sent via email: jbarrett@cwred.org

April 6, 2021

James Barrett
General Manager
Coachella Valley Water District
PO Box 1058
Coachella, CA 92236

Dear Mr. Barrett:

**COACHELLA VALLEY WATER DISTRICT COVE COMMUNITY – SYSTEM NO. 3310001
PERMIT AMENDMENT NO. 05-20-21PA-005 – REACTIVATION OF WELL NO. 5656-1**

The State Water Resources Control Board Division of Drinking Water has issued a domestic water supply permit amendment for the Coachella Valley Water District (CVWD) Cove Community's Well No. 5656-1. The permit and engineering report are enclosed.

Please note that a public water system may file a petition with the State Water Board for reconsideration of a decision to issue, deny, or amend a permit made under authority delegated to an officer or employee of the state board. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit, permit amendment, or decision.

The date of issuance is the date when the Division mails or serves a copy of the permit, permit amendment, or decision, whichever occurs first. If the 30th day falls on a Saturday, Sunday, or state holiday, the petition is due the following business day. Petitions must be received by 5:00 p.m.

Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

The Division appreciates the help provided by CVWD's staff during development of this permit. If you have any questions regarding this letter, please contact Manuel Delgado at (619) 525-4408 or manuel.delgado@waterboards.ca.gov or me at (619) 525-4159 or sean.mccarthy@waterboards.ca.gov.

E. JOAQUIN ESQUIVEL, CHAIR | ELLEN SOBECK, EXECUTIVE DIRECTOR

1350 First Street, Room 2050, San Diego, CA 92101 | www.waterboards.ca.gov

Monitoring Schedule – Page 1

State of California
Water Resources Control Board

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Division of Drinking Water
Riverside District

STATE WATER RESOURCES CONTROL BOARD, DIVISION OF DRINKING WATER
Monitoring Guidelines - Ground Water Schedule
for the 9-Year Compliance Cycle 1/1/2020 through 12/31/2028

System: Nar Coachella Valley Water District - Cove Community

System Number: 3310001

Date: March 2021

Parameter	STORET	MCL	Units	DLR	Trigger	Well 5656-1 ^(M)	Standby Wells ^(M)	Title 22
<i>Inorganic Chemicals</i>								
ALUMINUM	01105	1,000	UG/L	50	200 ^(R)	Every 3 years	Every 9 years	PI
ANTIMONY	01097	6	UG/L	6	6	Every 3 years	Every 9 years	PI
ARSENIC	01002	10	UG/L	2	5	Every 3 years	Every 9 years	PI
ASBESTOS	81855	7	MFL	0.2	7	Waived	Waived	PI
BARIUM	01007	1,000	UG/L	100	1,000	Every 3 years	Every 9 years	PI
BERYLLIUM	01012	4	UG/L	1	4	Every 3 years	Every 9 years	PI
CADMIUM	01027	5	UG/L	1	5	Every 3 years	Every 9 years	PI
CHROMIUM (TOTAL)	01034	50	UG/L	10	50	Every 3 years	Every 9 years	PI
COPPER	01042	1,000	UG/L	50	1,000	Every 3 years	Every 9 years	SI
CYANIDE	01291	150	UG/L	100	150	Once	Once	PI
FLUORIDE	00961	2.0	MGL	0.1	1.7	Every 3 years	Every 9 years	PI
IRON	01045	300	UG/L	100	300	Every 3 years	Every 9 years	SI
LEAD	01051	15	UG/L	5	15	Every 3 years ^(S)	Every 9 years	SI
MANGANESE	01055	50	UG/L	20	50	Every 3 years	Every 9 years	SI
MERCURY	71900	2	UG/L	1	2	Every 3 years	Every 9 years	PI
NICKEL	01057	100	UG/L	10	100	Every 3 years	Every 9 years	PI
NITRATE (AS N)	71850	10	MGL	0.4	5	Annually	Every 9 years ^(S)	PI
NITRITE (AS N)	00620	1000	UG/L	400	500	Every 3 years	Every 9 years	PI
PERCHLORATE ^(R)	A-031	6	UG/L	4	4	Semi-annual ^(S)	Every 9 years	PI
SELENIUM	01147	50	UG/L	5	50	Every 3 years	Every 9 years	PI
SILVER	01077	100	UG/L	10	100	Every 3 years	Every 9 years	SI
THALLIUM	01069	2	UG/L	1	2	Every 3 years	Every 9 years	PI
ZINC	01092	5000	UG/L	50	5000	Every 3 years	Every 9 years	SI
<i>General Mineral</i>								
TOTAL HARDNESS (AS CaCO ₃)	00900		MGL			Every 3 years	Every 9 years	SI
BICARBONATE ALKALINITY	00440		MGL			Every 3 years	Every 9 years	SI
CARBONATE ALKALINITY	00445		MGL			Every 3 years	Every 9 years	SI
HYDROXIDE ALKALINITY	71830		MGL			Every 3 years	Every 9 years	SI
CALCIUM	00916		MGL			Every 3 years	Every 9 years	SI
MAGNESIUM	00927		MGL			Every 3 years	Every 9 years	SI
SODIUM	00629		MGL			Every 3 years	Every 9 years	SI
SULFATE	00945	250, 500, 600 ^(M)	MGL		500	Every 3 years	Every 9 years	SI
CHLORIDE	00940	250, 500, 600 ^(M)	MGL		500	Every 3 years	Every 9 years	SI
<i>General Physical</i>								
TOTAL DISSOLVED SOLIDS	70300	500, 1000, 1500 ^(M)	MGL		1000	Every 3 years	Every 9 years	SI
SPECIFIC CONDUCTANCE	00095	900, 1600, 2200 ^(M)	US		1600	Every 3 years	Every 9 years	SI
TURBIDITY (LAB)	82079	5	NTU		5	Every 3 years	Every 9 years	SI
PH (LABORATORY)	00403		UNITS			Every 3 years	Every 9 years	SI
COLOR	00081	15	UNITS		15	Every 3 years	Every 9 years	SI
ODOR THRESHOLD @ 60 C	00088	3	TON		3	Every 3 years	Every 9 years	SI
FOAMING AGENTS (MBAS)	38260	500	UG/L		500	Every 3 years	Every 9 years	SI
AGGRESSIVENESS INDEX	82383	Non-corrosive				Waived	Waived	SI

Monitoring Schedule – Page 2

State of California
Water Resources Control Board

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Division of Drinking Water
Riverside District

System Name: Coachella Valley Water District - Cove Community

System Number: 3310001

Date: March 2021

Parameter	STORET	MCL	Units	DLR	Trigger	Well 5656-1 ^(M)	Standby Wells ^(S)	Title 22
Radiological								
GROSS ALPHA (GA)	01501	15	PCU/L	3	5	4 Quarters ^(M)	Every 9 years	RAD
GROSS BETA	03501	50 ^(M)	PCU/L	4	50	Waived	Waived	RAD
RADIUM 226	09501	5 ^(M)	PCU/L	0.5	5	4 Quarters ^(M)	Every 9 years ^(M)	RAD
RADIUM 228	11501	5 ^(M)	PCU/L	0.5	5	4 Quarters ^(M)	Every 9 years ^(M)	RAD
STRONTIUM 90	13501	8	PCU/L	2	8	Waived	Waived	RAD
TRITIUM	07000	20,000	PCU/L	1,000	20,000	Waived	Waived	RAD
URANIUM (U)	28012	20	PCU/L	1	20	4 Quarters ^(M)	Every 9 years ^(M)	RAD
Bacteriological								
Total Coliform (Presence/Absence)						Monthly ^(M)	Upon activation ^(M)	BAC
Fecal Coliform or E. coli						If TC present	If TC present	BAC
Regulated Volatile Organic Chemicals								
BENZENE	34030	1	UG/L	0.5	0.5	4 Quarters ^(M)	Every 9 years	VOC
CARBON TETRACHLORIDE	32102	0.5	UG/L	0.5	0.5	4 Quarters ^(M)	Every 9 years	VOC
1,2-DICHLOROBENZENE	34036	600	UG/L	0.5	0.5	4 Quarters ^(M)	Every 9 years	VOC
1,4-DICHLOROBENZENE	34571	5	UG/L	0.5	0.5	4 Quarters ^(M)	Every 9 years	VOC
1,1-DICHLOROETHANE	34498	5	UG/L	0.5	0.5	4 Quarters ^(M)	Every 9 years	VOC
1,2-DICHLOROETHANE	34531	0.5	UG/L	0.5	0.5	4 Quarters ^(M)	Every 9 years	VOC
1,1-DICHLOROETHYLENE	34501	8	UG/L	0.5	0.5	4 Quarters ^(M)	Every 9 years	VOC
CIS-1,2-DICHLOROETHYLENE	77093	8	UG/L	0.5	0.5	4 Quarters ^(M)	Every 9 years	VOC
TRANS-1,2-DICHLOROETHYLENE	34546	10	UG/L	0.5	0.5	4 Quarters ^(M)	Every 9 years	VOC
DICHLOROMETHANE	34423	5	UG/L	0.5	0.5	4 Quarters ^(M)	Every 9 years	VOC
1,2-DICHLOROPROPANE	34541	5	UG/L	0.5	0.5	4 Quarters ^(M)	Every 9 years	VOC
1,3-DICHLOROPROPANE (TOTAL)	34561	0.5	UG/L	0.5	0.5	4 Quarters ^(M)	Every 9 years	VOC
ETHYLBENZENE	34371	300	UG/L	0.5	0.5	4 Quarters ^(M)	Every 9 years	VOC
METHYL-TERT-BUTYL-ETHER (MTBE)	46491	13	UG/L	3	5 ^(M)	4 Quarters ^(M)	Every 9 years	VOC
MONOCHLOROBENZENE	34301	70	UG/L	0.5	0.5	4 Quarters ^(M)	Every 9 years	VOC
STYRENE	77128	100	UG/L	0.5	0.5	4 Quarters ^(M)	Every 9 years	VOC
1,1,2,2-TETRACHLOROETHANE	34516	1	UG/L	0.5	0.5	4 Quarters ^(M)	Every 9 years	VOC
TETRACHLOROETHYLENE	34475	5	UG/L	0.5	0.5	4 Quarters ^(M)	Every 9 years	VOC
TOLUENE	34010	150	UG/L	0.5	0.5	4 Quarters ^(M)	Every 9 years	VOC
1,2,4-TRICHLOROBENZENE	34551	5	UG/L	0.5	0.5	4 Quarters ^(M)	Every 9 years	VOC
1,1,1-TRICHLOROETHANE	34506	200	UG/L	0.5	0.5	4 Quarters ^(M)	Every 9 years	VOC
1,1,2-TRICHLOROETHANE	34511	5	UG/L	0.5	0.5	4 Quarters ^(M)	Every 9 years	VOC
TRICHLOROETHYLENE	39180	5	UG/L	0.5	0.5	4 Quarters ^(M)	Every 9 years	VOC
TRICHLOROFLUOROMETHANE (FREON 11)	34488	150	UG/L	5	5	4 Quarters ^(M)	Every 9 years	VOC
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE (FREON 113)	81611	1200	UG/L	10	10	4 Quarters ^(M)	Every 9 years	VOC
VINYL CHLORIDE	39175	0.5	UG/L	0.5	0.5	4 Quarters ^(M)	Every 9 years	VOC
XYLENES	81551	1750 ^(M)	UG/L	0.5	0.5	4 Quarters ^(M)	Every 9 years	VOC

