DESERT WATER AGENCY
SEPTEMBER 21, 2021

BOARD OF DIRECTORS
REGULAR MEETING AGENDA

8:00 A.M. OPERATIONS CENTER - 1200 SOUTH GENE AUTRY TRAIL – PALM SPRINGS – CALIFORNIA

Pursuant to the Governor's Executive Order N-29-20 and N-08-21, there will be no public location for attending in person. Members of the public who wish to participate may do so by calling in at:

Toll Free: (877) 309-2073
Access Code: 567-821-885

or Via Computer:
https://www.gotomeeting.com/meeting/join-meeting
9-digit Meeting ID: 567821885

Members of the public who wish to comment on any item within the jurisdiction of the Agency or any item on the agenda should submit comments by emailing sbaca@dwa.org before 5:00 p.m. September 20. Comments will become part of the Board meeting record. Board members and staff will be participating in this meeting via teleconference.

In order to reduce feedback, please mute your audio when you are not speaking.

1. **CALL TO ORDER/PLEDGE OF ALLEGIANCE** — **BLOOMER**
2. **ROLL CALL** — **BACA**
3. **PUBLIC COMMENT:** Members of the public may comment on any item not listed on the agenda, but within the jurisdiction of the Agency. In addition, members of the public may speak on any item listed on the agenda as that item comes up for consideration. Speakers are requested to keep their comments to no more than three (3) minutes. As provided in the Brown Act, the Board is prohibited from acting on items not listed on the agenda
4. **CONSENT CALENDAR ITEMS:** Items listed under the Consent Calendar are considered to be routine and will be acted upon by one motion of the Board without discussion. There will be no separate discussion on these items unless a Board Member requests a specific item to be discussed and/or removed from the Consent Calendar for separate action.

   A. Approve minutes of the September 7, 2021 Board Meeting
   B. Receive and file minutes of the September 16, 2021 Executive Committee meeting
   C. Receive and file the Water Use Reduction Figures (August)
   D. Request Adoption of Resolution No's. 1264 & 1265 Establishing Rates & Fees for Domestic Water Service & Sewer Service and Budget Augmentation
   E. Request Authorization for Finance Director to Execute Required Documentation to Apply for and Administer Funding from State Water Board Associated with the CA Water & Wastewater Arrearage Payment Program on Behalf of Desert Water Agency

5. **SECRETARY-TREASURER'S REPORT (JULY 2021)** — **STUART**
6. **GENERAL MANAGER'S REPORT** — **KRAUSE**
7. **PUBLIC HEARING ITEM:**
   A. Process and Public Input for Adjustment of Division Boundaries – Public Hearing #1 — **METZGER**
8. **ACTION ITEM:**
   A. Request Board Approval for General Manager to Execute Department of Water Resources Agreement SWPAO# 21034 — **KRAUSE**
9. **DIRECTORS COMMENTS/REQUESTS**

10. CLOSED SESSION

A. CONFERENCE WITH LEGAL COUNSEL – EXISTING LITIGATION
Pursuant to Government Code Section 54956.9 (d) (1)
Name of Case: Agua Caliente Band of Cahuilla Indians vs. Coachella Valley Water District, et al (Two Cases)

B. CONFERENCE WITH LEGAL COUNSEL – EXISTING LITIGATION
Pursuant to Government Code Section 54956.9 (d) (1)
Name of Case: Mission Springs Water District vs. Desert Water Agency

C. CONFERENCE WITH LEGAL COUNSEL – EXISTING LITIGATION
Pursuant to Government Code Section 54956.9 (d) (1)
Bonnie Kessner, et al vs. Desert Water Agency, et al

D. CONFERENCE WITH LEGAL COUNSEL – EXISTING LITIGATION
Pursuant to Government Code Section 54956.9 (d) (1)
Name of Case: AT&T vs. County of Riverside

E. CONFERENCE WITH LEGAL COUNSEL – PENDING ADMINISTRATIVE PROCEEDING
Pursuant to Government Code Section 54956.9 (d) (1)
Regional Water Quality Control Board Claim No. 7018 0680 0000 1010 7377

11. RECONVENE INTO OPEN SESSION – REPORT FROM CLOSED SESSION

12. ADJOURN

Upon request, this agenda will be made available in appropriate alternative formats to persons with disabilities, as required by Section 202 of the Americans with Disabilities Act of 1990. Any person with a disability who requires a modification or accommodation in order to participate in a meeting is asked to contact Desert Water Agency's Assistant Secretary of the Board, at (760) 323-4971, at least 48 working hours prior to the meeting to enable the Agency to make reasonable arrangements. Copies of records provided to Board members that relate to any agenda item to be discussed in open session may be obtained from the Agency at the address indicated on the agenda.

DECLARATION OF POSTING

Pursuant to Government Code Section 54954.2, I certify that this agenda has been posted at least 72 hours prior to the meeting on the Agency's website at www.dwa.org and at the Agency's main office, 1200 South Gene Autry Trail, Palm Springs, CA.

Sylvia Baca

Sylvia Baca, MMC
Assistant Secretary of the Board

MINUTES OF THE REGULAR MEETING OF THE DESERT WATER AGENCY BOARD OF DIRECTORS

4-A

September 7, 2021

DWA Board via Teleconference:	Kristin Bloomer, President	)
	James Cioffi, Vice President	)
	Joseph K. Stuart, Secretary-Treasurer	)
	Patricia G. Oygar, Director	)
	Paul Ortega, Director	)
DWA Staff via Teleconference:	Mark S. Krause, General Manager	)
	Steve Johnson, Assistant General Manager	)
	Esther Saenz, Finance Director	)
	Sylvia Baca, Asst. Secretary of the Board	)
	Ashley Metzger, Dir. Public Affairs & Water Planning	)
	Kris Hopping, Human Resources Director	)
	Kim McCance, Senior Administrative Asst.	)
Consultants via Teleconference:	Michael T. Riddell, Best & Krieger	)
Public via Teleconference:	Steve Grasha, Mission Springs Water District	)

Pledge of Allegiance

19238. President Bloomer opened the meeting at 8:00 a.m. and asked everyone to join her in the Pledge of Allegiance.

Roll Call

19239. President Bloomer called upon Assistant Secretary of the Board Baca to conduct the roll call:

Present: Ortega, Oygar, Stuart, Cioffi, Bloomer

Public Comment

19240. President Bloomer opened the meeting for public comment.

Mr. Grasha noted his support of the Global Positioning System Cost Share agreement with CVWD that was recently approved on August 3, 2021.

There being no one else from the public wishing to address the Board, President Bloomer closed the public comment period.

19241. President Bloomer called for approval of the Consent Calendar. She noted that the Consent Calendar items 4-A through 4-D are expected to be routine and to be acted upon by the Board of Directors at one time without discussion. If any Board member requests that an item be removed from the consent calendar, it will be removed so that it may be acted upon separately.

Approval of the Consent Calendar
A. August 17, 2021 Regular Board Mtg. Minutes
B. September 1, 2021 Executive Comm. Mtg. Minutes
C. August Activities & Events
D. Request Authorization to Participate in 2021/22 USGS Cooperative Water Resources Program

A. Approve - August 17, 2021 Board Meeting Minutes
B. Receive and File - Minutes of the September 1, 2021 Executive Committee meeting
C. Receive and File – August Activities & Events for the Outreach & Conservation Department
D. Request Authorization to Participate in 2021-2022 USGS Cooperative Water Resources Program

Director Ortega moved for approval of Items 4-A thru 4-D. After a second by Secretary-Treasurer Stuart, the Consent Calendar was approved by the following roll call vote:

AYES:	Ortega, Oygar, Stuart, Cioffi, Bloomer
NOES:	None
ABSENT:	None
ABSTAIN:	None

General Manager's Report

19242. President Bloomer called upon General Manager Krause to provide an update on Agency operations.

Mr. Krause provided an update on Agency operations and noted his meetings and activities for the past several weeks.

Discussion Item: 2020 Water Loss Update

19243. President called upon Director of Public Affairs & Water Planning Metzger to present the 2020 Water Loss Update.

Mrs. Metzger gave a Power Point Presentation on the 2020 Water Loss Update.

Director's Report on CSDA Conference Attendance

19244. President Bloomer invited Vice President Cioffi to report on his attendance at the CSDA Conference held on August 30 thru September 2.

Vice President Cioffi and President Bloomer noted their attendance at the CSDA Conference.

19245. At 8:50 a.m., President Bloomer convened into a Teleconference Closed Session for the purpose of Conference with Legal Counsel, (A) Existing Litigation, pursuant to Government Code Section 54956.9 (d) (1), Agua Caliente Band of Cahuilla Indians vs. Coachella Valley Water District, et al (Two Cases); (B) Existing Litigation, pursuant to Government Code Section 54956.9 (d) (1), Mission Springs Water District vs. Desert Water Agency; (C) Existing Litigation, pursuant to Government Code Section 54956.9 (d) (1) Bonnie Kessner, et al vs. Desert Water Agency, et al; (D) Existing Litigation, Pursuant to Government Code Section 54956.9 (d) (1), AT&T vs. County of Riverside; and (E) Pending Administrative Proceeding Pursuant to Government Code Section 54956.9 (d) (1) Regional Water Quality Control Board Claim No. 7018 0680 0000 1010 7377.

Closed Session:
A. Existing Litigation – ACBCI vs. CVWD, et al. (2 Cases)
B. Existing Litigation – MSWD vs. DWA
C. Existing Litigation- Bonnie Kessner, et al vs. Desert Water Agency et al
D. Existing Litigation - Possible Intervention in Case: AT&T vs. County of Riverside
E. Pending Admin. Proceeding, RWQCB Claim

19246. At 10:37 a.m., General Manager Krause reconvened the meeting into open session and announced there was no reportable action taken.

Reconvene – No Reportable Action

Adjournment

19247. In the absence of any further business, General Manager Krause adjourned the meeting at 10:38 a.m.

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Sylvia Baca
Assistant Secretary of the Board

Minutes
Executive Committee Meeting
September 16, 2021

Directors Present: Kristin Bloomer, James Cioffi
Staff Present: Mark Krause, Steve Johnson, Esther Saenz, Ashley Metzger, Sylvia Baca

1. Discussion Items

A. Review Agenda for September 21, 2021 Board Meeting
The proposed agenda for the September 21, 2021 meeting was reviewed.

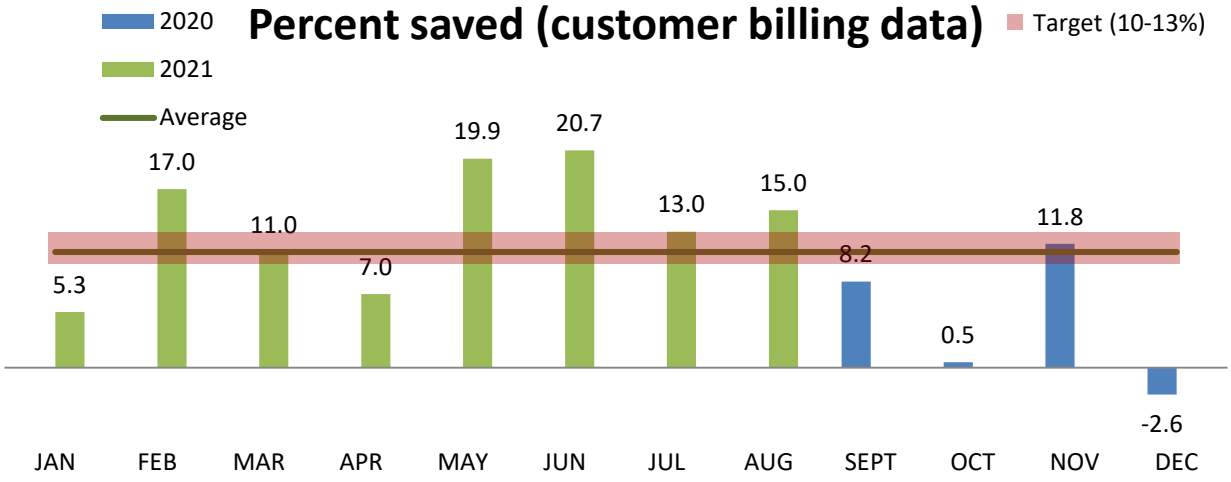
2. Adjourn

STAFF REPORT
TO
DESERT WATER AGENCY
BOARD OF DIRECTORS

SEPTEMBER 21, 2021

RE: AUGUST 2021 WATER USE REDUCTION FIGURES

Desert Water Agency customers achieved a 15% reduction in metered potable water consumption during August 2021 compared to the same month in 2013 – the baseline year used by the State Water Resources Control Board (State Water Board) to measure statewide conservation achievements.



Over the past 12 months, consumption is trending 11% lower compared to 2013. DWA is asking its customers to voluntarily save 10-13% compared to 2013 to help achieve long-term sustainability.

While overall water use is down 15% in August 2021 compared to August 2013, if we account for the new meters/customers since 2013, the reduction is roughly 31%. The Governor recently asked Californians to voluntarily conserve 15% compared to last year. DWA per customer usage is down 4% compared to last August. Though we're encouraging and incentivizing conservation, there is presently no requirement for the Agency or any of its customers to meet a certain savings requirement.

On the following page is additional information for this month.

August 2021 conservation percentage	15%
August 2021 metered potable consumption	3257.25 AF
August 2013 metered potable consumption	3831.46 AF
The percentage of the Total Monthly Potable Water Production going to residential use only for the reporting month	70.04%
Population (inclusive of seasonal residents)	71,680
Estimated R-GPCD	334.55
How many public complaints of water waste or violation of conservation rules were received during the reporting month?	54
How many contacts (written/ verbal) were made with customers for actual/ alleged water waste or for a violation of conservation rules?	14
How many formal warning actions (e.g.: written notifications, warning letters, door hangers) were issued for water waste or for a violation of conservation rules?	2
How many penalties were issued for water waste or for a violation of conservation rules?	0

STAFF REPORT
TO
DESERT WATER AGENCY
BOARD OF DIRECTORS

SEPTEMBER 21, 2021

RE: REQUEST FOR ADOPTION OF RESOLUTION NOS. 1264 & 1265 ESTABLISHING RATES & FEES FOR DOMESTIC WATER SERVICE & SEWER SERVICE & BUDGET AUGMENTATION

After a comprehensive rate study process with financial expert NBS, the Board of Directors implemented water, sewer and recycled water rates effective January 1, 2017. As part of the adoption of the multi-year rate plan developed by NBS and approved at the 2016 Prop 218 hearing, the Board decided to assess future rate adjustments according to the rate plan outlined by NBS.

The fifth and final rate increase of the approved 5-year rate plan was scheduled to be implemented on July 1, 2020. Due to the pandemic and associated economic impacts on Agency customers, the Board decided to not implement the planned rate increase. During the preparation of the 2021/2022 budget, the Finance Committee discussed the recognized need for the rate increase but decided to not move forward with proposing the implementation of the final approved rate increase due to continued uncertainties surrounding the COVID-19 pandemic. At that time, the Finance Committee recommended revisiting the rate increase implementation once more was known regarding the reopening of the economy.

On July 21, 2021, the Finance Committee discussed, and provided support for, staff's recommendation to implement the final rate increase in the approved rate plan, effective January 1, 2022.

Factors influencing recommendation;

- This rate increase will allow the Agency's water rates to more closely align with actual fixed and variable expenses associated with delivering water to each customer while still incentivizing conservation. After the rate increase, 30% of revenue will be produced from fixed charges and the remaining 70% from variable charges. (Current Rates: Fixed 28%/Variable 72%)
- The impending drought will impact consumption and increased fixed charges will assist in stabilizing revenues as many costs remain constant despite reduced consumption
- The Operating Fund budget for 2021/2022 contained a revenue shortfall of $5.8 million, indicating current year operational and planned capital expenditures exceed anticipated revenues. The Operating Fund budget was balanced by the

re-designation of unused funds carried over from the prior fiscal year budget, which are one-time funds available and will likely not be available for balancing the budget in subsequent fiscal years.

- Experiencing increased expenses due to COVID-19 impacts to the supply chain.
- The Wastewater Fund Budget for 2021/2022 contained a surplus of $4,000. Though the Wastewater Fund was able to meet current year expenditures with anticipated revenues, it is not collecting at a sufficient level to build reserves in order to fund infrastructure replacements and major maintenance projects as required in future periods.

The Agency has delayed this final rate increase out of concern for Agency customers and the financial hardship experienced as a result of the pandemic. However, it is imperative the Agency collects an appropriate level of revenues in order to proactively maintain operations and infrastructure to avoid costlier, reactive maintenance and replacements in the future.

Staff recommends setting the effective date at January 1, 2022 when consumption levels are generally the lowest during winter months. This is a deviation from prior summer increase dates that coincide with the fiscal year, when consumption rates are at their highest. This will provide customers a more gradual bill increase instead of receiving the maximum impact to their bill in the first billing cycle after a July 1 rate increase.

Resolution No. 1264 Establishing Rates, Fees and Charges for Domestic Water Service

The resolution increases the volumetric rate for water from $2.08 to $2.28 per hundred cubic feet (hcf) and updates the monthly water service and private fire protection charges for domestic water customers in accordance with the 2016 rate study report prepared by NBS.

Water Service Monthly Charge

Meter Size	Current	Proposed January 1, 2022
5/8”-3/4”	$27.60	$33.53
1”	$27.60	$33.53
1 1/2"	$52.70	$64.02
2”	$82.82	$100.61
3”	$163.14	$198.18
4”	$253.50	$307.94
6”	$504.50	$612.85
8”	$805.69	$978.73
10”	$2,110.87	$2,564.22
12”	$2,663.06	$3,235.01

Private Fire Protection Monthly Charge

Service Size	Current	Proposed January 1, 2022
4”	$26.48	$30.15
6”	$57.31	$64.99
8”	$98.42	$111.46
10”	$153.23	$173.41
12”	$184.06	$208.26

Resolution No. 1264 also updates the drought rate surcharge. Though there is currently no mandated water conservation due to the current drought conditions, staff recommends keeping the surcharge up to date and in line with current water rates, so that it is effective if activation of the surcharge is necessary. The drought rate surcharge can be implemented only by an action of the Board of Directors in the case of extreme shortage or required reduction. The baseline used for computing the percentage of reduced water consumption is the water used during the period of April 2015 to March 2016, which is a very low water use period. The Board has the ability to enact the surcharge, which would only remain in place for six months unless increased or renewed by the Board. Staff will monitor consumption levels and revenues to alert the Board to consider action.

Drought Rate Surcharge

Additional Use Reduction Required	Current per HCF	Proposed January 1, 2022
10%	$0.14	$0.16
20%	$0.32	$0.37
30%	$0.55	$0.63
40%	$0.85	$0.98
50%	$1.28	$1.46
60%	$1.92	$2.20

Resolution No. 1264 adjusts the zone charges necessary to cover the costs associated with pumping water to higher elevations. This charge applies to a small portion of Desert Water Agency customers. The zone charges are as follows:

Zone Charges

ZONE	Current	Proposed January 1, 2022
A, C, F, J	$0.00	$0.00
B, D, G, I	$0.24	$0.28
E, H, K	$0.28	$0.31
L	$0.61	$0.64
M	$2.70	$2.85

Resolution No. 1265 Establishing Rates, Fees and Charges for Sewer Service

In its multi-year rate plan, NBS also studied the sewer charges that DWA imposes on its customers in the Cathedral City and Palm Springs area. NBS determined that the charges being imposed are not sufficient to cover DWA's costs. In addition to the rate listed below, DWA also passes through the charges for conveyance and collection from either CVWD (Cathedral City) or City of Palm Springs (Palm Oasis and Dream Homes).

Sewer Service Monthly Charge

Sewer Rate	Current	Proposed January 1, 2022
Per EDU	$5.94	$6.15

Recently, the City of Palm Springs (CPS) and CVWD approved changes to their sewer capacity charges. DWA also collects passes this charge through to either CVWD (Cathedral City) or CPS (Palm Oasis and Dream Homes). Below are the revised values.

Capacity Charges

	CVWD Treatment	CPS Treatment
A. Residential	Total Charge: $5,901.00/EDU a. $4,851.00/EDU (CVWD) b. $1,050.00/EDU (DWA)	Total Charge: $1,006.00/Unit a. $1,006.00/Unit (CPS)
B. Commercial, Industrial, Institutional	Total Charge: $5,901.00/EDU a. $4,851.00/EDU (CVWD) b. $1,050.00/EDU (DWA)	Total Charge: $100/Fixture Unit a. $100/FU (CPS)

	CVWD Treatment	CPS Treatment
C. Hotel / Motel	Total Charge: $5,901.00/EDU a. $4,851.00/EDU (CVWD) b. $1,050.00/EDU (DWA)	Total Charge: 1. $663/Room (with kitchen - CPS) 2. $343/Room (without kitchen - CPS)
D. R.V. Park	Total Charge: $5,901.00/EDU a. $4,851.00/EDU (CVWD) b. $1,050.00/EDU (DWA)	Total Charge: $246/Space a. $246/Space (CPS)

Operating & Wastewater Fund Budget Augmentation:

If the rate adjustments are approved today by adopting Resolutions 1264 & 1265, it is necessary to augment the 2021/2022 Operating and Water Fund Budgets to reflect these adjustments. The required augmentations are as follows:

Operating Fund:

- $1,865,000 increase to water revenues
- $36,800 increase to fire protection revenue
- $1,901,800 increase to reserve for operations

Wastewater Fund:

- $4,200 increase to sewer revenues

Fiscal Impact:

1. Operating Fund: Increased revenues of $1,901,800 in 2021/2022
2. Wastewater Fund: Increased revenues of $4,200 in 2021/2022

Recommendation:

Staff recommends the Board of Directors:

1. Adopt Resolution No. 1264 for domestic water rates, fees and charges effective January 1, 2022.
2. Adopt Resolution No. 1265 for sewer rates, fees and charges with the capacity charges effective September 21, 2021 and the DWA sewer monthly charge effective January 1, 2022
3. Approve augmented 2021/2022 Operating and Wastewater Fund 2021/2022 budgets

RESOLUTION NO. 1264

A RESOLUTION OF THE BOARD OF DIRECTORS OF DESERT WATER AGENCY ESTABLISHING RATES, FEES & CHARGES FOR DOMESTIC WATER SERVICE, BACKUP FACILITY, SUPPLEMENTAL WATER SUPPLY DEVELOPMENT AND SERVICE CONNECTION CHARGES

WHEREAS, by previous action this Board has approved various rates, fees and charges for water service, as provided by law; and

WHEREAS, it is appropriate at this time to revise the Agency's Rates, Fees & Charges for Domestic Water Service, while restating all other rates, fees and charges which remain unchanged; and

NOW, THEREFORE, BE IT RESOLVED by the Board of Directors of Desert Water Agency that the Agency's rates, fees and charges for water service shall be as follows:

1. Backup Facility Charges. Every applicant for a regular service connection shall, in addition to other charges, pay a Backup Facility Charge based on the size and location of the applicant's service and meter connection as follows:

SNOW CREEK VILLAGE ZONE (Zone J)

Meter	Charge
5/8 x 3/4 inch	$2,082
1 inch	$5,207
1-1/2 inch	$10,414
2 inch	$16,662

PALM OASIS ZONE (Zone I)

Meter	Charge
5/8 x 3/4 inch	$1,493
1 inch	$3,734
1-1/2 inch	$7,468
2 inch	$11,948

Backup Facility Charges (Cont.)

BASE ZONE (Zone A)

Meter	Charge
5/8 x 3/4 inch	$2,470
1 inch	$6,175
1-1/2 inch	$12,350
2 inch	$19,760

CHINO ZONE (Zone C)

Meter	Charge
5/8 x 3/4 inch	$3,026
1 inch	$7,565
1-1/2 inch	$15,130
2 inch	$24,208

CHINO "A" ZONE (Zone D)

Meter	Charge
5/8 x 3/4 inch	$3,679
1 inch	$9,198
1-1/2 inch	$18,396
2 inch	$29,433

CHINO "B" ZONE (Zone E)

Meter	Charge
5/8 x 3/4 inch	$3,276
1 inch	$8,190
1-1/2 inch	$16,380
2 inch	$26,208

ACANTO ZONE (Zone B)

Meter	Charge
5/8 x 3/4 inch	$4,108
1 inch	$10,271
1-1/2 inch	$20,542
2 inch	$32,867

Backup Facility Charges (Cont.)

SOUTHRIDGE "A" ZONE (Zone K)

Meter	Charge
5/8 x 3/4 inch	$4,390
1 inch	$10,977
1-1/2 inch	$21,954
2 inch	$35,126

SOUTHRIDGE "B" ZONE (Zone L)

Meter	Charge
5/8 x 3/4 inch	$2,320
1 inch	$5,800
1-1/2 inch	$11,600
2 inch	$18,560

EAST ZONE (Zone F)

Meter	Charge
5/8 x 3/4 inch	$2,357
1 inch	$5,893
1-1/2 inch	$11,786
2 inch	$18,857

EAST "A" ZONE (Zone G)

Meter	Charge
5/8 x 3/4 inch	$2,541
1 inch	$6,354
1-1/2 inch	$12,708
2 inch	$20,332

EAST "B" ZONE (Zone H)

Meter	Charge
5/8 x 3/4 inch	$3,030
1 inch	$7,575
1-1/2 inch	$15,150
2 inch	$24,240

2. Supplemental Water Supply Development Charges. Every applicant for a regular service connection shall, in addition to other charges, pay a Supplemental Water Supply Development Charge based on the size of the applicant's service and meter connection as follows:

Meter Size	
Residential	Charge
5/8 x 3/4 inch	$1,370.00
1 inch	$2,250.00
1-1/2 inch	$4,440.00
2 inch	$10,960.00
3 inch	$72,070.00
Commercial	Charge
5/8 x 3/4 inch	$1,250.00
1 inch	$2,740.00
1-1/2 inch	$8,830.00
2 inch	$15,090.00
3 inch	$21,350.00
6 inch	$677,430.00
Irrigation	Charge
5/8 x 3/4 inch	$1,720.00
1 inch	$6,530.00
1-1/2 inch	$25,210.00
2 inch	$23,970.00

3. Backup Facility Charges and Supplemental Water Supply Development Charges for Increased Service. A Backup Facility Charge and a Supplemental Water Supply Development Charge shall be required for all existing regular service connections for which increased capacity is requested and larger service connections and meters are installed. Said charges shall apply to the difference in service capacity between the new meter and service, and the meter and service which is being replaced.

4. Exemption. The Backup Facility Charge shall apply to all applications for regular service, regardless of the type of use, but shall not apply to applications for temporary service. The Backup Facility Charge may be exempted, or partially exempted for private commercial fire protection service, and where certain water supply, storage, treatment and transmission facilities are required of an applicant. The exemption will be determined by the Agency, whose decision will be final.

5. Accounting of Funds. All revenues collected from backup facility charges shall be deposited with other such fees in a separate capital facilities account or fund in a manner to avoid any commingling of the charges with other revenues and funds of the Agency, except for temporary investments, and such revenues may be expended solely for the purpose for which the backup facility charges are collected. Any interest income earned by moneys in said account or fund shall also be deposited in that account or fund and may be expended only for the purpose for which the backup facility charges are imposed. The Agency shall make findings once each fiscal year with respect to any portion of the backup facility charges remaining unexpended or uncommitted in the account five or more years after deposit of the charges. The findings shall identify the purpose to which the backup facility charges are to be put, and will demonstrate a reasonable relationship between the charges and the purpose for which the charges were imposed.

6. Meter Installation Charge. The charge for meter installation shall be as follows:

Size	Charge
5/8 x ¾ inch	$255.00
1 inch	$355.00
1-1/2 inch	$530.00
2 inch	$705.00

7. Customer Control Valve Charge. The customer control valve charge shall be as follows:

Size	Charge
1 inch	$360.00
1-1/2 inch	$370.00
2 inch	$435.00

8. Service Connection Charge. The charge for service connection shall be as follows:

	Size	Charge
a.)	1 inch	$1,800.00
	2 inch	$3,230.00
b.)	Payment Patch	$1,380.00
	Concrete Patch	$664.00

9. Connection Charge. A charge for all new connections based on the front footage served thereby shall be levied and collected at the rate of $70.00 per lineal foot of frontage, or the actual rate in accordance with a valid main extension refund agreement, whichever is greater.

10. Meter Test Deposit. The required deposit for testing a water meter shall be as follows:

Size	Charge
5/8 & 3/4 inch to 2 inches	$70.00
3 inch or larger	$140.00

11. Plan Check Fees. The plan check fees for Agency installed water facilities with no mains shall be $280. For developer installed facilities with mains, the fee shall be $280, plus $0.35 per lineal foot of main installed. There is no charge for single residences not falling within the above categories.

12. Design Review Fees. Fees charged for design review for water facilities shall be as follows:

a.) Agency Engineering Department	$140.00 per hour
b.) Engineering Consultants	Actual cost plus 15%
c.) Legal Consultants	Actual cost plus 15%

13. Fire Flow Model and Verification Fees. The following charges shall be imposed for fire flow model analysis and verification within our domestic water service area;

a.) Fire Flow Model and Letter	$500.00
b.) Fire Flow Verification Letter	$70.00

14. Temporary Service Connection Charge. The following deposits and charges shall be imposed for a temporary service connection:

a.) Deposits	
Meter	$964.00
Backflow Device	$500.00
Total	$1,464.00
b.) Meter Installation Charges	
Meter	$70.00
Backflow Device	$70.00
Total	$140.00
c.) Meter Relocation Charges	
Each Occurrence	$70.00

15. Restoration of Service. The charge for service restored on Agency's normal working days and during normal working hours will be $70. The charge for service restored other than that on Agency's normal working days and after normal working hours willbe $150. To have service restored the same day, during working hours, payment must be received between 8:00 a.m. and 4:00 p.m. Payments received after 4:00 p.m. will be at the after-hours rate for restoration of service the same day.

Customers demonstrating financial hardship, as outlined in the Agency's Policy on Discontinuation of Residential Water Service, shall pay a reduced service restoration fee of $50 during Agency normal working Days and during normal working hours.

If service is discontinued or turned off by customer request for any reason, other than repairs, the restoration charges will be enforced if restoration of service is requested within 90 days of the initial request of discontinuance.

16. Backflow Protection Device Installation Charges. The following charges shall be imposed for the installation of a backflow protection device:

a.) Double Check Device

Size	Charge
3/4 inch	$647.00
1 inch	$812.00
1-1/2 inch	$1,480.00
2 inch	$1,870.00

b.) Reduced Pressure Principal Device Assemblies

Size	Charge
3/4 inch	$843.00
1 inch	$1,005.00
1-1/2 inch	$1,689.00
2 inch	$2,053.00

c.) Double Check Device with Fire Service Outlet

Size	Charge
1 inch	$1,000.00
1-1/2 inch	$1,668.00
2 inch	$2,149.00

d.) Reduced Pressure Device with Fire Service Outlet

Size	Charge
1 inch	$1,193.00
1-1/2 inch	$1,877.00
2 inch	$2,333.00

17. Metered Service Charge. Service charges for water service include a monthly service charge, a quantitative rate charge, and a zone charge if applicable, as follows:

a.) Monthly Service Charge

Size	Charge
5/8 x 3/4 inch	$33.53
1 inch	$33.53
1-1/2 inch	$64.02
2 inch	$100.61
3 inch	$198.18
4 inch	$307.94
6 inch	$612.85
8 inch	$978.73
10 inch	$2,564.22
12 inch	$3,235.01

Metered Service Charge. (Cont.)

b.) Quantitative Rate Charge
The base rate charge for all metered and unmetered water used for all purposes other than through temporary service facilities shall be $2.28 per 100 cubic feet.

c.) Temporary Service Quantitative Rate Charge
The base rate charged for all metered and unmetered water used for construction and temporary service shall be $1,132.90 ($2.60 per 100 cubic feet) per acre-foot.

d.) Zone Charges

Zone	Charge per 100 Cubic Feet
A, C, F, J	$0.00
B, D, G, I	$0.28
E, H, K	$0.31
L	$0.64
M	$2.85

e.) Drought Rate Surcharge
The surcharge is in addition to the Quantitative Rate Charge. It may be applied in times of mandatory restrictions or extreme water supply shortage.

Use Reduction Required	Addition to Quantitative Rate Charge
10%	$0.16
20%	$0.37
30%	$0.63
40%	$0.98
50%	$1.46
60%	$2.20

18. Private Fire Protection Monthly Service Charges. The monthly service charge for private fire protection shall be as follows:

Service Size	Charge
2 inch	$7.99
4 inch	$30.15
6 inch	$64.99
8 inch	$111.46
10 inch	$173.41
12 inch	$208.26

19. Backflow Protection Device Repair Charge. The monthly charge for backflow protection device repair shall be as follows:

Size	Charge
3/4 inch	$3.00
1 inch	3.50
1-1/4 inch	3.50
1-1/2 inch	3.50
2 inch	3.50
2-1/2 inch	3.50
3 inch	3.50
4 inch	5.80
6 inch	5.80
8 inch	7.00
10 x 12 inch	7.00

20. Construction and Temporary Service Monthly Charges. The construction and temporary service monthly charge shall include the following and be set as follows:

    a. Monthly Service Charges
    To be in accordance with Item 16-a of this Resolution

    b. Quantitative Charges
    To be in accordance with Item 16-c of this Resolution

    c. Zone Pumping Charges
    To be in accordance with Item 16-d of this Resolution

    d. Backflow Protection Device Charge: $34.15

21. Deposit to Establish Credit. The minimum deposit to establish credit will be two (2) times the average monthly bill. If this cannot be determined, the minimum deposit shall be as follows:

Size	Deposit
5/8 x 3/4 inch	$ 100.00
1 inch	100.00
1-1/2 inch	150.00
2 inch	200.00

22. Development Review. A charge for Agency provided Administrative Services shall be collected at the rate of $140 for each of the following:

    a.) Will Serve Letter
    b.) Development Bond Amount Letter
    c.) Response to Initial Study
    d.) Non-Interference Letter

23. Water Quality Sampling. The charge for Agency collection and analysis of development bacteriological samples shall be at the rate of $75.00 per sample.

24. Account Establishment Fee Charge. An administrative charge for Agency services to establish account in the new owner's name shall be $30.00 per account.

25. Late Fee. An administrative late fee charge of $25.00 per account will be assessed on accounts that are delinquent (30 days past due).

26. Main Extension By Applicant Deposit. The applicant shall deposit with the Agency a sum in the amount equal to twenty percent (20%) of the estimated main extension construction costs, as determined by the Agency, for inspection and incidental costs. The Agency shall refund the applicant any deposit amount above the final inspection and incidental costs. The Agency shall also collect additional money, as required, if the initial deposit amount does not cover the final inspection and incidental costs.

27. Effective Date: The charges set forth herein shall become effective on January 1, 2022 and as of that date shall replace the charges set forth in Resolution No. 1230.

ADOPTED this 21st day of September 2021.

_____
Kristin Bloomer, President

ATTEST:

_____
Joseph K Stuart, Secretary-Treasurer

BACKUP FACILITY CHARGES
FOR WATER SERVICE
October 16, 2018

New development creates an additional demand for water. In order to meet the new demand, new wells must be constructed to provide more water, new storage tanks must be constructed to store water for emergency use, equalizing, and fire storage, and new transmission pipelines must be constructed to transport water from wells to storage tanks and throughout the distribution system. New development in hillside areas and service areas above the Base Zone places demand upon facilities, such as booster pumping plants, water storage tanks and transmission pipelines, whose basic function is to lift the water up to and store in these higher zones.

For the past eight years, new development has added an annual average of about 120 service connections to the Desert Water Agency water system. At this growth rate, every seven years new connections will create a demand for water equivalent to the production capacity of one well. The increased demand will also burden storage, transmission, and booster pumping facilities in all Zones. These facilities must be in place ahead of new connections. Therefore, in most cases, the facilities are constructed in anticipation of demand, and costs of the facilities are recovered through the Backup Facility Charge.

Staff has reviewed the costs that make up the Backup Facility Charge and find that a tiered rate based on our pressure zones is justified to recover cost of the well plants, booster plants, treatment plants, surface water facilities, storage reservoirs, and transmission mains required by each zone.

All new development requiring water service will be charged for Backup Facilities. The charge is based upon the capacity/service size ratio of the service provided and the proportional potential demand placed upon the available water production, transmission, treatment, pressure boosting and storage facilities within the appropriate pressure zone. The charge is not based upon the type of service connection (i.e., residential, commercial, and industrial). The amount of the charge for any particular development is based on the number of services, service size, meter size and the assigned number of capacity units per service as determined by the Agency. The capacity unit (C.U.) is based on the capacity/service size ratio of the service connection.

Service capacity ratios have historically been based on the relationship between capacity and pipe diameter. Originally established in 1973, the service capacity/diameter relationship for the Agency was based on a 1" service size capacity ratio of Q=KD^2.54. Depending on the specific hydraulic formula selected the service size relationship can range from D^2.5 to D^2.667. These hydraulic formula and capacity/diameter relationships are empirical and therefore approximate. The selected relationship of D^2.54 is reasonable in that it is slightly less than the median relationship of D^2.58.

However, capacity is ultimately limited by the maximum continuous operation flow rate of the meter installed on each service connection. To account for this, the Agency has opted to utilize the AWWA meter factors in lieu of the abovementioned D^2.54 formula. AWWA meter factors are an industry standard and, therefore, a reasonable method to use in determining equivalent capacity units within the system.

To determine the standard capacity for each of the Agency's pressure zones, all active services smaller and larger than the standard one-inch service are converted to one-inch equivalent capacity units using the AWWA meter factors discussed above.

The Agency currently operates 12 different pressure zones. Calculation of the C.U. for each service size in the zones are shown in the tables below:

SYSTEM CAPACITY UNITS – SNOW CREEK VILLAGE ZONE

SERVICE SIZE	SERVICES	AWWA METER FACTORS	CAPACITY UNITS
3/4"	0	0.40	0
1"	45	1.00	45
1-1/2"	0	2.00	0
2"	2	3.20	6.4
Total	47		51

SYSTEM CAPACITY UNITS – PALM OASIS ZONE

SERVICE SIZE	SERVICES	AWWA METER FACTORS	CAPACITY UNITS
3/4”	0	0.40	0
1”	193	1.00	193
1-1/2”	0	2.00	0
2”	12	3.20	38.4
Total	205		231

SYSTEM CAPACITY UNITS – BASE ZONE

SERVICE SIZE	SERVICES	AWWA METER FACTORS	CAPACITY UNITS
3/4”	98	0.40	39.2
1”	11,672	1.00	11,672
1-1/2”	491	2.00	982
2”	1,977	3.20	6,326.4
Total	14,238		19,019

SYSTEM CAPACITY UNITS – CHINO ZONE

SERVICE SIZE	SERVICES	AWWA METER FACTORS	CAPACITY UNITS
3/4”	6	0.40	2.4
1”	1,802	1.00	1,802
1-1/2”	111	2.00	222
2”	269	3.20	860.8
Total	2,188		2,887

SYSTEM CAPACITY UNITS – CHINO “A” ZONE

SERVICE SIZE	SERVICES	AWWA METER FACTORS	CAPACITY UNITS
3/4”	0	0.40	0
1”	68	1.00	68
1-1/2”	43	2.00	86
2”	9	3.20	28.8
Total	120		182

SYSTEM CAPACITY UNITS – CHINO "B" ZONE

SERVICE SIZE	SERVICES	AWWA METER FACTORS	CAPACITY UNITS
3/4"	0	0.40	0
1"	54	1.00	54
1-1/2"	0	2.00	0
2"	0	3.20	0
Total	54		54

SYSTEM CAPACITY UNITS – ACANTO ZONE

SERVICE SIZE	SERVICES	AWWA METER FACTORS	CAPACITY UNITS
3/4"	0	0.40	0
1"	372	1.00	372
1-1/2"	5	2.00	10
2"	30	3.20	96
Total	407		478

SYSTEM CAPACITY UNITS – SOUTHRIDGE "A" ZONE

SERVICE SIZE	SERVICES	AWWA METER FACTORS	CAPACITY UNITS
3/4"	0	0.40	0
1"	5	1.00	5
1-1/2"	15	2.00	30
2"	0	3.20	0
Total	20		35

SYSTEM CAPACITY UNITS – SOUTHRIDGE "B" ZONE

SERVICE SIZE	SERVICES	AWWA METER FACTORS	CAPACITY UNITS
3/4"	0	0.40	0
1"	6	1.00	6
1-1/2"	1	2.00	2
2"	3	3.20	9.6
Total	10		18

SYSTEM CAPACITY UNITS – EAST ZONE

SERVICE SIZE	SERVICES	AWWA METER FACTORS	CAPACITY UNITS
3/4”	89	0.40	35.6
1”	3,723	1.00	3,723
1-1/2”	174	2.00	348
2”	660	3.20	2,112
Total	4,646		6,218

SYSTEM CAPACITY UNITS – EAST “A” ZONE

SERVICE SIZE	SERVICES	AWWA METER FACTORS	CAPACITY UNITS
3/4”	6	0.40	2.4
1”	344	1.00	344
1-1/2”	8	2.00	16
2”	7	3.20	22.4
Total	365		384

SYSTEM CAPACITY UNITS – EAST “B” ZONE

SERVICE SIZE	SERVICES	AWWA METER FACTORS	CAPACITY UNITS
3/4”	11	0.40	4.4
1”	381	1.00	381
1-1/2”	14	2.00	28
2”	6	3.20	19.2
Total	412		432

The charge per capacity unit for each zone is obtained by determining the cost of water production, pressure boosting, treatment, storage and transmission facilities and dividing it by the total capacity units served by the facilities. The method for determining facility cost and total capacity units for each zone is discussed below.

The total number of current services in each zone was obtained from the Desert Water Agency Information Systems Department.

SNOW CREEK VILLAGE ZONE

The existing capacity units (C.U.) for the Snow Creek Village Zone is 51. To determine the total capacity units for the zone, we must first calculate the max demand day (MDD) value utilizing the current General Plan formula:

- MDD = 1.85 x Average Day Annual Demand (ADD)

The Snow Creek Village Zone is served from two surface water sources. Since 1993, the stream sources have had an average capacity rate of 1,257 GPM, or 1.81 MGD. Based on meter consumption data for 2017, the current ADD for the zone is equal to 0.032 MGD, therefore, the MDD is equal to 0.061 MGD. If the MDD is equal to 0.061 MGD, the current gal/C.U./day is equal to 1,196 gal/C.U./day, or (0.06 MGD÷51).

The General Plan has calculated a max demand for the area to be 1.12 MGD, with the remaining water to be delivered to the Base and Chino Zones. Since all service capacity must be met by the stream capacity, the existing units are using 5.4% of the total capacity of the stream source (0.061 MGD ÷ 1.12 MGD). The total maximum capacity units for the entire system are then equal to 944, or (51 ÷ 0.054).

Facility costs were determined by analyzing facility cost valuation from Agency Annual Operating Statistics Reports, cost estimates prepared in conjunction with the currently proposed budget and rate study, and by assessing the current facilities using the 2008 General Plan Update. The facilities cost valuation per capacity unit was determined from the total number of capacity units and the facilities costs.

The Snow Creek Village Zone charge is composed of costs per capacity unit for production (stream source), treatment, storage and transmission facilities assignable to the Snow Creek Village Zone service.

SNOW CREEK VILLAGE ZONE PRODUCTION COST

In order to calculate the cost of surface water per capacity unit we first determine the cost of those facilities from actual project costs. Surface water is transmitted from the diversions into the Snow Creek Village Zone where it is distributed to the zone services.

DESCRIPTION	YEAR CONSTRUCTED	*SURFACE WATER FACILITY COST
Snow Creek Diversion	1990	$2,000,000
Falls Creek Diversion	1990	$1,300,000
TOTAL		**$3,300,000**

* Actual project costs, unadjusted for present value.

The surface water not only benefits the Snow Creek Village Zone, the water can also benefit the Base Zone and Chino Zones. The Snow Creek Village Zone will use 61.2% of the total stream capacity (1.12 ÷ 1.81); therefore, the cost per capacity unit for the Snow Creek Village Zone is $3,300,000 (0.612) ÷ 944 C.U. = **$2,139/C.U.**

SNOW CREEK VILLAGE WATER TREATMENT COSTS

In order to calculate the cost of water treatment per capacity unit we first determine the cost of those facilities from actual project costs for this zone. Water is treated using chlorine and U.V. in this zone. Since the chlorine facilities were part of the production facilities costs, we will only include U.V for this calculation.

UV TREATMENT

DESCRIPTION	YEAR CONSTRUCTED	*FOREBAY COST
UV Treatment (Snow Creek/Falls Creek)	2014	$317,142
TOTAL		**$317,142**

*Actual project costs.

The UV treated surface water not only benefits the Snow Creek Village Zone, it can also benefit the Base Zone and Chino Zones. The Snow Creek Village Zone will use 61.2% of the total stream

capacity (1.12 ÷ 1.81); therefore, the cost of treatment per capacity unit is $317,142 (0.612) ÷ 944 C.U. = **$205/C.U.**

SNOW CREEK VILLAGE ZONE WATER STORAGE COSTS

In order to calculate the cost of water storage per capacity unit we first determine the cost of those facilities from actual project costs and approved capital improvement budgets. The most current water storage estimated costs are used to determine the ratio of water storage cost to unit of storage volume. The unit cost of water storage per gallon (utilizing the most recent storage facility project costs is $3,844,585 ÷ 5,500,000 GAL= $0.70/GAL. By applying this ratio to each water storage reservoir, the cost of each reservoir within the zone are then determined.

SNOW CREEK VILLAGE ZONE WATER STORAGE COSTS

DESCRIPTION	WATER STORAGE CAPACITY (GAL.)	UNIT COST PER UNIT STORAGE ($/GAL.)	ZONE STORAGE COST
Equalization	1,000,000	0.70	$700,000
Village	150,000	0.70	$105,000
TOTAL			**$805,000**

The Equalization Reservoir not only benefits the Snow Creek Village Zone, it can also benefit the Base Zone and Chino Zones. The Snow Creek Village Zone current storage requirements are 0.168 MG, which is 16.8% of the Equalization Reservoir capacity (0.168 ÷ 1.0); therefore, the cost per capacity unit is $700,000 (0.168) ÷ 944 C.U. = $124/C.U. and the cost of storage per capacity unit for the Village Reservoir is therefore, $105,000 ÷ 944 C.U. = $111/C.U., for a total of **$235/C.U.**

FUTURE STORAGE CAPACITY REQUIREMENTS

The General Plan requires that the Agency have 18 hours ADD emergency storage, along with fire flow and equalization storage during energy Time of Use (T.O.U.) periods. The 18 hour ADD during T.O.U periods for the zone is 0.024 MG, or (0.032 x 0.75). The fire flow requirement for the zone is 0.12 MG, or (1,000 GPM for 2 hours per General Plan) and the equalization, or operational storage is 40% of the MDD and is therefore equal to 0.024 MG. Adding all of these

components equates to 0.168 MG of storage. The current storage capacity for the system is 1.15 MG.

The existing stream capacity of the zone will accommodate an additional 893 capacity units (944 - 51). These additional units will add 1.0 MGD to the MDD. This additional demand will increase the storage requirement to 0.97 MG. Since this is less than the existing storage capacity, no future storage is required.

SNOW CREEK VILLAGE ZONE WATER TRANSMISSION MAIN COSTS

Historically, the Agency has calculated the cost of water transmission mains per capacity unit by determining the cost of those facilities from actual project costs and approved capital improvement budgets. The ratio of cost per lineal foot to diameter is determined.

DESCRIPTION	YEAR CONSTRUCTED	PIPELINE LENGTH (L.F.)	*PIPELINE COST	PIPELINE UNIT COST ($/L.F.)
12"Alejo/Tamarisk/ Indian Canyon	2012/2014/2015	4,958	$1,290,176	$260/L.F.
14"	-	-	-	-
15"	-	-	-	-
16" Sunny Dunes	2013	1,100	$301,462	$274/L.F.
18"	-	-	-	-
20" E. Well Field	-	-	-	-
24" E. Well Field	-	-	-	-
26"	-	-	-	-
30" N. Well Field	-	-	-	-
36" Avenida Caballeros	2014/2015	2,659	$2,509,219	$944/L.F.
42"	-	-	-	-

* Actual project cost, unadjusted for present value.

Due to the lack of current data available for the varying sizes of transmission mains in our system, the Agency has opted to utilize a "unit construction cost for pipelines" equation used by Eastern Municipal Water District (EMWD) in their 2015 rate study (study conducted by Kennedy/Jenks Consultants). Said equation assumes that unit cost ($/linear foot) = Diameter (inch) x 40.47 x

[Diameter (inch) $^{\wedge -0.309}$]. Utilization of said equation allows the Agency to determine uniform unit construction estimates for all sizes of transmission mains in our system.

***ESTIMATED WATER TRANSMISSION MAIN UNIT CONSTRUCTION COSTS**

TRANSMISSION MAIN DIAMETER (INCHES)	TRANSMISSION MAIN LENGTH ($/L.F.)
12”	225
14”	250
15”	265
16”	275
18”	300
20”	320
24”	365
26”	385
30”	425
36”	480
42”	535

*Based on the following EMWD assumption: cost $/L.F. = Diameter (inch) x 40.47 x [Diameter (inch) $^{\wedge -0.309}$].

The most current water transmission main estimated costs are used to determine the ratio of water main cost to diameter as shown in the table on the previous page. By applying these ratios to system transmission mains, the cost of all size mains for the entire system is determined by zone.

SNOW CREEK VILLAGE ZONE WATER TRANSMISSION MAIN COSTS

TRANSMISSION MAIN DIAMETER (INCHES)	TRANSMISSION MAIN LENGTH (L.F.)	UNIT COST PER UNIT LENGTH ($/L.F.)	ZONE TRANSMISSION MAIN COST
12”	1,500	225	$337,500
***24”**	9,600	365	$3,504,000*
TOTAL			**$3,841,500**

*The 24" main not only benefits the Snow Creek Village Zone, it can also benefit the Base Zone and Chino Zones. The Snow Creek Village Zone will use 61.2% of the total stream capacity rate (1.12 ÷ 1.81); therefore, the cost of transmission main per capacity unit for the 24" main is therefore, $3,504,000 (0.612) ÷ 944 C.U. = **$2,271/C.U.**

The cost of transmission main per capacity unit for the 12" main is therefore, $337,500 ÷ 944 C.U. = **$357/C.U.**

COST PER ZONE SUMMARY

ZONE	SURFACE WATER COST	TREATMENT COST	STORAGE COST	TRANSMISSION COST	TOTAL CAPACITY UNIT COST
Snow Creek Village	$2,139	$205	$235	$2,628	$5,207

The cost of a 1-inch service in the zone is comprised of the cumulative capacity unit costs for surface water production, treatment, storage and transmission facilities.

In order to determine the capacity unit cost for each meter size the AWWA meter factors are used. The table below shows the capacity unit charge (Backup Facility Charge) per meter size.

SNOW CREEK VILLAGE FINAL BACKUP FACILITY CHARGE COST SUMMARY

METER SIZE	AWWA METER FACTOR	BACKUP FACILITY CHARGE
3/4 X 5/8	0.4	$2,082
1	**1.0**	**$5,207**
1.5	2.0	$10,414
2	3.2	$16,662

PALM OASIS ZONE

The existing capacity units (C.U.) for the Palm Oasis Zone is 231. To determine the total capacity units for the zone, we must first calculate the max demand day (MDD) value utilizing the current General Plan formula:

- MDD = 1.85 x Average Day Annual Demand (ADD)

Using annual production data from 2017, the ADD calculated for the zone equals 0.14 MGD, therefore, the MDD is equal to 0.26 MGD. If the MDD is equal to 0.26 MGD, the current gal/C.U./day is equal to 1,134 gal/C.U./day, or (0.26 MGD ÷ 231).

The current pumping capacity for the Palm Oasis Zone is 2.56 MGD. Since all service capacity must be met by the Palm Oasis Zone pumping capacity, all of the existing units are using 10.2% of the total capacity of the Palm Oasis Zone (0.26 MGD÷2.56 MGD). The total maximum capacity units for the zone is then equal to 2,265, or (231÷0.102).

Facility costs were determined by analyzing facility cost valuation from Agency Annual Operating Statistics Reports, cost estimates prepared in conjunction with the currently proposed budget and rate study, and by assessing the current facilities using the 2008 General Plan Update. The facilities cost valuation per capacity unit was determined from the total number of capacity units and the facilities costs.

The Palm Oasis Zone charge is composed of costs per capacity unit for production (wells and boosters), treatment, storage and transmission facilities assignable to the Palm Oasis Zone service.

PALM OASIS PUMPING/WATER PRODUCTION COST

In order to calculate the cost of pumping water per capacity unit we first determine the cost of those facilities from approved capital improvement budgets. The ratio of plant cost to horsepower is determined.

DESCRIPTION	YEAR CONSTRUCTED	PUMPING PLANT HORSEPOWER	PUMPING PLANT COST*
Well 39	2010	450 HP Pumping Plant	$1,320,156.59
Well 40	2009	450 HP Pumping Plant	$1,498,356.82
Well 41	2006	450 HP Pumping Plant	$1,561,858.76
Well 42	2006	200 HP Pumping Plant	$1,175,156.15
TOTAL		**1,550 HP**	**$5,555,528.32**

* Current Capital Improvement Budget Amounts for Pumping Plants.

The most current pumping plant estimated costs are used to determine the ratio of pumping plant cost to unit of horsepower from the table above. The unit cost of pumping per horsepower is $5,555,528.32 ÷ 1,550 hp= $3,584/hp. By applying this ratio to each active pumping plant the cost of each plant and the zone system pumping cost is determined.

Similarly, the cost of pressure boosting facilities is determined.

DESCRIPTION	YEAR CONSTRUCTED	BOOSTER PLANT HORSEPOWER	BOOSTER PLANT COST*
Zone 1240 Booster	2016	80 HP Booster Plant	$950,000
Janis Tuscany Booster Upgrades	2016	225 HP Booster Pumping Plant	$230,000
TOTAL		**305 HP**	**$1,180,000**

* Actual project costs, unadjusted for present value.

The most current pumping plant costs are used to determine the ratio of booster pumping plant cost to unit of horsepower from the table above. The unit cost of booster pumping per horsepower is $1,180,000 ÷ 305 hp= $3,869/hp. By applying this ratio to each active pumping plant the cost of each plant and the zone's booster pumping cost is determined.

PALM OASIS ZONE PUMPING COSTS

WELL/BOOSTER BASE ZONES	DESCRIPTION	PLANT HORSEPOWER	ZONE PUMPING COST ($3,584/HP)
Well 17	Well Pumping Plants	150	$537,600
Well 43	Well Pumping Plants	250	$896,000
Well 17 Booster	Booster Pumping Plants	80	$309,520*
TOTAL			**$1,743,120**

*$3,869/HP Unit Cost of Booster Pumping Per Horsepower.

The cost of production per capacity unit is therefore, $1,743,120 ÷ 2,265 C.U. = **$769/C.U.**

PALM OASIS ZONE WATER TREATMENT COSTS

In order to calculate the cost of water treatment per capacity unit we first determine the cost of those facilities from actual project costs.

FOREBAY TREATMENT

DESCRIPTION	YEAR CONSTRUCTED	*FOREBAY COST
Well 17 Forebay		$137,500
TOTAL		**$137,500**

The cost of forebay treatment per capacity unit is therefore, $137,500 ÷ 2,265 C.U. = **$61/C.U**.

CHLORINE INJECTION TREATMENT

DESCRIPTION	NUMBER OF ACTIVE SITES	AVG. COST PER SITE	ZONE PUMPING COST (ACTUAL)
Chlorine storage building and pad, injection vault	1	$30,440	$30,440
TOTAL			**$30,440**

*Based on average construction cost per site to install chlorine injection facilities.

The cost of chlorine injection treatment per capacity unit is therefore, $30,440 ÷ 2,265 C.U. = **$13/C.U**.

PALM OASIS ZONE WATER STORAGE COSTS

In order to calculate the cost of water storage per capacity unit we first determine the cost of those facilities from actual project costs and approved capital improvement budgets. The ratio of storage cost to volume is determined.

DESCRIPTION	YEAR CONSTRUCTED	RESERVOIR STORAGE CAPACITY	RESERVOIR COST*
Tahquitz Reservoir II Zone 1060	2004 2016	5,000,000 gallons 500,000 gallons	$2,299,785** $1,544,800*
TOTAL		**5,500,000 gallons**	**$3,844,585**

*Revised Budget Amount for project.

** Actual project costs, unadjusted for present value.

The most current water storage estimated costs are used to determine the ratio of water storage cost to unit of storage volume from the table above. The unit cost of water storage per gallon is $3,844,585 ÷ 5,500,000 GAL= $0.70/GAL. By applying this ratio to each water storage reservoir, the cost of each reservoir and the entire zone's water storage costs are determined.

PALM OASIS ZONE WATER STORAGE COSTS

DESCRIPTION	WATER STORAGE CAPACITY (GAL.)	UNIT COST PER UNIT STORAGE ($/GAL.)	ZONE STORAGE COST
Palm Oasis I	1,000,000	0.70	$700,000
Palm Oasis II	1,000,000	0.70	$700,000
TOTAL			**$1,400,000**

The cost of storage per capacity unit is therefore, $1,400,000 ÷ 2,265 C.U. = **$618/C.U**.

FUTURE STORAGE CAPACITY REQUIREMENTS

The General Plan requires that the Agency have 18 hours ADD emergency storage, along with fire flow and equalization storage during energy Time of Use (T.O.U.) periods. The 18 hour ADD during T.O.U periods for the zone is 0.105 MG (0.14 x 0.75). The fire flow requirement for the zone is 0.12 MG (1,000 GPM for 2 hours per General Plan) and the equalization, or operational storage is 40% of the MDD and is therefore equal to 0.105 MG. Adding all of these components equates to 0.33 MG of storage. The current storage capacity for the zone is 2.0 MG.

The existing pumping capacity of the system will accommodate an additional 2,034 capacity units (2,265 - 231). These additional units will add 2.3 MGD to the MDD. This additional demand will increase the storage requirement to 2.2 MG, requiring 0.2 MG of additional storage (2.2-2.0). The cost for the additional storage will be $140,000, or ($0.70/gal x 0.2 MG). The cost of future storage per capacity unit is therefore, $140,000 ÷ 2,265 C.U. = **$61/C.U.**

PALM OASIS ZONE WATER TRANSMISSION MAIN COSTS

Historically, the Agency has calculated the cost of water transmission mains per capacity unit by determining the cost of those facilities from actual project costs and approved capital improvement budgets. The ratio of cost per lineal foot to diameter is determined.

DESCRIPTION	YEAR CONSTRUCTED	PIPELINE LENGTH (L.F.)	*PIPELINE COST	PIPELINE UNIT COST ($/L.F.)
12"Alejo/Tamarisk/ Indian Canyon	2012/2014/2015	4,958	$1,290,176	$260/L.F.
14"	-	-	-	-
15"	-	-	-	-
16" Sunny Dunes	2013	1,100	$301,462	$274/L.F.
18"	-	-	-	-
20" E. Well Field	-	-	-	-
24" E. Well Field	-	-	-	-
26"	-	-	-	-
30" N. Well Field	-	-	-	-
36" Avenida Caballeros	2014/2015	2,659	$2,509,219	$944/L.F.
42"	-	-	-	-

* Actual project cost, unadjusted for present value.

Due to the lack of current data available for the varying sizes of transmission mains in our system, the Agency has opted to utilize a "unit construction cost for pipelines" equation used by Eastern Municipal Water District (EMWD) in their 2015 rate study (study conducted by Kennedy/Jenks Consultants). Said equation assumes that unit cost ($/linear foot) = Diameter (inch) x 40.47 x [Diameter (inch) $^{\wedge -0.309}$]. Utilization of said equation allows the Agency to determine uniform unit construction estimates for all sizes of transmission mains in our system.

***ESTIMATED WATER TRANSMISSION MAIN UNIT CONSTRUCTION COSTS**

TRANSMISSION MAIN DIAMETER (INCHES)	**TRANSMISSION MAIN LENGTH ($/L.F.)**
12"	225
14"	250
15"	265
16"	275
18"	300
20"	320
24"	365
26"	385
30"	425
36"	480
42"	535

*Based on the following EMWD assumption: cost $/L.F. = Diameter (inch) x 40.47 x [Diameter (inch) $^{\wedge -0.309}$].

The most current water transmission main estimated costs are used to determine the ratio of water main cost to diameter as shown in the table on the previous page. By applying these ratios to system transmission mains, the cost of all size mains for the entire system is determined by zone.

PALM OASIS ZONE WATER TRANSMISSION MAIN COSTS

TRANSMISSION MAIN DIAMETER (INCHES)	TRANSMISSION MAIN LENGTH (L.F.)	UNIT COST PER UNIT LENGTH ($/L.F.)	ZONE TRANSMISSION MAIN COST
12”	17,134	225	$3,855,150
16”	4,200	275	$1,155,000
TOTAL			**$5,010,150**

The cost of transmission mains per capacity unit is therefore, $5,010,150 ÷ 2,265 C.U. = **$2,212/C.U**.

COST PER ZONE SUMMARY

ZONE	WATER PRODUCTION COST	TREATMENT COST	STORAGE COST	TRANSMISSION COST	TOTAL CAPACITY UNIT COST
Palm Oasis	$769	$74	$679	$2,212	$3,734

The cost of a 1-inch service in the zone is comprised of the cumulative capacity unit costs for water production, treatment, storage and transmission facilities.

In order to determine the capacity unit cost for each meter size the AWWA meter factors are used. The table below shows the capacity unit charge (Backup Facility Charge) per meter size.

PALM OASIS ZONE FINAL BACKUP FACILITY CHARGE COST SUMMARY

METER SIZE	AWWA METER FACTOR	BACKUP FACILITY CHARGE
3/4 X 5/8	0.4	$1,493
1	**1.0**	**$3,734**
1.5	2.0	$7,468
2	3.2	$11,948

BASE ZONE

The existing capacity units (C.U.) for the Base Zone is 19,019. To determine the total capacity units for the zone, we must first calculate the max demand day (MDD) value utilizing the current General Plan formula:

- MDD = 1.85 x Average Day Annual Demand (ADD)

Using annual production data from 2017, the ADD calculated for the zone equals 18.5 MGD, therefore, the MDD is equal to 34 MGD. If the MDD is equal to 34 MGD, the current gal/C.U./day is equal to 1,787 gal/C.U./day, or (34 MGD ÷ 19,019).

The current pumping capacity for the Base Zone is 40.4 MGD (The total Base Zone well capacity minus the Acanto, Chino Booster and Southridge "A" capacity). Since all service capacity must be met by the Base Zone pumping capacity, all of the existing units are using 84% of the total capacity of the Base Zone (34 MGD ÷ 40.4 MGD). The total maximum capacity units for the zone is then equal to 22,641, or (19,019 ÷ 0.84).

Facility costs were determined by analyzing facility cost valuation from Agency Annual Operating Statistics Reports, cost estimates prepared in conjunction with the currently proposed budget and rate study, and by assessing the current facilities using the 2008 General Plan Update. The facilities cost valuation per capacity unit was determined from the total number of capacity units and the facilities costs.

The Base Zone charge is composed of costs per capacity unit for production (wells and boosters), treatment, surface water, storage and transmission facilities assignable to the Base Zone service.

BASE ZONE PUMPING/WATER PRODUCTION COST

In order to calculate the cost of pumping water per capacity unit we first determine the cost of those facilities from approved capital improvement budgets. The ratio of plant cost to horsepower is determined.

DESCRIPTION	YEAR CONSTRUCTED	PUMPING PLANT HORSEPOWER	PUMPING PLANT COST*
Well 39	2010	450 HP Pumping Plant	$1,320,156.59
Well 40	2009	450 HP Pumping Plant	$1,498,356.82
Well 41	2006	450 HP Pumping Plant	$1,561,858.76
Well 42	2006	200 HP Pumping Plant	$1,175,156.15
TOTAL		**1,550 HP**	**$5,555,528.32**

* Current Capital Improvement Budget Amounts for Pumping Plants.

The most current pumping plant estimated costs are used to determine the ratio of pumping plant cost to unit of horsepower from the table above. The unit cost of pumping per horsepower is $5,555,528.32/1,550 hp= $3,584/hp. By applying this ratio to each active pumping plant the cost of each plant and the zone system pumping cost is determined.

Similarly, the cost of pressure boosting facilities is determined.

DESCRIPTION	YEAR CONSTRUCTED	BOOSTER PLANT HORSEPOWER	BOOSTER PLANT COST*
Zone 1240 Booster	2016	80 HP Booster Plant	$950,000
Janis Tuscany Booster Upgrades	2016	225 HP Booster Pumping Plant	$230,000
TOTAL		**305 HP**	**$1,180,000**

* Actual project costs, unadjusted for present value.

The most current pumping plant costs are used to determine the ratio of booster pumping plant cost to unit of horsepower from the table above. The unit cost of booster pumping per horsepower is $1,180,000/305 hp= $3,869/hp. By applying this ratio to each active pumping plant the cost of each plant and the zone's booster pumping cost is determined.

BASE ZONE PUMPING COSTS

WELL/BOOSTER BASE ZONES	DESCRIPTION	PLANT HORSEPOWER	ZONE PUMPING COST ($3,584/HP)
Well 14	Well Pumping Plants	200	$716,800
Well 16	Well Pumping Plants	250	$896,000
Well 20	Well Pumping Plants	300	$1,075,200
Well 22	Well Pumping Plants	500	$1,792,000
Well 23	Well Pumping Plants	300	$1,075,200
Well 24	Well Pumping Plants	500	$1,792,000
Well 27	Well Pumping Plants	400	$1,433,600
Well 28	Well Pumping Plants	400	$1,433,600
Well 29	Well Pumping Plants	400	$1,433,600
Well 32	Well Pumping Plants	400	$1,433,600
Well 33	Well Pumping Plants	400	$1,433,600
Well 34	Well Pumping Plants	400	$1,433,600
Well 37	Well Pumping Plants	450	$1,612,800
Well 38	Well Pumping Plants	450	$1,612,800
Well 39	Well Pumping Plants	450	$1,612,800
Well 40	Well Pumping Plants	450	$1,612,800
Well 14 Booster	Booster Plant	210	$812,490*
Well 16 Booster	Booster Plant	210	$812,490*
TOTAL			**$24,489,260**

*$3,869/HP Unit Cost of Booster Pumping Per Horsepower.

The Base Zone uses 78.9% (40.4 ÷ 51.2) of the Base Zone total well capacity, therefore, the cost of production per capacity unit is $24,489,260 (0.789) ÷ 22,641 C.U. = **$853/C.U.**

BASE ZONE WATER TREATMENT COSTS

In order to calculate the cost of water treatment per capacity unit we first determine the cost of those facilities from actual project costs. The Base Zone includes:

FOREBAY TREATMENT

DESCRIPTION	YEAR CONSTRUCTED	*FOREBAY COST
Well 14 Forebay	1993	$376,750
Well 16 Forebay	1993	$376,750
TOTAL		**$753,500**

Since the Base Zone uses 78.9% of total pumping capacity, the cost of forebay treatment per capacity unit is therefore, $753,500 (0.789) ÷ 22,641 C.U.= **$26/C.U**.

CHLORINE INJECTION TREATMENT

DESCRIPTION	NUMBER OF ACTIVE SITES	AVG. COST PER SITE	ZONE PUMPING COST (ACTUAL)
Chlorine storage building and pad, injection vault	12	$30,440	$365,280
TOTAL			**$365,280**

*Based on average construction cost per site to install chlorine injection facilities.

Since the Base Zone uses 78.9% of pumping capacity, the cost of chlorine injection treatment per capacity unit is therefore, $365,280 (0.789) ÷ 22,641 C.U. = **$12/C.U.**

UV TREATMENT

DESCRIPTION	YEAR CONSTRUCTED	*FOREBAY COST
UV Treatment (Snow Creek/Falls Creek)	2014	$317,142
TOTAL		**$317,142**

*Actual project costs.

The UV treated surface water not only benefits the Base Zone, the water is also used by Snow Creek Village Zone and Chino Zone. The Base Zone and Chino Zones will use 38% of the total

stream capacity (0.69 ÷ 1.81); therefore, the cost per capacity unit for the UV treatment per capacity unit is $317,142 (0.38) ÷ 30,494 C.U. = **$4/C.U.**

BASE ZONE SURFACE WATER COST

In order to calculate the cost of surface water per capacity unit we first determine the cost of those facilities from actual project costs. Surface water is transmitted from the diversions into the Base Zone where it is distributed to the zone.

DESCRIPTION	YEAR CONSTRUCTED	*SURFACE WATER FACILITY COST
Snow Creek Diversion	1990	$2,000,000
Falls Creek Diversion	1990	$1,300,000
TOTAL		**$3,300,000**

* Actual project costs, unadjusted for present value.

The surface water not only benefits the Base Zone, the water also serves the Snow Creek Village Zone and Chino Zone. The Base Zone and Chino Zones will use 38% of the total stream capacity (0.69 ÷ 1.81); therefore, the cost per capacity unit is $3,300,000 (0.38) ÷ 30,494 C.U. = **$41/C.U.**

BASE ZONE WATER STORAGE COSTS

In order to calculate the cost of water storage per capacity unit we first determine the cost of those facilities from actual project costs and approved capital improvement budgets. The ratio of storage cost to volume is determined.

DESCRIPTION	YEAR CONSTRUCTED	RESERVOIR STORAGE CAPACITY	RESERVOIR COST*
Tahquitz Reservoir II	2004	5,000,000 gallons	$2,299,785**
Zone 1060	2016	500,000 gallons	$1,544,800*
TOTAL		**5,500,000 gallons**	**$3,844,585**

*Revised Budget Amount for project.

** Actual project costs, unadjusted for present value.

The most current water storage estimated costs are used to determine the ratio of water storage cost to unit of storage volume from the table above. The unit cost of water storage per gallon is $3,844,585 ÷ 5,500,000 GAL= $0.70/GAL. By applying this ratio to each water storage reservoir, the cost of each reservoir and the entire zone's water storage costs are determined.

BASE ZONE WATER STORAGE COSTS

DESCRIPTION	WATER STORAGE CAPACITY (GAL.)	UNIT COST PER UNIT STORAGE ($/GAL.)	ZONE STORAGE COST
Palm Springs North I	1,500,000	0.70	$1,050,000
Palm Springs North II	12,000,000	0.70	$8,400,000
Tahquitz I	5,000,000	0.70	$3,500,000
Tahquitz II	5,000,000	0.70	$3,500,000
Palm Springs South I	5,000,000	0.70	$3,500,000
Palm Springs South II	5,000,000	0.70	$3,500,000
Equalization	1,000,000	0.70	$700,000*
TOTAL			**$24,150,000**

* The Equalization Reservoir serves the Base Zone, Snow Creek Village Zone, and the Chino Zone. The Base Zone and Chino Zones will use 83% of the total reservoir capacity.

The required storage for the Base Zone is 29.42 MG. The existing storage capacity for the Base Zone is 34.5 MG; therefore, the Base zone storage is 85.2% of existing storage, or (29.42 ÷ 34.5).

The cost of storage per capacity unit is therefore equal to $700,000 (0.83) ÷ 30,494 plus $23,450,000(0.852) ÷ 22,641 C.U.: $19 + $882 = **$901/C.U.**

FUTURE STORAGE CAPACITY REQUIREMENTS

The General Plan requires that the Agency have 18 hours ADD emergency storage, along with fire flow and equalization storage during energy Time of Use (T.O.U.) periods. The 18 hour ADD during T.O.U periods for the zone is 13.9 MG, or (18.6 x 0.75). The fire flow requirement for the zone is 1.92 MG (8,000 GPM for 4 hours per General Plan) and the equalization, or operational

storage is 40% of the MDD and is therefore equal to 13.6 MG. Adding all of these components equates to 29.42 MG of storage. The current storage capacity for the system is 34.5 MG.

The existing pumping capacity of the system will accommodate an additional 3,622 capacity units (22,641 – 19,019). These additional units will add 6.5 MGD to the MDD. This additional demand will increase the storage requirement to 34.5 MG, equaling the existing storage and therefore no future storage for the Base Zone is required.

BASE ZONE WATER TRANSMISSION MAIN COSTS

Historically, the Agency has calculated the cost of water transmission mains per capacity unit by determining the cost of those facilities from actual project costs and approved capital improvement budgets. The ratio of cost per lineal foot to diameter is determined.

DESCRIPTION	YEAR CONSTRUCTED	PIPELINE LENGTH (L.F.)	*PIPELINE COST	PIPELINE UNIT COST ($/L.F.)
12"Alejo/Tamarisk/ Indian Canyon	2012/2014/2015	4,958	$1,290,176	$260/L.F.
14"	-	-	-	-
15"	-	-	-	-
16" Sunny Dunes	2013	1,100	$301,462	$274/L.F.
18"	-	-	-	-
20" E. Well Field	-	-	-	-
24" E. Well Field	-	-	-	-
26"	-	-	-	-
30" N. Well Field	-	-	-	-
36" Avenida Caballeros	2014/2015	2,659	$2,509,219	$944/L.F.
42"	-	-	-	-

* Actual project cost, unadjusted for present value.

Due to the lack of current data available for the varying sizes of transmission mains in our system, the Agency has opted to utilize a "unit construction cost for pipelines" equation used by Eastern Municipal Water District (EMWD) in their 2015 rate study (study conducted by Kennedy/Jenks Consultants). Said equation assumes that unit cost ($/linear foot) = Diameter (inch) x 40.47 x

[Diameter (inch) ^-0.309]. Utilization of said equation allows the Agency to determine uniform unit construction estimates for all sizes of transmission mains in our system.

***ESTIMATED WATER TRANSMISSION MAIN UNIT CONSTRUCTION COSTS**

TRANSMISSION MAIN DIAMETER (INCHES)	TRANSMISSION MAIN LENGTH ($/L.F.)
12”	225
14”	250
15”	265
16”	275
18”	300
20”	320
24”	365
26”	385
30”	425
36”	480
42”	535

*Based on the following EMWD assumption: cost $/L.F. = Diameter (inch) x 40.47 x [Diameter (inch) ^-0.309].

The most current water transmission main estimated costs are used to determine the ratio of water main cost to diameter as shown in the table on the previous page. By applying these ratios to system transmission mains, the cost of all size mains for the entire system is determined by zone.

BASE ZONE WATER TRANSMISSION MAIN COSTS

TRANSMISSION MAIN DIAMETER (INCHES)	TRANSMISSION MAIN LENGTH (L.F.)	UNIT COST PER UNIT LENGTH ($/L.F.)	ZONE TRANSMISSION MAIN COST
***12"**	231,958	225	$52,190,550
14"	2,570	250	$642,500
16"	28,442	275	$7,821,550
20"	9,580	320	$3,065,600
24"	20,727	365	$7,565,355
26"	2,620	385	$1,008,700
30"	50,993	425	$21,672,025
36"	30,618	480	$14,696,640
42"	70'	535	$37,450
****20"**	9,673	320	$3,095,360**
****24"**	37,551	365	$13,706,115**
TOTAL			**$108,700,370**

*Approximately 60% of all mains in the system are transmission mains with the remaining 40% being distribution mains. Therefore, only 60% of the total mains are included in the above table.

**Main that serves surface water to both the Base Zone and the Chino Zone. The cost of this main was not added to the total. The total capacity units that benefit from this main is 30,494.

Since the Base Zone uses 78.9% of pumping capacity, the cost of transmission mains per capacity unit for the mains only in the Base Zone is therefore, $108,700,370 (0.789) ÷ 22,641 C.U.= **$3,788/C.U.**

The cost of transmission mains per capacity units for the Base Zone and Chino Zone mains is therefore, $16,801,475 ÷ 30,494 C.U. = **$550/C.U.**

COST PER ZONE SUMMARY

ZONE	WATER PRODUCTION COST	TREATMENT COST	SURFACE WATER COST	STORAGE COST	TRANSMISSION COST	TOTAL CAPACITY UNIT COST
Base	$853	$42	$41	$901	$4,338	$6,175

The cost of a 1-inch service in the zone is comprised of the cumulative capacity unit costs for water production, treatment, surface water, storage and transmission facilities.

In order to determine the capacity unit cost for each meter size the AWWA meter factors are used. The table below shows the capacity unit charge (Backup Facility Charge) per meter size.

BASE ZONE FINAL BACKUP FACILITY CHARGE COST SUMMARY

METER SIZE	AWWA METER FACTOR	BACKUP FACILITY CHARGE
3/4 X 5/8	0.4	$2,470
1	**1.0**	**$6,175**
1.5	2.0	$12,350
2	3.2	$19,760

CHINO ZONE

The existing capacity units (C.U.) for the Chino Zone is 2,887. To determine the total capacity units for the zone, we must first calculate the max demand day (MDD) value utilizing the current General Plan formula:

- MDD = 1.85 x Average Day Annual Demand (ADD)

Using annual production data from 2017, the ADD calculated for the zone equals 3.1 MGD, therefore, the MDD is equal to 5.7 MGD. If the MDD is equal to 5.7 MGD, the current gal/C.U./day is equal to 1,975 gal/C.U./day, or (5.7 MGD ÷ 2,887).

The current pumping capacity for the Chino Zone is 10 MGD (The total of Chino Zone well capacity and the Chino Booster capacity minus the Chino "A" booster capacity). Since all service capacity must be met by the Chino Zone pumping capacity, all of the existing units are using 57%

of the total capacity of the Chino Zone (5.7 MGD ÷ 10 MGD). The total maximum capacity units for the zone is then equal to 5,064, or (2,887 ÷ 0.57).

Facility costs were determined by analyzing facility cost valuation from Agency Annual Operating Statistics Reports, cost estimates prepared in conjunction with the currently proposed budget and rate study, and by assessing the current facilities using the 2008 General Plan Update. The facilities cost valuation per capacity unit was determined from the total number of capacity units and the facilities costs.

The Chino Zone charge is composed of costs per capacity unit for production (wells and boosters), treatment, surface water, storage and transmission facilities assignable to the Chino Zone service.

CHINO ZONE PUMPING/WATER PRODUCTION COST

In order to calculate the cost of pumping water per capacity unit we first determine the cost of those facilities from approved capital improvement budgets. The ratio of plant cost to horsepower is determined.

DESCRIPTION	YEAR CONSTRUCTED	PUMPING PLANT HORSEPOWER	PUMPING PLANT COST*
Well 39	2010	450 HP Pumping Plant	$1,320,156.59
Well 40	2009	450 HP Pumping Plant	$1,498,356.82
Well 41	2006	450 HP Pumping Plant	$1,561,858.76
Well 42	2006	200 HP Pumping Plant	$1,175,156.15
TOTAL		**1,550 HP**	**$5,555,528.32**

* Current Capital Improvement Budget Amounts for Pumping Plants.

The most current pumping plant estimated costs are used to determine the ratio of pumping plant cost to unit of horsepower from the table above. The unit cost of pumping per horsepower is $5,555,528.32 ÷ 1,550 hp= $3,584/hp. By applying this ratio to each active pumping plant the cost of each plant and the zone system pumping cost is determined.

Similarly, the cost of pressure boosting facilities is determined.

DESCRIPTION	YEAR CONSTRUCTED	BOOSTER PLANT HORSEPOWER	BOOSTER PLANT COST*
Zone 1240 Booster	2016	80 HP Booster Plant	$950,000
Janis Tuscany Booster Upgrades	2016	225 HP Booster Pumping Plant	$230,000
TOTAL		**305 HP**	**$1,180,000**

* Actual project costs, unadjusted for present value.

The most current pumping plant costs are used to determine the ratio of booster pumping plant cost to unit of horsepower from the table above. The unit cost of booster pumping per horsepower is $1,180,000 ÷ 305 hp= $3,869/hp. By applying this ratio to each active pumping plant the cost of each plant and the zone's booster pumping cost is determined.

CHINO ZONE PUMPING COSTS

WELL/BOOSTER BASE ZONES	DESCRIPTION	PLANT HORSEPOWER	ZONE PUMPING COST ($3,584/HP)
Well 21	Well Pumping Plants	300	$1,075,200
Well 30	Well Pumping Plants	400	$1,433,600
Well 35	Well Pumping Plants	400	$1,433,600
Chino Booster	Booster Plants	475	$1,837,775*
TOTAL			**$5,780,175**

*$3,869/HP Unit Cost of Booster Pumping Per Horsepower.

The Chino Zone uses 78% of the total zone capacity (12.8-2.8) ÷ 12.8, where 12.8 MGD is the total capacity of the wells and chino booster and 2.8 MGD is the capacity needed for Chino "A" Zone; therefore, the cost of production per capacity unit for the Chino Zone wells and booster is $5,780,175 (0.78) ÷ 5,064 C.U. = **$890/C.U.** plus a component cost of the Base Zone pumping since Chino Boosters are used to pump Base Zone water to the Chino Zone.