Monitoring Division



Monitoring Division



Monitoring Division



Water Quality Laboratory

 CALIFORNIA Water Boards <small>STATE WATER RESOURCES CONTROL BOARD REGIONAL WATER QUALITY CONTROL BOARDS</small>	
CALIFORNIA STATE	
ENVIRONMENTAL LABORATORY ACCREDITATION PROGRAM	
CERTIFICATE OF ENVIRONMENTAL LABORATORY ACCREDITATION	
Is hereby granted to	
Coachella Valley Water District	
Environmental Department	
75-519 Hovley Lane East Palm Desert, CA 92211	
Scope of the certificate is limited to the "Fields of Accreditation" which accompany this Certificate.	
Continued accredited status depends on compliance with applicable laws and regulations, proficiency testing studies, and payment of applicable fees.	
This Certificate is granted in accordance with provisions of Section 100825, et seq. of the Health and Safety Code.	
Certificate No.: 1780	
Effective Date: 8/1/2024	
Expiration Date: 7/31/2026	
	
Sacramento, California subject to forfeiture or revocation	Christine Sotelo, Program Manager Environmental Laboratory Accreditation Program



Laboratory Team



Abduljeleel Osunkunle,
Chemist



Wilfred Gonzalez,
Laboratory Director



Arci Bland, Chemist



Antonio Vazquez Jr.,
Water Quality Analyst I



Samuel Murillo-Novoa,
Laboratory Aide I



Abraham Ramirez,
Water Quality Analyst II

Laboratory Staff Qualifications

- Any combination of training and experience that would provide the required knowledge, skills, and abilities is qualifying. A typical way to obtain the required qualifications would be:
 - Bachelor's degree from an accredited college or university with major coursework in chemistry, biochemistry, biology, microbiology, environmental , sanitary, or public health engineering, natural or physical science or a closely related field and thirty-two (32) semester units in organic chemistry, inorganic chemistry and/or biochemistry

Benefits of having a state-certified laboratory

- Give CVWD the ability to meet short hold times for certain analyses
 - Microbiological
 - Nitrates
 - Odor
 - Color
- Only ELAP-accredited laboratory in Coachella Valley that offers analytical services to:
 - State Small Systems regulated by Riverside County Department of Environmental Health (DEH)
 - Small Systems regulated by Federal EPA
 - Mobile Food Vendors regulated by Riverside County DEH
 - Private Well Owners

Fields of Accreditation

- Inorganic Constituents
 - Chloride
 - Fluoride
 - Nitrate
 - Nitrite
 - Phosphate
 - Sulfate
 - Alkalinity
 - Hardness
 - Conductivity
 - Chlorine, Free and Total
 - Calcium
 - Magnesium
 - Potassium
 - Sodium
 - Carbonaceous Biochemical Oxygen Demand (cBOD)
 - pH
 - Solids
- Microbiology
 - Heterotrophic Bacteria
 - Total Coliforms
 - Escherichia Coli
- Toxic Chemical Elements
 - Arsenic
 - Total Chromium
 - Copper
 - Lead
 - Selenium
 - Hexavalent Chromium
- Physical Properties
 - Odor
 - Turbidity
 - Color

Laboratory performs ~ 1000 analyses per month

Alkalinity

- Auto-Titrator for alkalinity testing
- Milligrams per liter (mg/L)



Anions

- Ion Chromatography (IC)
- Milligrams per liter (mg/L)



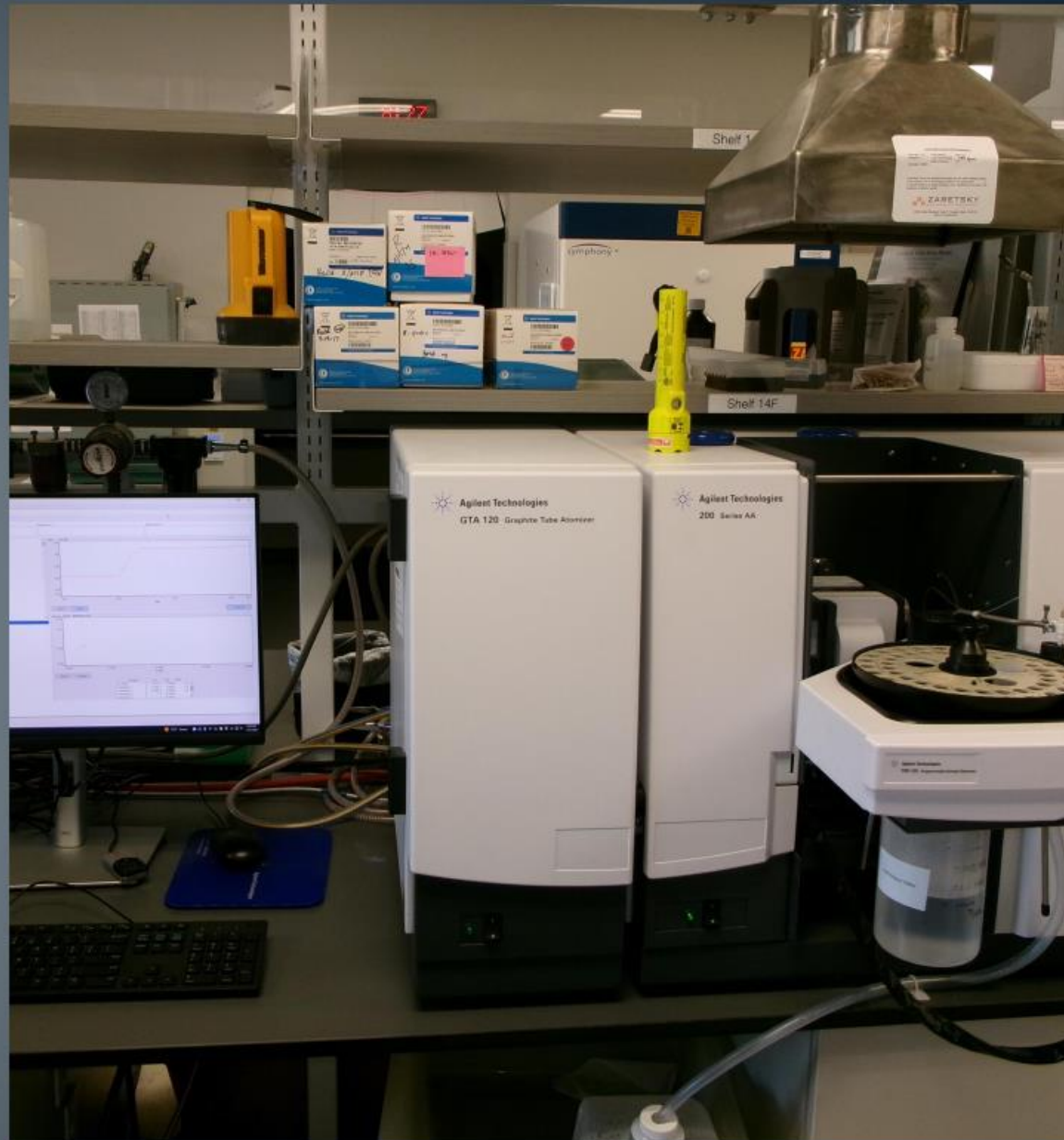
Cations

- Flame Atomic Absorption
- Milligrams per liter (mg/L)



Trace Metals Analysis

- Atomic Absorption Graphite Furnace
- Parts per Billion (ppb)



Hexavalent Chromium

- Ion Chromatography
- Parts per billion (ppb)



Trace Metals Analyses

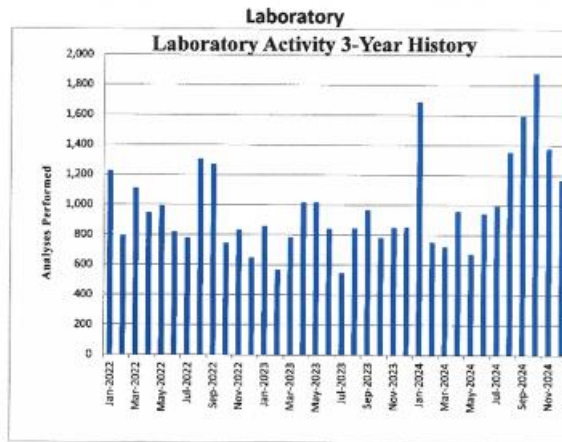
- ICP-MS
- Parts per Trillion (ppt)



CVWD Laboratory Analytical Activity

General Manager's Report
2024

December



Activity Report:

	12 Month Total	Monthly Average	This Month
Analyses Performed	14,117	1,176	1,169

Consumer Confidence Report

CVWD 2023 Domestic Water Quality Summary

(Covering the reporting period January - December 2023)

DETECTED PARAMETER, UNITS	PHG or (MCLG)	MCL ⁽¹⁾	COVE COMMUNITIES ⁽²⁾ RANGE (AVERAGE)	ID NO. # ⁽³⁾ RANGE (AVERAGE)	MCL VIOLATION? (YES/NO)	MAJOR SOURCE(S)
Arsenic, µg/L	0.004	10	ND-11 ⁽⁴⁾ (ND)		No	Erosion of natural deposits
Barium, mg/L	2	1	ND-0.11 (ND)		No	Erosion of natural deposits
Chloride, mg/L	N/A	500,600 ⁽⁴⁾	6.3-120 (21)	11-31 (17)	No	Leaching from natural deposits
Chlorine (as Cl ₂), mg/L ⁽⁵⁾	MRDLG=4	MRDL=4.0	ND-1.9 (0.6)	0.1-1.4 (0.9)	No	Result of drinking water chlorination
Chromium, µg/L	(100)	50	ND-21 (ND)	13-22 (17)	No	Erosion of natural deposits
Chromium-6, µg/L ⁽⁷⁾	0.02	N/A	ND-22 (8.5)	14-23 (18)	No	Erosion of natural deposits
Copper, mg/L ⁽⁶⁾	0.3	AL=1.3	0.11	0.10	No	Internal corrosion of household plumbing
(homes tested/sites exceeding AL)			[55/0]	[21/0]		
Dibromochloropropane (DBCP), ng/L	3	200	ND-80 (ND)		No	Leaching of banned nematocide which may still be present in soils
Fluoride, mg/L	1	2.0	0.13-1.0 (0.6)	0.4-0.6 (0.5)	No	Erosion of natural deposits
Gross Alpha Particle Activity (excluding Uranium), pCi/L	(0)	15	ND-5.4 (ND)	ND-4.6 (ND)	No	Erosion of natural deposits
Hardness (as CaCO ₃), mg/L	N/A		7.6-310 (120)	72-240 (150)	No	Erosion of natural deposits
Nitrate (as Nitrogen), mg/L	10	10	ND-9.0 (1.1)	0.4-0.9 (0.6)	No	Leaching of fertilizer, animal wastes or natural deposits
Odor as threshold, units	N/A	3 ⁽¹⁾	ND-2 (ND)		No	Naturally occurring organic materials
pH, units	N/A		6.8-9.1 (7.9)	7.6-8.1 (7.8)	No	Physical characteristic
Radium 228, pCi/L	0.015	5		ND-1.2 (ND)	No	Erosion of natural deposits
Sodium, mg/L	N/A		18-110 (30)	64-69 (70)	No	Erosion of natural deposits
Specific Conductance, µS/cm	N/A	1,500; 2,200 ⁽⁴⁾	240-1,100 (400)	530-880 (640)	No	Substances that form ions when in water
Sulfate, mg/L	N/A	500,600 ⁽⁴⁾	ND-250 (91)	140-280 (180)	No	Leaching from natural deposits
Total Coliform Bacteria, positive samples/month	(0)	5% or 1 ⁽⁸⁾ 1%	ND-1.3% (ND)		No	Naturally present in the environment
Total Dissolved Solids, mg/L	N/A	1,000; 1,500 ⁽⁴⁾	130-720 (250)	340-610 (430)	No	Leaching from natural deposits
Total Trihalomethanes, µg/L ⁽⁹⁾	N/A	80	ND-14 (50)	1.3-17 (8.2)	No	By-product of drinking water chlorination
Turbidity, NTU	N/A	5 ⁽¹⁾	ND-0.5 (ND)	ND-0.11 (ND)	No	Leaching from natural deposits
Uranium, pCi/L	0.43	20	ND-13 (5.2)	2.1-6.1 (4.1)	No	Erosion of natural deposits
Zinc, mg/L	N/A	5 ⁽⁷⁾	ND-0.4 (ND)		No	Leaching from natural deposits
2022 UNREGULATED CONTAMINANT MONITORING⁽¹⁰⁾						
Bromide, µg/L ⁽¹¹⁾	N/A		25-160 (58)		No	Erosion of natural deposits
Germanium, µg/L ⁽¹²⁾	N/A		ND-0.35 (ND)		No	Erosion of natural deposits
Halocetic Acids (HAA5B), µg/L ^(13, 14)	N/A		ND-9.4 (1.7)		No	By-product of drinking water chlorination
Halocetic Acids (HAA5), µg/L ^(13, 14)	N/A		ND-18 (2.9)		No	By-product of drinking water chlorination
Manganese, µg/L	N/A	50 ⁽¹⁾	ND-1.6 (ND)		No	Erosion of natural deposits

FOOTNOTES:

TO READ THIS TABLE: First, determine your service area by referring to footnotes 2 and 3 on the opposite page. Then move down the corresponding column, comparing the detect or level of each chemical or other contaminant with the Public Health Goal (PHG), Maximum Contaminant Level Goal (MCLG) and MCL.