The Chino Zone uses 8.3% of the Base Zone wells (5.5-1.2) ÷ 51.2, where 5.5 MGD is the Chino Booster capacity, 1.2 MGD is the capacity provided to Chino "A" zone, and 51.2 MGD is the total Base Zone capacity; therefore, the component cost of production per capacity unit is ($24,489,260 (0.083) ÷ 5,064 = **$401/C.U.**

CHINO ZONE WATER TREATMENT COSTS

Since Base Zone water is pumped to the Chino Zone, the treatment costs for the Chino Zone is a component of the Base Zone treatment costs and any additional treatment facilities associated with the Chino Zone.

CHINO ZONE CHLORINE INJECTION TREATMENT

DESCRIPTION	NUMBER OF ACTIVE SITES	AVG. COST PER SITE	ZONE PUMPING COST (ACTUAL)
Chlorine storage building and pad, injection vault	2	$30,440	$60,880
TOTAL			**$60,880**

*Based on average construction cost per site to install chlorine injection facilities.

The Chino Zone uses 78% of the total zone capacity (12.8-2.8) ÷ 12.8, where 12.8 MGD is the total capacity of the wells and booster and 2.8 MGD is the capacity needed for Chino "A" Zone; therefore, the cost of treatment per capacity unit for the Chino Zone facilities is $60,880 (0.78) ÷ 5,064 C.U. = **$9/C.U.**

BASE ZONE FOREBAY TREATMENT

DESCRIPTION	YEAR CONSTRUCTED	*FOREBAY COST
Well 14 Forebay	1993	$376,750
Well 16 Forebay	1993	$376,750
TOTAL		**$753,500**

BASE ZONE CHLORINE INJECTION TREATMENT

DESCRIPTION	NUMBER OF ACTIVE SITES	AVG. COST PER SITE	ZONE PUMPING COST (ACTUAL)
Chlorine storage building and pad, injection vault	12	$30,440	$365,280
TOTAL			**$365,280**

*Based on average construction cost per site to install chlorine injection facilities.

The Chino Zone uses 8.3% of the Base Zone wells (5.5-1.2) ÷ 51.2, where 5.5 MGD is the Chino Booster capacity, 1.2 MGD is the capacity provided to Chino "A" zone, and 51.2 is the total Base Zone capacity; therefore, the component costs of treatment per capacity unit for the Base Zone facilities are $753,500 (0.083) ÷ 5,064 = **$12/C.U.** and $365,280 (0.083) ÷ 5,064 = **$5/C.U.**

UV TREATMENT

DESCRIPTION	YEAR CONSTRUCTED	*FOREBAY COST
UV Treatment (Snow Creek/Falls Creek)	2014	$317,142
TOTAL		**$317,142**

*Actual project costs.

The UV treated surface water not only benefits the Chino Zone, the water is also used by Snow Creek Village Zone and Base Zone. The Base Zone and Chino Zones will use 38% of the total stream capacity (0.69 ÷ 1.81); therefore, the component cost per capacity unit for the UV treatment per capacity unit is therefore, $317,142 (0.38) ÷ 30,494 C.U. = **$4/C.U.**

CHINO ZONE SURFACE WATER COST

In order to calculate the cost of surface water per capacity unit we first determine the cost of those facilities from actual project costs. Surface water is transmitted from the diversions into the Base Zone where it is distributed to the zone.

DESCRIPTION	YEAR CONSTRUCTED	*SURFACE WATER FACILITY COST
Snow Creek Diversion	1990	$2,000,000
Falls Creek Diversion	1990	$1,300,000
TOTAL		**$3,300,000**

* Actual project costs, unadjusted for present value.

The surface water not only benefits the Chino Zone, the water also serves the Snow Creek Village Zone and Base Zone. The Base Zone and Chino Zones will use 38% of the total stream capacity (0.69 ÷ 1.81); therefore, the component cost per capacity unit is $3,300,000 (0.38) ÷ 30,494 C.U. = **$41/C.U.**

CHINO ZONE WATER STORAGE COSTS

In order to calculate the cost of water storage per capacity unit we first determine the cost of those facilities from actual project costs and approved capital improvement budgets. The ratio of storage cost to volume is determined.

DESCRIPTION	YEAR CONSTRUCTED	RESERVOIR STORAGE CAPACITY	RESERVOIR COST*
Tahquitz Reservoir II	2004	5,000,000 gallons	$2,299,785**
Zone 1060	2016	500,000 gallons	$1,544,800*
TOTAL		**5,500,000 gallons**	**$3,844,585**

*Revised Budget Amount for project.

** Actual project costs, unadjusted for present value.

The most current water storage estimated costs are used to determine the ratio of water storage cost to unit of storage volume from the table above. The unit cost of water storage per gallon is $3,844,585 ÷ 5,500,000 GAL= $0.70/GAL. By applying this ratio to each water storage reservoir, the cost of each reservoir and the entire zone's water storage costs are determined.

CHINO ZONE WATER STORAGE COSTS

DESCRIPTION	WATER STORAGE CAPACITY (GAL.)	UNIT COST PER UNIT STORAGE ($/GAL.)	ZONE STORAGE COST
Chino II	3,500,000	0.70	$2,450,000
Chino III	3,500,000	0.70	$2,450,000
TOTAL			**$4,900,000**

The required storage for the Chino Zone is 5.54 MG. The existing storage capacity for the Chino Zone is 7.0 MG; therefore, the Chino Zone storage is 79.1% of existing storage (5.54 ÷ 7.0); therefore, the cost of storage per capacity unit for the Chino Zone facilities is $4,900,000 (0.791) ÷ 5,064 C.U.= **$765/C.U.** plus the component cost of the Base Zone storage since Chino Zone utilizes Base Zone water.

BASE ZONE WATER STORAGE COSTS

DESCRIPTION	WATER STORAGE CAPACITY (GAL.)	UNIT COST PER UNIT STORAGE ($/GAL.)	ZONE STORAGE COST
Palm Springs North I	1,500,000	0.70	$1,050,000
Palm Springs North II	12,000,000	0.70	$8,400,000
Tahquitz I	5,000,000	0.70	$3,500,000
Tahquitz II	5,000,000	0.70	$3,500,000
Palm Springs South I	5,000,000	0.70	$3,500,000
Palm Springs South II	5,000,000	0.70	$3,500,000
Equalization	1,000,000	0.70	$700,000*
TOTAL			**$24,150,000**

* The Equalization Reservoir serves the Base Zone, Snow Creek Village Zone, and the Chino Zone. The Base Zone and Chino Zones will use 83% of the total reservoir capacity.

The required storage for the Chino Zone is 5.54 MG. The Chino Booster provides 43% of the Chino Zone storage; therefore, the amount of storage from the Base Zone is 2.38 MG, or (5.54 x 0.43). The existing storage capacity for the Base Zone is 34.5 MG; therefore, the Chino Zone storage is 6.9% of Base Zone storage (2.38 ÷ 34.5).

The cost of storage per capacity is therefore equal to the component of the Equalization Reservoir and the Base Zone storage, or $700,000 (0.83) ÷ 30,494 plus $23,450,000 (0.069) ÷ 5,064 C.U.: $19 + 319 = **$338/C.U.**

FUTURE STORAGE CAPACITY REQUIREMENTS

The General Plan requires that the Agency have 18 hours ADD emergency storage, along with fire flow and equalization storage during energy Time of Use (T.O.U.) periods. The 18 hour ADD during T.O.U periods for the zone is 2.3 MG (3.1 x 0.75). The fire flow requirement for the zone is 0.96 MG (4,000 GPM for 4 hours per General Plan) and the equalization, or operational storage is 40% of the MDD and is therefore equal to 2.28 MG. Adding all of these components equates to 5.54 MG of storage. The current storage capacity for the system is 7.0 MG.

The existing pumping capacity of the system will accommodate an additional 2,177 capacity units (5,064 – 2,887). These additional units will add 4.3 MGD to the MDD. This additional demand will increase the storage requirement to 9.0 MG, requiring 2.0 MG of additional storage (9.0 – 7.0). The cost for the additional storage will be $1,400,000, or ($0.70/gal x 2.0 MG). The cost of future storage per capacity unit is therefore, $1,400,000 ÷ 5,064 C.U. = **$276/C.U.**

CHINO ZONE WATER TRANSMISSION MAIN COSTS

Historically, the Agency has calculated the cost of water transmission mains per capacity unit by determining the cost of those facilities from actual project costs and approved capital improvement budgets. The ratio of cost per lineal foot to diameter is determined.

DESCRIPTION	YEAR CONSTRUCTED	PIPELINE LENGTH (L.F.)	*PIPELINE COST	PIPELINE UNIT COST ($/L.F.)
12"Alejo/Tamarisk/ Indian Canyon	2012/2014/2015	4,958	$1,290,176	$260/L.F.
14"	-	-	-	-
15"	-	-	-	-
16" Sunny Dunes	2013	1,100	$301,462	$274/L.F.
18"	-	-	-	-
20" E. Well Field	-	-	-	-
24" E. Well Field	-	-	-	-
26"	-	-	-	-
30" N. Well Field	-	-	-	-
36" Avenida Caballeros	2014/2015	2,659	$2,509,219	$944/L.F.
42"	-	-	-	-

* Actual project cost, unadjusted for present value.

Due to the lack of current data available for the varying sizes of transmission mains in our system, the Agency has opted to utilize a "unit construction cost for pipelines" equation used by Eastern Municipal Water District (EMWD) in their 2015 rate study (study conducted by Kennedy/Jenks Consultants). Said equation assumes that unit cost ($/linear foot) = Diameter (inch) x 40.47 x

[Diameter (inch) ^-0.309]. Utilization of said equation allows the Agency to determine uniform unit construction estimates for all sizes of transmission mains in our system.

***ESTIMATED WATER TRANSMISSION MAIN UNIT CONSTRUCTION COSTS**

TRANSMISSION MAIN DIAMETER (INCHES)	TRANSMISSION MAIN LENGTH ($/L.F.)
12”	225
14”	250
15”	265
16”	275
18”	300
20”	320
24”	365
26”	385
30”	425
36”	480
42”	535

*Based on the following EMWD assumption: cost $/L.F. = Diameter (inch) x 40.47 x [Diameter (inch) ^-0.309].

The most current water transmission main estimated costs are used to determine the ratio of water main cost to diameter as shown in the table on the previous page. By applying these ratios to system transmission mains, the cost of all size mains for the entire system is determined by zone.

CHINO ZONE WATER TRANSMISSION MAIN COSTS

TRANSMISSION MAIN DIAMETER (INCHES)	TRANSMISSION MAIN LENGTH (L.F.)	UNIT COST PER UNIT LENGTH ($/L.F.)	ZONE TRANSMISSION MAIN COST
***12"**	26,436	225	$5,948,100
15"	940	265	$249,100
16"	4,117	275	$1,132,175
18"	5,927	300	$1,778.100
20"	1,610	320	$515,200
24"	14,021	365	$5,117,665
30"	3,400	425	$1,445,000
****20"**	9,673	320	$3,095,360**
****24"**	37,551	365	$13,706,115**
TOTAL			**$16,185,340**

*Approximately 60% of all mains in the system are transmission mains with the remaining 40% being distribution mains. Therefore, only 60% of the total mains are included in the above table.

**Main that serves surface water to both the Base Zone and the Chino Zone. The cost of this main was not added to the total. The total capacity units that benefit from this main is 30,494.

The Chino Zone uses 78% of the total capacity (12.8-2.8) ÷ 12.8, where 12.8 is the total capacity of the wells and booster and 2.8 is the capacity needed for Chino "A" Zone; therefore, the cost of transmission per capacity unit for the Chino Zone mains is $16,185,340 (0.78) ÷ 5,064 C.U. = **$2,493/C.U**. plus a component of the Base Zone mains cost since Chino Boosters are used to pump Base Zone water to the Chino Zone.

The Chino Zone uses 8.3% of the Base Zone wells (5.5-1.2) ÷ 51.2, where 5.5 MGD is the Chino Booster capacity and 1.2 MGD is the capacity provided to Chino "A" zone; therefore, the component cost of transmission mains per capacity unit for the Base Zone facilities is ($108,700,370 (0.083) ÷ 5,064 = **$1,781/C.U.**

The component cost of transmission mains per capacity units for the shared Base Zone and Chino Zone mains is therefore, $16,801,475 ÷ 30,494 C.U. = **$550/C.U.**

COST PER ZONE SUMMARY

ZONE	WATER PRODUCTION COST	TREATMENT COST	SURFACE WATER COST	STORAGE COST	TRANSMISSION COST	TOTAL CAPACITY UNIT COST
Chino	$1,291	$30	$41	$1,379	$4,824	$7,565

The cost of a 1-inch service in the zone is comprised of the cumulative capacity unit costs for water production, treatment, surface water, storage and transmission facilities.

In order to determine the capacity unit cost for each meter size the AWWA meter factors are used. The table below shows the capacity unit charge (Backup Facility Charge) per meter size.

CHINO ZONE FINAL BACKUP FACILITY CHARGE COST SUMMARY

METER SIZE	AWWA METER FACTOR	BACKUP FACILITY CHARGE
3/4 X 5/8	0.4	$3,026
1	**1.0**	**$7,565**
1.5	2.0	$15,130
2	3.2	$24,208

CHINO "A" ZONE

The existing capacity units (C.U.) for the Chino "A" Zone is 182. To determine the total capacity units for the zone, we must first calculate the max demand day (MDD) value utilizing the current General Plan formula:

- MDD = 1.85 x Average Day Annual Demand (ADD)

Using annual production data from 2017, the ADD calculated for the zone equals 0.13 MGD, therefore, the MDD is equal to 0.24 MGD. If the MDD is equal to 0.24 MGD, the current gal/C.U./day is equal to 1,318 gal/C.U./day, or (0.24 MGD ÷ 182).

The current pumping capacity for the Chino "A" Zone is 2.8 MGD; however, 1.1 MGD is dedicated to Chino "B" Zone. The pumping capacity for Chino "A" Zone is therefore 1.7 MGD (2.8 - 1.1). Since all service capacity must be met by the Chino "A" Zone pumping capacity, all of the existing units are using 14.1% of the total capacity of the Chino "A" Zone (0.24 MGD ÷ 1.7 MGD). The total maximum capacity units for the zone is then equal to 1,290, or (182 ÷ 0.141).

Facility costs were determined by analyzing facility cost valuation from Agency Annual Operating Statistics Reports, cost estimates prepared in conjunction with the currently proposed budget and rate study, and by assessing the current facilities using the 2008 General Plan Update. The facilities cost valuation per capacity unit was determined from the total number of capacity units and the facilities costs.

The Chino "A" Zone charge is composed of costs per capacity unit for production (wells and boosters), treatment, surface water, storage and transmission facilities assignable to the Chino "A" Zone service.

CHINO "A" ZONE PUMPING/WATER PRODUCTION COST

In order to calculate the cost of pumping water per capacity unit we first determine the cost of those facilities from approved capital improvement budgets. The ratio of plant cost to horsepower is determined.

DESCRIPTION	YEAR CONSTRUCTED	PUMPING PLANT HORSEPOWER	PUMPING PLANT COST*
Well 39	2010	450 HP Pumping Plant	$1,320,156.59
Well 40	2009	450 HP Pumping Plant	$1,498,356.82
Well 41	2006	450 HP Pumping Plant	$1,561,858.76
Well 42	2006	200 HP Pumping Plant	$1,175,156.15
TOTAL		**1,550 HP**	**$5,555,528.32**

* Current Capital Improvement Budget Amounts for Pumping Plants.

The most current pumping plant estimated costs are used to determine the ratio of pumping plant cost to unit of horsepower from the table above. The unit cost of pumping per horsepower is $5,555,528.32 ÷ 1,550 hp= $3,584/hp. By applying this ratio to each active pumping plant the cost of each plant and the zone system pumping cost is determined.

Similarly, the cost of pressure boosting facilities is determined.

DESCRIPTION	YEAR CONSTRUCTED	BOOSTER PLANT HORSEPOWER	BOOSTER PLANT COST*
Zone 1240 Booster	2016	80 HP Booster Plant	$950,000
Janis Tuscany Booster Upgrades	2016	225 HP Booster Pumping Plant	$230,000
TOTAL		**305 HP**	**$1,180,000**

* Actual project costs, unadjusted for present value.

The most current pumping plant costs are used to determine the ratio of booster pumping plant cost to unit of horsepower from the table above. The unit cost of booster pumping per horsepower is $1,180,000 ÷ 305 hp= $3,869/hp. By applying this ratio to each active pumping plant the cost

of each plant and the zone's booster pumping cost is determined. Since Chino "A" Zone is provided water by booster pumps only, we will only be using the booster pump costs.

CHINO "A" ZONE PUMPING COSTS

WELL/BOOSTER BASE ZONES	DESCRIPTION	PLANT HORSEPOWER	ZONE PUMPING COST ($3,869/HP)
Janis Tuscany	Booster Plant	150	$580,350
TOTAL			**$580,350**

The Chino "A" Zone uses 60.7% of the total capacity (1.7 ÷ 2.8), where 2.8 MGD is the total capacity of the booster and 1.7 MGD is the capacity needed for Chino "A" Zone; therefore, the cost of production per capacity unit for the Chino "A" Zone booster is $580,350 (0.607) ÷ 1,290 C.U.= **$273/C.U.** plus the component cost of the Chino Zone pumping and Base Zone pumping since Chino Zone and Base Zone water is pumped to the Chino "A" Zone.

The Chino "A" Zone uses 13.3% of the Chino Zone capacity (2.8-1.1) ÷ 12.8, where 2.8 MGD is the Chino "A" Booster capacity, 1.1 MGD is the Chino "B" zone capacity, and 12.8 MGD is the capacity provided to Chino "A" zone by the Chino Zone booster; therefore, the component cost of production per capacity unit for the Chino "A" Zone is ($5,780,175 (0.133) ÷ 1,290 = **$595/C.U**

The Chino "A" Zone uses 2.3% of the Base Zone pumping capacity (1.2 ÷ 51.2), where 1.2 MGD is the capacity provided to Chino "A" Zone by the Base Zone wells and 51.2 MGD is the capacity of the Base Zone; therefore, the component cost of production per capacity unit for the Chino "A" Zone is ($24,489,260 (0.023) ÷ 1,290 = **$436/C.U**

CHINO "A" ZONE WATER TREATMENT COSTS

Since Base Zone and Chino Zone water is pumped to the Chino "A" Zone, the treatment costs for the Chino "A" Zone is a component of the Base Zone treatment costs, Chino Zone treatment costs and any additional treatment facilities associated with the Chino "A" Zone.

CHINO ZONE CHLORINE INJECTION TREATMENT

DESCRIPTION	NUMBER OF ACTIVE SITES	AVG. COST PER SITE	ZONE PUMPING COST (ACTUAL)
Chlorine storage building and pad, injection vault	2	$30,440	$60,880
TOTAL			**$60,880**

*Based on average construction cost per site to install chlorine injection facilities.

BASE ZONE FOREBAY TREATMENT

DESCRIPTION	YEAR CONSTRUCTED	*FOREBAY COST
Well 14 Forebay	1993	$376,750
Well 16 Forebay	1993	$376,750
TOTAL		**$753,500**

BASE ZONE CHLORINE INJECTION TREATMENT

DESCRIPTION	NUMBER OF ACTIVE SITES	AVG. COST PER SITE	ZONE PUMPING COST (ACTUAL)
Chlorine storage building and pad, injection vault	12	$30,440	$365,280
TOTAL			**$365,280**

*Based on average construction cost per site to install chlorine injection facilities.

The Chino "A" Zone uses 13.3% of the Chino Zone capacity (2.8-1.1) ÷ 12.8, where 2.8 MGD is the Chino "A" Booster capacity, 1.1 MGD is the Chino "B" zone capacity, and 12.8 MGD is the capacity provided to Chino "A" zone by the Chino Zone booster; therefore, the component cost of treatment per capacity unit for the Chino "A" Zone is $60,880 (0.133) ÷ 1,290 = **$6/C.U**

The Chino "A" Zone uses 2.3% of the Base Zone pumping capacity (1.2 ÷ 51.2), where 1.2 MGD is the capacity provided to Chino "A" Zone by the Base Zone wells and 51.2 MGD is the capacity of the Base Zone; therefore, the component cost of treatment per capacity unit for the Chino "A" Zone is ($753,500 + $365,280) (0.023) ÷ 1,290 = **$19/C.U**

U.V TREATMENT

DESCRIPTION	YEAR CONSTRUCTED	*FOREBAY COST
UV Treatment (Snow Creek/Falls Creek)	2014	$317,142
TOTAL		**$317,142**

*Actual project costs.

The UV treated surface water not only benefits the Chino "A" Zone, the water is also used by Snow Creek Village Zone and Base Zone. The Base Zone and Chino Zones will use 38% of the total stream capacity (0.69 ÷ 1.81); therefore, the component cost per capacity unit for the UV treatment per capacity unit is therefore, $317,142 (0.38) ÷ 30,494 C.U. = **$4/C.U.**

CHINO "A" ZONE SURFACE WATER COST

In order to calculate the cost of surface water per capacity unit we first determine the cost of those facilities from actual project costs. Surface water is transmitted from the diversions into the Base Zone where it is distributed to the zone.

DESCRIPTION	YEAR CONSTRUCTED	*SURFACE WATER FACILITY COST
Snow Creek Diversion	1990	$2,000,000
Falls Creek Diversion	1990	$1,300,000
TOTAL		**$3,300,000**

* Actual project costs, unadjusted for present value.

The surface water not only benefits the Chino "A" Zone, the water also serves the Snow Creek Village Zone and Base Zone. The Base Zone and Chino Zones will use 38% of the total stream

capacity (0.69 ÷ 1.81); therefore, the component cost per capacity unit is $3,300,000 (0.38) ÷ 30,494 C.U. = **$41/C.U.**

CHINO "A" ZONE WATER STORAGE COSTS

In order to calculate the cost of water storage per capacity unit we first determine the cost of those facilities from actual project costs and approved capital improvement budgets. The ratio of storage cost to volume is determined.

DESCRIPTION	YEAR CONSTRUCTED	RESERVOIR STORAGE CAPACITY	RESERVOIR COST*
Tahquitz Reservoir II Zone 1060	2004 2016	5,000,000 gallons 500,000 gallons	$2,299,785** $1,544,800*
TOTAL		**5,500,000 gallons**	**$3,844,585**

*Revised Budget Amount for project.

** Actual project costs, unadjusted for present value.

The most current water storage estimated costs are used to determine the ratio of water storage cost to unit of storage volume from the table above. The unit cost of water storage per gallon is $3,844,585 ÷ 5,500,000 GAL= $0.70/GAL. By applying this ratio to each water storage reservoir, the cost of each reservoir and the entire zone's water storage costs are determined.

CHINO "A" ZONE WATER STORAGE COSTS

DESCRIPTION	WATER STORAGE CAPACITY (GAL.)	UNIT COST PER UNIT STORAGE ($/GAL.)	ZONE STORAGE COST
Desert Palisade Res.	500,000	0.70	$350,000
TOTAL			**$350,000**

The required storage for the Chino "A" Zone is 0.42 MG. The existing storage capacity for the Chino "A" Zone is 0.50 MG; therefore, the Chino "A" Zone storage is 84% of existing storage (0.42 ÷ 0.50); therefore, the cost of storage per capacity unit for the Chino "A" Zone facilities is $350,000 (0.84) ÷ 1,290 C.U. = **$227/C.U.** plus the component cost of the Base Zone and Chino Zone storage since Chino "A" Zone utilizes those zones for water.

CHINO ZONE WATER STORAGE COSTS

DESCRIPTION	WATER STORAGE CAPACITY (GAL.)	UNIT COST PER UNIT STORAGE ($/GAL.)	ZONE STORAGE COST
Chino II	3,500,000	0.70	$2,450,000
Chino III	3,500,000	0.70	$2,450,000
TOTAL			**$4,900,000**

BASE ZONE WATER STORAGE COSTS

DESCRIPTION	WATER STORAGE CAPACITY (GAL.)	UNIT COST PER UNIT STORAGE ($/GAL.)	ZONE STORAGE COST
Palm Springs North I	1,500,000	0.70	$1,050,000
Palm Springs North II	12,000,000	0.70	$8,400,000
Tahquitz I	5,000,000	0.70	$3,500,000
Tahquitz II	5,000,000	0.70	$3,500,000
Palm Springs South I	5,000,000	0.70	$3,500,000
Palm Springs South II	5,000,000	0.70	$3,500,000
Equalization	1,000,000	0.70	$700,000*
TOTAL			**$24,150,000**

* The Equalization Reservoir serves the Base Zone, Snow Creek Village Zone, and the Chino Zones. The Base Zone and Chino Zones will use 83% of the total reservoir capacity.

The required storage for the Chino "A" Zone is 6% of the Chino Zone total storage capacity (0.42 ÷ 7.0); therefore, the component cost of storage per capacity unit for Chino "A" Zone is $4,900,000 (0.06) ÷ 1,290 C.U.= **$227/C.U.**.

Since the Chino Booster provides 43% of the water to the Chino Zone, only 43% of the required storage will be provided from the Chino Booster. The percentage of water from the Base Zone is 0.5% or (0.42 x 43%) ÷ 34.5; therefore, the component cost of storage per capacity unit for the Chino "A" Zone is $23,450,000 (0.005) ÷ 1,290 C.U. = **$90/C.U.**.

The component cost of storage per capacity for the Equalization Reservoir is equal to $700,000 (0.83) ÷ 30,494 = **$19/C.U.**

FUTURE STORAGE CAPACITY REQUIREMENTS

The General Plan requires that the Agency have 18 hours ADD emergency storage, along with fire flow and equalization storage during energy Time of Use (T.O.U.) periods. The 18 hour ADD during T.O.U periods is 0.09 MG (0.13 x 0.75). The fire flow requirement for the system is 0.24 MG (2,000 GPM for 2 hours per General Plan) and the equalization, or operational storage is 40% of the MDD and is therefore equal to 0.09 MG. Adding all of these components equates to 0.42 MG of storage. The current storage capacity for the system is 0.50 MG.

The existing pumping capacity of the system will accommodate an additional 1,108 capacity units (1,290 - 182). These additional units will add 1.5 MGD to the MDD. This additional demand will increase the storage requirement to 2.5 MG, requiring 2.0 MG of additional storage (2.5 – 0.5). The cost for the additional storage will be $1,400,000, or ($0.70/gal x 2.0 MG). The cost of future storage per capacity unit is therefore, $1,400,000 ÷ 1,290 C.U. = **$1,085/C.U.**

CHINO "A" WATER TRANSMISSION MAIN COSTS

Historically, the Agency has calculated the cost of water transmission mains per capacity unit by determining the cost of those facilities from actual project costs and approved capital improvement budgets. The ratio of cost per lineal foot to diameter is determined.

DESCRIPTION	YEAR CONSTRUCTED	PIPELINE LENGTH (L.F.)	*PIPELINE COST	PIPELINE UNIT COST ($/L.F.)
12"Alejo/Tamarisk/ Indian Canyon	2012/2014/2015	4,958	$1,290,176	$260/L.F.
14"	-	-	-	-
15"	-	-	-	-
16" Sunny Dunes	2013	1,100	$301,462	$274/L.F.
18"	-	-	-	-
20" E. Well Field	-	-	-	-
24" E. Well Field	-	-	-	-
26"	-	-	-	-
30" N. Well Field	-	-	-	-
36" Avenida Caballeros	2014/2015	2,659	$2,509,219	$944/L.F.
42"	-	-	-	-

* Actual project cost, unadjusted for present value.

Due to the lack of current data available for the varying sizes of transmission mains in our system, the Agency has opted to utilize a "unit construction cost for pipelines" equation used by Eastern Municipal Water District (EMWD) in their 2015 rate study (study conducted by Kennedy/Jenks Consultants). Said equation assumes that unit cost ($/linear foot) = Diameter (inch) x 40.47 x [Diameter (inch) $^{\wedge -0.309}$]. Utilization of said equation allows the Agency to determine uniform unit construction estimates for all sizes of transmission mains in our system.

***ESTIMATED WATER TRANSMISSION MAIN UNIT CONSTRUCTION COSTS**

TRANSMISSION MAIN DIAMETER (INCHES)	**TRANSMISSION MAIN LENGTH ($/L.F.)**
12"	225
14"	250
15"	265
16"	275
18"	300
20"	320
24"	365
26"	385
30"	425
36"	480
42"	535

*Based on the following EMWD assumption: cost $/L.F. = Diameter (inch) x 40.47 x [Diameter (inch) $^{\wedge -0.309}$].

The most current water transmission main estimated costs are used to determine the ratio of water main cost to diameter as shown in the table on the previous page. By applying these ratios to system transmission mains, the cost of all size mains for the entire system is determined by zone.

CHINO "A" ZONE WATER TRANSMISSION MAIN COSTS

TRANSMISSION MAIN DIAMETER (INCHES)	TRANSMISSION MAIN LENGTH (L.F.)	UNIT COST PER UNIT LENGTH ($/L.F.)	ZONE TRANSMISSION MAIN COST
***12"**	6,493	225	$1,460,925
16"	3,782	275	$1,040,050
18"	1,600	300	$480,000
24"	3,600	365	$1,314,000
TOTAL			**$4,294,975**

*Approximately 60% of all mains in the system are transmission mains with the remaining 40% being distribution mains. Therefore, only 60% of the total mains are included in the above table.

The Chino "A" Zone uses 60.7% of the total capacity (1.7 ÷ 2.8), where 2.8 MGD is the total capacity of the booster and 1.7 MGD is the capacity needed for Chino "A" Zone; therefore, the cost of transmission mains per capacity unit for the Chino "A" Zone is $4,294,975 (0.607) ÷ 1,290 C.U.= **$2,020/C.U.** plus a component cost of the Chino Zone and Base Zone transmission main since Chino and Base Zone water is pumped to the Chino "A" Zone.

The Chino "A" Zone uses 13.3% of the Chino Zone capacity (2.8-1.1) ÷ 12.8, where 2.8 MGD is the Chino "A" Booster capacity, 1.1 MGD is the Chino "B" zone capacity, and 12.8 MGD is the capacity provided to Chino "A" zone by the Chino Zone booster; therefore, the component cost of transmission mains per capacity unit for the Chino "A" Zone is $16,185,340 (0.133) ÷ 1,290 = **$1,668/C.U**

The Chino "A" Zone uses 2.3% of the Base Zone pumping capacity (1.2 ÷ 51.2), where 1.2 MGD is the capacity provided to Chino "A" Zone by the Base Zone wells and 51.2 MGD is the capacity of the Base Zone; therefore, the component cost of transmission mains per capacity unit for the Chino "A" Zone is $108,700,370 (0.023) ÷ 1,290 = **$1,938/C.U**

The component cost of transmission mains per capacity units for the mains that serve the Chino "A" Zone for surface water is $16,801,475 ÷ 30,494 C.U. = **$550/C.U.**

COST PER ZONE SUMMARY

ZONE	WATER PRODUCTION COST	TREATMENT COST	SURFACE WATER COST	STORAGE COST	TRANSMISSION COST	TOTAL CAPACITY UNIT COST
Chino "A"	$1,304	$29	$41	$1,648	$6,176	$9,198

The cost of a 1-inch service in the zone is comprised of the cumulative capacity unit costs for water production, treatment, surface water, storage and transmission facilities.

In order to determine the capacity unit cost for each meter size the AWWA meter factors are used. The table below shows the capacity unit charge (Backup Facility Charge) per meter size.

CHINO "A" ZONE FINAL BACKUP FACILITY CHARGE COST SUMMARY

METER SIZE	AWWA METER FACTOR	BACKUP FACILITY CHARGE
3/4 X 5/8	0.4	$3,679
1	**1.0**	**$9,198**
1.5	2.0	$18,396
2	3.2	$29,433

CHINO "B" ZONE

The existing capacity units (C.U.) for the Chino "B" Zone is 54. To determine the total capacity units for the zone, we must first calculate the max demand day (MDD) value utilizing the current General Plan formula:

- MDD = 1.85 x Average Day Annual Demand (ADD)

Currently, there are no active services connected to this zone. If we assume that the gal/c.u./day is equal to Chino "A" Zone, 1,318, the MDD is equal to 0.071 MGD.

The current pumping capacity for the Chino "B" Zone is 1.1 MGD. Since all service capacity must be met by the Chino "B" Zone pumping capacity, all of the current units would use 6.45% of the

total capacity of the Chino "B" Zone (0.071 MGD÷1.1 MGD). The total maximum capacity units for the zone is then equal to 837, or (54÷0.0645).

Facility costs were determined by analyzing facility cost valuation from Agency Annual Operating Statistics Reports, cost estimates prepared in conjunction with the currently proposed budget and rate study, and by assessing the current facilities using the 2008 General Plan Update. The facilities cost valuation per capacity unit was determined from the total number of capacity units and the facilities costs.

The Chino "B" Zone charge is composed of costs per capacity unit for production (wells and boosters), treatment, surface water, storage and transmission facilities assignable to the Chino "B" Zone service.

CHINO "B" ZONE PUMPING/WATER PRODUCTION COST

In order to calculate the cost of pumping water per capacity unit we first determine the cost of those facilities from approved capital improvement budgets. The ratio of plant cost to horsepower is determined.

DESCRIPTION	YEAR CONSTRUCTED	PUMPING PLANT HORSEPOWER	PUMPING PLANT COST*
Well 39	2010	450 HP Pumping Plant	$1,320,156.59
Well 40	2009	450 HP Pumping Plant	$1,498,356.82
Well 41	2006	450 HP Pumping Plant	$1,561,858.76
Well 42	2006	200 HP Pumping Plant	$1,175,156.15
TOTAL		**1,550 HP**	**$5,555,528.32**

* Current Capital Improvement Budget Amounts for Pumping Plants.

The most current pumping plant estimated costs are used to determine the ratio of pumping plant cost to unit of horsepower from the table above. The unit cost of pumping per horsepower is $5,555,528.32 ÷ 1,550 hp= $3,584/hp. By applying this ratio to each active pumping plant the cost of each plant and the zone system pumping cost is determined.

Similarly, the cost of pressure boosting facilities is determined.

DESCRIPTION	YEAR CONSTRUCTED	BOOSTER PLANT HORSEPOWER	BOOSTER PLANT COST*
Zone 1240 Booster	2016	80 HP Booster Plant	$950,000
Janis Tuscany Booster Upgrades	2016	225 HP Booster Pumping Plant	$230,000
TOTAL		**305 HP**	**$1,180,000**

* Actual project costs, unadjusted for present value.

The most current pumping plant costs are used to determine the ratio of booster pumping plant cost to unit of horsepower from the table above. The unit cost of booster pumping per horsepower is $1,180,000 ÷ 305 hp= $3,869/hp. By applying this ratio to each active pumping plant the cost of each plant and the zone's booster pumping cost is determined. Since Chino "B" Zone is provided water by booster pumps, we will only be using the booster pump costs.

CHINO "B" ZONE PUMPING COSTS

WELL/BOOSTER BASE ZONES	DESCRIPTION	PLANT HORSEPOWER	ZONE PUMPING COST ($3,869/HP)
Desert Palisade	Booster Plant	80	$309,520
TOTAL			**$309,520**

The cost of production per capacity unit is $309,520 ÷ 837 C.U. = **$369/C.U**. plus a component cost of the Chino "A" Zone, Chino Zone, and Base Zone pumping.

The Chino "B" Zone uses 39.2% of the Chino "A" pumping capacity (1.1 ÷ 2.8), where 2.8 MGD is the total capacity of the Chino "A" booster and 1.1 MGD is the capacity of the Chino "B" Zone; therefore, the component cost of production per capacity unit for the Chino "B" Zone is $580,350 (0.392) ÷ 837 C.U.= **$271/C.U.**

The Chino "B" Zone uses 8.5% of the Chino Zone pumping capacity (1.1 ÷ 12.8), where 12.8 MGD is the Chino Booster capacity, 1.1 MGD is the Chino "B" zone capacity; therefore, the component cost of production per capacity unit for the Chino "B" Zone is $5,780,175 (0.085) ÷ 837 = **$586/C.U**

The Chino "B" Zone uses 0.92% of the Base Zone pumping capacity (0.47 ÷ 51.2), where 0.47 MGD is the capacity provided to Chino "B" Zone by the Base Zone and 51.2 MGD is the capacity of the Base Zone; therefore, the component cost of production per capacity unit for the Chino "B" Zone is $24,489,260 (0.0092) ÷ 837 = **$263/C.U**

CHINO "B" ZONE WATER TREATMENT COSTS

Since Base Zone, Chino Zone, and Chino "A" Zone water is pumped to the Chino "B" Zone, the treatment costs for the Chino "B" Zone is a component of the Base Zone treatment costs, Chino Zone treatment costs, Chino "A" Zone treatment costs and any additional treatment facilities associated with the Chino "B" Zone.

CHINO ZONE CHLORINE INJECTION TREATMENT

DESCRIPTION	NUMBER OF ACTIVE SITES	AVG. COST PER SITE	ZONE PUMPING COST (ACTUAL)
Chlorine storage building and pad, injection vault	2	$30,440	$60,880
TOTAL			**$60,880**

*Based on average construction cost per site to install chlorine injection facilities.

BASE ZONE FOREBAY TREATMENT

DESCRIPTION	YEAR CONSTRUCTED	*FOREBAY COST
Well 14 Forebay	1993	$376,750
Well 16 Forebay	1993	$376,750
TOTAL		**$753,500**

BASE ZONE CHLORINE INJECTION TREATMENT

DESCRIPTION	NUMBER OF ACTIVE SITES	AVG. COST PER SITE	ZONE PUMPING COST (ACTUAL)
Chlorine storage building and pad, injection vault	12	$30,440	$365,280
TOTAL			**$365,280**

*Based on average construction cost per site to install chlorine injection facilities.

The Chino "B" Zone uses 8.5% of the Chino Zone capacity (1.1 ÷ 12.8), where 1.1 MGD is the Chino "B" zone capacity, and 12.8 MGD is the capacity provided by the Chino Zone booster; therefore, the component cost of treatment per capacity unit for the Chino "B" Zone is $60,880 (0.085) ÷ 837 = **$6/C.U**

The Chino "B" Zone uses 0.92% of the Base Zone pumping capacity (0.47 ÷ 51.2), where 0.47 MGD is the capacity provided to Chino "B" Zone by the Base Zone wells and 51.2 MGD is the capacity of the Base Zone; therefore, the component cost of treatment per capacity unit for the Chino "B" Zone is ($753,500 + $365,280) (0.0092) ÷ 837 = **$12/C.U**

UV TREATMENT

DESCRIPTION	YEAR CONSTRUCTED	*FOREBAY COST
UV Treatment (Snow Creek/Falls Creek)	2014	$317,142
TOTAL		**$317,142**

*Actual project costs.

The UV treated surface water not only benefits the Chino "B" Zone, the water is also used by Snow Creek Village Zone and Base Zone. The Base Zone and Chino Zones will use 38% of the total stream capacity (0.69 ÷ 1.81); therefore, the component cost per capacity unit for the UV treatment per capacity unit is therefore, $317,142 (0.38) ÷ 30,494 C.U. = **$4/C.U.**

CHINO "B" ZONE SURFACE WATER COST

In order to calculate the cost of surface water per capacity unit we first determine the cost of those facilities from actual project costs. Surface water is transmitted from the diversions into the Base Zone where it is distributed to the zone.

DESCRIPTION	YEAR CONSTRUCTED	*SURFACE WATER FACILITY COST
Snow Creek Diversion	1990	$2,000,000
Falls Creek Diversion	1990	$1,300,000
TOTAL		**$3,300,000**

* Actual project costs, unadjusted for present value.

The surface water not only benefits the Chino "B" Zone, the water also serves the Snow Creek Village Zone and Base Zone. The Base Zone and Chino Zones will use 38% of the total stream capacity (0.69 ÷ 1.81); therefore, the component cost per capacity unit is $3,300,000 (0.38) ÷ 30,494 C.U. = **$41/C.U.**

CHINO "B" ZONE WATER STORAGE COSTS

In order to calculate the cost of water storage per capacity unit we first determine the cost of those facilities from actual project costs and approved capital improvement budgets. The ratio of storage cost to volume is determined.

DESCRIPTION	YEAR CONSTRUCTED	RESERVOIR STORAGE CAPACITY	RESERVOIR COST*
Tahquitz Reservoir II	2004	5,000,000 gallons	$2,299,785**
Zone 1060	2016	500,000 gallons	$1,544,800*
TOTAL		**5,500,000 gallons**	**$3,844,585**

*Revised Budget Amount for project.