For example, if you live in La Quinta and want to know the level of fluoride detected in your service area, you would look down the Cove Communities column and stop at the fluoride row. The average fluoride level in that service area is 0.6 mg/L, with the range of results varying from 0.13 mg/L to 1.0 mg/L.

Compare these values to the MCL in the third column. Fluoride levels in this water comply with the MCL of 2.0 mg/L. The range can show a level above the MCL and still comply with the drinking water standard when compliance is based on average levels found in each water source or water system.

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FOOTNOTES:

(1) Values with this footnote have Exceeded Secondary MCLs, remaining values are Primary MCLs unless identified otherwise.

(2) Cove Communities includes the communities of Rancho Mirage, Thousand Palms, Palm Desert, Indian Wells, La Quinta, Mecca, Bonney Beach, North Shore, Hot Mineral Spas, and portions of Bermuda Dunes, Cathedral City, Indio, Oasis, Riverside County, Thermal, Valere Juv., Desert Shores, Sutton Sea Beach and Sutton City.

(3) ID No. 6 includes the communities of Indio Hills, Sky Valley, and select areas within and adjacent to Desert Hot Springs.

(4) This constituent is monitored for aesthetics such as taste and odor. A fixed consumer acceptance contaminant level has not been established for this constituent.

(5) The reported average represents the highest running annual average based on distribution monitoring.

(6) Although an individual result may exceed the MCL, compliance is determined by using a running annual average.

(7) California's Chromium-6 drinking water MCL became effective on July 1, 2014. The CVWD MCL was investigated and withdrawn in 2017.

(8) The reported values are 90th percentile levels for samples collected from faucets in water user homes.

(9) The reported average represents the highest locational running annual average (LRAA), based on distribution system monitoring.

(10) Systems that collect 40 or more samples per month (Cove Communities); 5.0% of monthly samples are positive. Systems that collect less than 40 samples per month (ID No. 6) 1 positive monthly sample.

(11) All water systems are required to comply with the California Total Coliform Rule and the Federal Revised Total Coliform Rule. The USEPA anticipates greater public health protection as the new rule requires water systems that are vulnerable to microbial contamination to identify and fix problems.

(12) In 2020, USEPA required unregulated contaminant monitoring identified as UCMR4 for select CVWD domestic facilities in Cove Communities.

(13) Unregulated contaminants are those for which USEPA and SDWA have not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist both regulatory agencies in determining the occurrence of unregulated contaminants in drinking water and whether further regulation is warranted.

(14) Results from 2020 unregulated contaminant monitoring rule (UCMR4) testing for six Halocetic Acids (HAA5B). CVWD performed this monitoring at select CVWD domestic facilities in Cove Communities.

(15) Results from 2020 unregulated contaminant monitoring rule (UCMR4) testing for nine Halocetic Acids (HAA5). CVWD performed this monitoring at select CVWD domestic facilities in Cove Communities.

MORE INFORMATION:

To receive a summary of CVWD's source water assessments or additional water quality data or clarification, call CVWD's Water Quality Division at (760) 358-2651.

Complete copies of source water assessments may be viewed at CVWD's office at 75-625 Hovley Lane East, Palm Desert, CA 92211.

Este informe contiene información muy importante sobre su agua potable. Tradúzcalo o hable con alguien que lo entienda bien. También puede llamar al CVWD al número de teléfono (760) 358-2651 o vaya a CVWD.org/Infomaterial2023.

Note: Above statement fulfills California Code of Regulations' requirement Section 64489.5.

WHAT'S IN MY WATER? CVWD analyzed more than 16,000 water samples last year to monitor the water quality of drinking water delivered to its customers. Every year, CVWD is required to analyze a select number of these samples for more than 100 regulated and unregulated substances.

This table lists those substances that were detected in CVWD's two service areas. Dark gray boxes indicate the substance was not detected (ND), existing data is no longer reportable, or there is no available data. The data on the chart summarizes results of the most recent monitoring completed between 2013 and 2022. CVWD did not have any Maximum Contaminant Level (MCL) violations in 2022.



Questions?



Live Water Wise

It's easy. Repair drips and leaks. A leak as small as the tip of a pen can waste more than 200 gallons per day.

CVWaterCounts.com.

Water
COUNTS





Olivia Bennett

RECYCLE WATER MANAGER, COACHELLA VALLEY WATER DISTRICT

Olivia has a Bachelor of Science in Biology from MacMurray College in Jacksonville, Illinois.

Her focus is to work with customers to encourage connection to and use of nonpotable water sources for golf courses, landscape, and agricultural irrigation.



Golf and Nonpotable Water in the Coachella Valley

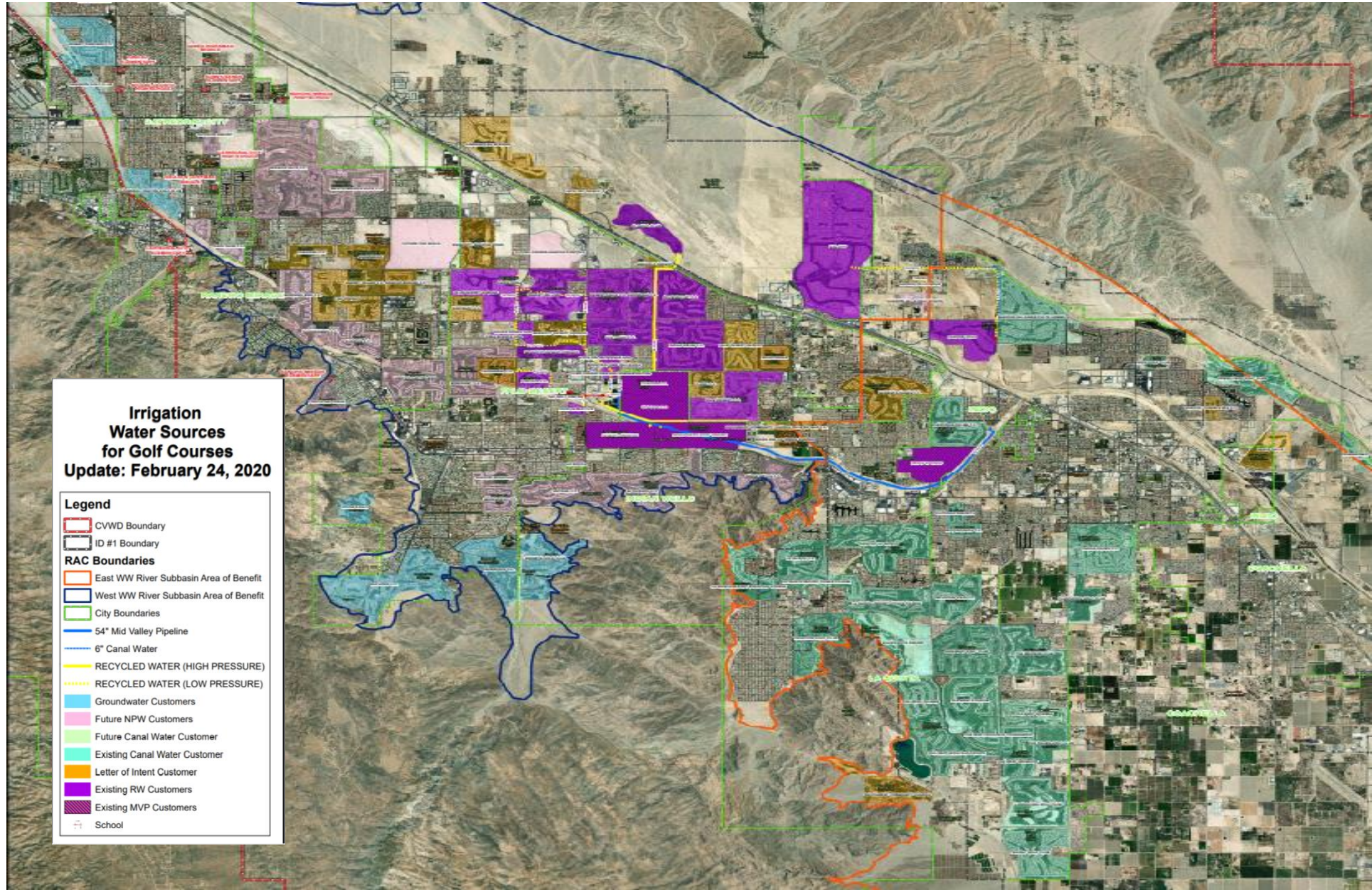


First golf course in the valley...

...was the O'Donnell in 1926, second was Indian Palms (used to be Cochran-Odlum) in 1947, third Thunderbird 1951...



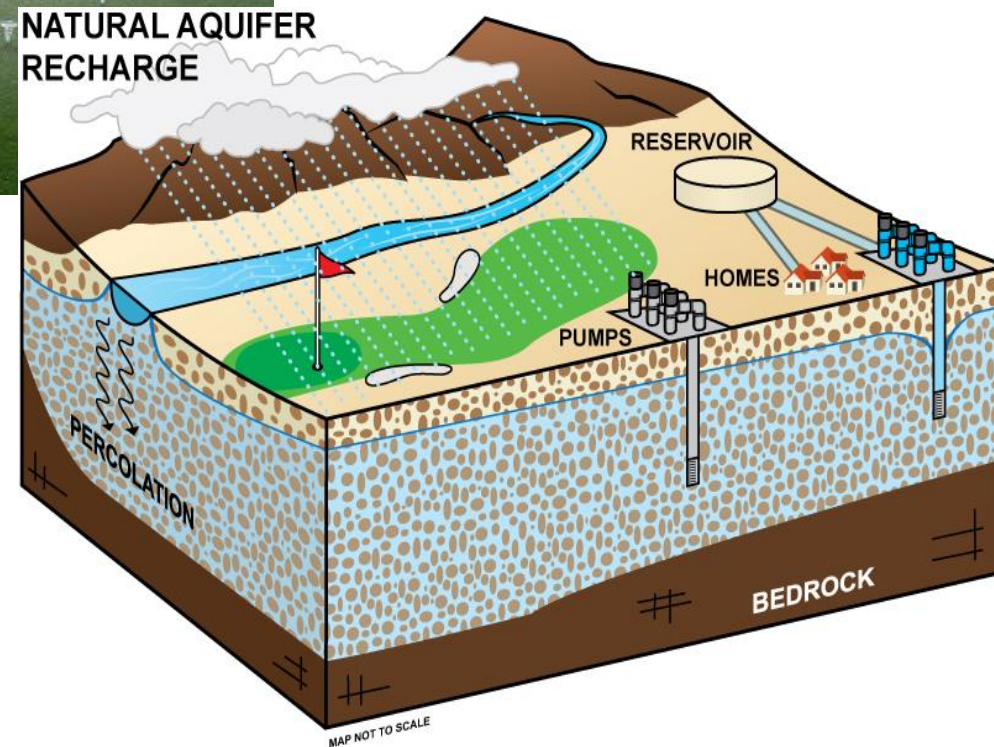
Now, there are 119 golf courses in the valley!