** Actual project costs, unadjusted for present value.

The most current water storage estimated costs are used to determine the ratio of water storage cost to unit of storage volume from the table above. The unit cost of water storage per gallon is $3,844,585 ÷ 5,500,000 GAL= $0.70/GAL. By applying this ratio to each water storage reservoir, the cost of each reservoir and the entire zone's water storage costs are determined.

CHINO "A" ZONE WATER STORAGE COSTS

DESCRIPTION	WATER STORAGE CAPACITY (GAL.)	UNIT COST PER UNIT STORAGE ($/GAL.)	ZONE STORAGE COST
Desert Palisade Res.	500,000	0.70	$350,000
TOTAL			**$350,000**

The required storage for the Chino "B" Zone is 0.28 MG. The existing storage capacity for the Chino "B" Zone is 0.50 MG; therefore, the Chino "B" Zone storage is 56% of existing storage (0.28 ÷ 0.50); therefore, the cost of storage per capacity unit for the Chino "B" Zone is $350,000

(0.56) ÷ 857 C.U. = **$228/C.U.** plus the component cost of the Base Zone and Chino Zone storage since Chino "B" Zone utilizes those zones for water.

CHINO ZONE WATER STORAGE COSTS

DESCRIPTION	WATER STORAGE CAPACITY (GAL.)	UNIT COST PER UNIT STORAGE ($/GAL.)	ZONE STORAGE COST
Chino II	3,500,000	0.70	$2,450,000
Chino III	3,500,000	0.70	$2,450,000
TOTAL			**$4,900,000**

BASE ZONE WATER STORAGE COSTS

DESCRIPTION	WATER STORAGE CAPACITY (GAL.)	UNIT COST PER UNIT STORAGE ($/GAL.)	ZONE STORAGE COST
Palm Springs North I	1,500,000	0.70	$1,050,000
Palm Springs North II	12,000,000	0.70	$8,400,000
Tahquitz I	5,000,000	0.70	$3,500,000
Tahquitz II	5,000,000	0.70	$3,500,000
Palm Springs South I	5,000,000	0.70	$3,500,000
Palm Springs South II	5,000,000	0.70	$3,500,000
Equalization	1,000,000	0.70	$700,000*
TOTAL			**$24,150,000**

* The Equalization Reservoir serves the Base Zone, Snow Creek Village Zone, and the Chino Zones. The Base Zone and Chino Zones will use 83% of the total reservoir capacity.

The required storage for the Chino "B" Zone is 4% of the Chino Zone total storage capacity (0.28 ÷ 7.0); therefore, the component cost of storage per capacity unit for the Chino "B" Zone is $4,900,000 (0.04) ÷ 837 C.U.= **$234/C.U.**.

Since the Chino Booster provides 43% of the water to the Chino Zone, only 43% of the required storage will be provided from the Chino Booster. The percentage of water from the Base Zone is

0.3% or (0.28 x 43%) ÷ 34.5, therefore, the component cost of storage per capacity unit for the Chino "B" Zone is $23,450,000 (0.003) ÷ 837 C.U. = **$84/C.U.**.

The component cost of storage per capacity for the Equalization Reservoir is equal to $700,000 (0.83) ÷ 30,494 = **$19/C.U.**

FUTURE STORAGE CAPACITY REQUIREMENTS

The General Plan requires that the Agency have 18 hours ADD emergency storage, along with fire flow and equalization storage during energy Time of Use (T.O.U.) periods. The 18 hour ADD during T.O.U periods is 0.02 MG (0.03 x 0.75). The fire flow requirement for the system is 0.24 MG (2,000 GPM for 2 hours per General Plan) and the equalization, or operational storage is 40% of the MDD and is therefore equal to 0.02 MG. Adding all of these components equates to 0.28 MG of storage. The current storage capacity for the system is 0.50 MG.

The existing pumping capacity of the system will accommodate an additional 783 capacity units (837 - 54). These additional units will add 1.03 MGD to the MDD. This additional demand will increase the storage requirement to 1.07 MG, requiring 0.57 MG of additional storage (1.07 – 0.5). The cost for the additional storage will be $1,400,000, or ($0.70/gal x 2.0 MG). The cost of future storage per capacity unit is therefore, $570,000 ÷ 837 C.U. = **$681/C.U.**

CHINO "B" WATER TRANSMISSION MAIN COSTS

Historically, the Agency has calculated the cost of water transmission mains per capacity unit by determining the cost of those facilities from actual project costs and approved capital improvement budgets. The ratio of cost per lineal foot to diameter is determined.

DESCRIPTION	YEAR CONSTRUCTED	PIPELINE LENGTH (L.F.)	*PIPELINE COST	PIPELINE UNIT COST ($/L.F.)
12"Alejo/Tamarisk/ Indian Canyon	2012/2014/2015	4,958	$1,290,176	$260/L.F.
14"	-	-	-	-
15"	-	-	-	-
16" Sunny Dunes	2013	1,100	$301,462	$274/L.F.
18"	-	-	-	-
20" E. Well Field	-	-	-	-
24" E. Well Field	-	-	-	-
26"	-	-	-	-
30" N. Well Field	-	-	-	-
36" Avenida Caballeros	2014/2015	2,659	$2,509,219	$944/L.F.
42"	-	-	-	-

* Actual project cost, unadjusted for present value.

Due to the lack of current data available for the varying sizes of transmission mains in our system, the Agency has opted to utilize a "unit construction cost for pipelines" equation used by Eastern Municipal Water District (EMWD) in their 2015 rate study (study conducted by Kennedy/Jenks Consultants). Said equation assumes that unit cost ($/linear foot) = Diameter (inch) x 40.47 x [Diameter (inch) $^{\wedge -0.309}$]. Utilization of said equation allows the Agency to determine uniform unit construction estimates for all sizes of transmission mains in our system.

***ESTIMATED WATER TRANSMISSION MAIN UNIT CONSTRUCTION COSTS**

TRANSMISSION MAIN DIAMETER (INCHES)	**TRANSMISSION MAIN LENGTH ($/L.F.)**
12"	225
14"	250
15"	265
16"	275
18"	300
20"	320
24"	365
26"	385
30"	425
36"	480
42"	535

*Based on the following EMWD assumption: cost $/L.F. = Diameter (inch) x 40.47 x [Diameter (inch) $^{\wedge -0.309}$].

The most current water transmission main estimated costs are used to determine the ratio of water main cost to diameter as shown in the table on the previous page. By applying these ratios to system transmission mains, the cost of all size mains for the entire system is determined by zone.

Since the same transmission mains are used by both Chino "B" and Chino A" Zones, the capacity unit cost for Chino "B" Zone will be based on a component cost of Chino "A" Zone, Chino Zone, and Base Zone values.

CHINO "A" ZONE WATER TRANSMISSION MAIN COSTS

TRANSMISSION MAIN DIAMETER (INCHES)	TRANSMISSION MAIN LENGTH (L.F.)	UNIT COST PER UNIT LENGTH ($/L.F.)	ZONE TRANSMISSION MAIN COST
***12"**	6,493	225	$1,460,925
16"	3,782	275	$1,040,050
18"	1,600	300	$480,000
24"	3,600	365	$1,314,000
TOTAL			**$4,294,975**

*Approximately 60% of all mains in the system are transmission mains with the remaining 40% being distribution mains. Therefore, only 60% of the total mains are included in the above table.

The Chino "B" Zone uses 39.2% of the total capacity (1.1 ÷ 2.8), where 2.8 MGD is the total capacity of the booster and 1.1 MGD is the capacity needed for Chino "B" Zone; therefore, the component cost of transmission mains per capacity unit for the Chino "B" Zone is $4,294,975 (0.392) ÷ 837 C.U.= **$2,011/C.U.**

The Chino "B" Zone uses 8.6% of the Chino Zone capacity (1.1 ÷ 12.8), where 1.1 MGD is the Chino "B" zone capacity, and 12.8 MGD is the capacity provided to Chino "A" zone by the Chino Zone booster; therefore, the component cost of transmission mains per capacity unit for the Chino "B" Zone is $16,185,340 (0.086) ÷ 837 = **$1,663/C.U**

The Chino "B" Zone uses 0.92% of the Base Zone pumping capacity (0.47 ÷ 51.2), where 0.47 MGD is the capacity provided to Chino "B" Zone by the Base Zone wells and 51.2 MGD is the capacity of the Base Zone; therefore, the component cost of transmission mains per capacity unit for the Chino "B" Zone is ($108,700,370 (0.009) ÷ 837 = **$1,168/C.U**

The component cost of transmission mains per capacity units for the mains that serve the Chino "B" Zone for surface water is $16,801,475 ÷ 30,494 C.U. = **$550/C.U.**

COST PER ZONE SUMMARY

ZONE	WATER PRODUCTION COST	TREATMENT COST	SURFACE WATER COST	STORAGE COST	TRANSMISSION COST	TOTAL CAPACITY UNIT COST
Chino "B"	$1,489	$22	$41	$1,246	$5,392	$8,190

The cost of a 1-inch service in the zone is comprised of the cumulative capacity unit costs for water production, treatment, surface water, storage and transmission facilities.

In order to determine the capacity unit cost for each meter size the AWWA meter factors are used. The table below shows the capacity unit charge (Backup Facility Charge) per meter size.

CHINO "B" ZONE FINAL BACKUP FACILITY CHARGE COST SUMMARY

METER SIZE	AWWA METER FACTOR	BACKUP FACILITY CHARGE
3/4 X 5/8	0.4	$3,276
1	**1.0**	**$8,190**
1.5	2.0	$16,380
2	3.2	$26,208

ACANTO ZONE

The existing capacity units (C.U.) for the Acanto Zone is 478. To determine the total capacity units for the zone, we must first calculate the max demand day (MDD) value utilizing the current General Plan formula:

- MDD = 1.85 x Average Day Annual Demand (ADD)

Using annual production data from 2017, the ADD calculated for the zone equals 0.57 MGD, therefore, the MDD is equal to 1.05 MGD. If the MDD is equal to 1.05 MGD, the current gal/C.U./day is equal to 2,196 gal/C.U./day, or (1.05MGD ÷ 478).

The current pumping capacity for the Acanto Zone is 4.7 MGD. Since all service capacity must be met by the Acanto Zone pumping capacity, all of the existing units are using 22% of the total capacity of the Acanto Zone (1.05 MGD÷4.7 MGD). The total maximum capacity units for the zone is then equal to 2,172, or (478÷0.22).

Facility costs were determined by analyzing facility cost valuation from Agency Annual Operating Statistics Reports, cost estimates prepared in conjunction with the currently proposed budget and rate study, and by assessing the current facilities using the 2008 General Plan Update. The facilities cost valuation per capacity unit was determined from the total number of capacity units and the facilities costs.

The Acanto Zone charge is composed of costs per capacity unit for production (wells and boosters), treatment, surface water, storage and transmission facilities assignable to the Acanto Zone service.

ACANTO ZONE PUMPING/WATER PRODUCTION COST

In order to calculate the cost of pumping water per capacity unit we first determine the cost of those facilities from approved capital improvement budgets. The ratio of plant cost to horsepower is determined.

DESCRIPTION	YEAR CONSTRUCTED	PUMPING PLANT HORSEPOWER	PUMPING PLANT COST*
Well 39	2010	450 HP Pumping Plant	$1,320,156.59
Well 40	2009	450 HP Pumping Plant	$1,498,356.82
Well 41	2006	450 HP Pumping Plant	$1,561,858.76
Well 42	2006	200 HP Pumping Plant	$1,175,156.15
TOTAL		**1,550 HP**	**$5,555,528.32**

* Current Capital Improvement Budget Amounts for Pumping Plants.

The most current pumping plant estimated costs are used to determine the ratio of pumping plant cost to unit of horsepower from the table above. The unit cost of pumping per horsepower is $5,555,528.32 ÷ 1,550 hp= $3,584/hp. By applying this ratio to each active pumping plant the cost of each plant and the zone system pumping cost is determined.

Similarly, the cost of pressure boosting facilities is determined.

DESCRIPTION	YEAR CONSTRUCTED	BOOSTER PLANT HORSEPOWER	BOOSTER PLANT COST*
Zone 1240 Booster	2016	80 HP Booster Plant	$950,000
Janis Tuscany Booster Upgrades	2016	225 HP Booster Pumping Plant	$230,000
TOTAL		**305 HP**	**$1,180,000**

* Actual project costs, unadjusted for present value.

The most current pumping plant costs are used to determine the ratio of booster pumping plant cost to unit of horsepower from the table above. The unit cost of booster pumping per horsepower is $1,180,000 ÷ 305 hp= $3,869/hp. By applying this ratio to each active pumping plant the cost of each plant and the zone's booster pumping cost is determined. Since Acanto Zone is provided water by booster pumps, we will only be using the booster pump costs.

ACANTO ZONE PUMPING COSTS

WELL/BOOSTER BASE ZONES	DESCRIPTION	PLANT HORSEPOWER	ZONE PUMPING COST ($3,869/HP)
Acanto Booster	Booster Plant	300	$1,160,700
TOTAL			**$1,160,700**

The cost of production per capacity unit for the Acanto Zone is $1,160,700 ÷ 2,172 C.U.= **$534/C.U.** plus a component cost of the Base Zone pumping since Acanto Boosters are used to pump Base Zone water to the Acanto Zone.

The Acanto Zone uses 9.2% of the Base Zone wells (4.7 ÷ 51.2), where 4.7 MGD is the Acanto Booster capacity and 51.2 MGD is the Base Zone wells capacity; therefore, the component cost of production per capacity unit for the Base Zone wells is $24,489,260 (0.092) ÷ 2,172 = **$1,037/C.U**

ACANTO ZONE WATER TREATMENT COSTS

Since Base Zone water is pumped to the Acanto Zone, the treatment costs for the Acanto Zone is a component of the Base Zone treatment costs and any additional treatment facilities associated with the Acanto Zone.

BASE ZONE FOREBAY TREATMENT

DESCRIPTION	YEAR CONSTRUCTED	*FOREBAY COST
Well 14 Forebay	1993	$376,750
Well 16 Forebay	1993	$376,750
TOTAL		**$753,500**

BASE ZONE CHLORINE INJECTION TREATMENT

DESCRIPTION	NUMBER OF ACTIVE SITES	AVG. COST PER SITE	ZONE PUMPING COST (ACTUAL)
Chlorine storage building and pad, injection vault	12	$30,440	$365,280
TOTAL			**$365,280**

*Based on average construction cost per site to install chlorine injection facilities.

The Acanto Zone uses 9.2% of the Base Zone wells (4.7 ÷ 51.2), where 4.7 MGD is the Acanto Booster capacity and 51.2 MGD is the Base Zone wells capacity; therefore, the component cost of treatment per capacity unit for the Base Zone facilities is $753,500 (0.092) ÷ 2,172 = **$32/C.U.** and $365,280 (0.092) ÷ 2,172 = **$15/C.U.**

UV TREATMENT

DESCRIPTION	YEAR CONSTRUCTED	*FOREBAY COST
UV Treatment (Snow Creek/Falls Creek)	2014	$317,142
TOTAL		**$317,142**

*Actual project costs.

The UV treated surface water not only benefits the Acanto Zone, the water is also used by Snow Creek Village Zone and Base Zone. The Base Zone and Chino Zones will use 38% of the total stream capacity (0.69 ÷ 1.81); therefore, the component cost per capacity unit for the UV treatment per capacity unit is therefore, $317,142 (0.38) ÷ 30,494 C.U. = **$4/C.U.**

ACANTO ZONE SURFACE WATER COST

In order to calculate the cost of surface water per capacity unit we first determine the cost of those facilities from actual project costs. Surface water is transmitted from the diversions into the Base Zone where it is distributed to the zone.

DESCRIPTION	YEAR CONSTRUCTED	*SURFACE WATER FACILITY COST
Snow Creek Diversion	1990	$2,000,000
Falls Creek Diversion	1990	$1,300,000
TOTAL		**$3,300,000**

* Actual project costs, unadjusted for present value.

The surface water not only benefits the Acanto Zone, the water also serves the Snow Creek Village Zone and Chino Zone. The Base Zone and Chino Zones will use 38% of the total stream capacity (0.69 ÷ 1.81); therefore, the cost per capacity unit is $3,300,000 (0.38) ÷ 30,494 C.U. = **$41/C.U.**

ACANTO ZONE WATER STORAGE COSTS

In order to calculate the cost of water storage per capacity unit we first determine the cost of those facilities from actual project costs and approved capital improvement budgets. The ratio of storage cost to volume is determined.

DESCRIPTION	YEAR CONSTRUCTED	RESERVOIR STORAGE CAPACITY	RESERVOIR COST*
Tahquitz Reservoir II	2004	5,000,000 gallons	$2,299,785**
Zone 1060	2016	500,000 gallons	$1,544,800*
TOTAL		**5,500,000 gallons**	**$3,844,585**

*Revised Budget Amount for project.

** Actual project costs, unadjusted for present value.

The most current water storage estimated costs are used to determine the ratio of water storage cost to unit of storage volume from the table above. The unit cost of water storage per gallon is $3,844,585 ÷ 5,500,000 GAL= $0.70/GAL. By applying this ratio to each water storage reservoir, the cost of each reservoir and the entire zone's water storage costs are determined.

ACANTO ZONE WATER STORAGE COSTS

DESCRIPTION	WATER STORAGE CAPACITY (GAL.)	UNIT COST PER UNIT STORAGE ($/GAL.)	ZONE STORAGE COST
Andreas I	1,500,000	0.70	$1,050,000
Andreas II	1,500,000	0.70	$1,050,000
TOTAL			**$2,100,000**

The cost of storage per capacity unit for the Acanto Zone facilities is $2,100,000 ÷ 2,172 C.U.= **$967/C.U.** plus the component cost of the Base Zone storage since Acanto Zone utilizes Base Zone water.

BASE ZONE WATER STORAGE COSTS

DESCRIPTION	WATER STORAGE CAPACITY (GAL.)	UNIT COST PER UNIT STORAGE ($/GAL.)	ZONE STORAGE COST
Palm Springs North I	1,500,000	0.70	$1,050,000
Palm Springs North II	12,000,000	0.70	$8,400,000
Tahquitz I	5,000,000	0.70	$3,500,000
Tahquitz II	5,000,000	0.70	$3,500,000
Palm Springs South I	5,000,000	0.70	$3,500,000
Palm Springs South II	5,000,000	0.70	$3,500,000
Equalization	1,000,000	0.70	$700,000*
TOTAL			**$24,150,000**

* The Equalization Reservoir serves the Base Zone, Snow Creek Village Zone, and the Chino Zone. The Base Zone and Chino Zones will use 83% of the total reservoir capacity.

The required storage for the Acanto Zone is 1.08 MG. The existing storage capacity for the Base Zone is 34.5 MG; therefore, the Acanto Zone storage is 3.1% of Base Zone storage (1.08 ÷ 34.5).

The cost of storage per capacity is therefore equal to the component of the Equalization Reservoir and the Base Zone storage, or $700,000 (0.83) ÷ 30,494 plus $23,450,000 (0.031) ÷ 2,172 C.U.: $19 + 334 = **$353/C.U.**

FUTURE STORAGE CAPACITY REQUIREMENTS

The General Plan requires that the Agency have 18 hours ADD emergency storage, along with fire flow and equalization storage during energy Time of Use (T.O.U.) periods. The 18 hour ADD during T.O.U periods for the zone is 0.42 MG (.57 x 0.75). The fire flow requirement for the zone is 0.24 MG (2,000 GPM for 2 hours per General Plan) and the equalization, or operational storage is 40% of the MDD and is therefore equal to 0.42 MG. Adding all of these components equates to 1.08 MG of storage. The current storage capacity for the system is 3.0 MG.

The existing pumping capacity of the system will accommodate an additional 1,694 capacity units (2,172 - 478). These additional units will add 3.7 MGD to the MDD. This additional demand will increase the storage requirement to 4.07 MG, requiring 1.07 MG of additional storage (4.07 – 3.0). The cost for the additional storage will be $749,000, or ($0.70/gal x 1.07 MG). The cost of future storage per capacity unit is therefore, $749,000 ÷ 2,172 C.U. = **$345/C.U.**

ACANTO ZONE WATER TRANSMISSION MAIN COSTS

Historically, the Agency has calculated the cost of water transmission mains per capacity unit by determining the cost of those facilities from actual project costs and approved capital improvement budgets. The ratio of cost per lineal foot to diameter is determined.

DESCRIPTION	YEAR CONSTRUCTED	PIPELINE LENGTH (L.F.)	*PIPELINE COST	PIPELINE UNIT COST ($/L.F.)
12"Alejo/Tamarisk/ Indian Canyon	2012/2014/2015	4,958	$1,290,176	$260/L.F.
14"	-	-	-	-
15"	-	-	-	-
16" Sunny Dunes	2013	1,100	$301,462	$274/L.F.
18"	-	-	-	-
20" E. Well Field	-	-	-	-
24" E. Well Field	-	-	-	-
26"	-	-	-	-
30" N. Well Field	-	-	-	-
36" Avenida Caballeros	2014/2015	2,659	$2,509,219	$944/L.F.
42"	-	-	-	-

* Actual project cost, unadjusted for present value.

Due to the lack of current data available for the varying sizes of transmission mains in our system, the Agency has opted to utilize a "unit construction cost for pipelines" equation used by Eastern Municipal Water District (EMWD) in their 2015 rate study (study conducted by Kennedy/Jenks Consultants). Said equation assumes that unit cost ($/linear foot) = Diameter (inch) x 40.47 x [Diameter (inch) $^{\wedge -0.309}$]. Utilization of said equation allows the Agency to determine uniform unit construction estimates for all sizes of transmission mains in our system.

***ESTIMATED WATER TRANSMISSION MAIN UNIT CONSTRUCTION COSTS**

TRANSMISSION MAIN DIAMETER (INCHES)	TRANSMISSION MAIN LENGTH ($/L.F.)
12”	225
14”	250
15”	265
16”	275
18”	300
20”	320
24”	365
26”	385
30”	425
36”	480
42”	535

*Based on the following EMWD assumption: cost $/L.F. = Diameter (inch) x 40.47 x [Diameter (inch) $^{\sim -0.309}$].

The most current water transmission main estimated costs are used to determine the ratio of water main cost to diameter as shown in the table on the previous page. By applying these ratios to system transmission mains, the cost of all size mains for the entire system is determined by zone.

ACANTO ZONE WATER TRANSMISSION MAIN COSTS

TRANSMISSION MAIN DIAMETER (INCHES)	TRANSMISSION MAIN LENGTH (L.F.)	UNIT COST PER UNIT LENGTH ($/L.F.)	ZONE TRANSMISSION MAIN COST
***12”**	8,875	225	$1,996,200
16”	6,832	275	$1,878,800
24”	23	365	$8,395
****20”**	9,673	320	$3,095,360**
****24”**	37,551	365	$13,706,115**
TOTAL			**$3,888,395**

*Approximately 60% of all mains in the system are transmission mains with the remaining 40% being distribution mains. Therefore, only 60% of the total mains are included in the above table.

The cost of transmission per capacity unit for the Acanto Zone mains is $3,888,395 ÷ 2,172 C.U.= **$1,790/C.U**. plus a component of the Base Zone mains cost since Acanto Boosters are used to pump Base Zone water to the Acanto Zone.

The Acanto Zone uses 9.2% of the Base Zone wells (4.7 ÷ 51.2), where 4.7 MGD is the Acanto Booster capacity and 51.2MGD is the Base Zone wells capacity; therefore, the component cost of transmission mains per capacity unit for the Base Zone facilities is $108,700,370 (0.092) ÷ 2,172 = **$4,604/C.U.**

The component cost of transmission mains per capacity units for the shared Base Zone and Chino Zone mains is therefore, $16,801,475 ÷ 30,494 C.U. = **$550/C.U.**

COST PER ZONE SUMMARY

ZONE	WATER PRODUCTION COST	TREATMENT COST	SURFACE WATER COST	STORAGE COST	TRANSMISSION COST	TOTAL CAPACITY UNIT COST
Acanto	$1,571	$51	$41	$1,664	$6,944	$10,271

The cost of a 1-inch service in the zone is comprised of the cumulative capacity unit costs for water production, treatment, surface water, storage and transmission facilities.

In order to determine the capacity unit cost for each meter size the AWWA meter factors are used. The table below shows the capacity unit charge (Backup Facility Charge) per meter size.

ACANTO ZONE FINAL BACKUP FACILITY CHARGE COST SUMMARY

METER SIZE	AWWA METER FACTOR	BACKUP FACILITY CHARGE
3/4 X 5/8	0.4	$4,108
1	**1.0**	**$10,271**
1.5	2.0	$20,542
2	3.2	$32.867

SOUTHRIDGE "A" ZONE

The existing capacity units (C.U.) for the Southridge "A" Zone is 35. To determine the total capacity units for the zone, we must first calculate the max demand day (MDD) value utilizing the current General Plan formula:

- MDD = 1.85 x Average Day Annual Demand (ADD)

Using annual production data from 2017, the ADD calculated for the zone equals 0.04 MGD, therefore, the MDD is equal to 0.07 MGD. If the MDD is equal to 0.07 MGD, the current gal/C.U./day is equal to 2,000 gal/C.U./day, or (0.07MGD ÷ 35).

The current pumping capacity for the Southridge "A" Zone is 0.64 MGD; however, 0.44 MGD is dedicated to Southridge "B" Zone. The pumping capacity for Southridge "A" Zone is therefore 0.20 MGD (0.64 - 0.44). Since all service capacity must be met by the Southridge "A" Zone pumping capacity, all of the existing units are using 35% of the total capacity of the Southridge "A" Zone, or (0.07 MGD ÷ 0.20 MGD). The total maximum capacity units for the zone is then equal to 100, or (35 ÷ 0.35).

Facility costs were determined by analyzing facility cost valuation from Agency Annual Operating Statistics Reports, cost estimates prepared in conjunction with the currently proposed budget and rate study, and by assessing the current facilities using the 2008 General Plan Update. The facilities cost valuation per capacity unit was determined from the total number of capacity units and the facilities costs.

The Southridge "A" Zone charge is composed of costs per capacity unit for production (wells and boosters), treatment, surface water, storage and transmission facilities assignable to the Southridge "A" Zone service.

SOUTHRIDGE "A" ZONE PUMPING/WATER PRODUCTION COST

In order to calculate the cost of pumping water per capacity unit we first determine the cost of those facilities from approved capital improvement budgets. The ratio of plant cost to horsepower is determined.

DESCRIPTION	YEAR CONSTRUCTED	PUMPING PLANT HORSEPOWER	PUMPING PLANT COST*
Well 39	2010	450 HP Pumping Plant	$1,320,156.59
Well 40	2009	450 HP Pumping Plant	$1,498,356.82
Well 41	2006	450 HP Pumping Plant	$1,561,858.76
Well 42	2006	200 HP Pumping Plant	$1,175,156.15
TOTAL		**1,550 HP**	**$5,555,528.32**

* Current Capital Improvement Budget Amounts for Pumping Plants.

The most current pumping plant estimated costs are used to determine the ratio of pumping plant cost to unit of horsepower from the table above. The unit cost of pumping per horsepower is $5,555,528.32 ÷ 1,550 hp= $3,584/hp. By applying this ratio to each active pumping plant the cost of each plant and the zone system pumping cost is determined.

Similarly, the cost of pressure boosting facilities is determined.

DESCRIPTION	YEAR CONSTRUCTED	BOOSTER PLANT HORSEPOWER	BOOSTER PLANT COST*
Zone 1240 Booster	2016	80 HP Booster Plant	$950,000
Janis Tuscany Booster Upgrades	2016	225 HP Booster Pumping Plant	$230,000
TOTAL		**305 HP**	**$1,180,000**

* Actual project costs, unadjusted for present value.

The most current pumping plant costs are used to determine the ratio of booster pumping plant cost to unit of horsepower from the table above. The unit cost of booster pumping per horsepower is $1,180,000 ÷ 305 hp= $3,869/hp. By applying this ratio to each active pumping plant the cost of each plant and the zone's booster pumping cost is determined. Since Southridge "A" Zone is provided water by booster pumps, we will only be using the booster pump costs.

SOUTHRIDGE "A" ZONE PUMPING COSTS

WELL/BOOSTER BASE ZONES	DESCRIPTION	PLANT HORSEPOWER	ZONE PUMPING COST ($3,869/HP)
Araby	Booster Plant	50	$193,450
TOTAL			**$193,450**

The Southridge "A" Zone uses 31.3% of the Zone capacity (0.64 – 0.44) ÷ 0.64, where 0.64 MGD is the Southridge "A" Zone total pumping capacity and 0.44 MGD is the Southridge "B" Zone capacity; therefore, the component cost of production per capacity unit for the Southridge "A" Zone is $193,450 (0.313) ÷ 100 = **$605/C.U**

The Southridge "A" Zone uses 0.39% of the Base Zone pumping capacity (0.20 ÷ 51.2), where 0.20 MGD is the capacity provided to Southridge "A" Zone by the Base Zone wells and 51.2 MGD is the capacity of the Base Zone; therefore, the component cost of production per capacity unit for the Southridge "A" Zone is $24,489,260 (0.0039) ÷ 100 = **$955/C.U**

SOUTHRIDGE "A" ZONE WATER TREATMENT COSTS

Since Base Zone water is pumped to the Southridge "A" Zone, the treatment costs for the Southridge "A" Zone is a component of the Base Zone treatment costs and any additional treatment facilities associated with the Southridge "A" Zone.

BASE ZONE FOREBAY TREATMENT

DESCRIPTION	YEAR CONSTRUCTED	*FOREBAY COST
Well 14 Forebay	1993	$376,750
Well 16 Forebay	1993	$376,750
TOTAL		**$753,500**

BASE ZONE CHLORINE INJECTION TREATMENT

DESCRIPTION	NUMBER OF ACTIVE SITES	AVG. COST PER SITE	ZONE PUMPING COST (ACTUAL)
Chlorine storage building and pad, injection vault	12	$30,440	$365,280
TOTAL			**$365,280**

*Based on average construction cost per site to install chlorine injection facilities.

The Southridge "A" Zone uses 0.39% of the Base Zone pumping capacity (0.20 ÷ 51.2), where 0.20 MGD is the capacity provided to Southridge "A" Zone by the Base Zone wells and 51.2 MGD is the capacity of the Base Zone; therefore, the component cost of treatment per capacity unit for the Southridge "A" Zone is ($753,500 + $365,280) (0.0039) ÷ 100 = **$43/C.U**

U.V TREATMENT

DESCRIPTION	YEAR CONSTRUCTED	*FOREBAY COST
UV Treatment (Snow Creek/Falls Creek)	2014	$317,142
TOTAL		**$317,142**

*Actual project costs.

The UV treated surface water not only benefits the Southridge "A" Zone, the water is also used by Snow Creek Village Zone and Base Zone. The Base Zone and Chino Zones will use 38% of the total stream capacity (0.69 ÷ 1.81); therefore, the component cost per capacity unit for the UV treatment per capacity unit is therefore, $317,142 (0.38) ÷ 30,494 C.U. = **$4/C.U.**

SOUTHRIDGE "A" ZONE SURFACE WATER COST

In order to calculate the cost of surface water per capacity unit we first determine the cost of those facilities from actual project costs. Surface water is transmitted from the diversions into the Base Zone where it is distributed to the zone.

DESCRIPTION	YEAR CONSTRUCTED	*SURFACE WATER FACILITY COST
Snow Creek Diversion	1990	$2,000,000
Falls Creek Diversion	1990	$1,300,000
TOTAL		**$3,300,000**

* Actual project costs, unadjusted for present value.

The surface water not only benefits the Southridge "A" Zone, the water also serves the Snow Creek Village Zone and Base Zone. The Base Zone and Chino Zones will use 38% of the total stream capacity (0.69 ÷ 1.81); therefore, the component cost per capacity unit is $3,300,000 (0.38) ÷ 30,494 C.U. = **$41/C.U.**

SOUTHRIDGE "A" ZONE WATER STORAGE COSTS

In order to calculate the cost of water storage per capacity unit we first determine the cost of those facilities from actual project costs and approved capital improvement budgets. The ratio of storage cost to volume is determined.

DESCRIPTION	YEAR CONSTRUCTED	RESERVOIR STORAGE CAPACITY	RESERVOIR COST*
Tahquitz Reservoir II	2004	5,000,000 gallons	$2,299,785**
Zone 1060	2016	500,000 gallons	$1,544,800*
TOTAL		**5,500,000 gallons**	**$3,844,585**

*Revised Budget Amount for project.

** Actual project costs, unadjusted for present value.

The most current water storage estimated costs are used to determine the ratio of water storage cost to unit of storage volume from the table above. The unit cost of water storage per gallon is $3,844,585 ÷ 5,500,000 GAL= $0.70/GAL. By applying this ratio to each water storage reservoir, the cost of each reservoir and the entire zone's water storage costs are determined.

SOUTHRIDGE "A" ZONE WATER STORAGE COSTS

DESCRIPTION	WATER STORAGE CAPACITY (GAL.)	UNIT COST PER UNIT STORAGE ($/GAL.)	ZONE STORAGE COST
Southridge I	100,000	0.70	$70,000
Southridge II	300,000	0.70	$210,000
TOTAL			**$280,000**

The required storage for the Southridge "A" Zone is 0.30 MG. The existing storage capacity for the Southridge "A" Zone is 0.40 MG; therefore, the Southridge "A" Zone storage is 75% of existing storage (0.30 ÷ 0.40); therefore, the cost of storage per capacity unit for the Southridge "A" Zone facilities is $280,000 (0.75) ÷ 100 C.U. = **$2,100/C.U.** plus the component cost of the Base Zone storage since Southridge "A" Zone utilizes the Base Zone for water.

BASE ZONE WATER STORAGE COSTS

DESCRIPTION	WATER STORAGE CAPACITY (GAL.)	UNIT COST PER UNIT STORAGE ($/GAL.)	ZONE STORAGE COST
Palm Springs North I	1,500,000	0.70	$1,050,000
Palm Springs North II	12,000,000	0.70	$8,400,000
Tahquitz I	5,000,000	0.70	$3,500,000
Tahquitz II	5,000,000	0.70	$3,500,000
Palm Springs South I	5,000,000	0.70	$3,500,000
Palm Springs South II	5,000,000	0.70	$3,500,000
Equalization	1,000,000	0.70	$700,000*
TOTAL			**$24,150,000**

* The Equalization Reservoir serves the Base Zone, Snow Creek Village Zone, and the Chino Zones. The Base Zone and Chino Zones will use 83% of the total reservoir capacity.

The required storage for the Southridge "A" Zone is 0.80% of the Base Zone total storage capacity (0.30 ÷ 34.5); therefore, the component cost of storage per capacity unit for Southridge "A" Zone is $23,450,000 (0.008) ÷ 100 C.U.= **$1,876/C.U.**.
The component cost of storage per capacity for the Equalization Reservoir is equal to $700,000 (0.83) ÷ 30,494 = **$19/C.U.**

FUTURE STORAGE CAPACITY REQUIREMENTS

The General Plan requires that the Agency have 18 hours ADD emergency storage, along with fire flow and equalization storage during energy Time of Use (T.O.U.) periods. The 18 hour ADD during T.O.U periods for the zone is 0.03 MG (.04 x 0.75). The fire flow requirement for the zone is 0.24 MG (2,000 GPM for 2 hours per General Plan) and the equalization, or operational storage is 40% of the MDD and is therefore equal to 0.028 MG. Adding all of these components equates to 0.298 MG of storage. The current storage capacity for the system is 0.40 MG.

The existing pumping capacity of the system will accommodate an additional 65 capacity units (100 - 35). These additional units will add 0.13 MGD to the MDD. This additional demand will increase the storage requirement to 0.40 MG, equaling the existing storage and therefore no future storage for the Southridge "A" Zone is required.

SOUTHRIDGE "A" ZONE WATER TRANSMISSION MAIN COSTS

Historically, the Agency has calculated the cost of water transmission mains per capacity unit by determining the cost of those facilities from actual project costs and approved capital improvement budgets. The ratio of cost per lineal foot to diameter is determined.

DESCRIPTION	YEAR CONSTRUCTED	PIPELINE LENGTH (L.F.)	*PIPELINE COST	PIPELINE UNIT COST ($/L.F.)
12"Alejo/Tamarisk/ Indian Canyon	2012/2014/2015	4,958	$1,290,176	$260/L.F.
14"	-	-	-	-
15"	-	-	-	-
16" Sunny Dunes	2013	1,100	$301,462	$274/L.F.
18"	-	-	-	-
20" E. Well Field	-	-	-	-
24" E. Well Field	-	-	-	-
26"	-	-	-	-
30" N. Well Field	-	-	-	-
36" Avenida Caballeros	2014/2015	2,659	$2,509,219	$944/L.F.
42"	-	-	-	-

* Actual project cost, unadjusted for present value.

Due to the lack of current data available for the varying sizes of transmission mains in our system, the Agency has opted to utilize a "unit construction cost for pipelines" equation used by Eastern Municipal Water District (EMWD) in their 2015 rate study (study conducted by Kennedy/Jenks Consultants). Said equation assumes that unit cost ($/linear foot) = Diameter (inch) x 40.47 x [Diameter (inch) $^{\wedge -0.309}$]. Utilization of said equation allows the Agency to determine uniform unit construction estimates for all sizes of transmission mains in our system.

***ESTIMATED WATER TRANSMISSION MAIN UNIT CONSTRUCTION COSTS**

TRANSMISSION MAIN DIAMETER (INCHES)	TRANSMISSION MAIN LENGTH ($/L.F.)
12”	225
14”	250
15”	265
16”	275
18”	300
20”	320
24”	365
26”	385
30”	425
36”	480
42”	535

*Based on the following EMWD assumption: cost $/L.F. = Diameter (inch) x 40.47 x [Diameter (inch) $^{\sim -0.309}$].

The most current water transmission main estimated costs are used to determine the ratio of water main cost to diameter as shown in the table on the previous page. By applying these ratios to system transmission mains, the cost of all size mains for the entire system is determined by zone.

SOUTHRIDGE “A” ZONE WATER TRANSMISSION MAIN COSTS

TRANSMISSION MAIN DIAMETER (INCHES)	TRANSMISSION MAIN LENGTH (L.F.)	UNIT COST PER UNIT LENGTH ($/L.F.)	ZONE TRANSMISSION MAIN COST
12”	775	225	$174,375
TOTAL			**$174,375**

The Southridge “A” Zone uses 31.3% of the total capacity (0.20 ÷ 0.64), where 0.64 MGD is the total capacity of the Southridge “A” booster and 0.20 MGD is the capacity needed for Southridge “A” Zone; therefore, the cost of transmission mains per capacity unit for the Southridge “A” Zone is $174,375 (0.313) ÷ 100 C.U.= **$545/C.U.** plus a component cost of the Base Zone transmission main since Base Zone water is pumped to the Southridge “A” Zone.

The Southridge "A" Zone uses 0.39% of the Base Zone pumping capacity (0.20 ÷ 51.2), where 0.20 MGD is the capacity provided to Southridge "A" Zone by the Base Zone wells and 51.2 MGD is the capacity of the Base Zone; therefore, the component cost of transmission mains per capacity unit for the Southridge "A" Zone is $108,700,370 (0.0039) ÷ 100 = **$4,239/C.U**

The component cost of transmission mains per capacity units for the mains that serve the Southridge "A" Zone for surface water is $16,801,475 ÷ 30,494 C.U. = **$550/C.U.**

COST PER ZONE SUMMARY

ZONE	WATER PRODUCTION COST	TREATMENT COST	SURFACE WATER COST	STORAGE COST	TRANSMISSION COST	TOTAL CAPACITY UNIT COST
Southridge "A"	$1,560	$47	$41	$3,995	$5,334	$10,977

The cost of a 1-inch service in the zone is comprised of the cumulative capacity unit costs for water production, treatment, surface water, storage and transmission facilities.

In order to determine the capacity unit cost for each meter size the AWWA meter factors are used. The table below shows the capacity unit charge (Backup Facility Charge) per meter size.

SOUTHRIDGE "A" ZONE FINAL BACKUP FACILITY CHARGE COST SUMMARY

METER SIZE	AWWA METER FACTOR	BACKUP FACILITY CHARGE
3/4 X 5/8	0.4	$4,390
1	**1.0**	**$10,977**
1.5	2.0	$21,954
2	3.2	$35,126

SOUTHRIDGE "B" ZONE

The existing capacity units (C.U.) for the Southridge "B" Zone is 18. To determine the total capacity units for the zone, we must first calculate the max demand day (MDD) value utilizing the current General Plan formula:

- MDD = 1.85 x Average Day Annual Demand (ADD)

Using annual production data from 2017, the ADD calculated for the zone equals 0.01 MGD, therefore, the MDD is equal to 0.0185 MGD. If the MDD is equal to 0.0185 MGD, the current gal/C.U./day is equal to 1,028 gal/C.U./day, or (0.0185MGD÷18).