106 of the golf courses are within CVWD's boundaries.

Canal via Canal distribution system	30.5
Future Canal via Canal distribution system	3.0
Canal via Mid Valley Pipeline	6
Future Canal via Mid Valley Pipeline	16
Nonpotable	17.5
Future Nonpotable	23
Desert Water Agency-Recycled	0
Not planned for an Alternate Water Supply	10
Total Golf Courses:	106
Alternate Water Source:	54
Per Cent Using Alternate Water Source:	51%

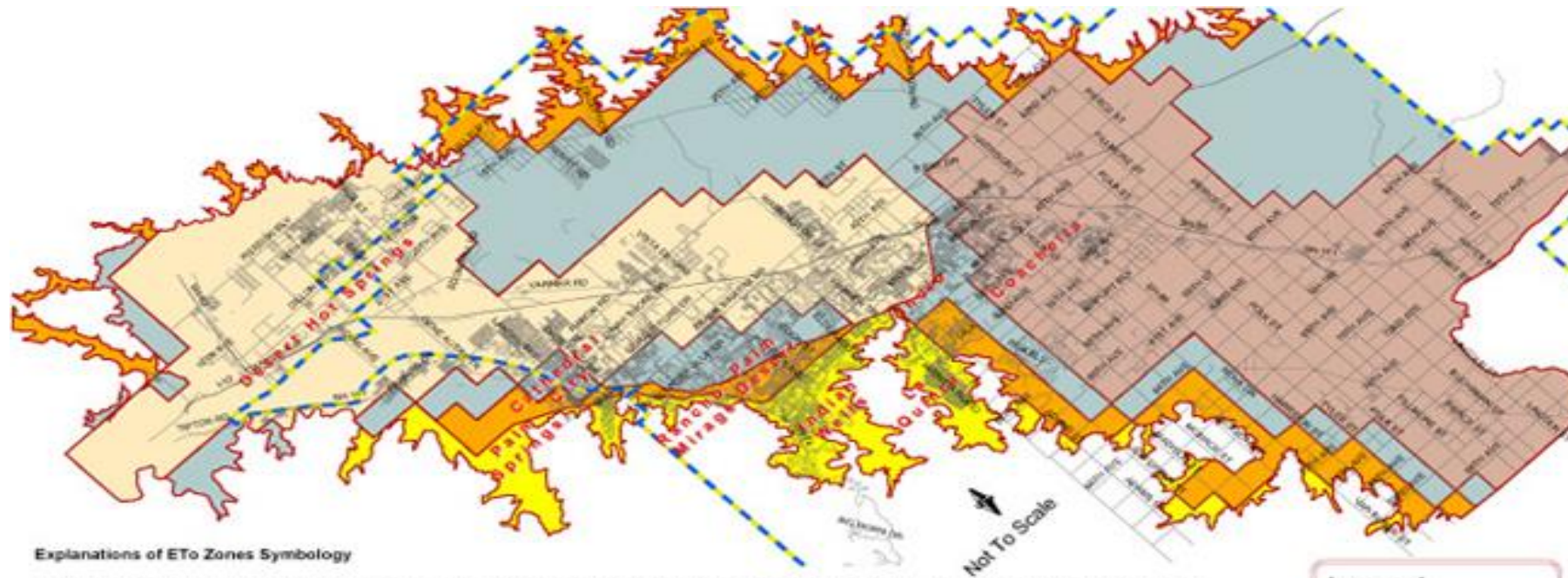
Sources of golf course irrigation water:



- Storm water
- Ground water
- Nonpotable Water

How much water is used by a golf course annually?

It depends primarily on the ETo zone, irrigated acreage and lake area. Anywhere from about 300 AF/Yr for our smaller courses in a protected area to about 1400 AF/Yr for our large courses in the windy areas. **Average of 981 AF/Yr.**



Explanations of ETo Zones Symbology

1. Zone #1: North-facing cove areas: Mountain shaded, sheltered from prevailing winds and higher elevations means lowest water consumption. Annual water consumption(ETo) = 57.01"
2. Zone #2: Transition zone area between the north-facing coves and the open desert or the south-facing cove areas of the north valley: The transition zones are somewhat sheltered from prevailing winds and with exposure to higher local humidity from irrigated landscapes means low water consumption. North valley coves are mountain shaded, sheltered from prevailing winds and higher elevations, but are south-facing and heat absorbing. Annual water consumption(ETo) = 66.82"
3. Zone #3: Upper valley open desert border zone, lower valley upper elevation zone or lower valley afternoon mountain shade zones with moderate prevailing winds and blowing sand. Annual water consumption(ETo) = 75.00"
4. Zone #4: Lower valley open desert agricultural zone with moderate prevailing winds and below sea level elevations. Annual water consumption(ETo) = 88.00"
5. Zone #5: Upper valley high wind and blowing sand zone. Annual water consumption = 93.90"

Legend

- Zone 1
- Zone 2
- Zone 3
- Zone 4
- Zone 5
- Center Lines
- District Boundary

Average water use for a golf course



The average water use on a golf course is around 981 acft/yr.

To make it easy, we round up to say that “a typical golf course uses 1,000 acft per year”.

Golf Courses in the valley use up to 119,000 acft of water per year.

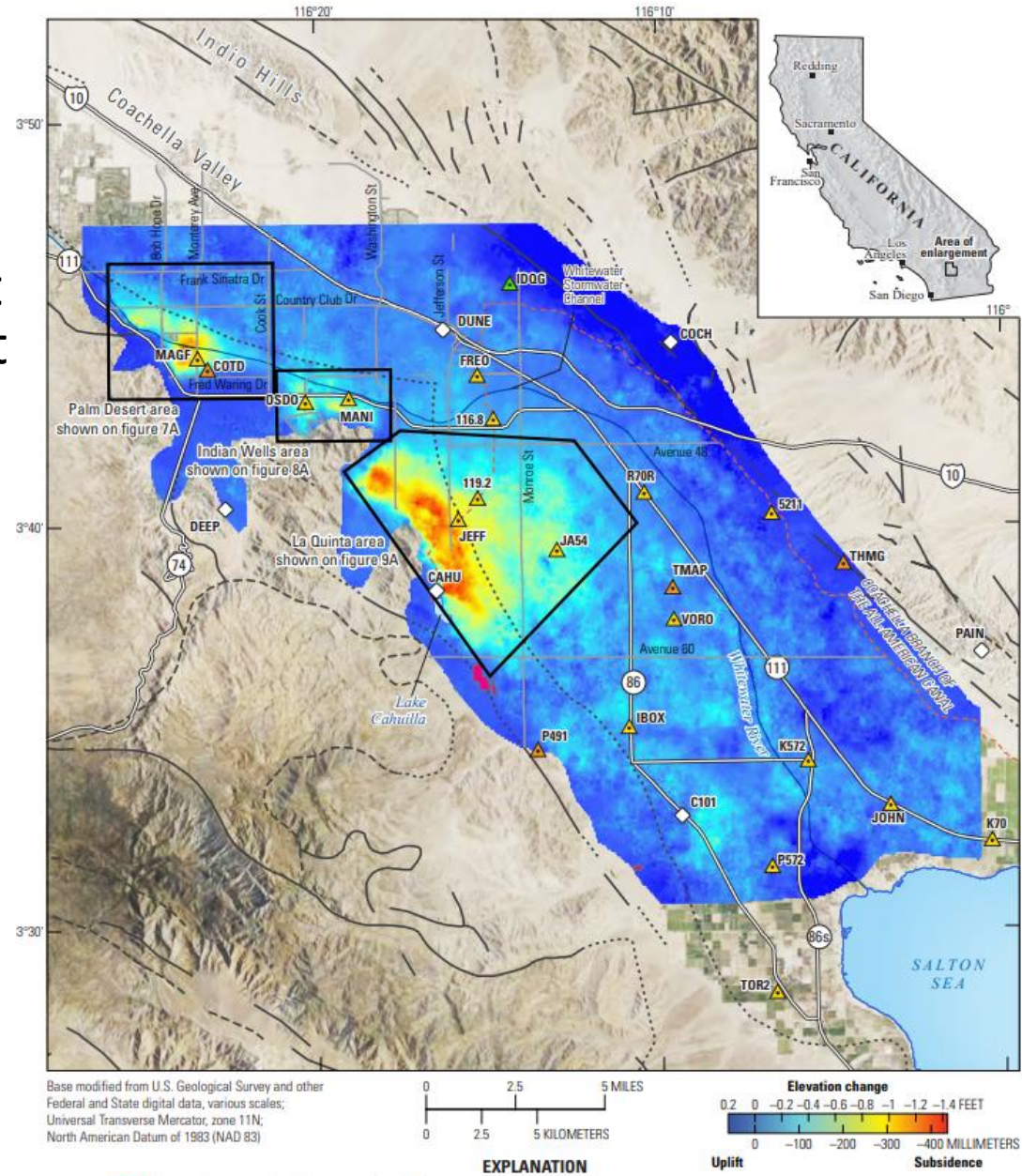
What's the big deal?

USGS report published in 2020.

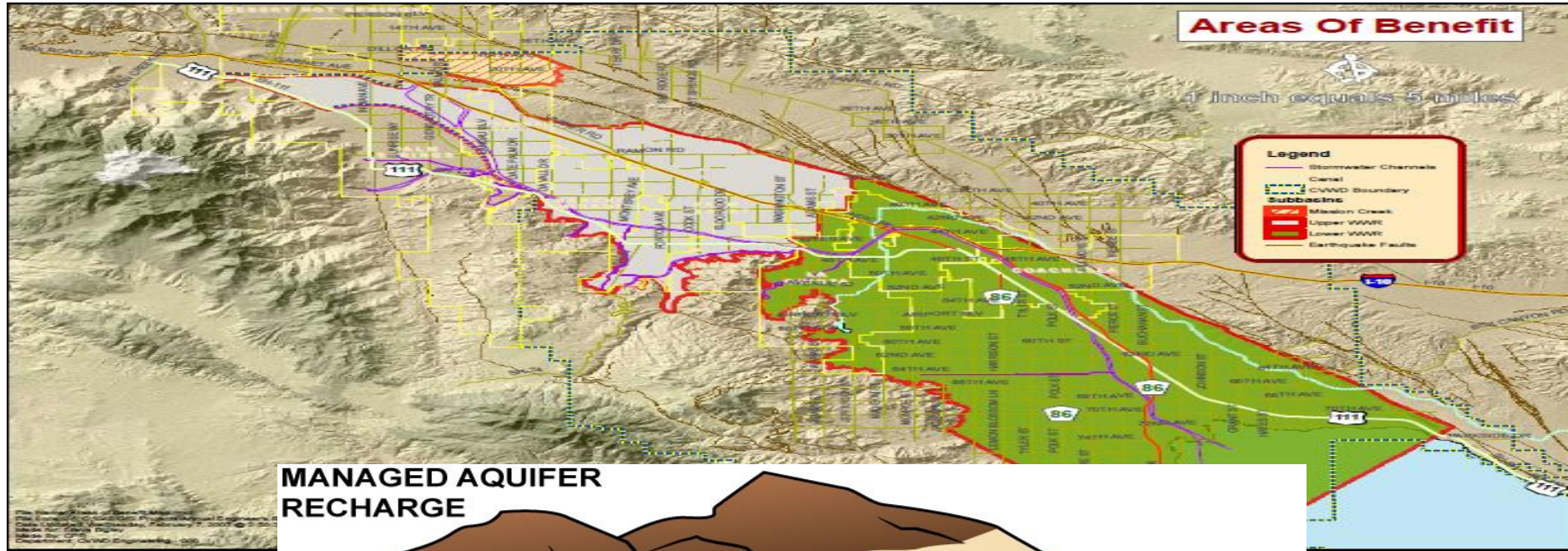
- CVWD and USGS study since 1996.
- Detection and measurement of land subsidence and uplift from 2010-2017.
- Yellow and red show areas of subsidence.
 - Up to 1.4ft



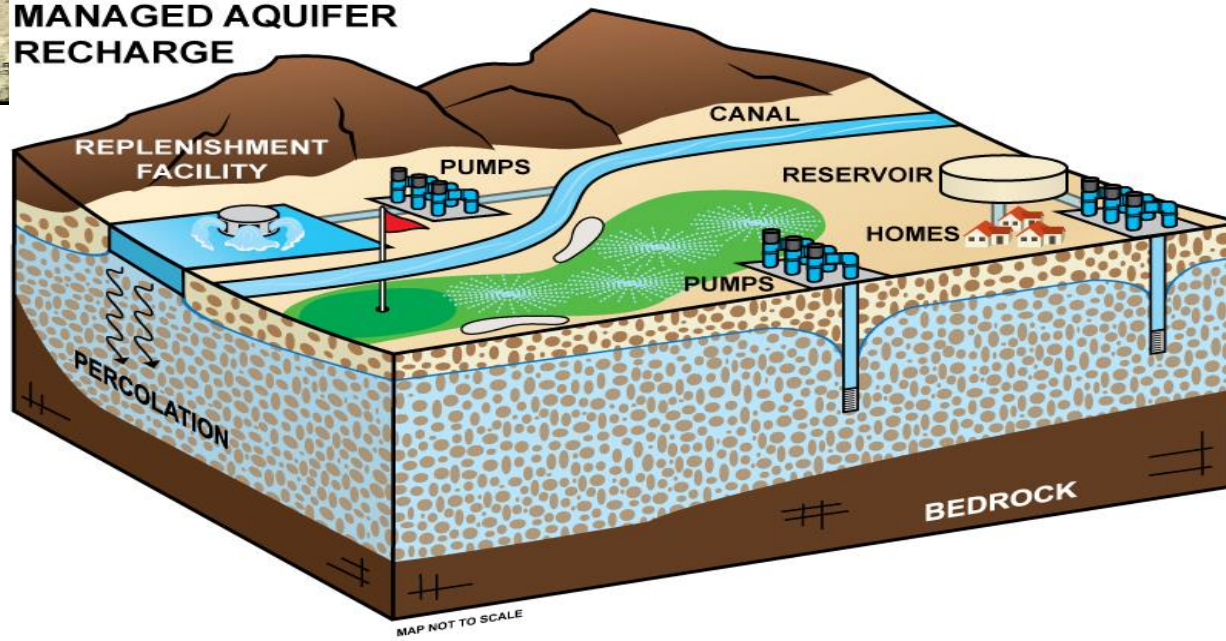
Overdraft and subsidence.



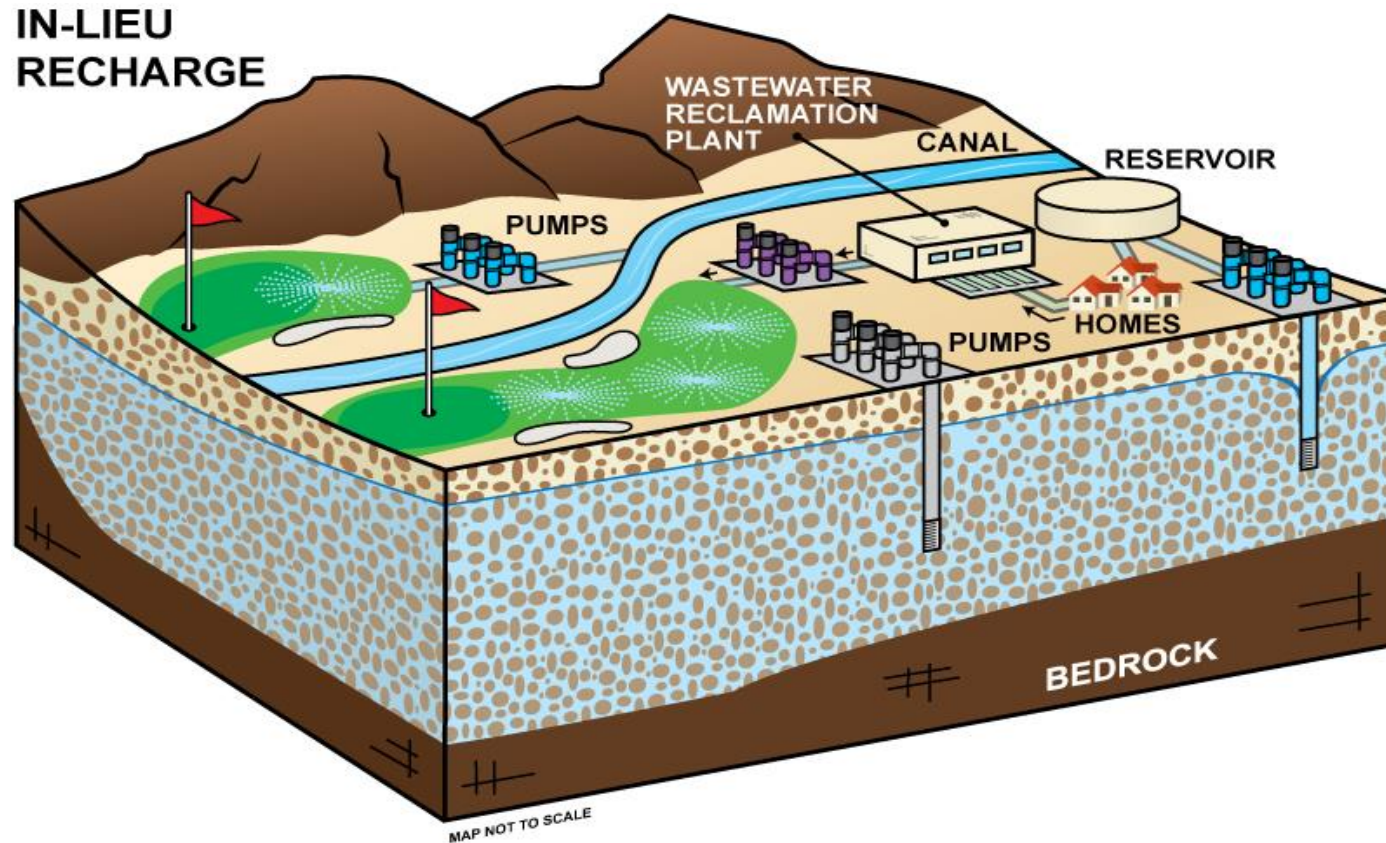
To minimize and eliminate further overdraft, the aquifer has been replenished with imported water.



MANAGED AQUIFER RECHARGE

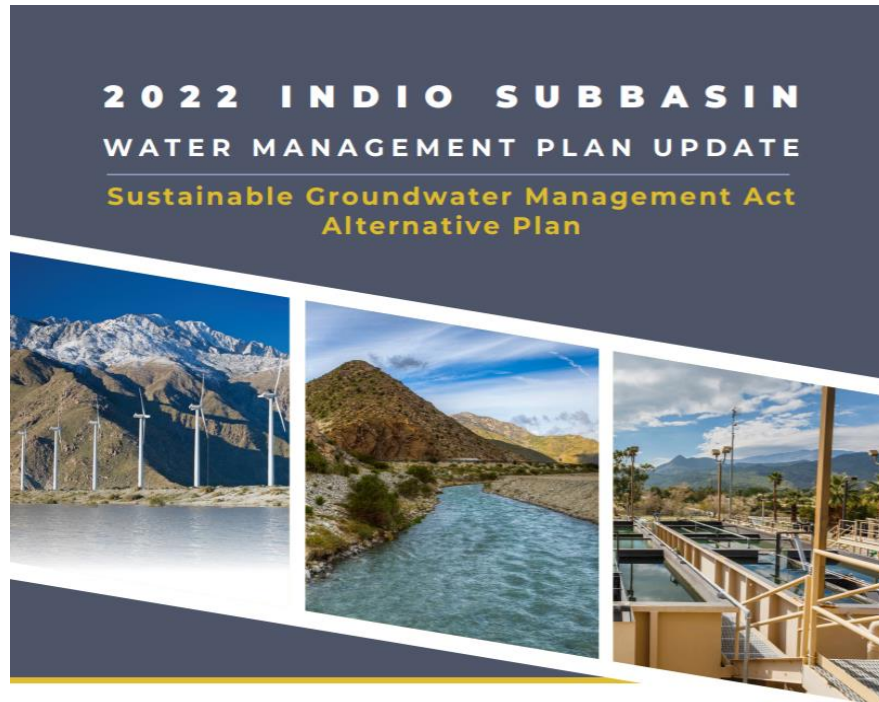


In the mid-valley, mostly West, there are 38 golf courses available for **in-lieu recharge** opportunities.



In-lieu of delivering imported water to percolation ponds to replenish the aquifer, a nonpotable water source is delivered to golf courses for irrigation, leaving groundwater in the ground.

2022 Indio Sub-basin Water Management Plan Update



The goal of the ISWMP is to reliably meet current and future water demands in a cost effective and sustainable manner.

Volume 1: Alternative Plan
Adopted | December 2021

<http://www.indiosubbasinsgma.org/>

Prepared for: Indio Subbasin Groundwater Sustainability Agencies



Per the ISWMP...

In order to maintain water reliability and resilience, the following priorities are used when selecting Projects and Management Actions:

- Fully use available Colorado River water supplies.
- Continue developing recycled water as a reliable local water supply.
- Implement source substitution and replenishment.
- Increase water-use efficiency across all sectors.

ISWMP objectives for golf courses:

- Conservation
- Utilize nonpotable water sources for golf courses.





Golf and Water Task Force

Mission Statement

To ensure a sustainable water supply for future generations, to meet if not exceed the goals of the Coachella Valley Water Management Plan, **to pursue all feasible water conservation measures, to promote and expedite the use of nonpotable water,** and to educate Valley residents regarding the importance of pursuing these goals for the environmental and economic quality of life in the Coachella Valley.

Nonpotable Water for In-Lieu Recharge

Types of nonpotable water source for golf courses:

1. Canal Water (Colorado River Water)

- Mid-Valley Pipeline
- Coachella Branch of All American Canal
- Canal water distribution system.

2. Recycled Water

- Water Reclamation Plant (WRP7 or WRP10)
- Tertiary Disinfected Recycled Water



✓ Nonpotable Water for nonpotable purposes.

- ✓ Nonpotable customers irrigate with a water source that is not deemed safe for drinking.
- ✓ Primary water source is no longer groundwater, our potable water source.

Nonpotable Water for golf courses



East Valley Canal water connections:

In 2024, 22,947, 77% of their total irrigation demand.