The current pumping capacity for the Southridge "B" Zone is 0.44 MGD. Since all service capacity must be met by the Southridge "B" Zone pumping capacity, all of the existing units are using 4.2% of the total capacity of the Southridge "B" Zone (0.0185 MGD ÷ 0.44 MGD). The total maximum capacity units for the zone is then equal to 428, or (18÷0.042).

Facility costs were determined by analyzing facility cost valuation from Agency Annual Operating Statistics Reports, cost estimates prepared in conjunction with the currently proposed budget and rate study, and by assessing the current facilities using the 2008 General Plan Update. The facilities cost valuation per capacity unit was determined from the total number of capacity units and the facilities costs.

The Southridge "B" Zone charge is composed of costs per capacity unit for production (wells and boosters), treatment, surface water, storage and transmission facilities assignable to the Southridge "B" Zone service.

SOUTHRIDGE "B" ZONE PUMPING/WATER PRODUCTION COST

In order to calculate the cost of pumping water per capacity unit we first determine the cost of those facilities from approved capital improvement budgets. The ratio of plant cost to horsepower is determined.

DESCRIPTION	YEAR CONSTRUCTED	PUMPING PLANT HORSEPOWER	PUMPING PLANT COST*
Well 39	2010	450 HP Pumping Plant	$1,320,156.59
Well 40	2009	450 HP Pumping Plant	$1,498,356.82
Well 41	2006	450 HP Pumping Plant	$1,561,858.76
Well 42	2006	200 HP Pumping Plant	$1,175,156.15
TOTAL		**1,550 HP**	**$5,555,528.32**

* Current Capital Improvement Budget Amounts for Pumping Plants.

The most current pumping plant estimated costs are used to determine the ratio of pumping plant cost to unit of horsepower from the table above. The unit cost of pumping per horsepower is $5,555,528.32 ÷ 1,550 hp= $3,584/hp. By applying this ratio to each active pumping plant the cost of each plant and the zone system pumping cost is determined.

Similarly, the cost of pressure boosting facilities is determined.

DESCRIPTION	YEAR CONSTRUCTED	BOOSTER PLANT HORSEPOWER	BOOSTER PLANT COST*
Zone 1240 Booster	2016	80 HP Booster Plant	$950,000
Janis Tuscany Booster Upgrades	2016	225 HP Booster Pumping Plant	$230,000
TOTAL		**305 HP**	**$1,180,000**

* Actual project costs, unadjusted for present value.

The most current pumping plant costs are used to determine the ratio of booster pumping plant cost to unit of horsepower from the table above. The unit cost of booster pumping per horsepower is $1,180,000 ÷ 305 hp= $3,869/hp. By applying this ratio to each active pumping plant the cost

of each plant and the zone's booster pumping cost is determined. Since Southridge "B" Zone is provided water by booster pumps, we will only be using the booster pump costs.

SOUTHRIDGE "B" ZONE PUMPING COSTS

WELL/BOOSTER BASE ZONES	DESCRIPTION	PLANT HORSEPOWER	ZONE PUMPING COST ($3,869/HP)
Southridge	Booster Plant	90	$348,210
TOTAL			**$348,210**

The cost of production per capacity unit is $348,210 ÷ 428 C.U. = **$813/C.U**. plus a component cost of the Southridge "A" Zone and Base Zone pumping.

The Southridge "B" Zone uses 68.8% of the Southridge "A" pumping capacity (0.44 ÷ 0.64), where 0.64 MGD is the total capacity of the Southridge "A" booster and 0.44 MGD is the capacity of the Southridge "B" Zone; therefore, the component cost of production per capacity unit for the Southridge "B" Zone is $193,450 (0.688) ÷ 428 C.U.= **$310/C.U.**

The Southridge "B" Zone uses 0.86% of the Base Zone pumping capacity (0.44 ÷ 51.2), where 0.44 MGD is the capacity provided to Southridge "B" Zone by the Base Zone and 51.2 MGD is the capacity of the Base Zone; therefore, the component cost of production per capacity unit for the Southridge "B" Zone is $24,489,260 (0.0086) ÷ 428 = **$492/C.U**

SOUTHRIDGE "B" ZONE WATER TREATMENT COSTS

Since Base Zone and Southridge "A" Zone water is pumped to the Southridge "B" Zone, the treatment costs for the Southridge "B" Zone is a component of the Base Zone treatment costs, Southridge "A" Zone treatment costs and any additional treatment facilities associated with the Southridge "B" Zone.

BASE ZONE FOREBAY TREATMENT

DESCRIPTION	YEAR CONSTRUCTED	*FOREBAY COST
Well 14 Forebay	1993	$376,750
Well 16 Forebay	1993	$376,750
TOTAL		**$753,500**

BASE ZONE CHLORINE INJECTION TREATMENT

DESCRIPTION	NUMBER OF ACTIVE SITES	AVG. COST PER SITE	ZONE PUMPING COST (ACTUAL)
Chlorine storage building and pad, injection vault	12	$30,440	$365,280
TOTAL			**$365,280**

*Based on average construction cost per site to install chlorine injection facilities.

The Southridge "B" Zone uses 0.86% of the Base Zone pumping capacity (0.44 ÷ 51.2), where 0.44 MGD is the capacity provided to Southridge "B" Zone by the Base Zone wells and 51.2 MGD is the capacity of the Base Zone; therefore, the component cost of treatment per capacity unit for the Southridge "B" Zone is ($753,500 + $365,280) (0.0086) ÷ 428 = **$22/C.U.**

UV TREATMENT

DESCRIPTION	YEAR CONSTRUCTED	*FOREBAY COST
UV Treatment (Snow Creek/Falls Creek)	2014	$317,142
TOTAL		**$317,142**

*Actual project costs.

The UV treated surface water not only benefits the Southridge "B" Zone, the water is also used by Snow Creek Village Zone and Base Zone. The Base Zone and Chino Zones will use 38% of the total stream capacity (0.69 ÷ 1.81); therefore, the component cost per capacity unit for the UV treatment per capacity unit is therefore, $317,142 (0.38) ÷ 30,494 C.U. = **$4/C.U.**

SOUTHRIDGE "B" ZONE SURFACE WATER COST

In order to calculate the cost of surface water per capacity unit we first determine the cost of those facilities from actual project costs. Surface water is transmitted from the diversions into the Base Zone where it is distributed to the zone.

DESCRIPTION	YEAR CONSTRUCTED	*SURFACE WATER FACILITY COST
Snow Creek Diversion	1990	$2,000,000
Falls Creek Diversion	1990	$1,300,000
TOTAL		**$3,300,000**

* Actual project costs, unadjusted for present value.

The surface water not only benefits the Southridge "B" Zone, the water also serves the Snow Creek Village Zone and Base Zone. The Base Zone and Chino Zones will use 38% of the total stream capacity (0.69 ÷ 1.81); therefore, the component cost per capacity unit is $3,300,000 (0.38) ÷ 30,494 C.U. = **$41/C.U.**

SOUTHRIDGE "B" ZONE WATER STORAGE COSTS

In order to calculate the cost of water storage per capacity unit we first determine the cost of those facilities from actual project costs and approved capital improvement budgets. The ratio of storage cost to volume is determined.

DESCRIPTION	YEAR CONSTRUCTED	RESERVOIR STORAGE CAPACITY	RESERVOIR COST*
Tahquitz Reservoir II Zone 1060	2004	5,000,000 gallons	$2,299,785**
	2016	500,000 gallons	$1,544,800*
TOTAL		**5,500,000 gallons**	**$3,844,585**

*Revised Budget Amount for project.

** Actual project costs, unadjusted for present value.

The most current water storage estimated costs are used to determine the ratio of water storage cost to unit of storage volume from the table above. The unit cost of water storage per gallon is $3,844,585 ÷ 5,500,000 GAL= $0.70/GAL. By applying this ratio to each water storage reservoir, the cost of each reservoir and the entire zone's water storage costs are determined.

SOUTHRIDGE "B" ZONE WATER STORAGE COSTS

DESCRIPTION	WATER STORAGE CAPACITY (GAL.)	UNIT COST PER UNIT STORAGE ($/GAL.)	ZONE STORAGE COST
Southridge I	100,000	0.70	$70,000
Southridge II	300,000	0.70	$210,000
TOTAL			**$280,000**

The required storage for the Southridge "B" Zone is 0.25 MG. The existing storage capacity for the Southridge "B" Zone is 0.40 MG; therefore, the Southridge "B" Zone storage is 62.5% of existing storage (0.25 ÷ 0.40). The cost of storage per capacity unit for the Southridge "B" Zone facilities is $280,000 (0.625) ÷ 428 C.U. = **$408/C.U.** plus the component cost of the Base Zone storage since Southridge "B" Zone utilizes the Base Zone water.

BASE ZONE WATER STORAGE COSTS

DESCRIPTION	WATER STORAGE CAPACITY (GAL.)	UNIT COST PER UNIT STORAGE ($/GAL.)	ZONE STORAGE COST
Palm Springs North I	1,500,000	0.70	$1,050,000
Palm Springs North II	12,000,000	0.70	$8,400,000
Tahquitz I	5,000,000	0.70	$3,500,000
Tahquitz II	5,000,000	0.70	$3,500,000
Palm Springs South I	5,000,000	0.70	$3,500,000
Palm Springs South II	5,000,000	0.70	$3,500,000
Equalization	1,000,000	0.70	$700,000*
TOTAL			**$24,150,000**

* The Equalization Reservoir serves the Base Zone, Snow Creek Village Zone, and the Chino Zones. The Base Zone and Chino Zones will use 83% of the total reservoir capacity.

The required storage for the Southridge "B" Zone is 0.70% of the Base Zone total storage capacity (0.25 ÷ 34.5); therefore, the component cost of storage per capacity unit for Southridge "B" Zone is $23,450,000 (0.007) ÷ 428 C.U.= **$383/C.U.**.

The component cost of storage per capacity for the Equalization Reservoir is equal to $700,000 (0.83) ÷ 30,494 = **$19/C.U.**

FUTURE STORAGE CAPACITY REQUIREMENTS

The General Plan requires that the Agency have 18 hours ADD emergency storage, along with fire flow and equalization storage during energy Time of Use (T.O.U.) periods. The 18 hour ADD during T.O.U periods for the zone is 0.0075 MG (0.01 x 0.75). The fire flow requirement for the zone is 0.24 MG (2,000 GPM for 2 hours per General Plan) and the equalization, or operational storage is 40% of the MDD and is therefore equal to 0.0074 MG. Adding all of these components equates to 0.25 MG of storage. The current storage capacity for the system is 0.40 MG.

The existing pumping capacity of the system will accommodate an additional 410 capacity units (428 - 18). These additional units will add 0.42 MGD to the MDD. This additional demand will

increase the storage requirement to 0.58 MG requiring 0.18 MG of additional storage (0.58 – 0.40). The cost for the additional storage will be $126,000, or ($0.70/gal x 0.18 MG). The cost of future storage per capacity unit is therefore, $126,000 ÷ 428 C.U. = **$294/C.U.**

SOUTHRIDGE "B" ZONE WATER TRANSMISSION MAIN COSTS

Historically, the Agency has calculated the cost of water transmission mains per capacity unit by determining the cost of those facilities from actual project costs and approved capital improvement budgets. The ratio of cost per lineal foot to diameter is determined.

DESCRIPTION	YEAR CONSTRUCTED	PIPELINE LENGTH (L.F.)	*PIPELINE COST	PIPELINE UNIT COST ($/L.F.)
12"Alejo/Tamarisk/ Indian Canyon	2012/2014/2015	4,958	$1,290,176	$260/L.F.
14"	-	-	-	-
15"	-	-	-	-
16" Sunny Dunes	2013	1,100	$301,462	$274/L.F.
18"	-	-	-	-
20" E. Well Field	-	-	-	-
24" E. Well Field	-	-	-	-
26"	-	-	-	-
30" N. Well Field	-	-	-	-
36" Avenida Caballeros	2014/2015	2,659	$2,509,219	$944/L.F.
42"	-	-	-	-

* Actual project cost, unadjusted for present value.

Due to the lack of current data available for the varying sizes of transmission mains in our system, the Agency has opted to utilize a "unit construction cost for pipelines" equation used by Eastern Municipal Water District (EMWD) in their 2015 rate study (study conducted by Kennedy/Jenks Consultants). Said equation assumes that unit cost ($/linear foot) = Diameter (inch) x 40.47 x [Diameter (inch) $^{\wedge -0.309}$]. Utilization of said equation allows the Agency to determine uniform unit construction estimates for all sizes of transmission mains in our system.

***ESTIMATED WATER TRANSMISSION MAIN UNIT CONSTRUCTION COSTS**

TRANSMISSION MAIN DIAMETER (INCHES)	TRANSMISSION MAIN LENGTH ($/L.F.)
12”	225
14”	250
15”	265
16”	275
18”	300
20”	320
24”	365
26”	385
30”	425
36”	480
42”	535

*Based on the following EMWD assumption: cost $/L.F. = Diameter (inch) x 40.47 x [Diameter (inch) $^{\wedge -0.309}$].

The most current water transmission main estimated costs are used to determine the ratio of water main cost to diameter as shown in the table on the previous page. By applying these ratios to system transmission mains, the cost of all size mains for the entire system is determined by zone.

SOUTHRIDGE “B” ZONE WATER TRANSMISSION MAIN COSTS

TRANSMISSION MAIN DIAMETER (INCHES)	TRANSMISSION MAIN LENGTH (L.F.)	UNIT COST PER UNIT LENGTH ($/L.F.)	ZONE TRANSMISSION MAIN COST
12”	775	225	$174,375
TOTAL			**$174,375**

The Southridge “B” Zone uses 68.8% of the total capacity (0.44 ÷ 0.64), where 0.64 MGD is the total capacity of the Southridge “B” booster and 0.44 MGD is the capacity needed for Southridge “B” Zone; therefore, the cost of transmission mains per capacity unit for the Southridge “B” Zone is $174,375 (0.688) ÷ 428 C.U.= **$280/C.U.** plus a component cost of the Base Zone transmission main since Base Zone water is pumped to the Southridge “B” Zone.

The Southridge "B" Zone uses 0.86% of the Base Zone pumping capacity (0.44 ÷ 51.2), where 0.44 MGD is the capacity provided to Southridge "B" Zone by the Base Zone wells and 51.2 MGD is the capacity of the Base Zone; therefore, the component cost of transmission mains per capacity unit for the Southridge "B" Zone is $108,700,370 (0.0086) ÷ 428 = **$2,184/C.U**

The component cost of transmission mains per capacity units for the mains that serve the Southridge "A" Zone for surface water is $16,801,475 ÷ 30,494 C.U. = **$550/C.U.**

COST PER ZONE SUMMARY

ZONE	WATER PRODUCTION COST	TREATMENT COST	SURFACE WATER COST	STORAGE COST	TRANSMISSION COST	TOTAL CAPACITY UNIT COST
Southridge "B"	$1,615	$26	$41	$1,104	$3,014	$5,800

The cost of a 1-inch service in the zone is comprised of the cumulative capacity unit costs for water production, treatment, surface water, storage and transmission facilities.

In order to determine the capacity unit cost for each meter size the AWWA meter factors are used. The table below shows the capacity unit charge (Backup Facility Charge) per meter size.

SOUTHRIDGE "B" ZONE FINAL BACKUP FACILITY CHARGE COST SUMMARY

METER SIZE	AWWA METER FACTOR	BACKUP FACILITY CHARGE
3/4 X 5/8	0.4	$2,320
1	**1.0**	**$5,800**
1.5	2.0	$11,600
2	3.2	$18,560

EAST ZONE

The existing capacity units (C.U.) for the East Zone is 6,218. To determine the total capacity units for the zone, we must first calculate the max demand day (MDD) value utilizing the current General Plan formula:

- MDD = 1.85 x Average Day Annual Demand (ADD)

Using annual production data from 2017, the ADD calculated for the zone equals 4.9 MGD, therefore, the MDD is equal to 9.0 MGD. If the MDD is equal to 9.0 MGD, the current gal/C.U./day is equal to 1,447 gal/C.U./day, or (9.0 MGD÷6,218).

The current pumping capacity for the East Zone is 12.68 MGD. Since all service capacity must be met by the East Zone pumping capacity, all of the existing units are using 71% of the pumping capacity of the East Zone (9.0 MGD÷12.68 MGD). The total maximum capacity units for the zone is then equal to 8,757, or (6,218÷0.71).

Facility costs were determined by analyzing facility cost valuation from Agency Annual Operating Statistics Reports, cost estimates prepared in conjunction with the currently proposed budget and rate study, and by assessing the current facilities using the 2008 General Plan Update. The facilities cost valuation per capacity unit was determined from the total number of capacity units and the facilities costs.

The East Zone charge is composed of costs per capacity unit for production (wells and boosters), treatment, storage and transmission facilities assignable to the East Zone service.

EAST ZONE PUMPING/WATER PRODUCTION COST

In order to calculate the cost of pumping water per capacity unit we first determine the cost of those facilities from approved capital improvement budgets. The ratio of plant cost to horsepower is determined.

DESCRIPTION	YEAR CONSTRUCTED	PUMPING PLANT HORSEPOWER	PUMPING PLANT COST*
Well 39	2010	450 HP Pumping Plant	$1,320,156.59
Well 40	2009	450 HP Pumping Plant	$1,498,356.82
Well 41	2006	450 HP Pumping Plant	$1,561,858.76
Well 42	2006	200 HP Pumping Plant	$1,175,156.15
TOTAL		**1,550 HP**	**$5,555,528.32**

* Current Capital Improvement Budget Amounts for Pumping Plants.

The most current pumping plant estimated costs are used to determine the ratio of pumping plant cost to unit of horsepower from the table above. The unit cost of pumping per horsepower is $5,555,528.32 ÷ 1,550 hp= $3,584/hp. By applying this ratio to each active pumping plant the cost of each plant and the zone system pumping cost is determined.

Similarly, the cost of pressure boosting facilities is determined.

DESCRIPTION	YEAR CONSTRUCTED	BOOSTER PLANT HORSEPOWER	BOOSTER PLANT COST*
Zone 1240 Booster	2016	80 HP Booster Plant	$950,000
Janis Tuscany Booster Upgrades	2016	225 HP Booster Pumping Plant	$230,000
TOTAL		**305 HP**	**$1,180,000**

* Actual project costs, unadjusted for present value.

The most current pumping plant costs are used to determine the ratio of booster pumping plant cost to unit of horsepower from the table above. The unit cost of booster pumping per horsepower is $1,180,000 ÷ 305 hp= $3,869/hp. By applying this ratio to each active pumping plant the cost of each plant and the zone's booster pumping cost is determined.

EAST ZONE PUMPING COSTS

WELL/BOOSTER BASE ZONES	DESCRIPTION	PLANT HORSEPOWER	ZONE PUMPING COST ($3,584/HP)
Well 25	Well Pumping Plants	400	$1,433,600
Well 26	Well Pumping Plants	400	$1,433,600
Well 31	Well Pumping Plants	400	$1,433,600
Well 36	Well Pumping Plants	400	$1,433,600
Well 41	Well Pumping Plants	450	$1,612,800
TOTAL			**$7,347,200**

The East Zone uses 90.5% of the total well capacity (12.68 ÷ 14), therefore, the cost of production per capacity unit is therefore, $7,347,200 (0.905) ÷ 8,757 C.U. = **$759/C.U.**

EAST ZONE WATER TREATMENT COSTS

In order to calculate the cost of water treatment per capacity unit we first determine the cost of those facilities from actual project costs.

CHLORINE INJECTION TREATMENT

DESCRIPTION	NUMBER OF ACTIVE SITES	AVG. COST PER SITE	ZONE PUMPING COST (ACTUAL)
Chlorine storage building and pad, injection vault	4	$30,440	$121,760
TOTAL			**$121,760**

*Based on average construction cost per site to install chlorine injection facilities.

The East Zone uses 90.5% of the total well capacity (12.68 ÷ 14), therefore the cost of chlorine injection treatment per capacity unit is $121,760(0.905) ÷ 8,757C.U. = **$12/C.U.**

EAST ZONE WATER STORAGE COSTS

In order to calculate the cost of water storage per capacity unit we first determine the cost of those facilities from actual project costs and approved capital improvement budgets. The ratio of storage cost to volume is determined.

DESCRIPTION	YEAR CONSTRUCTED	RESERVOIR STORAGE CAPACITY	RESERVOIR COST*
Tahquitz Reservoir II Zone 1060	2004 2016	5,000,000 gallons 500,000 gallons	$2,299,785** $1,544,800*
TOTAL		**5,500,000 gallons**	**$3,844,585**

*Revised Budget Amount for project.

** Actual project costs, unadjusted for present value.

The most current water storage estimated costs are used to determine the ratio of water storage cost to unit of storage volume from the table above. The unit cost of water storage per gallon is $3,844,585 ÷ 5,500,000 GAL= $0.70/GAL. By applying this ratio to each water storage reservoir, the cost of each reservoir and the entire zone's water storage costs are determined.

EAST ZONE WATER STORAGE COSTS

DESCRIPTION	WATER STORAGE CAPACITY (GAL.)	UNIT COST PER UNIT STORAGE ($/GAL.)	ZONE STORAGE COST
East I	5,000,000	0.70	$3,500,000
East II	5,000,000	0.70	$3,500,000
TOTAL			**$7,000,000**

The East Zone uses 81.6% of the total East Zone storage capacity (8.16 ÷ 10), therefore, the cost of storage per capacity unit is $7,000,000 (0.816) ÷ 8,757 C.U. = **$652/C.U.**

FUTURE STORAGE CAPACITY REQUIREMENTS

The General Plan requires that the Agency have 18 hours ADD emergency storage, along with fire flow and equalization storage during energy Time of Use (T.O.U.) periods. The 18 hour ADD

during T.O.U periods for the zone is 3.6 MG (4.9 x 0.75). The fire flow requirement for the zone is 0.96 MG (4,000 GPM for 4 hours per General Plan) and the equalization, or operational storage is 40% of the MDD and is therefore equal to 3.6 MG. Adding all of these components equates to 8.16 MG of storage. The current storage capacity for the system is 10 MG.

The existing pumping capacity of the system will accommodate an additional 2,539 capacity units (8,757 – 6,218). These additional units will add 3.67 MGD to the MDD. This additional demand will increase the storage requirement to 11.13 MG, requiring 1.13 MG of additional storage (11.13 -10.0). The cost for the additional storage will be $791,000, or ($0.70/gal x 1.13 MG). The cost of future storage per capacity unit is therefore, $791,000 ÷ 8,757 C.U. = **$90/C.U.**

EAST ZONE WATER TRANSMISSION MAIN COSTS

Historically, the Agency has calculated the cost of water transmission mains per capacity unit by determining the cost of those facilities from actual project costs and approved capital improvement budgets. The ratio of cost per lineal foot to diameter is determined.

DESCRIPTION	YEAR CONSTRUCTED	PIPELINE LENGTH (L.F.)	*PIPELINE COST	PIPELINE UNIT COST ($/L.F.)
12"Alejo/Tamarisk/ Indian Canyon	2012/2014/2015	4,958	$1,290,176	$260/L.F.
14"	-	-	-	-
15"	-	-	-	-
16" Sunny Dunes	2013	1,100	$301,462	$274/L.F.
18"	-	-	-	-
20" E. Well Field	-	-	-	-
24" E. Well Field	-	-	-	-
26"	-	-	-	-
30" N. Well Field	-	-	-	-
36" Avenida Caballeros	2014/2015	2,659	$2,509,219	$944/L.F.
42"	-	-	-	-

* Actual project cost, unadjusted for present value.

Due to the lack of current data available for the varying sizes of transmission mains in our system, the Agency has opted to utilize a "unit construction cost for pipelines" equation used by Eastern

Municipal Water District (EMWD) in their 2015 rate study (study conducted by Kennedy/Jenks Consultants). Said equation assumes that unit cost ($/linear foot) = Diameter (inch) x 40.47 x [Diameter (inch) $^{\wedge -0.309}$]. Utilization of said equation allows the Agency to determine uniform unit construction estimates for all sizes of transmission mains in our system.

***ESTIMATED WATER TRANSMISSION MAIN UNIT CONSTRUCTION COSTS**

TRANSMISSION MAIN DIAMETER (INCHES)	**TRANSMISSION MAIN LENGTH ($/L.F.)**
12”	225
14”	250
15”	265
16”	275
18”	300
20”	320
24”	365
26”	385
30”	425
36”	480
42”	535

*Based on the following EMWD assumption: cost $/L.F. = Diameter (inch) x 40.47 x [Diameter (inch) $^{\wedge -0.309}$].

The most current water transmission main estimated costs are used to determine the ratio of water main cost to diameter as shown in the table on the previous page. By applying these ratios to system transmission mains, the cost of all size mains for the entire system is determined by zone.

EAST ZONE WATER TRANSMISSION MAIN COSTS

TRANSMISSION MAIN DIAMETER (INCHES)	TRANSMISSION MAIN LENGTH (L.F.)	UNIT COST PER UNIT LENGTH ($/L.F.)	ZONE TRANSMISSION MAIN COST
12”	116,491	225	$26,210,475
16”	5,410	275	$1,487,750
20”	3,365	320	$1,076,800
24”	33,345	365	$12,170,955
30”	3,400	425	$1,445,000
TOTAL			**$42,390,980**

Since the East Zone uses 90.5% of pumping capacity, the cost of transmission mains per capacity unit for the East Zone is therefore, $42,390,980 (0.905) ÷ 8,757 C.U.= **$4,380/C.U.**

COST PER ZONE SUMMARY

ZONE	WATER PRODUCTION COST	TREATMENT COST	STORAGE COST	TRANSMISSION COST	TOTAL CAPACITY UNIT COST
East	$759	$12	$742	$4,380	$5,893

The cost of a 1-inch service in the zone is comprised of the cumulative capacity unit costs for water production, treatment, storage and transmission facilities.

In order to determine the capacity unit cost for each meter size the AWWA meter factors are used. The table below shows the capacity unit charge (Backup Facility Charge) per meter size.

EAST ZONE FINAL BACKUP FACILITY CHARGE COST SUMMARY

METER SIZE	AWWA METER FACTOR	BACKUP FACILITY CHARGE
3/4 X 5/8	0.4	$2,357
1	**1.0**	**$5,893**
1.5	2.0	$11,786
2	3.2	$18,857

EAST "A" ZONE

The existing capacity units (C.U.) for the East "A" Zone is 384. To determine the total capacity units for the zone, we must first calculate the max demand day (MDD) value utilizing the current General Plan formula:

- MDD = 1.85 x Average Day Annual Demand (ADD)

Using annual production data from 2017, the ADD calculated for the zone equals 0.22 MGD, therefore, the MDD is equal to 0.41 MGD. If the MDD is equal to 0.41 MGD, the current gal/C.U./day is equal to 1,067 gal/C.U./day, or (0.41MGD÷384).

The current pumping capacity for the East "A" Zone is 0.54 MGD. Since all service capacity must be met by the East "A" Zone pumping capacity, all of the existing units are using 75.9% of the capacity of the East "A" Zone (0.41 MGD ÷ 0.54 MGD). The total maximum capacity units for the zone is then equal to 505, or (384 ÷ 0.759).

Facility costs were determined by analyzing facility cost valuation from Agency Annual Operating Statistics Reports, cost estimates prepared in conjunction with the currently proposed budget and rate study, and by assessing the current facilities using the 2008 General Plan Update. The facilities cost valuation per capacity unit was determined from the total number of capacity units and the facilities costs.

The East "A" Zone charge is composed of costs per capacity unit for production (wells and boosters), treatment, storage and transmission facilities assignable to the East "A" Zone service.

EAST "A" ZONE PUMPING/WATER PRODUCTION COST

In order to calculate the cost of pumping water per capacity unit we first determine the cost of those facilities from approved capital improvement budgets. The ratio of plant cost to horsepower is determined.

DESCRIPTION	YEAR CONSTRUCTED	PUMPING PLANT HORSEPOWER	PUMPING PLANT COST*
Well 39	2010	450 HP Pumping Plant	$1,320,156.59
Well 40	2009	450 HP Pumping Plant	$1,498,356.82
Well 41	2006	450 HP Pumping Plant	$1,561,858.76
Well 42	2006	200 HP Pumping Plant	$1,175,156.15
TOTAL		**1,550 HP**	**$5,555,528.32**

* Current Capital Improvement Budget Amounts for Pumping Plants.

The most current pumping plant estimated costs are used to determine the ratio of pumping plant cost to unit of horsepower from the table above. The unit cost of pumping per horsepower is $5,555,528.32 ÷ 1,550 hp= $3,584/hp. By applying this ratio to each active pumping plant the cost of each plant and the zone system pumping cost is determined.

Similarly, the cost of pressure boosting facilities is determined.

DESCRIPTION	YEAR CONSTRUCTED	BOOSTER PLANT HORSEPOWER	BOOSTER PLANT COST*
Zone 1240 Booster	2016	80 HP Booster Plant	$950,000
Janis Tuscany Booster Upgrades	2016	225 HP Booster Pumping Plant	$230,000
TOTAL		**305 HP**	**$1,180,000**

* Actual project costs, unadjusted for present value.

The most current pumping plant costs are used to determine the ratio of booster pumping plant cost to unit of horsepower from the table above. The unit cost of booster pumping per horsepower is $1,180,000 ÷ 305 hp= $3,869/hp. By applying this ratio to each active pumping plant the cost

of each plant and the zone's booster pumping cost is determined. Since East "A" Zone is provided water by booster pumps, we will only be using the booster pump costs.

EAST "A" ZONE PUMPING COSTS

WELL/BOOSTER BASE ZONES	DESCRIPTION	PLANT HORSEPOWER	ZONE PUMPING COST ($3,869/HP)
Terrace	Booster Plant	45	$174,105
TOTAL			**$174,105**

The East "A" Zone uses 40.1% of the Zone capacity (1.32 – 0.78) ÷ 1.32, where 1.32 MGD is the East "A" Zone total pumping capacity and 0.78 MGD is the East "B" Zone pumping capacity; therefore, the component cost of production per capacity unit for the East "A" Zone is $174,105 (0.401) ÷ 505 = **$138/C.U**

The East "A" Zone uses 3.9% of the East Zone pumping capacity (0.54 ÷ 14), where 0.54 MGD is the capacity provided to East "A" Zone by the East Zone wells and 14 MGD is the capacity of the East Zone; therefore, the component cost of production per capacity unit for the East "A" Zone is $7,347,200 (0.039) ÷ 505 = **$567/C.U**

EAST "A" ZONE WATER TREATMENT COSTS

Since East Zone water is pumped to the East "A" Zone, the treatment costs for the East "A" Zone is a component of the East Zone treatment costs and any additional treatment facilities associated with the East "A" Zone.

EAST ZONE CHLORINE INJECTION TREATMENT

DESCRIPTION	NUMBER OF ACTIVE SITES	AVG. COST PER SITE	ZONE PUMPING COST (ACTUAL)
Chlorine storage building and pad, injection vault	4	$30,440	$121,760
TOTAL			**$121,760**

*Based on average construction cost per site to install chlorine injection facilities.

The East "A" Zone uses 3.9% of the East Zone pumping capacity (0.54 ÷ 14), where 0.54 MGD is the capacity provided to East "A" Zone by the East Zone wells and 14 MGD is the capacity of the East Zone; therefore, the component cost of treatment per capacity unit for the East "A" Zone is $121,760 (0.039) ÷ 505 = **$9/C.U**

EAST "A" ZONE WATER STORAGE COSTS

In order to calculate the cost of water storage per capacity unit we first determine the cost of those facilities from actual project costs and approved capital improvement budgets. The ratio of storage cost to volume is determined.

DESCRIPTION	YEAR CONSTRUCTED	RESERVOIR STORAGE CAPACITY	RESERVOIR COST*
Tahquitz Reservoir II	2004	5,000,000 gallons	$2,299,785**
Zone 1060	2016	500,000 gallons	$1,544,800*
TOTAL		**5,500,000 gallons**	**$3,844,585**

*Revised Budget Amount for project.

** Actual project costs, unadjusted for present value.

The most current water storage estimated costs are used to determine the ratio of water storage cost to unit of storage volume from the table above. The unit cost of water storage per gallon is $3,844,585÷5,500,000 GAL= $0.70/GAL. By applying this ratio to each water storage reservoir, the cost of each reservoir and the entire zone's water storage costs are determined.

EAST "A" ZONE WATER STORAGE COSTS

DESCRIPTION	WATER STORAGE CAPACITY (GAL.)	UNIT COST PER UNIT STORAGE ($/GAL.)	ZONE STORAGE COST
CC North	500,000	0.70	$350,000
Vista Miller	225,000	0.70	$157,500
TOTAL			**$507,500**

The required storage for the East "A" Zone is 0.57 MG. The existing storage capacity for the East "A" Zone is 0.725 MG; therefore, the East "A" Zone storage is 78.6% of existing storage (0.57 ÷ 0.725); therefore, the cost of storage per capacity unit for the East "A" Zone facilities is $507,500 (0.786) ÷ 505 C.U. = **$787/C.U.** plus the component cost of the East Zone storage since East "A" Zone utilizes the East Zone for water.

EAST ZONE WATER STORAGE COSTS

DESCRIPTION	WATER STORAGE CAPACITY (GAL.)	UNIT COST PER UNIT STORAGE ($/GAL.)	ZONE STORAGE COST
East I	5,000,000	0.70	$3,500,000
East II	5,000,000	0.70	$3,500,000
TOTAL			**$7,000,000**

The East "A" Zone uses 5.7% of the total East Zone storage capacity (0.57 ÷ 10), therefore, the cost of storage per capacity unit is $7,000,000 (0.057) ÷ 505 C.U. = **$790/C.U.**

FUTURE STORAGE CAPACITY REQUIREMENTS

The General Plan requires that the Agency have 18 hours ADD emergency storage, along with fire flow and equalization storage during energy Time of Use (T.O.U.) periods. The 18 hour ADD during T.O.U periods for the zone is 0.165 MG (0.22 x 0.75). The fire flow requirement for the zone is 0.24 MG (2,000 GPM for 2 hours per General Plan) and the equalization, or operational storage is 40% of the MDD and is therefore equal to 0.164 MG. Adding all of these components equates to 0.57 MG of storage. The current storage capacity for the system is 0.725 MG.

The existing pumping capacity of the system will accommodate an additional 121 capacity units (505 - 384). These additional units will add 0.13 MGD to the MDD. This additional demand will increase the storage requirement to 0.68 MG; therefore, no future storage for East "A" Zone is required.

EAST "A" WATER TRANSMISSION MAIN COSTS

Historically, the Agency has calculated the cost of water transmission mains per capacity unit by determining the cost of those facilities from actual project costs and approved capital improvement budgets. The ratio of cost per lineal foot to diameter is determined.

DESCRIPTION	YEAR CONSTRUCTED	PIPELINE LENGTH (L.F.)	*PIPELINE COST	PIPELINE UNIT COST ($/L.F.)
12"Alejo/Tamarisk/ Indian Canyon	2012/2014/2015	4,958	$1,290,176	$260/L.F.
14"	-	-	-	-
15"	-	-	-	-
16" Sunny Dunes	2013	1,100	$301,462	$274/L.F.
18"	-	-	-	-
20" E. Well Field	-	-	-	-
24" E. Well Field	-	-	-	-
26"	-	-	-	-
30" N. Well Field	-	-	-	-
36" Avenida Caballeros	2014/2015	2,659	$2,509,219	$944/L.F.
42"	-	-	-	-

* Actual project cost, unadjusted for present value.

Due to the lack of current data available for the varying sizes of transmission mains in our system, the Agency has opted to utilize a "unit construction cost for pipelines" equation used by Eastern Municipal Water District (EMWD) in their 2015 rate study (study conducted by Kennedy/Jenks Consultants). Said equation assumes that unit cost ($/linear foot) = Diameter (inch) x 40.47 x [Diameter (inch) $^{\wedge -0.309}$]. Utilization of said equation allows the Agency to determine uniform unit construction estimates for all sizes of transmission mains in our system.

***ESTIMATED WATER TRANSMISSION MAIN UNIT CONSTRUCTION COSTS**

TRANSMISSION MAIN DIAMETER (INCHES)	TRANSMISSION MAIN LENGTH ($/L.F.)
12”	225
14”	250
15”	265
16”	275
18”	300
20”	320
24”	365
26”	385
30”	425
36”	480
42”	535

*Based on the following EMWD assumption: cost $/L.F. = Diameter (inch) x 40.47 x [Diameter (inch) $^{\sim -0.309}$].

The most current water transmission main estimated costs are used to determine the ratio of water main cost to diameter as shown in the table on the previous page. By applying these ratios to system transmission mains, the cost of all size mains for the entire system is determined by zone.

EAST “A” ZONE WATER TRANSMISSION MAIN COSTS

TRANSMISSION MAIN DIAMETER (INCHES)	TRANSMISSION MAIN LENGTH (L.F.)	UNIT COST PER UNIT LENGTH ($/L.F.)	ZONE TRANSMISSION MAIN COST
12”	4,310	225	$969,750
TOTAL			**$969,750**

The East “A” Zone uses 40.1% of the Zone capacity (1.32 – 0.78) ÷ 1.32, where 1.32 MGD is the East “A” Zone total pumping capacity and 0.78 MGD is the East “B” Zone pumping capacity; therefore, the component cost of transmission main per capacity unit for the East “A” Zone is $969,750 (0.401) ÷ 505 = **$770/C.U**

The East "A" Zone uses 3.9% of the East Zone pumping capacity (0.54 ÷ 14), where 0.54 MGD is the capacity provided to East "A" Zone by the East Zone wells and 14 MGD is the capacity of the East Zone; therefore, the component cost of transmission main per capacity unit for the East "A" Zone is $42,390,980 (0.039) ÷ 505 = **$3,273/C.U**

COST PER ZONE SUMMARY

ZONE	WATER PRODUCTION COST	TREATMENT COST	STORAGE COST	TRANSMISSION COST	TOTAL CAPACITY UNIT COST
East "A"	$725	$9	$1,577	$4,043	$6,354

The cost of a 1-inch service in the zone is comprised of the cumulative capacity unit costs for water production, treatment, storage and transmission facilities.

In order to determine the capacity unit cost for each meter size the AWWA meter factors are used. The table below shows the capacity unit charge (Backup Facility Charge) per meter size.

EAST "A" ZONE FINAL BACKUP FACILITY CHARGE COST SUMMARY

METER SIZE	AWWA METER FACTOR	BACKUP FACILITY CHARGE
3/4 X 5/8	0.4	$2,541
1	**1.0**	**$6,354**
1.5	2.0	$12,708
2	3.2	$20,332

EAST "B" ZONE

The existing capacity units (C.U.) for the East "B" Zone is 432. To determine the total capacity units for the zone, we must first calculate the max demand day (MDD) value utilizing the current General Plan formula:

- MDD = 1.85 x Average Day Annual Demand (ADD)

Using annual production data from 2017, the ADD calculated for the zone equals 0.25 MGD, therefore, the MDD is equal to 0.46 MGD. If the MDD is equal to 0.46 MGD, the current gal/C.U./day is equal to 1,064 gal/C.U./day, or (0.46MGD÷432).

The current pumping capacity for the East "B" Zone is 0.78 MGD. Since all service capacity must be met by the East "B" Zone pumping capacity, all of the existing units are using 59% of the total capacity of the East "B" Zone (0.46 MGD÷0.78 MGD). The total maximum capacity units for the zone is then equal to 732, or (432 ÷ 0.59).

Facility costs were determined by analyzing facility cost valuation from Agency Annual Operating Statistics Reports, cost estimates prepared in conjunction with the currently proposed budget and rate study, and by assessing the current facilities using the 2008 General Plan Update. The facilities cost valuation per capacity unit was determined from the total number of capacity units and the facilities costs.

The East "B" Zone charge is composed of costs per capacity unit for production (wells and boosters), treatment, storage and transmission facilities assignable to the East "B" Zone service.

EAST "B" ZONE PUMPING/WATER PRODUCTION COST

In order to calculate the cost of pumping water per capacity unit we first determine the cost of those facilities from approved capital improvement budgets. The ratio of plant cost to horsepower is determined.