- Goal = up to 33,500 AFY
- 3 more golf courses to connect

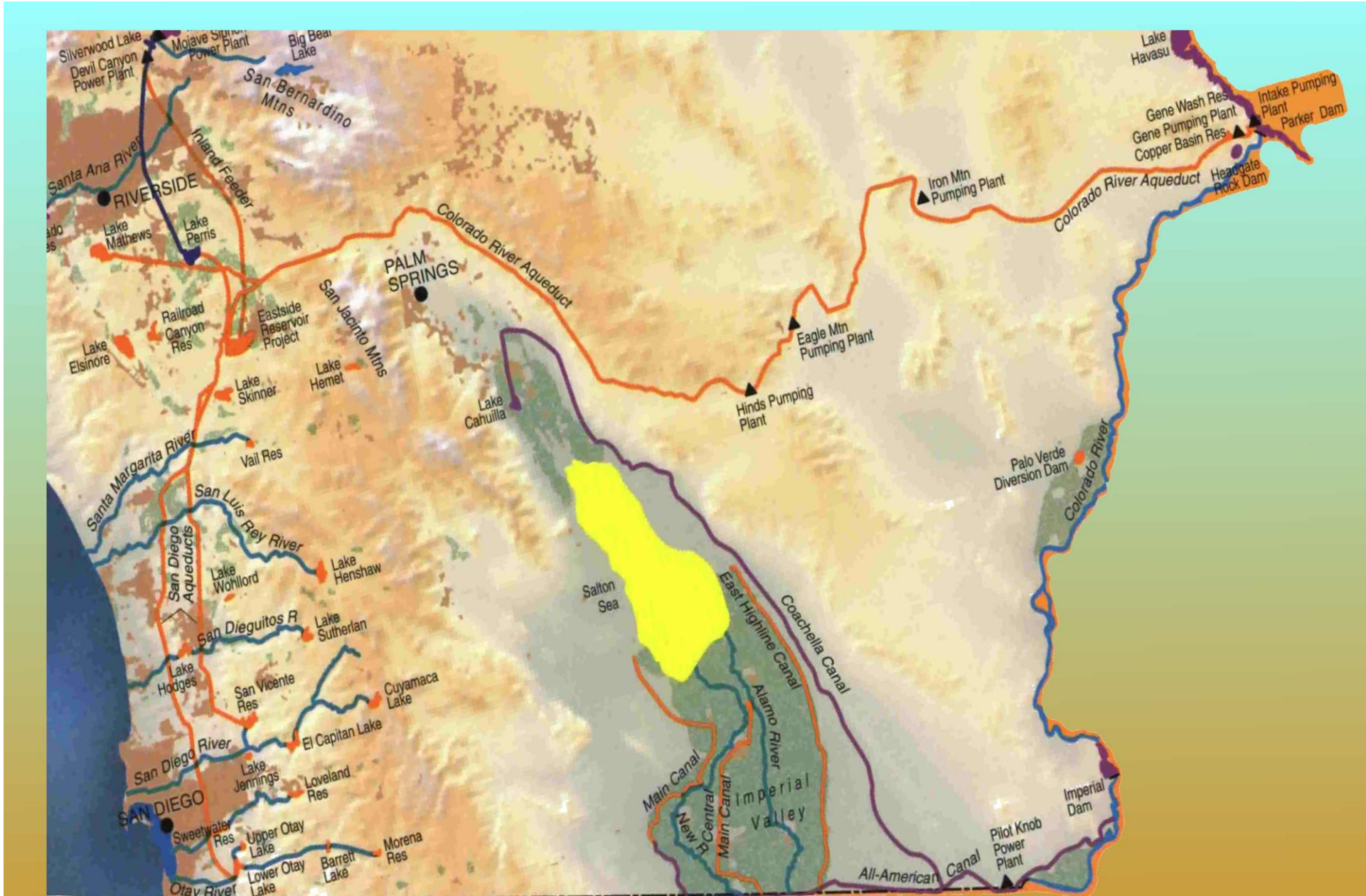
Mid Valley NPW connections:

In 2024, 24,201 AF, 90% of total irrigation demand.

- Goal = up to 61,500 AFY
- 38 more golf courses to connect

Goal =
80%

Source of Canal Water

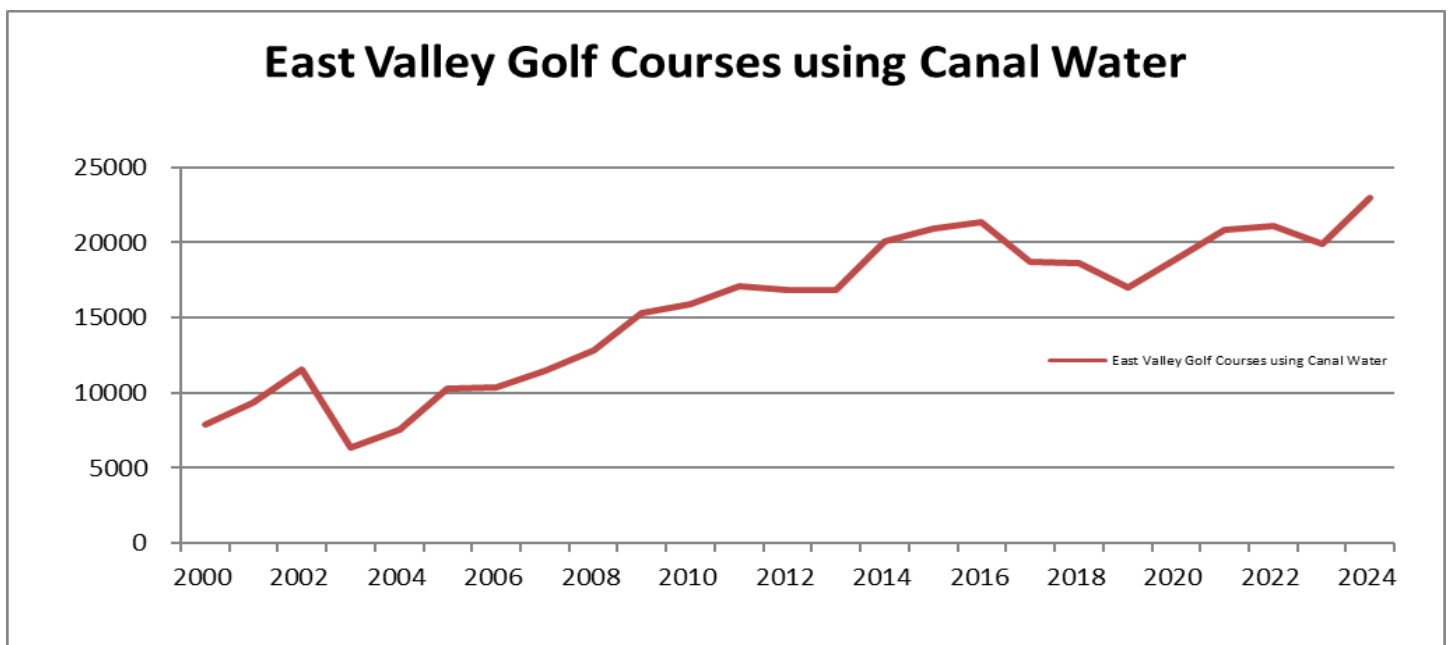


Conversion of golf courses to canal water



The 3 remaining conversions are expected to be completed by 2035.

Year	East Valley
2000	7884.1
2001	9335.6
2002	11540.6
2003	6385.1
2004	7511.3
2005	10290.3
2006	10395.7
2007	11469.7
2008	12805.9
2009	15282.9
2010	15927.8
2011	17076.7
2012	16873.2
2013	16828.6
2014	20053.5
2015	20883.2
2016	21351.8
2017	18678
2018	18586
2019	17011
2020	18919.8
2021	20865
2022	21082.9
2023	19867.8
2024	22946.7



New Connections (see original connection dates tab):

1988	PGA West
1994	Indio Muni
1996	Plantation
1997	Traditions
1998	The Hills (Terra Lago)
1999	Heritage Palms
2000	The Palms
2001	Hideaway
2002	Trilogy, PGA West Weiskopf
2005	Silver Rock
2006	Outdoor Resort, PGA-Norman, Ranch La Quinta, Shadow Hills (front nine)
2007	Mountain View, Vineyards, Andalusia, Shadow Hills (back nine), Madison Club.
2010	Indian Palms
2014	Indian Palms (2nd connection)
2016	La Quinta CC, La Quinta Resorts Dunes
2025	La Quinta Resorts Mountain



Recycled Water

- Recycled water has been a water supply source in the Valley since 1965 at Palm Desert Country Club. CVWD acquired this WRP in 1968.
- CVWD has 2 wastewater treatment plants that provide recycled water for golf course and landscape irrigation.
- CVWD delivers disinfected tertiary recycled water for golf course and landscape irrigation.

What is Recycled Water?

Municipal wastewater collected from homes and businesses that receives a high level of treatment at a water reclamation plant. It is monitored 24/7, water quality samples are collected and tested to ensure permit regulation limitations are met, so that it can safely be beneficially reused. It is no longer considered wastewater.





INFLUENT
EFFLUENT
(RAW
SEWAGE)

SECONDARY
EFFLUENT

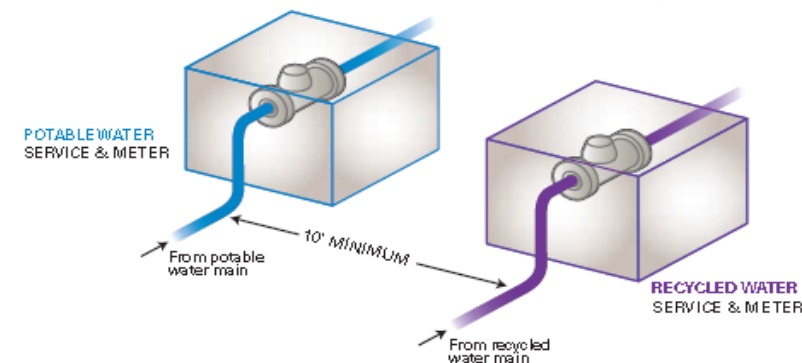
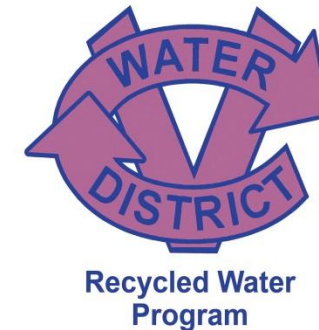
TERTIARY
EFFLUENT
(RECLAIM)

POTABLE
WATER
(DOMESTIC)



Rules and Regulations

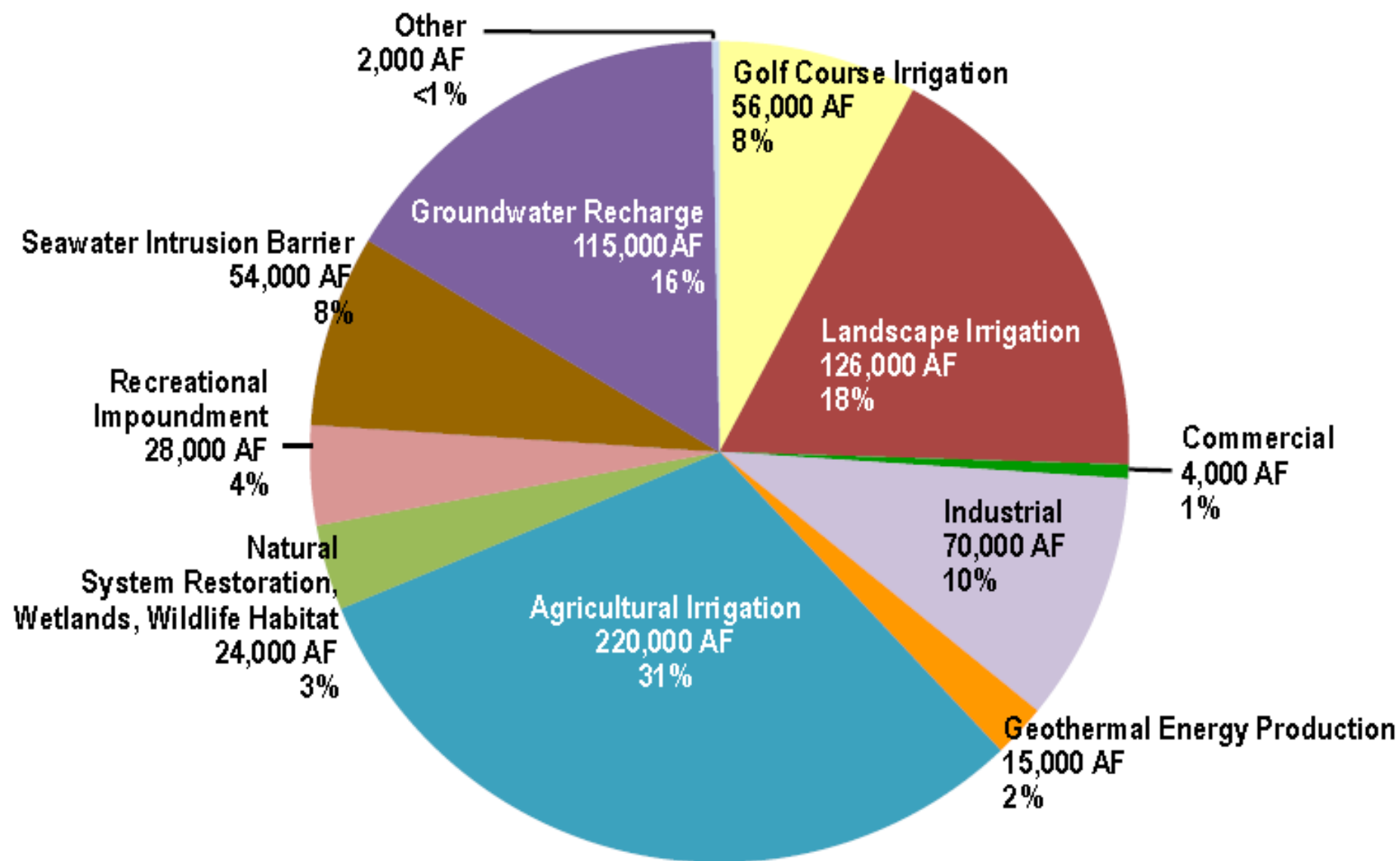
- Dos and Don'ts
- Training
- Permit
- Agreement
- Purple
- Signs
- Public notification
- Cross-connection Test
- Quarterly Survey
- Monitoring and Reporting



Allowed Uses of Recycled Water

Recycled Water Use	Treatment Level			
	Disinfected Tertiary Recycled Water	Disinfected Secondary 2.2 Recycled Water	Disinfected Secondary 2.3 Recycled Water	Undisinfected Secondary Recycled Water
Irrigation for:				
Food crops where recycled water contacts the edible portion of the crop, including all root crops	ALLOWED	NOT ALLOWED	NOT ALLOWED	NOT ALLOWED
Parks and playgrounds	ALLOWED	NOT ALLOWED	NOT ALLOWED	NOT ALLOWED
School grounds				
Residential landscaping				
Unrestricted-access golf courses				
Any other irrigation uses not specifically prohibited by other provisions of the <i>California Code of Regulations</i>				
Food crops, surface-irrigated, above-ground edible portion, not contacted by recycled water		ALLOWED		
Cemetaries			ALLOWED	
Freeway landscaping				
Restricted-access golf courses				
Ornamental nursery stock and sod farms with unrestricted public access				
Pasture for milk animals for human consumption				
Non-edible vegetation with access control to prevent use as a park				

2015 Recycled Water Use: 714,000 acre-feet/881M cubic meters



Recycled Water Use in Coachella Valley

Golf Course and landscape irrigation:

- Golf Courses
- Home-Owner Associations (HOAs)
- High-School Athletic Fields
- Landscaped areas at CVWD's Palm Desert offices and WRPs.
- Agriculture (near future)
- Dual plumbed residential irrigation (near future)

7 Reasons Why We Use Recycle Water in Coachella Valley



1. Department of Water Resources projects large statewide shortages.
2. Groundwater is our drinking water source (Potable/Domestic).
Use potable water for potable purposes and non-potable for non-potable purposes.
3. CVWD adopted and is implementing the ISWMP to eliminate overdraft and is our Groundwater Sustainability Plan, which identifies recycled water as a reliable local water supply for irrigation.
4. Irrigating with Recycled Water Saves Groundwater and helps prevent future overdraft.

7 Reasons Why We Use Recycle Water in Coachella Valley



5. Treatment technology can produce a safe recycled water for any given use.
6. RW for irrigation more economical than advanced treatment for potable reuse.
7. More economical than buying additional imported water rights.

Not enough recycled water



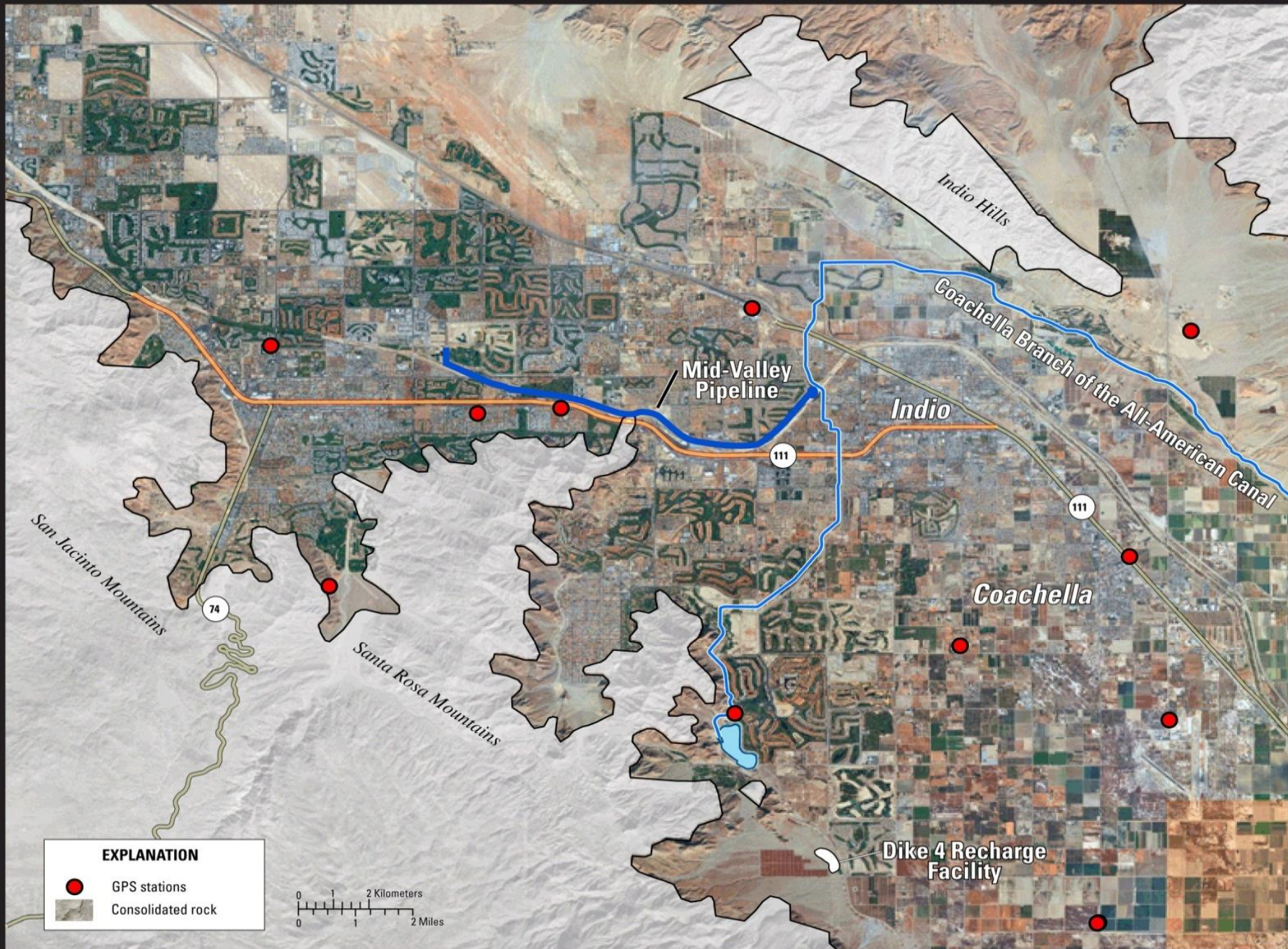
- Recycled water supply is not a sufficient water supply for all golf courses in the mid-valley area.
- Recycled water supply is limited in the summer and golf courses would supplement with groundwater.

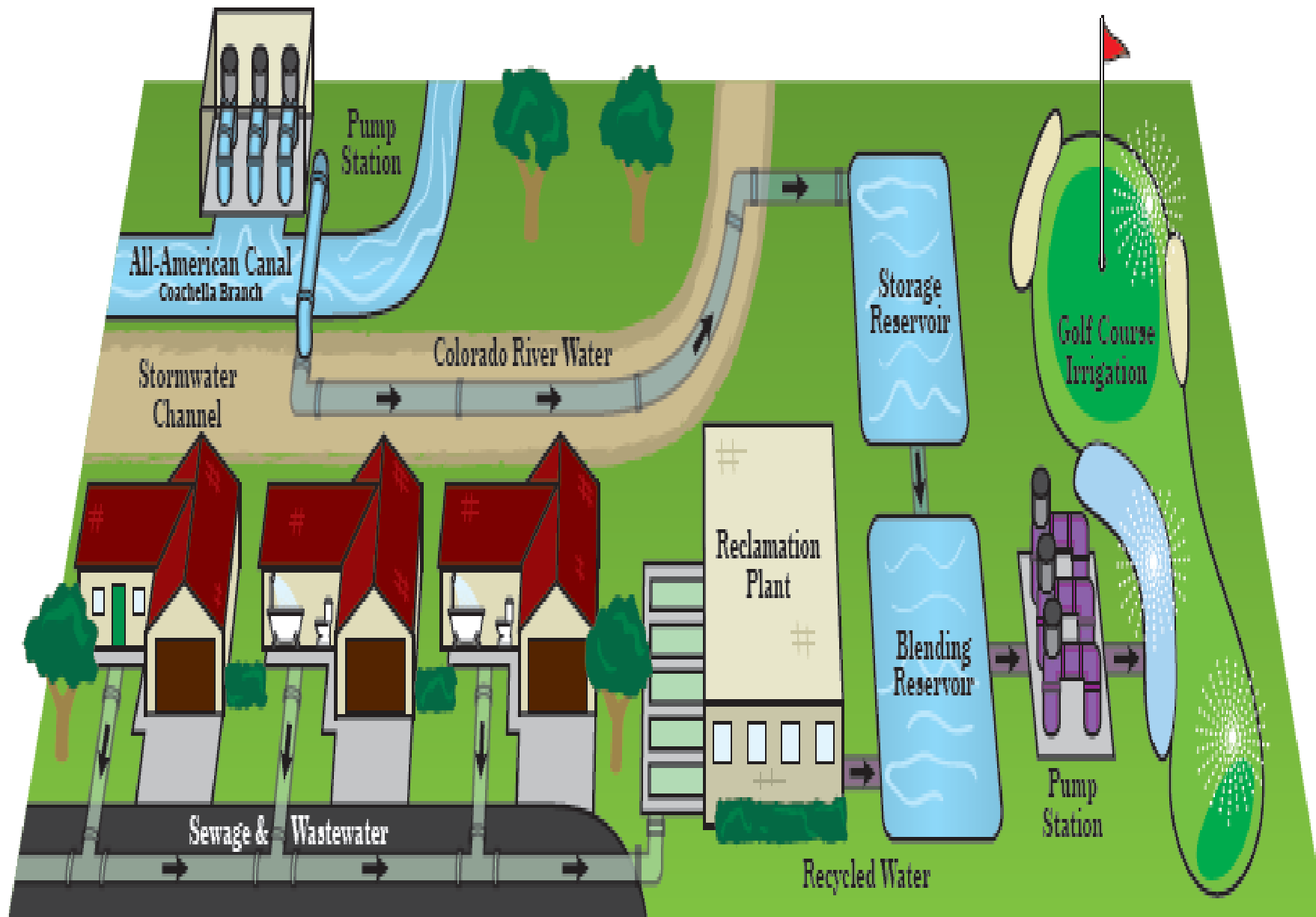
Mid-Valley Pipeline In-Lieu Project



- The MVP delivers canal water to WRP10. Completed in 2009. 7 mile, 54” pipeline of welded steel with cement mortar lining in the wash.
- Canal water supplements the recycled water supply and provided to golf courses in lieu of their pumping groundwater.