DESCRIPTION	YEAR CONSTRUCTED	PUMPING PLANT HORSEPOWER	PUMPING PLANT COST*
Well 39	2010	450 HP Pumping Plant	$1,320,156.59
Well 40	2009	450 HP Pumping Plant	$1,498,356.82
Well 41	2006	450 HP Pumping Plant	$1,561,858.76
Well 42	2006	200 HP Pumping Plant	$1,175,156.15
TOTAL		**1,550 HP**	**$5,555,528.32**

* Current Capital Improvement Budget Amounts for Pumping Plants.

The most current pumping plant estimated costs are used to determine the ratio of pumping plant cost to unit of horsepower from the table above. The unit cost of pumping per horsepower is $5,555,528.32 ÷ 1,550 hp= $3,584/hp. By applying this ratio to each active pumping plant the cost of each plant and the zone system pumping cost is determined.

Similarly, the cost of pressure boosting facilities is determined.

DESCRIPTION	YEAR CONSTRUCTED	BOOSTER PLANT HORSEPOWER	BOOSTER PLANT COST*
Zone 1240 Booster	2016	80 HP Booster Plant	$950,000
Janis Tuscany Booster Upgrades	2016	225 HP Booster Pumping Plant	$230,000
TOTAL		**305 HP**	**$1,180,000**

* Actual project costs, unadjusted for present value.

The most current pumping plant costs are used to determine the ratio of booster pumping plant cost to unit of horsepower from the table above. The unit cost of booster pumping per horsepower is $1,180,000 ÷ 305 hp= $3,869/hp. By applying this ratio to each active pumping plant the cost

of each plant and the zone's booster pumping cost is determined. Since East "B" Zone is provided water by booster pumps, we will only be using the booster pump costs.

EAST "B" ZONE PUMPING COSTS

WELL/BOOSTER BASE ZONES	DESCRIPTION	PLANT HORSEPOWER	ZONE PUMPING COST ($3,869/HP)
Vista Miller	Booster Plant	60	$232,140
TOTAL			**$232,140**

The cost of production per capacity unit is $232,140 ÷ 732 C.U. = **$317/C.U**. plus a component cost of the East "A" Zone and East Zone pumping.

The East "B" Zone uses 59% of the East "A" pumping capacity (0.78 ÷ 1.32), where 1.32 MGD is the total capacity of the East "A" booster and 0.78 MGD is the capacity of the East "B" Zone; therefore, the component cost of production per capacity unit for the East "B" Zone is $174,105 (0.59) ÷ 732 C.U.= **$140/C.U.**

The East "B" Zone uses 5.6% of the East Zone pumping capacity (0.78 ÷ 14), where 0.78 MGD is the capacity provided to East "B" Zone by the Base Zone and 14 MGD is the capacity of the East Zone; therefore, the component cost of production per capacity unit for the East "B" Zone is $7,347,200 (0.056) ÷ 732 = **$562/C.U.**

EAST "B" ZONE WATER TREATMENT COSTS

Since East Zone water is pumped to the East "B" Zone, the treatment costs for the East "B" Zone is a component of the East Zone and East "A" Zone treatment costs and any additional treatment facilities associated with the East "B" Zone.

EAST ZONE CHLORINE INJECTION TREATMENT

DESCRIPTION	NUMBER OF ACTIVE SITES	AVG. COST PER SITE	ZONE PUMPING COST (ACTUAL)
Chlorine storage building and pad, injection vault	4	$30,440	$121,760
TOTAL			**$121,760**

*Based on average construction cost per site to install chlorine injection facilities.

The East "B" Zone uses 5.6% of the East Zone pumping capacity (0.78 ÷ 14), where 0.78 MGD is the capacity provided to East "B" Zone by the East Zone wells and 14 MGD is the capacity of the East Zone; therefore, the component cost of treatment per capacity unit for the East "B" Zone is $121,760 (0.056) ÷ 732 = **$9/C.U.**

EAST "B" ZONE WATER STORAGE COSTS

In order to calculate the cost of water storage per capacity unit we first determine the cost of those facilities from actual project costs and approved capital improvement budgets. The ratio of storage cost to volume is determined.

DESCRIPTION	YEAR CONSTRUCTED	RESERVOIR STORAGE CAPACITY	RESERVOIR COST*
Tahquitz Reservoir II	2004	5,000,000 gallons	$2,299,785**
Zone 1060	2016	500,000 gallons	$1,544,800*
TOTAL		**5,500,000 gallons**	**$3,844,585**

*Revised Budget Amount for project.

** Actual project costs, unadjusted for present value.

The most current water storage estimated costs are used to determine the ratio of water storage cost to unit of storage volume from the table above. The unit cost of water storage per gallon is $3,844,585 ÷ 5,500,000 GAL= $0.70/GAL. By applying this ratio to each water storage reservoir, the cost of each reservoir and the entire zone's water storage costs are determined.

EAST "B" ZONE WATER STORAGE COSTS

DESCRIPTION	WATER STORAGE CAPACITY (GAL.)	UNIT COST PER UNIT STORAGE ($/GAL.)	ZONE STORAGE COST
Foothill I	100,000	0.70	$70,000
Foothill II	500,000	0.70	$350,000
TOTAL			**$420,000**

The cost of storage per capacity unit for the East "B" Zone facilities is $420,000 ÷ 732 C.U. = **$573/C.U.** plus the component cost of the East "A" Zone and East Zone storage since East "B" Zone utilizes the East "A" and East Zone for water.

EAST "A" ZONE WATER STORAGE COSTS

DESCRIPTION	WATER STORAGE CAPACITY (GAL.)	UNIT COST PER UNIT STORAGE ($/GAL.)	ZONE STORAGE COST
CC North	500,000	0.70	$350,000
Vista Miller	225,000	0.70	$157,500
TOTAL			**$507,500**

The East "B" Zone uses 25% of the total East "A" Zone storage capacity (0.184 ÷ 0.725), therefore, the cost of storage per capacity unit is $507,500 (0.25) ÷ 732 C.U. = **$173/C.U.**

EAST ZONE WATER STORAGE COSTS

DESCRIPTION	WATER STORAGE CAPACITY (GAL.)	UNIT COST PER UNIT STORAGE ($/GAL.)	ZONE STORAGE COST
East I	5,000,000	0.70	$3,500,000
East II	5,000,000	0.70	$3,500,000
TOTAL			**$7,000,000**

The East "B" Zone uses 1.8% of the total East Zone storage capacity (0.184 ÷ 10), therefore, the cost of storage per capacity unit is $7,000,000 (0.018) ÷ 732 C.U. = **$172/C.U.**

FUTURE STORAGE CAPACITY REQUIREMENTS

The General Plan requires that the Agency have 18 hours ADD emergency storage, along with fire flow and equalization storage during energy Time of Use (T.O.U.) periods. The 18 hour ADD during T.O.U periods for the zone is 0.187 MG (0.25 x 0.75). The fire flow requirement for the zone is 0.24 MG (2,000 GPM for 2 hours per General Plan) and the equalization, or operational

storage is 40% of the MDD and is therefore equal to 0.184 MG. Adding all of these components equates to 0.61 MG of storage. The current storage capacity for the system is 0.60 MG.

The existing pumping capacity of the system will accommodate an additional 300 capacity units (732 - 432). These additional units will add 0.32 MGD to the MDD. This additional demand will increase the storage requirement to 0.87 MG, requiring 0.27 MG of additional storage (0.87 – 0.60). The cost for the additional storage will be $189,000, or ($0.70/gal x 0.27 MG). The cost of future storage per capacity unit is therefore, $189,000 ÷ 732 C.U. = **$258/C.U.**

EAST "B" WATER TRANSMISSION MAIN COSTS

Historically, the Agency has calculated the cost of water transmission mains per capacity unit by determining the cost of those facilities from actual project costs and approved capital improvement budgets. The ratio of cost per lineal foot to diameter is determined.

DESCRIPTION	YEAR CONSTRUCTED	PIPELINE LENGTH (L.F.)	*PIPELINE COST	PIPELINE UNIT COST ($/L.F.)
12"Alejo/Tamarisk/ Indian Canyon	2012/2014/2015	4,958	$1,290,176	$260/L.F.
14"	-	-	-	-
15"	-	-	-	-
16" Sunny Dunes	2013	1,100	$301,462	$274/L.F.
18"	-	-	-	-
20" E. Well Field	-	-	-	-
24" E. Well Field	-	-	-	-
26"	-	-	-	-
30" N. Well Field	-	-	-	-
36" Avenida Caballeros	2014/2015	2,659	$2,509,219	$944/L.F.
42"	-	-	-	-

* Actual project cost, unadjusted for present value.

Due to the lack of current data available for the varying sizes of transmission mains in our system, the Agency has opted to utilize a "unit construction cost for pipelines" equation used by Eastern Municipal Water District (EMWD) in their 2015 rate study (study conducted by Kennedy/Jenks

Consultants). Said equation assumes that unit cost ($/linear foot) = Diameter (inch) x 40.47 x [Diameter (inch) $^{\wedge -0.309}$]. Utilization of said equation allows the Agency to determine uniform unit construction estimates for all sizes of transmission mains in our system.

***ESTIMATED WATER TRANSMISSION MAIN UNIT CONSTRUCTION COSTS**

TRANSMISSION MAIN DIAMETER (INCHES)	TRANSMISSION MAIN LENGTH ($/L.F.)
12”	225
14”	250
15”	265
16”	275
18”	300
20”	320
24”	365
26”	385
30”	425
36”	480
42”	535

*Based on the following EMWD assumption: cost $/L.F. = Diameter (inch) x 40.47 x [Diameter (inch) $^{\wedge -0.309}$].

The most current water transmission main estimated costs are used to determine the ratio of water main cost to diameter as shown in the table on the previous page. By applying these ratios to system transmission mains, the cost of all size mains for the entire system is determined by zone.

EAST “B” ZONE WATER TRANSMISSION MAIN COSTS

TRANSMISSION MAIN DIAMETER (INCHES)	TRANSMISSION MAIN LENGTH (L.F.)	UNIT COST PER UNIT LENGTH ($/L.F.)	ZONE TRANSMISSION MAIN COST
12”	4,383	225	$986,175
TOTAL			**$986,175**

The cost of transmission mains per capacity unit is $986,175 ÷ 732 C.U. = **$1,347/C.U.** plus a component cost of the East "A" Zone and East Zone transmission mains since East "B" Zone utilizes water from the East "A" Zone and East Zone.

The East "B" Zone uses 59% of the East "A" pumping capacity (0.78 ÷ 1.32), where 1.32 MGD is the total capacity of the East "A" booster and 0.78 MGD is the capacity of the East "B" Zone; therefore, the component cost of transmission main per capacity unit for the East "B" Zone is $969,750 (0.59) ÷ 732 C.U.= **$781/C.U.**

The East "B" Zone uses 5.6% of the East Zone pumping capacity (0.78 ÷ 14), where 0.78 MGD is the capacity provided to East "B" Zone by the Base Zone and 14 MGD is the capacity of the East Zone; therefore, the component cost of transmission mains per capacity unit for the East "B" Zone is $42,390,980 (0.056) ÷ 732 = **$3,243/C.U.**

COST PER ZONE SUMMARY

ZONE	WATER PRODUCTION COST	TREATMENT COST	STORAGE COST	TRANSMISSION COST	TOTAL CAPACITY UNIT COST
East "B"	$1,019	$9	$1,176	$5,371	$7,575

The cost of a 1-inch service in the zone is comprised of the cumulative capacity unit costs for water production, treatment, surface water, storage and transmission facilities.

In order to determine the capacity unit cost for each meter size the AWWA meter factors are used. The table below shows the capacity unit charge (Backup Facility Charge) per meter size.

EAST "B" ZONE FINAL BACKUP FACILITY CHARGE COST SUMMARY

METER SIZE	AWWA METER FACTOR	BACKUP FACILITY CHARGE
3/4 X 5/8	0.4	$3,030
1	**1.0**	**$7,575**
1.5	2.0	$15,150
2	3.2	$24,240

FINAL BACKUP FACILITY CHARGE COST SUMMARY

SNOW CREEK VILLAGE FINAL BACKUP FACILITY CHARGE COST

METER SIZE	AWWA METER FACTOR	BACKUP FACILITY CHARGE
3/4 X 5/8	0.4	$2,082
1	**1.0**	**$5,207**
1.5	2.0	$10,414
2	3.2	$16,662

PALM OASIS ZONE FINAL BACKUP FACILITY CHARGE COST

METER SIZE	AWWA METER FACTOR	BACKUP FACILITY CHARGE
3/4 X 5/8	0.4	$1,493
1	**1.0**	**$3,734**
1.5	2.0	$7,468
2	3.2	$11,948

BASE ZONE FINAL BACKUP FACILITY CHARGE COST

METER SIZE	AWWA METER FACTOR	BACKUP FACILITY CHARGE
3/4 X 5/8	0.4	$2,470
1	**1.0**	**$6,175**
1.5	2.0	$12,350
2	3.2	$19,760

CHINO ZONE FINAL BACKUP FACILITY CHARGE COST

METER SIZE	AWWA METER FACTOR	BACKUP FACILITY CHARGE
3/4 X 5/8	0.4	$3,026
1	**1.0**	**$7,565**
1.5	2.0	$15,130
2	3.2	$24,208

CHINO "A" ZONE FINAL BACKUP FACILITY CHARGE COST

METER SIZE	AWWA METER FACTOR	BACKUP FACILITY CHARGE
3/4 X 5/8	0.4	$3,679
1	**1.0**	**$9,198**
1.5	2.0	$18,396
2	3.2	$29,433

CHINO "B" ZONE FINAL BACKUP FACILITY CHARGE COST

METER SIZE	AWWA METER FACTOR	BACKUP FACILITY CHARGE
3/4 X 5/8	0.4	$3,276
1	**1.0**	**$8,190**
1.5	2.0	$16,380
2	3.2	$26,208

ACANTO ZONE FINAL BACKUP FACILITY CHARGE COST

METER SIZE	AWWA METER FACTOR	BACKUP FACILITY CHARGE
3/4 X 5/8	0.4	$4,108
1	**1.0**	**$10,271**
1.5	2.0	$20,542
2	3.2	$32,867

SOUTHRIDGE "A" ZONE FINAL BACKUP FACILITY CHARGE COST

METER SIZE	AWWA METER FACTOR	BACKUP FACILITY CHARGE
3/4 X 5/8	0.4	$4,390
1	**1.0**	**$10,977**
1.5	2.0	$21,954
2	3.2	$35,126

SOUTHRIDGE "B" ZONE FINAL BACKUP FACILITY CHARGE COST

METER SIZE	AWWA METER FACTOR	BACKUP FACILITY CHARGE
3/4 X 5/8	0.4	$2,320
1	**1.0**	**$5,800**
1.5	2.0	$11,600
2	3.2	$18,560

EAST ZONE FINAL BACKUP FACILITY CHARGE COST

METER SIZE	AWWA METER FACTOR	BACKUP FACILITY CHARGE
3/4 X 5/8	0.4	$2,357
1	**1.0**	**$5,893**
1.5	2.0	$11,786
2	3.2	$18,857

EAST "A" ZONE FINAL BACKUP FACILITY CHARGE COST

METER SIZE	AWWA METER FACTOR	BACKUP FACILITY CHARGE
3/4 X 5/8	0.4	$2,541
1	**1.0**	**$6,354**
1.5	2.0	$12,708
2	3.2	$20,332

EAST "B" ZONE FINAL BACKUP FACILITY CHARGE COST

METER SIZE	AWWA METER FACTOR	BACKUP FACILITY CHARGE
3/4 X 5/8	0.4	$3,030
1	**1.0**	**$7,575**
1.5	2.0	$15,150
2	3.2	$24,240

RESOLUTION NO. 1265

RESOLUTION OF THE BOARD OF DIRECTORS OF DESERT WATER AGENCY ESTABLISHING RATES, FEES AND CHARGES FOR SEWER SERVICE

WHEREAS, by previous action this Board has approved various rates, fees and charges for sewer service, as provided by law; and

WHEREAS, in addition to the Agency's charges for sewer services, charges imposed by Coachella Valley Water District (CVWD) must also be collected by the Agency, as CVWD's collection agent, for sewer service and treatment in Cathedral City; and

WHEREAS, in addition to the charges collected for CVWD in the Cathedral City area, the Agency has also entered into an agreement with the City of Palm Springs (City) to provide wastewater treatment and disposal service to the Agency's customers receiving sewage collection service from the Agency in the Dream Homes and Palm Oasis areas; and

WHEREAS, said agreement requires the Agency to collect from those customers the City's sewer capacity and customer service charges for wastewater treatment and disposal provided by the City, in addition to collecting the Agency's charges for sewer services; and

WHEREAS, this resolution reflects the current CVWD and adjusted City rates for sewage treatment and disposal services, which are subject to change by those entities, and restating other Agency rates, fees and charges which remain unchanged;

NOW, THEREFORE, be it resolved by the Board of Directors of Desert Water Agency that the rates, fees and charges assessed by the Agency for sewer services by the Agency shall be, and that those charged by CVWD and the City for sewer service within the Agency's sewer service areas are, as follows:

1. Capacity Charges

	CVWD Treatment Cathedral City (Effective 09/21/21)	City Treatment Palm Oasis / Dream Homes (Effective 09/21/21)
A.) Residential (including single family, apartments, condos and mobile home park spaces (1 EDU=1 Unit or Space)	Total Charge: $5,901.00/EDU a. $4,851.00/EDU (CVWD) b. $1,050.00/EDU (DWA)	Total Charge: $ 1,006.00/Unit a. $1,006.00/Unit (CPS)
B.) Commercial, Industrial, Institutional	Total Charge: $5,901.00/EDU a $4,851.00/EDU (CVWD) b. $1,050.00/EDU (DWA)	Total Charge: $100.00/ Fixture Unit (FU) a. $100.00/FU (CPS)
C.) Hotel /Motel (1/2 EDU = 1 Room)	Total Charge: $5,901.00/EDU a. $4,851.00/EDU (CVWD b. $1,050.00/EDU (DWA)	Total Charge: 1. $663.00/Room (with kitchen-CPS) 2. $343.00/Room (without kitchen-CPS)
D.) R.V. Park (1/2) EDU = 1 Space)	Total Charge: $5,901.00/EDU a. $4,851.00/EDU (CVWD) b. $1,050.00/EDU (DWA)	Total Charge: $246.00/Space a. $246.00/Space (CPS)

2. Accounting of Funds. All revenues collected from capacity charges shall be deposited with other such fees in a separate capital facilities account or fund in a manner to avoid any commingling of the charges with other revenues and funds of the Agency, except for the temporary investments, and such revenues may be expended solely for the purpose for which the capacity charges are collected. Any interest income earned by moneys in said account or fund shall also be deposited in that account or fund and may be expended only for the purpose for which the capacity charges are imposed. The Agency shall make findings once each fiscal year with respect to any portion of the capacity charges remaining unexpended or uncommitted in the account five or more years after deposit of the charges. The findings shall identify the purpose to which the capacity charges are to be put, and will demonstrate a reasonable relationship between the charges and the purpose for which the charges were imposed.

3. Connection Fee.

a.) Single Family Residence - $1,700

b.) Other than Single Family Residence:
A charge for all new connections based on the front footage served thereby shall be levied and collected at the rate of $70 per lineal foot of frontage, or the actual rate in accordance with a valid main extension refund agreement, whichever is greater.

4. Plan Check Fees.

a.) Existing Main Available (lateral installation only)
1) Single Family Residence (1-4" Lateral) - no fee
2) Single Family Residence (other than above) and all other types of development - $140

b.) The Plan Check fee for Agency-installed sewer facilities with no mains shall be $280. For developer-installed facilities with mains, the fee shall be $280 plus $0.35 per lineal foot of main installed.

5. Design Review Fees.

a.) Desert Water Agency Engineering Department - $140/Hour
b.) Engineering Consultants - Actual Cost plus 15%
c.) Legal Consultants - Actual Cost plus 15%

6. Monthly Service Charges

	CVWD Treatment Cathedral City (Effective 01/01/22)	City Treatment Palm Oasis / Dream Homes (Effective 01/01/22)
A. Residential		
Single Family, Condo (1 EDU = 1 Unit)	Total Charge: $29.19/EDU a. $23.04/EDU (CVWD) b. $6.15/EDU (DWA) ***Rate (1)***	Total Charge: $26.15/Unit a. $20.00/Unit (CPS) b. $6.15/Unit (DWA) ***Rate (5)***
Mobile Home Park (1 EDU = 1 Space)	Total Charge: $29.19/EDU a. $23.04/EDU (CVWD) b. $6.15/EDU (DWA) ***Rate (1)***	Total Charge: $26.15/Space plus $1.98/FU a. $20.00/Space (CPS) b. $6.15/Space (DWA) c. $1.98/FU (CPS) ***Rate (6)***
Apartments (1 EDU = 1 Unit)	Total Charge: $29.19/EDU a. $23.04/EDU (CVWD) b. $6.15/EDU (DWA) ***Rate (4)***	Total Charge: $26.15/Unit a. $20.00/Unit (CPS) b. $6.15/Unit (DWA) ***Rate (7)***
B. Hotel / Motel (1/2 EDU = 1 Room)	Total Charge: $29.19/EDU a. $23.04/EDU (CVWD) b. $6.15/EDU (DWA) ***Rate (4)***	N/A
C. R.V. Park (1/2 EDU = 1 Space)	Total Charge: $29.19/EDU a. $23.04/EDU (CVWD) b. $6.15/EDU (DWA) ***Rate (4)***	N/A

6. Monthly Service Charges (Cont.)

	CVWD Treatment Cathedral City (Effective 01/01/22)	City Treatment Palm Oasis / Dream Homes (Effective 01/01/22)
D. Commercial, Industrial, or Institutional (0ther than schools)	Total Charge: $29.19/EDU a. $23.04/EDU (CVWD) b. $6.15/EDU (DWA) ***Rate (4)***	Total Charge: $1.98/FU (Minimum $20.00) plus $6.15/EDU a. $1.98/FU (CPS) (minimum $20.00) b. $6.15/EDU (DWA) ***Rate (8)***
E. Schools and Colleges Kindergarten Elementary Schools & Colleges	Total Charge: $29.19/EDU a. $23.04/EDU (CVWD) b. $6.15/EDU (DWA) ***Rate (3)***	(See Commercial) ***Rate (8)***
All Other Schools	Total Charge: $29.19/EDU a. $23.04/EDU (CVWD) b. $6.15/EDU (DWA) ***Rate (2)***	N/A
*The number of students to be used in calculating the monthly sewer charges shall be based on the previous year's average monthly attendance.		
F. Interceptor/Separator Surcharge	$14.00 ***Rate (4)***	N/A

7. Sewer Lateral Inspection. The charge for inspection of all new sewer laterals installed on existing mains shall be $140 per lateral.

8. Main Extension By Applicant Deposit. The applicant shall deposit with the Agency a sum in the amount equal to twenty percent (20%) of the estimated main extension construction costs, as determined by the Agency, for inspection and incidental costs. The Agency shall refund the applicant any deposit amount above the final inspection and incidental costs. The Agency shall also collect additional money, as required, if the initial deposit amount does not cover the final inspection and incidental costs.

9. Development Review. A charge for Agency provided Administrative Services shall be collected at the rate of $140 for each of the following:

a.) Will Serve Letter
b.) Development Bond Amount Letter
c.) Response to Initial Study
d.) Non-Interference Letter

10. Effective Date: The charges set forth herein, Section 1 shall become effective September 21, 2021 and remaining sections shall become effective January 1, 2022 and as of these dates this Resolution shall replace Resolution No. 1261.

ADOPTED this 21st day of September 2021.

_____
Kristin Bloomer, President

ATTEST:

_____
Joseph Stuart, Secretary-Treasurer

STAFF REPORT
TO
DESERT WATER AGENCY
BOARD OF DIRECTORS

SEPTEMBER 21, 2021

RE: REQUEST AUTHORIZATION FOR FINANCE DIRECTOR TO EXECUTE REQUIRED DOCUMENTATION TO APPLY FOR AND ADMINISTER FUNDING FROM THE STATE WATER BOARD ASSOCIATED WITH THE CALIFORNIA WATER AND WASTEWATER ARREARAGE PAYMENT PROGRAM ON BEHALF OF DESERT WATER AGENCY

The COVID-19 public health emergency has heavily impacted the financial wellbeing of many local residents and businesses.

The State Water Board has created a new program, the California Water and Wastewater Arrearage Payment Program. This program has been funded with $985 million in federal funding authorized by the American Rescue Plan Act of 2021 (ARPA). ARPA funding has been allocated by the State legislature to the State Water Board, to provide relief to community water and wastewater systems for unpaid bills related to the pandemic. The funding will cover water debt from residential and commercial customers accrued between March 4, 2020 and June 15, 2021. The program will fund debt related to drinking water first, and if funds remain after January 31, 2022, the program will extend to wastewater debt.

Desert Water Agency is currently in the application process for the California Water and Wastewater Arrearage Payment Program. Desert Water Agency is applying for $333,497 in funding to provide direct payment to customers' water accounts for arrearages resulting from the COVID-19 pandemic. Additionally, there is an opportunity to apply for administrative costs associated with applying for funding, implementing and managing the required program elements (i.e. payment plans for amounts not covered by the California Water and Wastewater Arrearage Payment Program funding, in the event there is not enough funding to cover 100% of all arrearages).

On Tuesday or Wednesday, September 21-22, 2021, the State Water Board will consider adopting the Draft Guidelines at the State Water Board Meeting. Within 14 days of the State Water Board adopting the draft program guidelines, DWR will open the application window and begin receiving and reviewing applications.

In order to complete the application process, Desert Water Agency must complete the Government Taxpayer ID Form to provide the federal tax filing information as well as other application documents not yet provided by DWR. These documents must be signed by an authorized signatory for Desert Water Agency, meaning an official with a delegation

of signature authority by ordinance, resolution, or other delegation to provide the assurances, certifications and commitments associated with the receipt of and use of funding from the State Water Board.

Fiscal Impact:
If Desert Water Agency is eligible for the Community Water System COVID Relief Program, the Agency may receive a total of $333,497.37 ($129,382.11 for 256 Residential Accounts, and $204,115.26 for 81 Commercial Accounts) in federal funds.

Recommendation:
Staff recommends that the Board of Directors authorize Finance Director Saenz to execute required documentation to provide assurances, certifications and commitments associated with the receipt and use of funding from the State Water Board in relation to the Water and Wastewater Arrearage Payment Program application.

Attachments:
1. California Water and Wastewater Arrearage Payment Program Guidelines
2. Government Taxpayer ID Form

CALIFORNIA WATER AND WASTEWATER ARREARAGE PAYMENT PROGRAM GUIDELINES

Adopted
September XX, 2021

CALIFORNIA
Water Boards
STATE WATER RESOURCES CONTROL BOARD
REGIONAL WATER QUALITY CONTROL BOARDS

Table of Contents

INTRODUCTION

The purpose of this document is to establish the process and criteria for the allocation and administration of the funds appropriated to the State Water Resources Control Board (State Water Board) in the Fiscal Year 2021-22 Budget for the California Water and Wastewater Arrearage Payment Program (Program). The criteria include requirements associated with establishing payment plans for customers, and prohibitions on discontinuation of service for water systems participating in the Program. The funding source for the Program is the American Rescue Plan Act (ARPA) of 2021. Any federal requirements associated with the funding source may be requirements of the Program. The State Water Board will notify water systems administrative contacts via email if any requirements change during Program implementation and correspondingly post changes to its website.

The Deputy Director of the Division of Financial Assistance (DFA) and the Deputy Director of the Division of Drinking Water (DDW) may make clarifying, non-substantive amendments to these Guidelines. Future changes to these Guidelines may be necessary due to changes in law or in State Water Board policy. If substantive changes are necessary, amendments to the Guidelines will be considered by the State Water Board.

DEFINITIONS

Arrearage – amount of money owed to a water system from nonpayment of residential and commercial accounts that accrued from completed billing periods during the COVID-19 pandemic bill relief period. Arrearage does not include late fees and interest on outstanding balances, or customer debts that have been forgiven by the community water system, or credits applied to customer accounts from other assistance programs.

Community water system – a system described and regulated under the Safe Drinking Water Act (commencing with section 116270 of the Health and Safety Code): a public water system that serves at least 15 service connections used by permanent residents or regularly serves at least 25 permanent residents of the area served by the system (Health & Saf. Code, § 116275, subd. (i).)

Commercial customer – a water system customer or connection that serves a commercial/institutional customers e.g., hotels, motels, restaurants, office buildings, government and military facilities, gas stations, hospitals, educational institutions, retail establishments, dormitories, nursing homes, churches, jails, prisons, mental health facilities, addiction recovery centers, farmworker housing, and campgrounds. Commercial customer does not include industrial (manufacturing, chemical, refineries, cooling towers, animal & food processing, etc.); agriculture irrigation (crops, aquaculture, etc.); or landscape irrigation (parks, golf courses, etc.).

COVID-19 pandemic bill relief period – the period from March 4, 2020, to June 15, 2021, inclusive, and includes any customer billing period that includes these dates.

Customer notification – a written notification to residential and commercial water system customers or connections of the amount of debt/arrearage forgiveness provided by the Program. Notification must acknowledge the source of funds from the State. Notification language will be provided at a later date.

Default – either of the following:

- A customer's failure to comply with an amortization agreement, an alternative payment schedule, or a deferral or reduction in payment plan for delinquent charges for 60 days or more;
- A customer's failure to pay current residential service charges for 60 days or more from its due date, regardless of whether the customer is subject to an amortization agreement, an alternative payment schedule, or a deferral or reduction in payment plan for delinquent charges.

Disadvantaged Community (DAC) – a community with an annual median household income that is less than 80 percent of the statewide annual median household income (Wat. Code, § 79505.5.)

Large community water system – a community water system that serves more than 3,300 connections or a yearlong population of more than 10,000 persons.

Past-due bills – customer water bills that are 60 days or more past due and includes both active and inactive accounts and accounts that have payment plans or payment arrangements.

Payment plan – a plan for deferred or reduced payment including, but not limited to minimum payments, alternate payment schedules, or amortization of unpaid balances. The payment plan must allow 12 or more months for repayment of outstanding balances.

Residential customer – water service customers residing in single-family residences, multifamily residences, mobile homes, including, but not limited to, mobile homes in mobile home parks, or farmworker housing that receive a bill for water service.

Small community water system – a community water system as defined above that serves no more than 3,300 service connections or a yearlong population of no more than 10,000 persons (Health and Saf. Code, § 116275, subd. (z).).

State – the State of California.

Wastewater treatment provider – city, county, special district, or joint powers authority that provides wastewater collection, treatment or disposal services through a publicly owned treatment works (Health & Saf. Code, § 116773.2 subd. (g).).

Water enterprise revenue shortfall – water service revenue decrease accrued as a difference between a water system's 2019 fiscal or calendar year and its 2020 fiscal or calendar year as a result of the COVID-19 pandemic.

Water shutoff – discontinuation of water service for nonpayment.

SECTION A: ELIGIBILITY

Community water systems that accrued residential and commercial customer arrearages during the COVID-19 pandemic bill relief period are eligible for the Program. This includes community water systems that transferred arrearage debt to a third-party such as a county under a Teeter Plan or a debt collection entity.

SECTION B: PROGRAM REQUIREMENTS

Water systems that participate in the program must:

- Waive customer late fees for any arrearages accrued during the COVID-19 pandemic bill relief period in their entirety even if funding is only available to cover a portion of the customer's arrearage;
- Allocate payments as bill credits to customer accounts within 60 days of receiving payment;
- Notify customers of the amount credited;
- Auto-enroll customers with remaining debt into a payment plan with a minimum repayment period of 12-months;
- Allow customers 30 days to opt-out of a payment plan; and
- Not discontinue water service until the customer defaults on the payment plan or opts out of the payment plan; and
- Report on expenditures and customer credits.

More detail on Program requirements is provided below.

Participating water systems that do not comply with Program requirements may be subject to enforcement actions by the Division of Drinking Water and may be required to return moneys to the State Water Board.

B.1 REQUIREMENT FOR ALL COMMUNITY WATER SYSTEMS – REGARDLESS OF PARTICIPATION IN THE PROGRAM

All community water systems, regardless of size or participation in the Program, must offer payment plans to customers with arrearages, pursuant to AB 148. The payment plans and their associated rules must be consistent with the Water Shutoff Protection Act established under Health and Safety Code section 116900 et seq. (Health and Safety Code, § 116773.4, subd. (e).) Associated rules include, but are not limited to, rules and practices relating to the timing and manner of notice and discontinuation of service for payment plan defaults. Community water systems that violate provisions of the Water Shutoff Protection Act may be subject to enforcement action by DDW or the Attorney General.

SECTION C: PROPORTIONAL ALLOCATION OF FUNDS TO COMMUNITY WATER SYSTEMS

C.1 PURPOSE AND OVERVIEW

Section C of the Guidelines describes the process the State Water Board will use to establish the total statewide need and the proportional allocation methodology. One-time payments will be made to water systems based on the allocation methodology established in this section. Community water systems receiving payments will credit customer bills in accordance with the methodology established in Section E after receiving payment from the State Water Board.

C.2 TOTAL STATEWIDE WATER NEED

The State Water Board used its electronic annual report (EAR) platform to survey all community water systems in August/September 2021 to determine, using available data, the following amounts that accrued during the COVID-19 pandemic bill relief period (March 4, 2020 through June 15, 2021):

- Estimate of total residential customer debt;
- Estimate of water enterprise revenue shortfall for water systems that could not report residential customer debt; and
- Estimate of total commercial customer debt.

Most water systems were able to provide data on residential arrearages, commercial arrearages, and water enterprise revenue shortfalls. For systems that were not able to disaggregate the different debt amounts and report them, State Water Board staff used data from systems that reported all debt information to estimate the other categories for those systems.

For water systems that did not respond to the survey, the State Water Board staff estimated the debt based on the average for systems of similar size. These estimates were added to the total statewide need numbers.

Table 1 shows the data and calculations used to establish the total statewide need.

TABLE 1 placeholder

C.3 METHODOLOGY TO ESTABLISH PROPORTIONAL ALLOCATION

The Deputy Director of DDW will calculate the proportional allocation using the methodology in this Section. If the funding amount is sufficient to cover the full statewide need plus requested administrative costs, the State Water Board will provide water systems with 100 percent of their requested amounts (arrearages plus administrative costs). If there are insufficient funds from the appropriation to reimburse the statewide total need identified in accordance with section A.2, the State Water Board will establish

a proportional allocation. Staff will calculate the proportional allocation based on the percentage of the total statewide need calculated in A.2 that could be reimbursed with the available funds. Each eligible community water system will be offered the proportional allocation based on their reported or estimated need. Administrative costs will be reimbursed from the water system's allocation for those systems seeking reimbursement for administrative costs.

SECTION D: APPLICATION REQUIREMENTS

State Water Board staff sent multiple emails to water systems requesting initial documents (i.e., Payee Data Record (STD. 204)) that systems are required to provide in order to process applications and receive state funds. Technical assistance was provided to water systems that requested help in completing the documents. Systems that have not completed the initial documents MUST submit them as part of their application.

State Water Board staff will provide an application package to all eligible community water systems and begin accepting complete applications within 14 days of State Water Board adoption of these Guidelines. The applications will be accepted through the EAR or another online portal. Technical assistance will be available through the Division of Drinking Water staff, and outside providers to assist community water systems that need help completing the application.

The application will consist of the following forms:

- Application/disbursement form - identifying the maximum amount of funding the water system may apply for. The application form must be signed by the community water system's authorized representative or designee.
- Conditions of payment form – details the program requirements with which the authorized representative, on behalf of the system, agrees to comply.

There will be an initial 60-day application period. State Water Board staff will attempt to contact any community water system that does not apply during the initial application period and provide technical assistance with the application. State Water Board staff will also contact community water systems with incomplete application to assist them.

D.1 SMALL COMMUNITY WATER SYSTEMS

The State Water Board will provide small community water systems with an application that identifies the amount of funding the system is eligible to receive based on the total or proportional allocation calculated according to the methodology in section C.3. Small community water systems must upload the application, signed by the authorized representative or designee for the system, to the application portal or mail the forms to the State Water Board prior to December 6, 2021. The authorized representative, or its designee, must attest that the application is true and accurate based on the community water systems' documentation or the methodology used by the State Water Board if the

community water systems lacks documentation on customer arrearages or revenue shortfalls.

D.2 LARGE COMMUNITY WATER SYSTEMS

D.2.1 Application Process

State Water Board staff will notify large community water systems of the amount of funding the system is eligible to receive based on their reported arrearages, and the total or proportional allocation. Large water systems must provide documentation from accounting or billing systems verifying the reported arrearages as part of the application. Applications must be submitted no later than December 6, 2021. The authorized representative, or its designee, must attest to the accuracy of the application material and the reported arrearages.

D.2.2 Application Review Process

State Water Board staff will verify that the reported arrearages are supported by the community water systems' documentation. Staff may request additional information if the arrearages submitted with the application differ from those reported in the survey, or documentation is inadequate to support the amount. Technical assistance may be available for systems serving disadvantaged communities that lack supporting documentation of arrearages.

D.3 COMMUNITY WATER SYSTEMS WITH COMBINED BILLING SYSTEMS

For systems that combine water with other utilities including but not limited to wastewater, stormwater, refuse, and/or energy, only the water-related portion of the arrearage is eligible for total or partial reimbursement. Community water systems with combined billing may not shut off water due to non-payment of the portion of the bill for other services that accrued during the COVID-19 pandemic relief bill period. This prohibition does not apply to debt accrued before or after the COVID-19 pandemic relief bill period.

For systems that cannot determine the proportion of the arrearage related to drinking water service for each customer account, the water system will use an average customer approach to estimate the proportion of a systems' arrearage that is attributable to the water portion of the bill for its residential and commercial customer classes. For each customer class, the water system will first calculate the average annual bill. Next the water system will calculate the average annual drinking water portion of the average annual customer bill. Then the average annual water portion will be determined using the following formula:

Average Annual Percentage of Drinking Water Charge =

(Average Annual Drinking Water Charges / Total Average Annual Bill) x 100

The average annual percentage of drinking water charge will be the percentage that is applied to the water systems' customer arrearages.

The Deputy Director of DDW is authorized to resolve any disputes regarding the estimation methodology.

D.4 LATE APPLICATIONS

The State Water Board will hold a portion of the funds allocated to water systems that do not complete the application by December 6, 2021 until January 15, 2022. The State Water Board will contact water systems that are late with applications to assist the systems in applying. Third-party technical assistance providers will also be utilized to assist systems. State Water Board staff will post lists of systems that have not applied during the initial 60-day application period on the Program website. Community water systems that submit late applications are not guaranteed funding.

SECTION E: DISBURSEMENT PROCESS AND PRIORITY

State Water Board staff will process disbursements as soon as complete applications are received and reviewed. Staff will prioritize disbursements to small community water systems. State Water Board staff may also prioritize community water systems serving disadvantaged communities. Staff will begin disbursing funds by November 1, 2021. Staff will contact systems with incomplete or missing applications to assist systems and expedite payments.

SECTION F: WATER SYSTEM ALLOCATION TO CUSTOMERS

F.1 ALLOCATION METHODOLOGY

Community water systems may expend up to three percent (3%), or up to $1 million, whichever is less, for costs the system incurs in applying for assistance or complying with Program requirements. If there are sufficient funds to cover the statewide arrearage total plus the administrative costs, system may request enough funds to cover both. If there are insufficient funds to cover the total statewide arrearages and administrative costs, water systems that choose to be reimbursed for administrative costs may deduct those costs from their allocation before crediting customer accounts. Remaining funds must be allocated as bill credits to customers within 60 days of receiving funds. System costs to apply for funds and comply with Program requirements must be documented and reported to the State Water Board.

F.1.1 Customer Bill Credits

If the funding amount is inadequate to eliminate the full arrearage amounts for all customers, community water systems should establish a tiered system of reimbursement that prioritizes residential customers and customers with the highest arrearages. Tiers should be established as follows. Community water systems will

determine the arrearage ranges for each tier, and the allocation percentage based on their data and their allocation. The following tiers are recommended if sufficient funds are available:

- Tier 1 - Residential customers with highest arrearages and, where information is available, low-income customers
- Tier 2 - Residential customers with moderate arrearages
- Tier 3 - Remaining residential customers
- Tier 4 - Commercial customers

Community water systems who establish a tiered system of reimbursement must strive to provide one hundred percent (100%) of debt relief for each tier before providing debt relief to the next tier. Where there is not enough funding for a tier to provide 100% debt relief, the water system shall provide an equal percent to each customer in the tier. Technical assistance will be available to assist community water systems to analyze customer arrearage data to establish tiers and credit amounts.