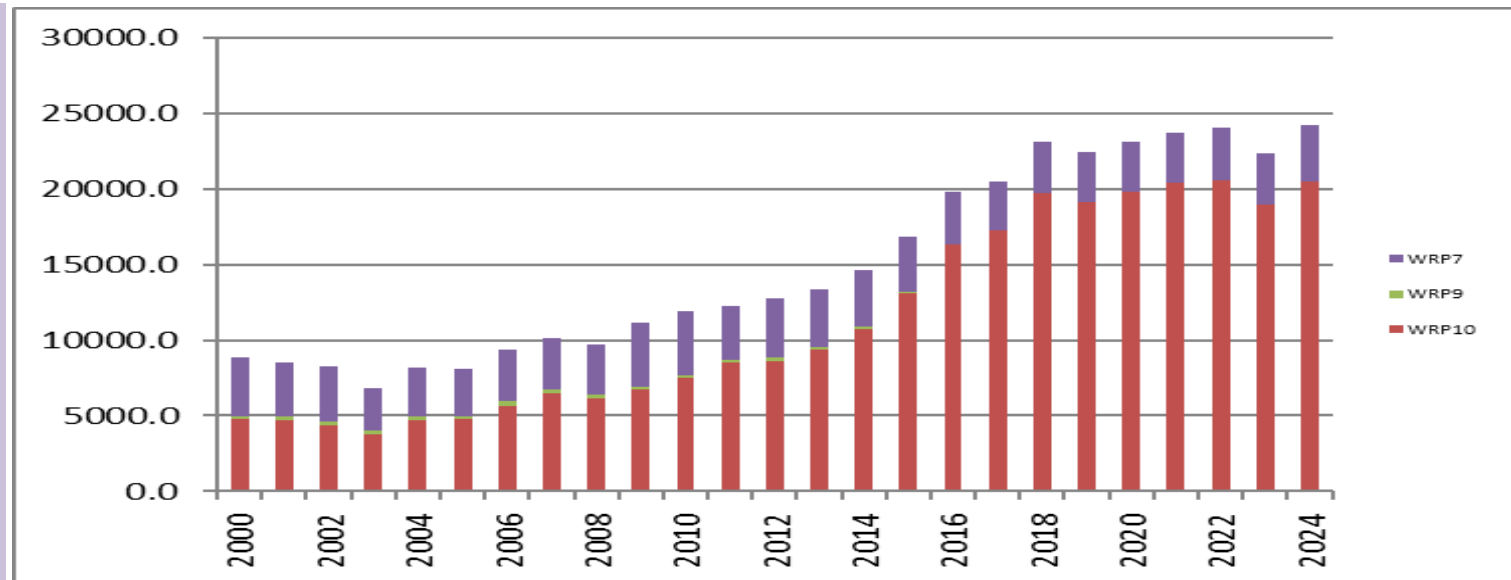
*In 2024, MVP provided 12,202 acft of canal water to golf courses in the mid-valley area.





Nonpotable Water use in Mid-Valley

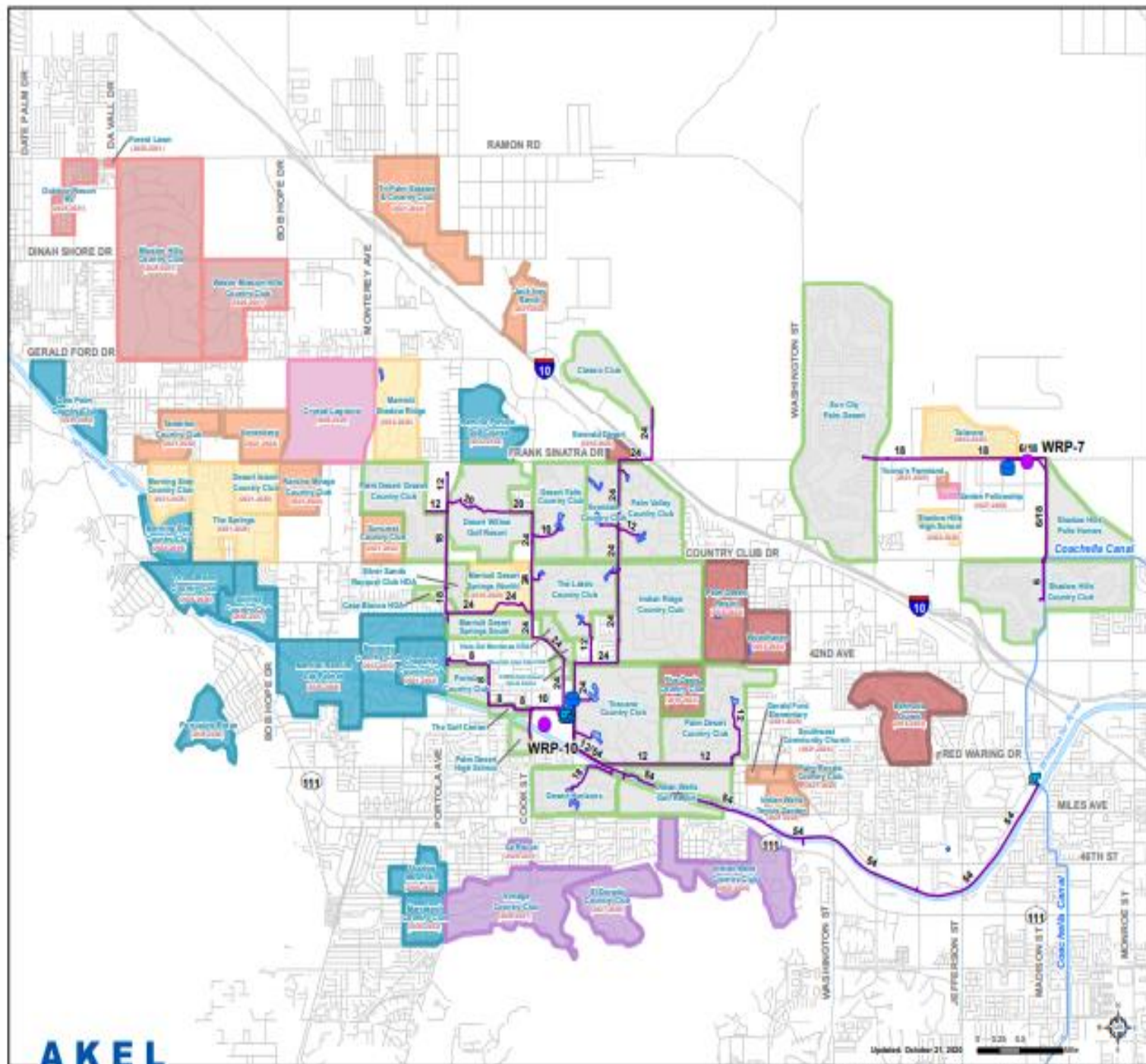
Year	total
2000	8831.9
2001	8565.2
2002	8299.4
2003	6844.2
2004	8208.9
2005	8109.3
2006	9342.7
2007	10127.0
2008	9750.2
2009	11162.6
2010	11915.5
2011	12281.2
2012	12756
2013	13385
2014	14602
2015	16876
2016	19796
2017	20516
2018	23139
2019	22462
2020	23109
2021	23744
2022	24104
2023	22362
2024	24201



New Connections	
1968	Palm Desert Country Club
1987	Santa Rosa, Palm Desert Greens, Portola CC
	Golf Center, Marriott Desert Springs, Vista Del Montanas, Silver Sands, Casa
1991	Blanca
1992	West Coast Turf
1993	Sunrise
1994	Indian Ridge CC
1996	Palm Desert High School
1997	Sun City Palm Desert, Desert Willow
1998	Mountain View Falls
2006	Toscana, Shadow Hills
2012	CVWD's PDA & PDO, Indian Wells Golf Resort
2014	Classic Club, Palm Desert CC (remaining)
2016	Desert Horizons, Lakes CC, Avondale
2017	Desert Falls, Palm Valley Country Club,
2018	Indian Springs

NPW Connections





Legend

Implementation Schedule

- 2018-2023 (Hypothetical)
- 2018-2025 (Hypothetical)
- 2021-2024 (Hypothetical)
- 2025-2031 (Hypothetical)
- 2026-2034 (Hypothetical)
- 2027-2030 (Hypothetical)
- 2030-Buildout (Hypothetical)

Existing System

- Water Reclamation Plant
- Bladder Reservoirs
- Pump Stations
- Non-Potable Pipelines
- Existing Users
- Street Centerlines
- Coachella Canal
- Whitewater River

PRELIMINARY
FOR INTERNAL USE ONLY

Figure 1
NPW Customer Tentative
Implementation Schedule
Non-Potable Water System
Master Plan Update
Coachella Valley Water District



When NPW build out is complete...

Canal via Canal distribution system	33.5
Canal via Mid Valley Pipeline	22
Nonpotable	40.5
Desert Water Agency-Recycled	0
Not planned for an Alternate Water Supply	10
Total Golf Courses:	106
Alternate Water Source:	96
Per Cent Using Alternate Water Source:	91%

Golf courses using nonpotable water will allow potable water to be available for potable uses.

Estimated annual use of water is 1000 acft / year per golf course

$$1000 \text{ AFY} \times 119 \text{ golf courses} = 119,000 \text{ AFY}$$

30.5 golf courses in the east valley have access to canal water and 3 are focused on for future canal water use.

$$1000 \text{ AFY} \times (30.5 \text{ golf courses} + 3 \text{ golf courses}) = 33,500 \text{ AFY}$$

23.5 golf courses in the mid-valley use nonpotable water.

$$1000 \text{ AFY} \times 23.5 \text{ golf courses} = 23,500 \text{ AFY}$$

6 golf courses in upper valley (DWA) use recycled water.

$$1000 \text{ AFY} \times 6 \text{ golf courses} = 6,000 \text{ AFY}$$

The future Mid-Valley Pipeline Project, includes 38 golf courses in mid-valley to use recycled canal water blend

$$1000 \text{ AFY} \times 38 \text{ golf courses} = 38,000 \text{ AFY}$$

$$119,000 \text{ AFY} - 33,500 \text{ AFY} - 23,500 \text{ AFY} - 6,000 \text{ AFY} - 38,000 \text{ AFY} = 18,000 \text{ AFY}$$



Thank you
Olivia Bennett
Nonpotable Water Operations Manager



Questions?





Please watch for and complete our survey. Thank you!



Live Water Wise

It's **easy**. Check with your water agency to see what rebates are available, to save water, money, and beautify your home!

CVWaterCounts.com.

Water
COUNTS