Community water systems that do not implement a tiered debt forgiveness system must credit arrearages proportionally to the amount of assistance the system receives.

F1.2 Debt Transferred to Third Parties

Community water systems that have transferred their arrearages that qualify for the Program to a third-party are eligible and may still apply to receive funding. Community water systems that no longer hold the arrearage debt must credit qualifying active customer accounts, creating a positive balance for those customers to apply toward future water bills. Community water systems must notify their customers of this credit and must indicate that the relief afforded by this credit should be used to pay down the debt that was transferred to the third party.

F.1.3 Late Fees

Water systems must waive late fees for customers with arrearages. Late fees cannot be included in the calculation of the system's total arrearages, or in the determination of the proportional amount to credit to customers' bills.

F.2 CUSTOMER CREDIT AND NOTIFICATION

F.2.1 Notification of Customer Bill Credits

Water systems must allocate the funds as bill credits to customers within 60 days of receiving funds. Water systems must notify customers in writing of the amount credited. The acknowledgement must state that the credited amount is being provided through the California Water and Wastewater Arrearage Payment Program through funding from the State Water Resources Control Board using federal ARPA funds.

F.2.2 Payment Plans

If funds are inadequate to eliminate all residential and commercial arrearages, the water system must enroll any residential and commercial customers with remaining balances after the credits have been applied in a payment plan. The notice offering the payment plan must provide the customer with 30 days to opt out of the plan from the date of the notice. All other provisions of Health and Safety Code section 116900 related to payment plans apply to any plans established under this Program, regardless of the size of the community water system.

- Policies and related notices must be in English and any other language spoken by 10% or more of the community water system's customers
- A formal mechanism for a customer to contest or appeal a bill must exist and must be shared with customers.
- The community water system must provide a telephone number to allow a customer to contact a system representative to discuss options for averting water shutoff for nonpayment.

Water systems must also refer eligible customers with remaining balances after the Program funds are credited to accounts to the Low Income Household Water Assistance Program administered by the Department of Community Services and Development for potential enrollment in other low-income assistance programs. Large water systems must either:

- identify low-income customers by obtaining CARES data or other data related to a low-income rate assistance program, or
- ask customers to self-identify low income status.

F.2.3 Shut Off Prohibition

A community water system receiving funds from this Program due to non-payment of bills may not discontinue water service before the later of the following dates: (1) the date identified in Health and Safety Codes section 116773.4 (i.e. September 30, 2021); or (2) for a customer that has been offered a payment plan, the date the customer misses the enrollment deadline for, or defaults on, the payment plan. A community water system may not discontinue water service to a customer that remains current on a payment plan. Community water systems, regardless of size, must comply with Health and Safety Code section 116908 *et seq.* regarding discontinuation of service.

F.2.4 Consumer Debt Reporting and Third-Party Collection

The community water system must agree to not furnish information regarding arrearages for which credits have been provided to customers under this Program to any consumer reporting agency, as that term is defined at 15 U.S.C. section 1681a, subd. (f). The system must also agree not to assign to a third party any arrearage for

which a credit has been provided to a customer under this Program for purposes of collection.

If a water system has furnished information regarding arrearages for which credits have been provided to customers under this Program to a consumer reporting agency, as that term is defined at 15 U.S.C. section 1681a, subd. (f), the water system agrees to, within thirty days of receiving payment:

> Instruct each such consumer reporting agency to delete all information regarding the arrearages for which credits have been provided to customers under this Program; and
>
> Cease further furnishing of information regarding the arrearages for which credits have been provided to customers under this Program to any consumer reporting agency.

If a water system has assigned arrearages for which credits have been provided to customers under this Program for purposes of collection to a third party that is not a tax agency, the water system agrees to recall the debt. If the third party at any time furnished information regarding the debt to one or more consumer reporting agencies, as that term is defined at 15 U.S.C. section 1681a, subd. (f), the water system agrees to, within thirty days of receiving payment, require the third party to:

> Instruct each such consumer reporting agency to delete all information regarding the debt; and
>
> Cease further furnishing of information regarding the debt to any consumer reporting agency.

F.2.5 Tax Information

Water systems should consult with tax professionals regarding potential tax liability and reporting requirements. The State Water Board is not authorized to provide federal or state tax advice to water systems.

The State Water Board has been directed to issue a 1099-G to each community water system that receives funding. A water system's tax liability will depend on various factors, which may include the water system's entity status, if the water system has an offsetting loss, any other relevant factors specific to each water system, and current federal and state tax laws. Water systems should consult their own tax professional for questions about potential tax liability.

Some water systems may be subject to tax reporting requirements, including the issuance of a 1099-C or other tax form to customers who receive debt relief. Water systems should consult their own tax professional for questions about tax reporting requirements.

F.3 RETURN OF FUNDS NOT CREDITED TO CUSTOMERS

Water systems must remit any funds not credited to customers, or used by the water system to apply for funds and comply with program requirements, back to the State Water Board within six months of receiving payment.

SECTION G: REPORTING REQUIREMENTS

All community water systems that receive funds must provide certification to the State Water Board that, except for authorized administrative costs, Program funds were applied as credits to customer bills to offset COVID-19 arrearages. Systems must report the total amount credited, the number of accounts credited, the number of customers enrolled in a payment plan and the number of customers that opt out of a payment plan based on the tiers established above. Systems must also report the amount used for administration of the Program. The State Water Board will provide a template or online portal for reporting. The State Water Board may request the supporting documentation to validate the reported amounts. Water systems accepting funds may be audited and must retain documentation supporting the reported amounts for seven years following final reporting.

SECTION H: WASTEWATER ARREARAGE PROGRAM

If the appropriated amount exceeds the Statewide Need for water system arrearages or the total amount requested by water systems, the State Water Board will amend these Guidelines, or adopt new ones, to establish a program for funding wastewater treatment provider arrearages and revenue shortfalls. The State Water Board will establish the Program no later than February 1, 2022.

SECTION I: STATE CROSS-CUTTING REQUIREMENTS

State Cross-Cutters: Miscellaneous state laws apply to funding provided by state agencies. The recipient must comply with, or not be prohibited from receiving funding under, the following laws:

STATE CROSS-CUTTERS

a. Water Conservation requirements, including regulations in Division 3 of Title 23 of the California Code of Regulations.

b. Monthly Water Diversion Reporting requirements, including requirements set forth in Water Code section 5103.

c. Public Works Contractor Registration with Department of Industrial Relations requirements, including requirements set forth in Sections 1725.5 and 1771.1 of the Labor Code.

d. Volumetric Pricing & Water Meters requirements, including the requirements of Water Code sections 526 and 527.

e. Urban Water Management Plan requirements, including the Urban Water Management Planning Act (Wat. Code, § 10610 et seq.).

f. Urban Water Demand Management requirements, including the requirements of Section 10608.56 of the Water Code.

g. Delta Plan Consistency Findings requirements, including the requirements of Water Code section 85225 and California Code of Regulations, title 23, section 5002.

h. Agricultural Water Management Plan Consistency requirements, including the requirements of Water Code section 10852.

i. Charter City Project Labor Requirements, including the requirements of Labor Code section 1782 and Public Contract Code section 2503.

State of California
Financial Information System for California (FI$Cal)

GOVERNMENT AGENCY TAXPAYER ID FORM

2000 Evergreen Street, Suite 215
Sacramento, CA 95815
www.fiscal.ca.gov
1-855-347-2250

The principal purpose of the information provided is to establish the unique identification of the government entity.

Instructions: You may submit one form for the principal government agency and all subsidiaries sharing the same TIN. Subsidiaries with a different TIN must submit a separate form. Fields marked with an asterisk (*) are required. Hover over fields to view help information. Please print the form to sign prior to submittal. You may email the form to: vendors@fiscal.ca.gov, or fax it to (916) 576-5200, or mail it to the address above.

Principal Government Agency Name*

Remit-To Address (Street or PO Box)*

City* State * Zip Code*+4

Government Type:
- ☐ City
- ☐ County
- ☐ Special District
- ☐ Federal
- ☐ Other (Specify)

Federal Employer Identification Number (FEIN)*

List other subsidiary Departments, Divisions or Units under your principal agency's jurisdiction who share the same FEIN and receives payment from the State of California.

Dept/Division/Unit Name	Complete Address
Dept/Division/Unit Name	Complete Address
Dept/Division/Unit Name	Complete Address
Dept/Division/Unit Name	Complete Address

Contact Person* Title

Phone number* E-mail address

Signature* Date

DESERT WATER AGENCY
STATEMENT OF CASH RECEIPTS AND EXPENDITURES

5

PRELIMINARY

OPERATING ACCOUNT

JULY 2021

			INVESTED RESERVE FUNDS
BALANCE JULY 1, 2021		($ 384,093.12)	$40,580,360.93
WATER SALES	$4,153,340.65		
RECLAMATION SALES	124,654.74		
WASTEWATER RECEIPTS	152,647.36		
POWER SALES	.00		
METERS, SERVICES, ETC.	52,876.00		
REIMBURSEMENT - GENERAL FUND	.00		
REIMBURSEMENT - WASTEWATER FUND	.00		
ACCOUNTS RECEIVABLE - OTHER	24,740.42		
CUSTOMER DEPOSITS - SURETY	31,742.00		
CUSTOMER DEPOSITS - CONST.	104,016.00		
LEASE REVENUE	1,705.58		
INTEREST RECEIVED ON INV. FDS.	25,862.65		
FRONT FOOTAGE FEES	.00		
BOND SERVICE & RESERVE FUND INT	.00		
MISCELLANEOUS	12,280.12		
TOTAL RECEIPTS		$4,683,865.52	
PAYMENTS			
PAYROLL CHECKS	$ 414,744.56		
PAYROLL TAXES	196,297.13		
ELECTRONIC TRANSFERS	2,277,328.18		
CHECKS UNDER $10,000.00	372,260.16		
CHECKS OVER $10,000.00-SCH.#1	3,087,608.59		
CANCELLED CHECKS AND FEES	-427,883.09		
TOTAL PAYMENTS		$5,920,352.53	
NET INCOME		($ 1,236,487.01)	
BOND SERVICE ACCOUNT			
MONTHLY WATER SALES	$ .00		
EXCESS RETURNED BY B/A	.00		
BOND SERVICE FUND		.00	
INVESTED RESERVE FUNDS			
FUNDS MATURED	$2,902,000.00		
FUNDS INVESTED - SCH.#3	1,629,862.65		
NET TRANSFER		$ 1,272,137.35	($ 1,272,137.35)
BALANCE JULY 31, 2021		($ 348,442.78)	$39,308,223.58

DESERT WATER AGENCY

Operating Fund

Schedule #1 - Checks Over $10,000

1961 60 years 2021

July 2021

Check #	Name	Description		Amount
128716	ACWA/JPIA	Workers Compensation Premium / April - June 2021	$	62,227.12
128725	ACWA/JPIA	Health, dental & vision insurance premiums - July 2021	$	220,558.64
128727	Singer Lewak LLP	ERP Consulting (W/O # 20-178-M)	$	70,075.55
128738	Best Best & Krieger LLP	Cancelled check - to reissue	$	157,181.25
128784	Singer Lewak LLP	Cancelled check - to reissue	$	65,963.65
128789	Thatcher Company of California	Cancelled check - to reissue	$	11,863.03
128793	United Water Works Inc.	Cancelled check - to reissue	$	128,518.70
128811	Best Best & Krieger LLP	Legal fees	$	157,181.25
128857	Best Best & Krieger LLP	Legal fees	$	65,963.65
128862	Thatcher Company of California	Water service supplies	$	11,863.03
128866	United Water Works Inc.	Water service supplies	$	128,518.70
128875	Venture Pacific Insurance Services	Earthquake/Flood Insurance	$	63,176.00
128887	Empower management LLC	Toilet Incentive	$	10,000.00
128904	ACWA/JPIA	Health, dental & vision insurance premiums - August 2021	$	222,857.16
128933	Desert Water Agency - Wastewater	Wastewater revenue billing - June 2021	$	81,652.72
128935	Desert Water Agency - General Fund	Ground water billing / April-June 2021	$	1,161,449.99
128938	ACWA/JPIA	21-22 Property Program Rates	$	29,180.51
128945	Backflow Apparatus & Valve Co.	Water service supplies	$	26,610.03
128947	Badger Meter Inc.	Water service supplies	$	30,979.37
128957	Cleanexcel, Inc	Cleaning services - July 2021	$	11,472.00
128969	Down to Earth Landscaping	Landscape maintenance	$	32,070.47
128973	FM Thomas Air Conditioning Inc.	Remove & replace compressor #2 & #3	$	21,164.00
128975	Ferguson Waterworks	Water service supplies	$	30,774.48
128981	Grainger W W Inc.	Water service supplies	$	12,186.14
128985	Hunter Johnsen Inc.	Agency Consulting Services for CV Water Counts	$	10,138.93
128989	Inland Water Works Supply Co.	Water service supplies	$	36,940.24
128991	J & R Concrete Products Inc.	Well sites concrete vaults	$	10,269.50
128999	McKeever Waterwell & Pump Inc.	Well #23 pump/pipe installation	$	49,798.00
129009	Outflow Technologies	Programming - Core backoffice project (W/O # 18-179-M)	$	25,445.00

DESERT WATER AGENCY

Operating Fund

Schedule #1 - Checks Over $10,000

1961 60 years 2021

July 2021

Check #	Name	Description		Amount
129021	Singer Lewak LLP	ERP Consulting (IT Governance)	$	23,187.30
129024	Social & Environmental Entp.	CaDC FY 21-22 Membership	$	10,000.00
129026	Southern Calif Edison	Power	$	14,929.78
129027	Southland Pipe Corp.	Water service supplies	$	11,751.40
129029	Thatcher Company of California	Water service supplies	$	36,692.50
129044	Z&L Paving	Paving	$	44,968.50
Total			**$**	**3,087,608.59**

clearwater

Monthly Investment Portfolio Report

As of 07/31/2021

AGG- Operating Fund (213426)

Dated: 09/13/2021

Security Type

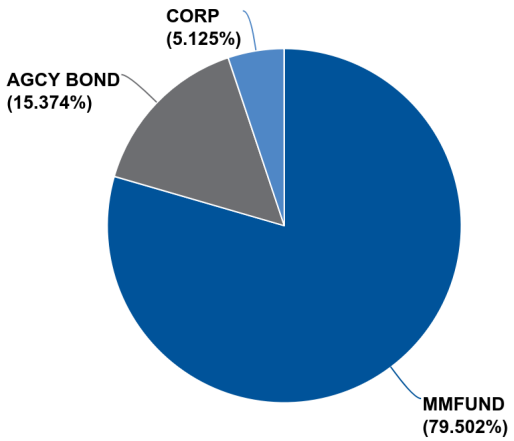


Chart calculated by: PAR Value

MMFUND

Description, Broker	*Settle Date*	*Next Call Date*	*Effective Maturity*	*Final Maturity*	*PAR Value*	*Original Cost*	*Market Value*	*Yield to Maturity*
LAIF Money Market Fund LAIF - OP	---	---	07/31/2021	07/31/2021	31,027,513.58	31,027,513.58	31,027,513.58	---
LAIF Money Market Fund LAIF - OP	**---**	**---**	**07/31/2021**	**07/31/2021**	**31,027,513.58**	**31,027,513.58**	**31,027,513.58**	**---**

AGCY BOND

Description, Broker	*Settle Date*	*Next Call Date*	*Effective Maturity*	*Final Maturity*	*PAR Value*	*Original Cost*	*Market Value*	*Yield to Maturity*
FEDERAL FARM CREDIT BANKS FUNDING CORP UnionBanc OP	04/29/2021	04/28/2023	04/28/2023	04/28/2025	1,000,000.00	999,500.00	1,001,119.00	0.580%
FEDERAL HOME LOAN BANKS UnionBanc OP	06/28/2021	12/30/2021	09/30/2024	09/30/2024	1,000,000.00	1,000,000.00	998,801.00	0.438%
FEDERAL HOME LOAN MORTGAGE CORP UnionBanc OP	08/20/2020	08/20/2022	08/20/2025	08/20/2025	1,000,000.00	1,000,000.00	998,522.00	0.662%
FEDERAL NATIONAL MORTGAGE ASSOCIATION UnionBanc OP	06/30/2020	09/30/2021	09/30/2021	06/30/2025	1,000,000.00	1,000,000.00	1,001,008.00	0.704%
FEDERAL NATIONAL MORTGAGE ASSOCIATION UnionBanc OP	08/12/2020	08/12/2022	08/12/2025	08/12/2025	1,000,000.00	1,000,000.00	997,522.00	0.622%
FEDERAL NATIONAL MORTGAGE ASSOCIATION UnionBanc OP	12/16/2020	12/14/2021	06/14/2024	06/14/2024	1,000,000.00	1,000,500.00	999,148.00	0.405%
--- UnionBanc OP	**---**	**---**	**04/02/2024**	**03/18/2025**	**6,000,000.00**	**6,000,000.00**	**5,996,120.00**	**0.569%**

CORP

Monthly Investment Portfolio Report

As of 07/31/2021

AGG- Operating Fund (213426)

Dated: 09/13/2021

Description, Broker	*Settle Date*	*Next Call Date*	*Effective Maturity*	*Final Maturity*	*PAR Value*	*Original Cost*	*Market Value*	*Yield to Maturity*
JPMORGAN CHASE BANK, NATIONAL ASSOCIATION UnionBanc OP	06/22/2021	---	12/23/2024	12/23/2024	1,000,000.00	1,000,000.00	1,002,590.00	0.343%
WELLS FARGO BANK NA UnionBanc OP	10/04/2019	09/10/2021	09/10/2021	09/09/2022	1,000,000.00	1,000,710.00	1,001,251.00	0.793%
--- UnionBanc OP	**---**	**---**	**05/01/2023**	**10/31/2023**	**2,000,000.00**	**2,000,710.00**	**2,003,841.00**	**0.569%**

Summary

Description, Broker	*Settle Date*	*Next Call Date*	*Effective Maturity*	*Final Maturity*	*PAR Value*	*Original Cost*	*Market Value*	*Yield to Maturity*
--- ---	**---**	**---**	**01/30/2022**	**04/03/2022**	**39,027,513.58**	**39,028,223.58**	**39,027,474.58**	**0.569%**

* Grouped by: Security Type. * Groups Sorted by: Ending Market Value + Accrued. * Filtered By: Description ≠ "Receivable". * Weighted by: Ending Market Value + Accrued.

DESERT WATER AGENCY **PRELIM** ID..CSHSTA
STATEMENT OF CASH RECEIPTS AND EXPENDITURES

GENERAL ACCOUNT

JULY 2021

			INVESTED RESERVE FUNDS
BALANCE	JULY 1, 2021	($ 783,632.43)	$ 181,994,290.10
*TAXES - RIVERSIDE COUNTY	567,038.28		
*INTEREST EARNED - INV. FUNDS	124,241.59		
GROUNDWATER REPLEN. ASSESSMENT	1,263,048.41		
REIMBURSEMENT - OPERATING FUND	.00		
REIMBURSEMENT - CVWD MGMT AGRMT	.00		
STATE WATER PROJECT REFUNDS	.00		
REIMB-CVWD-WHITEWATER HYDRO	.00		
POWER SALES-WHITEWATER	11.94		
MISCELLANEOUS	.00		
TOTAL RECEIPTS		$1,954,340.22	
PAYMENTS			
CHECKS UNDER $10,000.00	10,950.00		
CHECKS OVER $10,000.00-SCH.#1	3,632,675.65		
CANCELLED CHECKS AND FEES	.00		
TOTAL PAYMENTS		$3,643,625.65	
NET INCOME		($ 1,689,285.43)	
INVESTED RESERVE FUNDS			
FUNDS MATURED	938,000.00		
FUNDS INVESTED - SCH.#2	547,600.93		
NET TRANSFER		$ 390,339.07	$(390,399.07)
BALANCE	JULY 31, 2021	(2,082,518.79)	181,603,891.03

*INCLUSIVE TO DATE	TAXES	INTEREST
RECEIPTS IN FISCAL YEAR	$ 567,038.28	$ 124,241.59
RECEIPTS IN CALENDAR YEAR	$29,098,537.82	$ 938,346.36

DESERT WATER AGENCY

General Fund

Schedule #1 - Checks Over $10,000

1961 60 years 2021

July 2021

Check #	Name	Description		Amount
9547	State Water Contractors	2021-2022 Annual Membership Dues	$	154,692.00
9548	Water Systems Consulting, Inc.	Regional Urban Water Management Plan	$	11,580.00
9550	County of Riverside	LAFCO FY22 Fees	$	14,572.63
9551	State of California Department of Water Resources	State Water Project - July 2021	$	3,403,115.00
9554	United States Geological Survey	Joint Funding Agreement quarterly billing (11/20 - 09/21)	$	21,070.00
9555	Coachella Valley Water District	SNMP Cost Share	$	27,646.02
Total			**$**	**3,632,675.65**

clearwater

Monthly Investment Portfolio Report

As of 07/31/2021

AGG- General Fund (213428)

Dated: 09/13/2021

Security Type

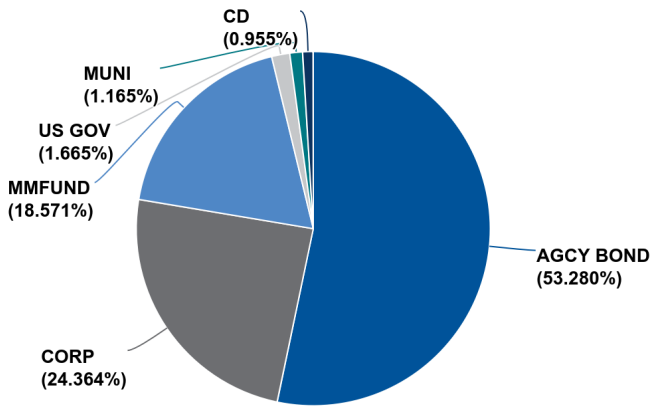


Chart calculated by: PAR Value

AGCY BOND

Description, Broker	*Settle Date*	*Next Call Date*	*Effective Maturity*	*Final Maturity*	*PAR Value*	*Original Cost*	*Market Value*	*Yield to Maturity*
FEDERAL FARM CREDIT BANKS FUNDING CORP Alamo Capital	08/04/2020	08/20/2021	08/04/2025	08/04/2025	3,000,000.00	3,000,005.00	2,997,381.00	0.692%
FEDERAL FARM CREDIT BANKS FUNDING CORP Alamo Capital	10/15/2020	08/20/2021	10/15/2024	10/15/2024	3,000,000.00	2,995,500.00	2,992,683.00	0.477%
FEDERAL FARM CREDIT BANKS FUNDING CORP Alamo Capital	01/05/2021	08/20/2021	04/05/2024	04/05/2024	3,000,000.00	3,000,000.00	2,993,787.00	0.348%
FEDERAL FARM CREDIT BANKS FUNDING CORP Alamo Capital	02/12/2021	08/20/2021	11/12/2024	11/12/2024	3,000,000.00	3,000,000.00	2,984,091.00	0.463%
FEDERAL FARM CREDIT BANKS FUNDING CORP UnionBanc GF	12/22/2020	12/22/2022	12/22/2025	12/22/2025	3,000,000.00	3,000,000.00	2,973,582.00	0.674%
FEDERAL FARM CREDIT BANKS FUNDING CORP Piper Sandler	10/15/2020	10/15/2021	10/15/2024	10/15/2024	3,000,000.00	3,000,000.00	2,994,807.00	0.484%
FEDERAL FARM CREDIT BANKS FUNDING CORP Piper Sandler	12/28/2020	12/21/2021	12/21/2023	12/21/2023	3,000,000.00	3,000,000.00	2,994,552.00	0.286%
FEDERAL FARM CREDIT BANKS FUNDING CORP Stifel	10/16/2020	08/17/2021	03/28/2024	03/28/2024	3,000,000.00	3,000,000.00	2,995,431.00	0.358%
FEDERAL HOME LOAN BANKS Alamo Capital	04/09/2021	11/18/2021	11/18/2024	11/18/2024	3,000,000.00	2,989,263.00	2,983,755.00	0.466%
FEDERAL HOME LOAN BANKS UnionBanc GF	12/30/2020	12/30/2021	12/30/2025	12/30/2025	3,000,000.00	3,000,000.00	2,977,581.00	0.692%
FEDERAL HOME LOAN BANKS UnionBanc GF	06/28/2021	12/30/2021	09/30/2024	09/30/2024	3,000,000.00	3,000,000.00	2,996,403.00	0.438%
FEDERAL HOME LOAN BANKS Piper Sandler	11/04/2019	11/04/2021	11/04/2021	11/04/2024	3,000,000.00	3,000,000.00	3,013,626.00	1.731%
FEDERAL HOME LOAN BANKS Piper Sandler	01/28/2021	08/17/2021	03/28/2024	03/28/2024	3,000,000.00	3,000,000.00	2,993,478.00	0.352%
FEDERAL HOME LOAN BANKS Piper Sandler	02/17/2021	11/17/2021	02/17/2026	02/17/2026	3,000,000.00	3,000,000.00	2,981,592.00	0.763%

Monthly Investment Portfolio Report

As of 07/31/2021

AGG- General Fund (213428)

Dated: 09/13/2021

Description, Broker	Settle Date	Next Call Date	Effective Maturity	Final Maturity	PAR Value	Original Cost	Market Value	Yield to Maturity
FEDERAL HOME LOAN BANKS Piper Sandler	02/26/2021	08/26/2021	11/26/2024	11/26/2024	3,000,000.00	3,000,000.00	2,983,311.00	0.469%
FEDERAL HOME LOAN BANKS Piper Sandler	03/30/2021	09/30/2021	09/30/2021	03/30/2026	3,000,000.00	3,000,000.00	3,004,368.00	0.988%
FEDERAL HOME LOAN BANKS Piper Sandler	04/06/2021	09/30/2021	09/30/2021	09/30/2024	3,000,000.00	3,000,000.00	3,002,001.00	0.479%
FEDERAL HOME LOAN BANKS Piper Sandler	04/22/2021	10/29/2021	04/29/2024	04/29/2024	3,000,000.00	3,000,000.00	2,999,712.00	0.378%
FEDERAL HOME LOAN BANKS Stifel	02/25/2021	08/25/2021	11/25/2024	11/25/2024	3,000,000.00	3,000,000.00	2,988,078.00	0.471%
FEDERAL HOME LOAN BANKS Stifel	03/30/2021	09/30/2021	09/30/2021	09/30/2024	2,000,000.00	2,000,000.00	2,001,366.00	0.488%
FEDERAL HOME LOAN BANKS Stifel	06/28/2021	09/28/2021	02/28/2024	02/28/2024	3,000,000.00	3,000,000.00	2,994,060.00	0.327%
FEDERAL HOME LOAN MORTGAGE CORP Alamo Capital	09/30/2020	09/30/2021	09/30/2025	09/30/2025	3,000,000.00	3,000,000.00	2,971,191.00	0.634%
FEDERAL HOME LOAN MORTGAGE CORP UnionBanc GF	08/20/2020	08/20/2022	08/20/2025	08/20/2025	3,000,000.00	3,000,000.00	2,995,566.00	0.662%
FEDERAL HOME LOAN MORTGAGE CORP Piper Sandler	06/25/2020	06/25/2022	06/25/2022	06/25/2025	3,000,000.00	3,000,000.00	3,004,443.00	0.661%
FEDERAL HOME LOAN MORTGAGE CORP Piper Sandler	08/26/2020	08/26/2021	08/26/2021	08/26/2024	3,000,000.00	3,000,000.00	3,000,831.00	0.491%
FEDERAL HOME LOAN MORTGAGE CORP Stifel	10/28/2020	10/28/2022	10/28/2024	10/28/2024	3,000,000.00	3,000,000.00	2,993,850.00	0.474%
FEDERAL HOME LOAN MORTGAGE CORP Stifel	11/30/2020	11/30/2022	05/30/2024	05/30/2024	3,000,000.00	3,000,000.00	2,997,696.00	0.387%
FEDERAL NATIONAL MORTGAGE ASSOCIATION Alamo Capital	08/25/2020	---	08/25/2025	08/25/2025	3,000,000.00	2,985,965.00	2,973,954.00	0.591%
FEDERAL NATIONAL MORTGAGE ASSOCIATION Alamo Capital	09/06/2019	---	09/06/2022	09/06/2022	1,000,000.00	996,520.00	1,013,967.00	0.104%
FEDERAL NATIONAL MORTGAGE ASSOCIATION UnionBanc GF	07/15/2020	10/15/2021	10/15/2021	07/15/2025	3,000,000.00	3,000,000.00	3,003,207.00	0.703%
FEDERAL NATIONAL MORTGAGE ASSOCIATION UnionBanc GF	08/12/2020	08/12/2022	08/12/2025	08/12/2025	3,000,000.00	3,000,000.00	2,992,566.00	0.622%
FEDERAL NATIONAL MORTGAGE ASSOCIATION UnionBanc GF	12/16/2020	12/14/2021	06/14/2024	06/14/2024	3,000,000.00	3,001,500.00	2,997,444.00	0.405%
FEDERAL NATIONAL MORTGAGE ASSOCIATION Piper Sandler	12/14/2020	12/14/2021	06/14/2024	06/14/2024	3,000,000.00	3,000,000.00	2,997,444.00	0.405%
--- ---	**---**	**---**	**04/10/2024**	**12/21/2024**	**96,000,000.00**	**95,968,753.00**	**95,787,804.00**	**0.554%**

CORP

Description, Broker	Settle Date	Next Call Date	Effective Maturity	Final Maturity	PAR Value	Original Cost	Market Value	Yield to Maturity
3M CO Stifel	06/05/2020	03/15/2025	03/15/2025	04/15/2025	3,000,000.00	3,258,120.00	3,203,307.00	0.792%
APPLE INC Alamo Capital	09/16/2019	08/11/2024	08/11/2024	09/11/2024	1,000,000.00	990,552.00	1,038,213.00	0.560%
APPLE INC UnionBanc GF	01/27/2021	08/11/2024	08/11/2024	09/11/2024	3,000,000.00	3,150,000.00	3,114,639.00	0.560%
APPLE INC Stifel	09/24/2020	04/11/2025	04/11/2025	05/11/2025	2,000,000.00	2,055,740.00	2,025,688.00	0.779%
APPLE INC Stifel	03/26/2021	01/08/2026	02/08/2026	02/08/2026	1,000,000.00	986,200.00	993,858.00	0.839%
BANK OF NEW YORK MELLON CORP Alamo Capital	05/06/2020	03/24/2025	03/24/2025	04/24/2025	1,000,000.00	1,020,005.00	1,031,084.00	0.754%
CATERPILLAR FINANCIAL SERVICES CORP Alamo Capital	12/17/2020	---	09/14/2023	09/14/2023	3,000,000.00	3,012,276.48	3,005,880.00	0.357%
CHEVRON CORP Stifel	07/08/2020	01/03/2024	01/03/2024	03/03/2024	3,000,000.00	3,239,700.00	3,176,451.00	0.604%
CITIBANK NA Stifel	06/24/2020	12/23/2023	12/23/2023	01/23/2024	3,000,000.00	3,297,000.00	3,228,201.00	0.558%

Description, Broker	Settle Date	Next Call Date	Effective Maturity	Final Maturity	PAR Value	Original Cost	Market Value	Yield to Maturity
EXXON MOBIL CORP UnionBanc GF	03/17/2020	---	08/16/2022	08/16/2022	3,000,000.00	3,037,470.00	3,052,626.00	0.220%
EXXON MOBIL CORP UnionBanc GF	11/22/2019	01/01/2023	01/01/2023	03/01/2023	2,000,000.00	2,055,180.00	2,067,650.00	0.580%
JOHN DEERE CAPITAL CORP Alamo Capital	04/03/2020	---	09/08/2022	09/08/2022	1,000,000.00	1,003,535.00	1,021,157.00	0.233%
JOHN DEERE CAPITAL CORP Alamo Capital	02/08/2021	---	01/15/2026	01/15/2026	3,000,000.00	3,000,000.00	2,991,297.00	0.766%
MICROSOFT CORP Stifel	12/20/2019	02/01/2023	02/01/2023	05/01/2023	2,000,000.00	2,034,620.00	2,063,816.00	0.543%
MICROSOFT CORP Stifel	02/10/2021	08/03/2025	08/03/2025	11/03/2025	3,000,000.00	3,337,530.00	3,279,945.00	0.887%
TOYOTA MOTOR CREDIT CORP Alamo Capital	07/18/2019	---	09/08/2022	09/08/2022	1,000,000.00	1,000,000.00	1,021,213.00	0.228%
TOYOTA MOTOR CREDIT CORP Alamo Capital	10/21/2019	---	10/07/2024	10/07/2024	1,500,000.00	1,499,994.00	1,565,247.00	0.619%
TOYOTA MOTOR CREDIT CORP Alamo Capital	02/19/2019	---	07/13/2022	07/13/2022	1,400,000.00	1,399,076.00	1,435,056.00	0.169%
VISA INC Stifel	01/30/2020	10/14/2022	10/14/2022	12/14/2022	2,000,000.00	2,065,680.00	2,061,404.00	0.551%
WALMART INC Stifel	06/18/2020	10/15/2024	10/15/2024	12/15/2024	2,000,000.00	2,173,300.00	2,136,530.00	0.604%
WELLS FARGO BANK NA UnionBanc GF	10/04/2019	09/10/2021	09/10/2021	09/09/2022	2,000,000.00	2,001,420.00	2,002,502.00	0.793%
--- ---	**---**	**---**	**02/14/2024**	**04/02/2024**	**43,900,000.00**	**45,617,398.47**	**45,515,764.00**	**0.587%**

MMFUND

Description, Broker	Settle Date	Next Call Date	Effective Maturity	Final Maturity	PAR Value	Original Cost	Market Value	Yield to Maturity
LAIF Money Market Fund LAIF - GF	---	---	07/31/2021	07/31/2021	33,461,821.81	33,461,821.81	33,461,821.81	---
LAIF Money Market Fund LAIF - GF	**---**	**---**	**07/31/2021**	**07/31/2021**	**33,461,821.81**	**33,461,821.81**	**33,461,821.81**	**---**

US GOV

Description, Broker	Settle Date	Next Call Date	Effective Maturity	Final Maturity	PAR Value	Original Cost	Market Value	Yield to Maturity
UNITED STATES TREASURY UnionBanc GF	05/27/2021	---	11/15/2023	11/15/2023	3,000,000.00	3,005,156.25	3,001,406.25	0.229%
UNITED STATES TREASURY UnionBanc GF	**05/27/2021**	**---**	**11/15/2023**	**11/15/2023**	**3,000,000.00**	**3,005,156.25**	**3,001,406.25**	**0.229%**

MUNI

Description, Broker	Settle Date	Next Call Date	Effective Maturity	Final Maturity	PAR Value	Original Cost	Market Value	Yield to Maturity
EL CAJON CALIF UnionBanc GF	02/08/2021	---	04/01/2024	04/01/2024	300,000.00	302,583.00	298,626.00	1.101%
EL CAJON CALIF UnionBanc GF	02/08/2021	---	04/01/2023	04/01/2023	400,000.00	402,124.00	401,780.00	0.381%
MONTEREY PK CALIF PENSION OBLIG UnionBanc GF	02/16/2021	---	06/01/2025	06/01/2025	400,000.00	403,156.00	400,496.00	0.854%
MONTEREY PK CALIF PENSION OBLIG UnionBanc GF	02/16/2021	---	06/01/2023	06/01/2023	450,000.00	450,643.50	450,648.00	0.284%
MONTEREY PK CALIF PENSION OBLIG UnionBanc GF	02/16/2021	---	06/01/2024	06/01/2024	550,000.00	552,255.00	551,078.00	0.556%
--- UnionBanc GF	**---**	**---**	**02/23/2024**	**02/23/2024**	**2,100,000.00**	**2,110,761.50**	**2,102,628.00**	**0.599%**

clearwater

Monthly Investment Portfolio Report

As of 07/31/2021

AGG- General Fund (213428)

Dated: 09/13/2021

CD

Description, Broker	*Settle Date*	*Next Call Date*	*Effective Maturity*	*Final Maturity*	*PAR Value*	*Original Cost*	*Market Value*	*Yield to Maturity*
Ally Bank Piper Sandler	05/30/2019	---	05/31/2022	05/31/2022	245,000.00	245,000.00	249,846.59	0.130%
Goldman Sachs Bank USA Piper Sandler	06/05/2019	---	06/06/2022	06/06/2022	245,000.00	245,000.00	249,965.17	0.119%
JPMorgan Chase Bank, National Association Alamo Capital	02/08/2021	10/16/2021	01/16/2026	01/16/2026	250,000.00	250,000.00	249,214.75	0.671%
Morgan Stanley Bank, N.A. Piper Sandler	06/06/2019	---	06/06/2022	06/06/2022	245,000.00	245,000.00	250,069.54	0.119%
Morgan Stanley Private Bank, National Association Piper Sandler	06/06/2019	---	06/06/2022	06/06/2022	245,000.00	245,000.00	250,069.54	0.119%
Sallie Mae Bank Piper Sandler	05/29/2019	---	05/31/2022	05/31/2022	245,000.00	245,000.00	249,846.59	0.130%
Synchrony Bank Piper Sandler	06/07/2019	---	06/07/2022	06/07/2022	245,000.00	245,000.00	249,771.38	0.120%
--- ---	**---**	**---**	**12/09/2022**	**12/09/2022**	**1,720,000.00**	**1,720,000.00**	**1,748,783.55**	**0.201%**

Summary

Description, Broker	*Settle Date*	*Next Call Date*	*Effective Maturity*	*Final Maturity*	*PAR Value*	*Original Cost*	*Market Value*	*Yield to Maturity*
--- ---	**---**	**---**	**09/20/2023**	**02/13/2024**	**180,181,821.81**	**181,883,891.03**	**181,618,207.62**	**0.554%**

* Grouped by: Security Type. * Groups Sorted by: Ending Market Value + Accrued. * Filtered By: Description ≠ "Receivable". * Weighted by: Ending Market Value + Accrued.

DESERT WATER AGENCY **PRELIM** ID..CSSTAT
STATEMENT OF CASH RECEIPTS AND EXPENDITURES

WASTEWATER ACCOUNT

JULY 2021

			INVESTED RESERVE FUNDS
BALANCE JULY 1, 2021		14,991.09	1,658,795.44
ACCOUNTS RECEIVABLE-OTHER	$ .00		
CUSTOMER DEPOSITS-CONSTRUCTION	.00		
INTEREST EARNED-INVESTED FUNDS	1,354.83		
WASTEWATER REVENUE	81,652.72		
SEWER CAPACITY CHARGES	211.97		
MISCELLANEOUS	.00		
TOTAL RECEIPTS		$ 83,007.55	
PAYMENTS			
CHECKS UNDER $10,000.00	$ .00		
CHECKS OVER $10,000.00-SCH.#1	72,981.23		
CANCELLED CHECKS AND FEES	.00		
TOTAL PAYMENTS		$ 72,981.23	
NET INCOME		$ 10,026.32	
INVESTED RESERVE FUNDS			
FUNDS MATURED	$ .00		
FUNDS INVESTED - SCH.#2	15,354.83		
NET TRANSFER		($ 15,354.83)	$ 15,354.83
BALANCE JULY 31, 2021		9,874.55	$ 1,674,150.27

DESERT WATER AGENCY

Wastewater Fund

Schedule #1 - Checks Over $10,000

1961 60 years 2021

July 2021

Check #	Name	Description		Amount
3390	City of Palm Springs	Wastewater Revenue Billing for June 2021	$	10,549.80
3391	Coachella Valley Water District	Wastewater Revenue Billing for June 2021	$	62,431.43
Total			**$**	**72,981.23**

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Monthly Investment Portfolio Report

As of 07/31/2021

AGG- Wastewater Fund (213427)

Dated: 09/13/2021

Security Type

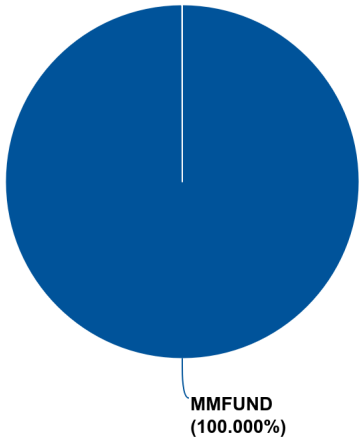

Chart calculated by: PAR Value

MMFUND

Description, Broker	*Settle Date*	*Next Call Date*	*Effective Maturity*	*Final Maturity*	*PAR Value*	*Original Cost*	*Market Value*	*Yield to Maturity*
LAIF Money Market Fund LAIF - WW	---	---	07/31/2021	07/31/2021	1,674,150.27	1,674,150.27	1,674,150.27	---
LAIF Money Market Fund LAIF - WW	**---**	**---**	**07/31/2021**	**07/31/2021**	**1,674,150.27**	**1,674,150.27**	**1,674,150.27**	**---**

* Grouped by: Security Type. * Groups Sorted by: Ending Market Value + Accrued. * Filtered By: Description ≠ "Receivable". * Weighted by: Ending Market Value + Accrued.

DESERT WATER AGENCY

Investment Portfolio Reporting Requirements

as required by DWA Resolution 886, Section VII
& California Government Code Section 53646

as of
July 31, 2021

Statement of Compliance

The Desert Water Agency portfolio is in compliance with the Agency's investment policy and guidelines for investment of Agency funds as outlined in DWA Resolution 886 and updated by Resolution 1200.

Statement of Agency's Ability to Meet Six-Month Expenditure Requirements

Desert Water Agency has the ability to meet its expenditure requirements for the next six months.

Description of Investments

Agency Bonds

Securities issued by a government-sponsored enterprise or by a federal government department other that the U.S. Treasury.

Bank Deposits

Agency funds on deposit in the General Fund, Operating Fund and Wastewater Fund active checking accounts for use in meeting the daily cash flow requirements of the Agency.

Certificate of Deposits (CD)

Interest bearing time deposit. FDIC insured up to $250,000 per depositor, per FDIC-insured bank.

Corporate Notes

Debt securities issued by a for-profit company.

Money Market Funds

High quality, short-term debt instruments, cash and cash equivalents. Utilized for overnight holding of investment proceeds prior to reinvesting or transferring to Agency checking accounts.

Municipal Bonds

Fixed income securities issued by states, cities, counties, special districts and other governmental entities.

Treasury Notes

Fixed income securities issued by the federal government with maturities between two and ten years backed by the full faith and credit of the United States government.

Funds Managed by Contracted Parties - LAIF

The Desert Water Agency has contracted with the California Local Agency Investment Fund (LAIF) for investment of Agency funds. LAIF is a voluntary program created by Section 16429.1 et seq. of the California Government Code. LAIF is an investment alternative for California's local governments and special districts. This program offers local agencies the opportunity to participate in a major portfolio, which invests hundreds of millions of dollars, using the investment expertise of the state Treasurer's Office professional investment staff at no additional cost to the taxpayer or ratepayer. All Agency funds invested with LAIF are available for withdrawal upon demand and may not be altered, impaired or denied in any way (California Government Code Section 16429.4).

Market Value Source

Current market values are provided by Clearwater Analytics for all investment types other than LAIF. LAIF market values are recorded at PAR value.

Esther Saenz
Finance Director
Desert Water Agency

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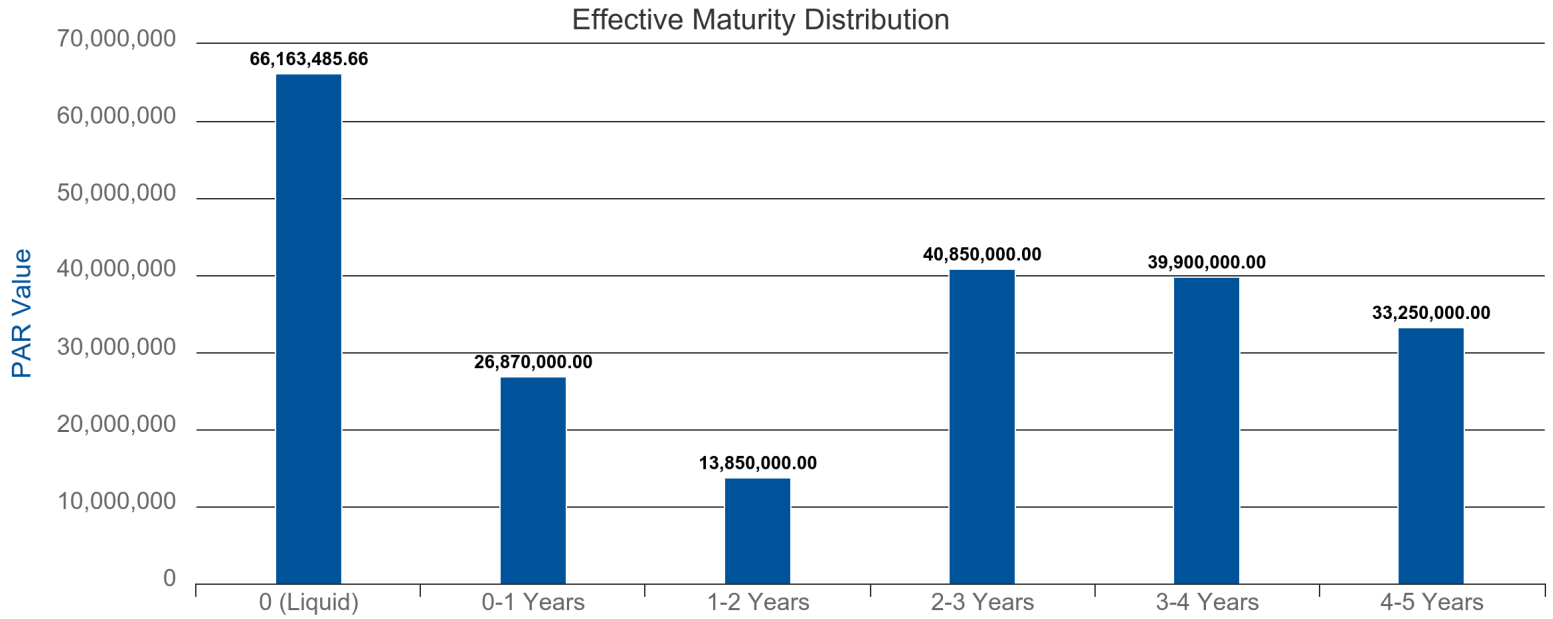
Effective Maturity Distribution Summary

As of 07/31/2021

AGG-ALL (219610)

Dated: 09/13/2021



0 (Liquid)

DWA Fund	*Account*	*Identifier*	*Description*	*Security Type*	*PAR Value*	*Ending Effective Maturity*	*Final Maturity*
General Fund	LAIF - GF	LAIFMMF	LAIF Money Market Fund	MMFUND	33,461,821.81	07/31/2021	07/31/2021
Operating Fund	LAIF - OP	LAIFMMF	LAIF Money Market Fund	MMFUND	31,027,513.58	07/31/2021	07/31/2021
Wastewater Fund	LAIF - WW	LAIFMMF	LAIF Money Market Fund	MMFUND	1,674,150.27	07/31/2021	07/31/2021
---	**---**	**LAIFMMF**	**LAIF Money Market Fund**	**MMFUND**	**66,163,485.66**	**07/31/2021**	**07/31/2021**

0-1 Years

DWA Fund	*Account*	*Identifier*	*Description*	*Security Type*	*PAR Value*	*Ending Effective Maturity*	*Final Maturity*
General Fund	---	---	---	---	24,870,000.00	12/03/2021	09/04/2024
Operating Fund	UnionBanc OP	---	---	---	2,000,000.00	09/20/2021	02/02/2024
---	**---**	**---**	**---**	**---**	**26,870,000.00**	**11/27/2021**	**08/19/2024**

1-2 Years

DWA Fund	*Account*	*Identifier*	*Description*	*Security Type*	*PAR Value*	*Ending Effective Maturity*	*Final Maturity*
General Fund	---	---	---	---	12,850,000.00	11/03/2022	12/06/2022
Operating Fund	UnionBanc OP	3133EMXR8	FEDERAL FARM CREDIT BANKS FUNDING CORP	AGCY BOND	1,000,000.00	04/28/2023	04/28/2025
---	**---**	**---**	**---**	**---**	**13,850,000.00**	**11/16/2022**	**02/06/2023**

2-3 Years

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Effective Maturity Distribution Summary

As of 07/31/2021

AGG-ALL (219610)

Dated: 09/13/2021

DWA Fund	Account	Identifier	Description	Security Type	PAR Value	Ending Effective Maturity	Final Maturity
General Fund	---	---	---	---	39,850,000.00	02/29/2024	03/07/2024
Operating Fund	UnionBanc OP	3135GA5Y3	FEDERAL NATIONAL MORTGAGE ASSOCIATION	AGCY BOND	1,000,000.00	06/14/2024	06/14/2024
---	**---**	**---**	**---**	**---**	**40,850,000.00**	**03/02/2024**	**03/09/2024**

3-4 Years

DWA Fund	Account	Identifier	Description	Security Type	PAR Value	Ending Effective Maturity	Final Maturity
General Fund	---	---	---	---	37,900,000.00	11/16/2024	11/28/2024
Operating Fund	UnionBanc OP	---	---	---	2,000,000.00	11/11/2024	11/11/2024
---	**---**	**---**	**---**	**---**	**39,900,000.00**	**11/16/2024**	**11/27/2024**

4-5 Years

DWA Fund	Account	Identifier	Description	Security Type	PAR Value	Ending Effective Maturity	Final Maturity
General Fund	---	---	---	---	31,250,000.00	10/21/2025	10/31/2025
Operating Fund	UnionBanc OP	---	---	AGCY BOND	2,000,000.00	08/16/2025	08/16/2025
---	**---**	**---**	**---**	**---**	**33,250,000.00**	**10/17/2025**	**10/27/2025**

Summary

Account	Identifier	Description	Security Type	PAR Value	Ending Effective Maturity	Final Maturity
---	**---**	**---**	**---**	**220,883,485.66**	**06/01/2023**	**10/10/2023**

* Grouped by: Effective Maturity Distribution -> DWA Fund. * Groups Sorted by: Effective Maturity Distribution -> DWA Fund. * Filtered By: Security Type not in "CASH". * Weighted by: Ending Market Value + Accrued.

DESERT WATER AGENCY

Monthly Investment Portfolio Report

Abbreviations & Definitions

Investment Type Abbreviations	
AGCY BOND	Agency Bond [1]
CORP	Medium Term Notes (Corporate) [2]
MMFUND	Local Agency Investment Fund (LAIF) [3] & Cash Funds in Transit [4]
MUNI	Municipal Bonds [5]
CD	Negotiable Certificates of Deposit [6]
US GOV	U.S. Treasury notes, bills bonds or other certificates of indebtedness [7]

Definitions	
Settle Date	The date of original purchase
Next Call Date	The next eligible date for the issuer to refund or call the bond or note
Effective Maturity	The most likely date that the bond will be called based on current market conditions
Final Maturity	The date the bond matures, DWA receives the full PAR value plus the final interest payment
PAR Value	The principal amount DWA will receive when a bond is either called or matures
Original Cost	The original cost to purchase the bond (includes premium/discount)
Market Value	The current value of the bond at current market rates
Yield to Maturity	The total anticipated return on a bond held to maturity expressed as an annual rate

NOTES:

1 *DWA Investment Policy, Resolution 1200, Schedule 1, Item 2*
2 *DWA Investment Policy, Resolution 1200, Schedule 1, Item 12*
3 *DWA Investment Policy, Resolution 1200, Schedule 1, Item 7*
4 *Cash funds in transit are a result of maturities/calls/coupon payments that are held in the Agency's money market account with the broker/custodian until transferred to the Agency's bank.*
5 *DWA Investment Policy, Resolution 1200, Schedule 1, Item 3*
6 *DWA Investment Policy, Resolution 1200, Schedule 1, Item 8*
7 *DWA Investment Policy, Resolution 1200, Schedule 1, Item 1*

DESERT WATER AGENCY - OPERATING FUND
COMPARATIVE EARNINGS STATEMENT

MONTH 21-22 JULY	THIS MONTH THIS YEAR	THIS MONTH LAST YEAR	THIS MONTH BUDGET	FISCAL YEAR TO DATE THIS YEAR	FISCAL YEAR TO DATE LAST YEAR	FISCAL YEAR TO DATE BUDGET	VARIANCE YTD	VARIANCE PCT
OPERATING REVENUES								
WATER SALES	3,885,038.97	3,777,073.96	3,524,000.00	3,885,038.97	3,777,073.96	3,524,000.00	361,038.97	10
RECLAMATION SALES	145,208.56	158,571.68	120,500.00	145,208.56	158,571.68	120,500.00	24,708.56	21
POWER SALES	.00	8,094.52	2,658.00	.00	8,094.52	2,658.00	2,658.00-	100-
OTHER OPER REVENUE	94,207.76	266,512.31	171,713.00	94,207.76	266,512.31	171,713.00	77,505.24-	45-
TOTAL OPER REVENUES	4,124,455.29	4,210,252.47	3,818,871.00	4,124,455.29	4,210,252.47	3,818,871.00	305,584.29	8
OPERATING EXPENSES								
SOURCE OF SUPPLY EXP	8,629.89	9,327.55	57,849.00	8,629.89	9,327.55	57,849.00	49,219.11-	85-
PUMPING EXPENSE	668,398.26-	15,571.28	95,692.00	668,398.26-	15,571.28	95,692.00	764,090.26-	798-
REGULATORY WATER TREAT	58,663.47	19,355.11	63,482.00	58,663.47	19,355.11	63,482.00	4,818.53-	8-
TRANS & DIST EXPENSE	132,387.77	108,187.56	335,402.00	132,387.77	108,187.56	335,402.00	203,014.23-	61-
CUSTOMER ACT EXPENSE	44,519.07	56,806.54	97,513.00	44,519.07	56,806.54	97,513.00	52,993.93-	54-
ADMIN & GEN EXPENSE	2,547,312.87	2,879,527.34	2,829,712.00	2,547,312.87	2,879,527.34	2,829,712.00	282,399.13-	10-
REGULATORY EXPENSE	5,118.99	1,640.23	34,538.00	5,118.99	1,640.23	34,538.00	29,419.01-	85-
SNOW CREEK HYDRO EXP	247.55	2,299.35	3,050.00	247.55	2,299.35	3,050.00	2,802.45-	92-
RECLAMATION PLNT EXP	42,968.78	14,674.50	235,072.00	42,968.78	14,674.50	235,072.00	192,103.22-	82-
SUB-TOTAL	2,171,450.13	3,107,389.46	3,752,310.00	2,171,450.13	3,107,389.46	3,752,310.00	1,580,859.87-	42-
OTHER OPER EXPENSES								
DEPRECIATION	516,815.97	523,912.60	546,400.00	516,815.97	523,912.60	546,400.00	29,584.03-	5-
SERVICES RENDERED	7,384.49	2,703.93	13,400.00	7,384.49	2,703.93	13,400.00	6,015.51-	45-
DIR & INDIR CST FOR WO	431,017.25-	498,650.05-	218,600.00-	431,017.25-	498,650.05-	218,600.00-	212,417.25-	97
TOTAL OPER EXPENSES	2,264,633.34	3,135,355.94	4,093,510.00	2,264,633.34	3,135,355.94	4,093,510.00	1,828,876.66-	45-
NET INCOME FROM OPERATIONS	1,859,821.95	1,074,896.53	274,639.00-	1,859,821.95	1,074,896.53	274,639.00-	2,134,460.95	777-
NON-OPERATING INCOME (NET)								
RENTS	14,338.37	14,241.22	3,780.00	14,338.37	14,241.22	3,780.00	10,558.37	279
INTEREST REVENUES	10,915.23	25,357.74	11,500.00	10,915.23	25,357.74	11,500.00	584.77-	5-
OTHER FUNDS	67,995.91-	22.50-	.00	67,995.91-	22.50-	.00	67,995.91-	0
INVESTMENT AMORT.	29,464.87	.00	.00	29,464.87	.00	.00	29,464.87	0
OTHER REVENUES	560.00	560.00	.00	560.00	560.00	.00	560.00	0
DISCOUNTS	141.36	.00	42.00	141.36	.00	42.00	99.36	237
PR. YEAR EXPENSES	167.68-	.00	.00	167.68-	.00	.00	167.68-	0
OTHER EXPENSES	.00	.00	35,750.00-	.00	.00	35,750.00-	35,750.00	100-
LOSS ON RETIREMENTS	.00	.00	14,583.00-	.00	.00	14,583.00-	14,583.00	100-
TOTAL NON-OPER INCOME	12,743.76-	40,136.46	35,011.00-	12,743.76-	40,136.46	35,011.00-	22,267.24	64-
TOTAL NET INCOME	1,847,078.19	1,115,032.99	309,650.00-	1,847,078.19	1,115,032.99	309,650.00-	2,156,728.19	697-

GENERAL MANAGER'S REPORT
September 21, 2021

Stolen Angle Stop and Copper Tubing (Elan Tract)

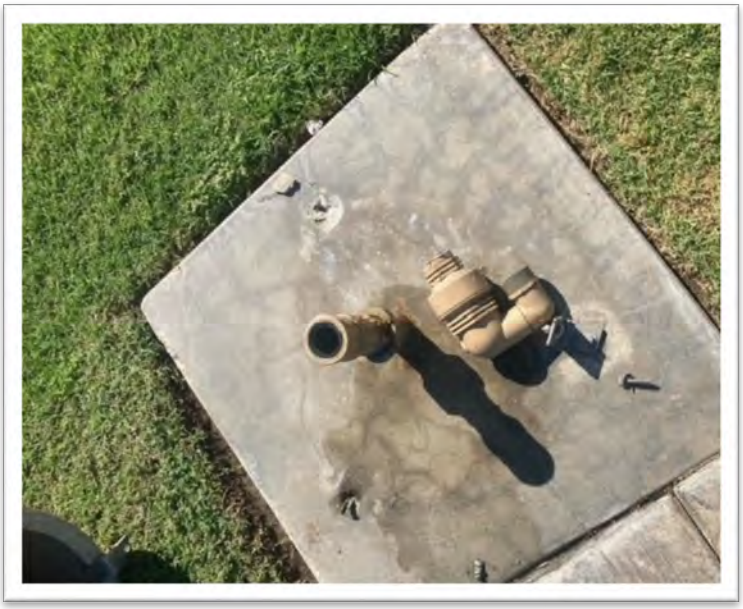
Sometime between the evening of August 30 and the morning of August 31, five 1-inch brass angle stops and approximately 15 feet of 1-inch copper tubing were stolen off a 4-inch manifold that was being installed for the Elan Tract. The location is on the west side of South Palm Canyon Drive, between East Mesquite Road and East Sunny Dunes Road. A police report was filed and staff notified the developer. There was no water loss.

Hit Sample Station – Palm Oasis Avenue

On September 2, it was reported that a sample station located on the north side of Palm Oasis Ave. was hit. An exact time is not known. The sample station has been repaired and is back in service. There was no water loss. A police report was filed.

Hit Air Vac – East Palm Canyon Drive (Honda dealership)

On September 5 at approximately 8:45 p.m., Construction stand-by responded to a hit air vac located on the east side of Perez Road., just south of East Palm Canyon Drive. The air vac was repaired and placed back in service. The water loss was a 2-inch fully open pipe which flowed for approximately 25 minutes. This was a hit and run. A police report was filed.



Budget Trailer Bill: Extension of Shutoff Moratorium

On September 9, a budget trailer bill (Senate Bill 155) passed the Senate and Assembly. If signed by the Governor, the bill will go into effect immediately. The bill included a provision that extends the Covid-related water shutoff moratorium to December 31, 2021. Currently, the moratorium is due to sunset on September 30, 2021.

Given the Executive Order N-08-21, which outlined the sunset of many emergency Covid provisions, the Agency placed customers on payment plans and communicated that water shutoffs would resume in October of 2021.

If Senate Bill 155 is signed into law prior to October 1, customers who default on payment plans will be charged late fees but water service would not be affected. This bill does not prohibit DWA from collecting late fees, which it resumed in August of 2021.

At the October 5 Board of Directors meeting, Staff will request an extension of the prohibition of shutoffs for all customer types. The State moratorium applies only to residential customers and critical businesses.

Grant Funding Received – USBR SWEP

On September 14, Desert Water Agency received a deposit of $75,000 from the US Bureau of Reclamation (USBR) for the Small-scale Water Efficiency Program (SWEP) to fund grass removal projects.

USBR funded 35 conversion projects at $1 per square foot. The remaining incentive share was funded by DWA but the Agency intends to seek reimbursement from Sentinel Energy Center pursuant to our existing conservation agreement. The USBR SWEP project accounts for 75,134 square feet of grass removed.

The $75,000 was committed in mid-2020 and the project deadline is September 30, 2021. Final grant closeout reports are due to USBR in early 2022.

CV SNMP Agencies Presentation of the SNMP Work-plan to the Colorado River Basin Regional Water Quality Control Board

The final CV SNMP Work-Plan was submitted to the RWQCB on September 2, 2021. On September 14, 2021, West Yost made a presentation to the RWQCB regarding our submitted plan.

Examples were presented showing examples of increased TDS levels with some scenarios impairing beneficial uses within a management zone. In each scenario implementation measures were employed. Some management measures were Less expensive and some more expensive producing different results. These management action choices would be analyzed. The preferred management measures would be selected and would be consistent with anti-degradation law and avoid exceedance of the selected TDS objective(s). Available assimilative capacity was also explained through the examples presented.

Development of the plan is expected to take four to five years and cost approximately $7 million. This cost does not include Agency administration costs nor the cost of land or site improvements for monitoring well construction etc.

The Board commented briefly that they were glad to see that stakeholders were involved and considered that to be critical to the plans success, and they are looking forward to seeing the results of the modeling.

The CV SNMP Agencies are DWA, CVWD, MSWD, IWA, CWA/SD, MDMWC, CPS and VSD and RWQCB Staff.

FEMA Assistance Deadline Extended for Chino Creek, Falls Creek, Whitewater Headworks

On September 14, 2021 DWA received a letter from California's Office of Emergency Services (CalOES) granting a time extension for flood remediation at Chino Creek, Falls Creek, Whitewater Headworks. FEMA is giving the Agency until August 23, 2022 to complete engineering and construction work.

The February 14, 2019 floods damaged these sites and was later designated as a disaster (4431 DR). FEMA has already reimbursed the Agency for repairs associated with flood damages at Snow Creek and Cathedral Canyon Drive.

The Agency is currently working to procure engineering support for design of remediation and strengthening for these sites. The Agency is going through an exhaustive competitive bidding process to ensure compliance with FEMA guidelines. The Agency solicited proposals this summer but got no responses. Staff is currently adjusting the request for proposals and is broadening the list of firms that the request is sent to.

Staff anticipates that these projects will cost roughly $543,368, FEMA and CalOES will reimburse the agency for 93.75% (approximately $509,408) of the eligible project costs.

AB361 - May Extend Virtual Meeting Allowance

On September 10, Assembly Bill 361 passed the Assembly and Senate. The bill, if signed by Governor Newsom, will go into effect immediately to allow local governmental agencies to continue to hold virtual meetings during declared emergencies without:

- Providing the addresses of each teleconference location
- Making teleconference locations accessible to the public
- Having a quorum of the Board participating from within Agency boundaries
- Giving the public the opportunity to offer an in-person comment

During a prolonged state of emergency or when state or local officials have imposed measures to promote social distancing, the Agency must, in order to continue to hold virtual meeting subject to the exemptions provided by AB 361, make the following findings by a majority vote no later than 30 days after it commences using the exemption, and every 30 days thereafter:

a. The Agency has reconsidered the circumstances of the state of emergency; and

b. Either (1) the state of emergency continues to directly impact the ability of the members to meet safely in person; or (2) state or local officials continue to impose or recommend measures to promote social distancing.

Currently, the suspension of the Brown Act requirements (N-29-20) is due to expire on September 30 per Executive Order N-08-21. Once signed, this legislation would allow the Agency to continue hosting virtual meetings if it deems appropriate.

The bill provisions are set to sunset on January 1, 2024. If the Governor signs AB 361 into law, staff will bring an action item to the Board of Directors for its consideration.

Mission Creek Spreading Basins (MCSB) Maintenance Update

In April 2021, Agency staff met with CVWD maintenance staff regarding having CVWD maintenance crews perform some recharge basin maintenance work at the MCSB facilities. The Agency budgeted $120,000 for maintenance work on ponds 1 and 7. The proposed maintenance will allow for better percolation and will provide erosion protection on the easterly side banks of each pond.

Upon inspecting the site, CVWD staff offered to perform the work at an estimated cost of $45,000.

CVWD crews were onsite mobilizing for the project beginning on July 26, 2021, and completed the work on August 20, 2021.

CVWD crews performed the following tasks:

- Removal of all large rocks (8” in diameter and larger) from basin bottom and relocation to wind exposed side of basin.
- Removal of all weeds/shrubbery from basin bottom and disposal of same.
- Ripping down to minimum six (6) inches to break hardpan surface of basin bottom.

To date, the work costs are $31,331, with two outstanding equipment rental invoices. The total cost will be paid based on our maintenance agreement with CVWD, with the Agency covering approximately 75% of the costs, and CVWD covering 25%.

Pond 1 before

MCSB Maintenance Update
(Cont.)

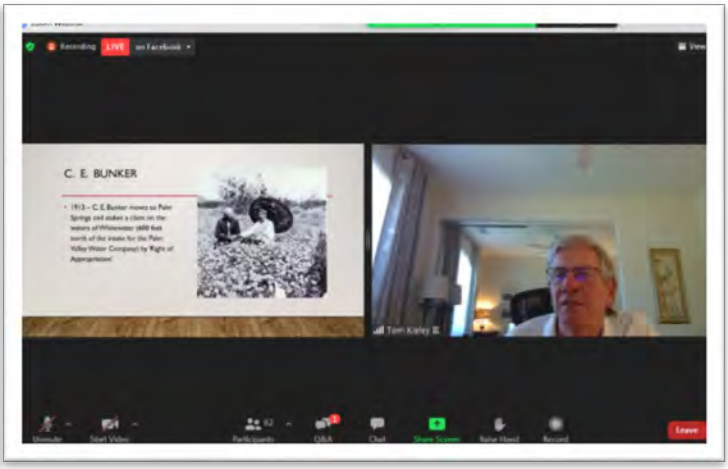
Pond 1 After

DWA Celebrates 60th Anniversary

On September 15, the team celebrated DWA's 60th anniversary.

In the morning, there was a check presentation to United Way of the Desert for $60,000 from late fee revenue to fund the Help2Others Customer Assistance Fund. KESQ attended for event coverage and staff shared clips of the presentation with media and on DWA's social media outlets.

In the afternoon, DWA and Palm Springs Historical Society co-hosted a webinar with 95 registrants. The team also enjoyed ice cream.



Human Resource's Meetings and Activities

Meetings:

08/17/2021	DWA Board Meeting	Virtual Meeting
08/23/2021	Weekly Staff Meeting	DWA Offices
08/30/2021	Weekly Staff Meeting	Virtual Meeting
09/07/2021	DWA Board Meeting	Virtual Meeting
09/08/2021	DWA Staff Meeting	Virtual Meeting
09/13/2021	DWA Staff Meeting	DWA Offices

Activities:

08/18/2021	Hosted COVID-19 Vaccination Clinic	DWA Offices
08/18/2021	Webinar: ACWA JPIA Retiree Medical Plan Updates	Virtual Meeting
08/19/2021	BambooHR Webinar: HR First Class and Onboarding	DWA Offices
08/23/2021	New Employee Orientation	DWA Offices
08/25/2021	Webinar: Full FDA Approval of the Pfizer Vaccine	Virtual Meeting
08/26/2021	CalPERS Pathways for Women Conference	Virtual Meeting
08/26/2021	DWA Safety Meeting	DWA Offices
08/30/2021	New Employee Orientation	DWA Offices
09/02/2021	Hosted LifeStream Blood Drive	DWA Offices
09/08/2021	Kaiser Town Hall Meeting	Virtual Meeting
09/08/2021	ACWA JPIA Webinar: Modern Health Mental Health Wellness Benefit	Virtual Meeting
09/09/2021	DOT Testing	DWA Offices
09/09/2021	Pre-Screen Interviews for Conservation Specialist II position	Phone Calls
09/13/2021	Conservation Specialist II Interviews	DWA Offices
09/14/2021	Conducted Supervisor Training	DWA Offices
09/15/2021	Hosted Second COVID-19 Vaccination Clinic	DWA Offices
09/15/2021	DWA Webinar: 60 Years – a Legacy of Sustainability	Virtual Meeting
09/15/2021	ACWA JPIA 2022 Benefits Renewal and Open Enrollment Webinar	Virtual Meeting
09/16/2021	ACWA JPIA Webinar – new wellness resource page	Virtual Meeting
09/16/2021	Meeting with WSP	Virtual Meeting
09/17/2021	Lincoln 457 Plan Review	Virtual Meeting

SYSTEM LEAK DATA

(PERIOD BEGINNING AUG 31, 2021 THRU SEPT 13, 2021)

STREET NAME	NUMBER OF LEAKS	PIPE DIAMETER (INCHES)	YEAR INSTALLED	PIPE MATERIAL	PIPE CONSTRUCTION
AVENIDA CABALLEROS	4	14	1953	STEEL	BARE/UNLINED
VISTA CHINO	3	20	1949	STEEL	BARE/UNLINED
SATURMINO DR	3	4	1957	STEEL	BARE/UNLINED
S PALM CANYON DR	2	10	1938	STEEL	BARE/UNLINED
INDIAN CANYON DR	2	6	1951	STEEL	BARE/UNLINED
COMPADRE RD	2	6	1958	STEEL	BARE/UNLINED
CAMINO REAL	1	12	1953	STEEL	BARE/UNLINED
INDIAN CANYON DR	1	10	1938	STEEL	BARE/UNLINED
TAHQUITZ CANYON WY	1	8	1946	STEEL	BARE/UNLINED
CAMINO SAN MIGUEL	1	6	1946	STEEL	BARE/UNLINED
ARQUILLA RD	1	6	1950	STEEL	BARE/UNLINED
RAMON RD	1	6	1955	STEEL	BARE/UNLINED
MESQUITE AVE	1	6	1956	STEEL	BARE/UNLINED
PASEO CAROLETA	1	6	1958	STEEL	BARE/UNLINED
JOYCE DR	1	6	1958	STEEL	BARE/UNLINED
RACQUET CLUB RD	1	6	1958	STEEL	BARE/UNLINED
TERRY LN	1	4	1956	STEEL	BARE/UNLINED
WAYNE RD	1	4	1957	STEEL	BARE/UNLINED
VISTA ORO	1	4	1958	STEEL	BARE/UNLINED
TOTAL LEAKS IN SYSTEM:	**29**				

Streets highlighted in green are included as part of the
2020/2021 Replacement Pipeline Project

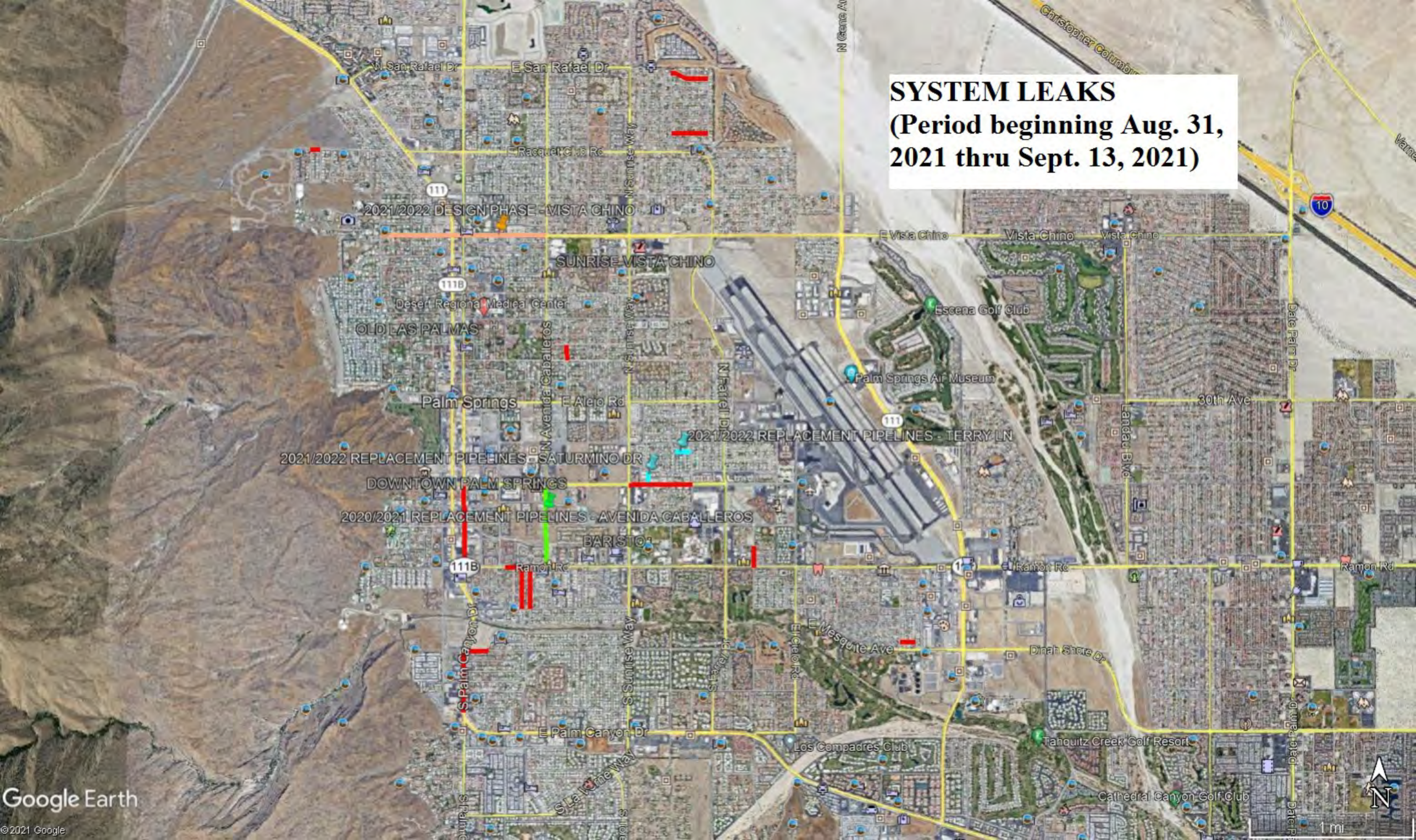
Streets highlighted in blue are being proposed as part of the
2021/2022 Replacement Pipeline Project

Vista Chino 20" mainline replacement design is being developed
F.Y. 2021/2022 budget for design

SYSTEM INFORMATION:	
OLDEST PIPE IN THE SYSTEM (YEAR OF INSTALLATION):	1935
AVERAGE YEAR OF INSTALLATION OF UNLINED STEEL PIPE (SYSTEMWIDE):	1952
AVERAGE AGE OF UNLINED STEEL PIPE (SYSTEMWIDE):	66 YEARS
AVERAGE AGE OF PIPELINE AT THE TIME OF REPLACEMENT:	68 YEARS
TOTAL LENGTH OF PIPE IN SYSTEM OLDER THAN 70 YEARS (LINEAR FEET):	**128,186**
TOTAL LENGTH OF UNLINED PIPE SYSTEMWIDE (LINEAR FEET):	297,672
*AVERAGE LENGTH OF PIPE REPLACED ANNUALLY (LINEAR FEET):	14,500
PROJECTED TIME FRAME FOR 100% REPLACEMENT OF UNLINED STEEL PIPE:	21 YEARS
PROJECTED TIME FRAME FOR 100% REPLACEMENT OF PIPE OLDER THAN 70 YEARS:	**9 YEARS**
YEAR AGENCY TRANSITIONED TO CEMENT LINED STEEL PIPE:	1960

***PLEASE NOTE THIS FIGURE REPRESENTS THE AVERAGE LINEAR FOOTAGE OF PIPELINE REPLACED ANNUALLY GIVEN AN AVERAGE ANNUAL BUDGET OF $3 MILLION.**

SYSTEM LEAKS
(Period beginning Aug. 31, 2021 thru Sept. 13, 2021)



General Manager's Meetings and Activities

Meetings:

09/07/21	DWA Bi-Monthly Board Mtg	Conf Call
09/07/21	WWRF BLM Right of Way Grant – Cooperators Only	Conf Call
09/07/21	Tribal Mediation – Recycled Water Concepts	Conf Call
09/07/21	East Branch Enlargement Cost Allocation	Conf Call
09/07/21	Sites Reservoir Agreement 3rd amendment	Conf Call
09/08/21	DWA 60th Anniversary Webinar Preparation for Presentation	Conf Call
09/09/21	Tribal Mediation: Face-to-Face Meeting Small Group	Conf Call
09/10/21	Tribal Mediation: Face-to-Face Plenary Meeting	Conf Call
09/13/21	DWA Wkly Staff Mtgs	Conf Call
09/13/21	SGMA SGP GSP	Conf Call
09/13/21	ERP Executive Update	Conf Call
09/14/21	RWQCB Board Mtg – SNMP Presentation	Conf Call
09/14/21	Lake Perris Seepage Recovery Update	Conf Call
09/14/21	Mission Creek SB Management Committee Quarterly Mtg	Conf Call
09/15/21	SWC DCP Coordination Mtg	Conf Call
09/15/21	SGMA Indio Model Inter Basin Flows	Conf Call
09/15/21	DWA 60th Anniversary Webinar Presentation	Conf Call
09/16/21	DWA Executive Committee Mtg	Conf Call
09/16/21	SWC Monthly Board Mtg	Conf Call
09/20/21	DWA Wkly Staff Mtgs	Conf Call
09/20/21	DWA/CVWD/MWD Coordination Mtg	Conf Call
09/21/21	SWC East Branch Enlargement Cost Reallocation	Conf Call
09/21/21	WWRF BLM Right of Way Grant – Cooperators Only	Conf Call
09/21/21	SGMA Mission Creek	Conf Call
09/21/21	DWA Bi-Monthly Board Mtg	Conf Call

Activities:

1) SWP Contract Extension Amendment
2) DWA Remote Meter Reading Fixed Network
3) Whitewater Hydro – Automatic Re-start
4) State and Federal Contractors Water Authority and Delta Specific Project Committee (Standing)
5) Whitewater River Surface Water Recharge
6) Lake Oroville Spillway FEMA funding
7) Replacement Pipelines 2020-2021
8) DC Project – Finance JPA Committee (Standing)
9) DWA/CVWD/MWD Operations Coordination/Article 21/Pool A/Pool B/Yuba Water (Standing)
10) DWA/CVWD/MWD Exchange Agreement Coordination Committee (Standing)
11) SWP 2020 Water Supply
12) ACBCI Water Rights Lawsuit
13) Whitewater Hydro Operations Coordination with Recharge Basin O&M
14) SGMA Tribal Stakeholder Meetings

Activities Cont.:

15) Whitewater Spreading Basins – BLM Permits
16) Delta Conveyance Project Cost Allocation
17) DWA Surface Water Filtration Feasibility Snow Creek Village/Palm Oasis
18) MCSB Delivery Updates
19) Well 6 Meaders Cleaners RWQB Meetings
20) SWP East Branch Enlargement Cost Allocation
21) UWMP Population Calculation Update/Valley-Wide UWMP
22) RWQCB Update to the SNMP
23) SGMA – San Gorgonio Pass Subbasin

STAFF REPORT
TO
DESERT WATER AGENCY
BOARD OF DIRECTORS

SEPTEMBER 21, 2021

RE: PUBLIC HEARING – PROCESS AND PUBLIC INPUT FOR ADJUSTMENT OF DIVISION BOUNDARIES

Every ten years, agencies with by-district election systems must use new census data to review and, if needed, redraw electoral division lines to reflect how local populations have changed. This process, called redistricting, ensures all divisions comply with both the California and federal Voting Rights Acts.

Requirements for redistricting include:

- Revised electoral districts must be "substantially equal in population as required by U.S. Constitution."
    - Balance must comply with US and California Constitutions and Federal Voting Rights Act (FVRA) Section 10301 of Title 52 of the United States Code, as amended.
    - Population equality is based on total population of District residents (not customers) per U.S. Census.
    - Incarcerated persons only counted if last known residence may be assigned to a City census block.
    - In adjusting the boundaries of the divisions, the board may give consideration to the following factors:
        - (1) topography,
        - (2) geography,
        - (3) cohesiveness, contiguity, integrity, and compactness of territory, and
        - (4) community of interests of the division.
        - This section does not apply to divisions in which only landowners vote for directors or whose directors are all elected at large or appointed.
- Boundaries shall not be drawn to favor or discriminate against a political party.

- Change of boundaries shall not affect the unexpired term of office of any elected Board member.

Prior to considering specific maps adjusting division boundaries, the Agency must conduct at least one public hearing to receive testimony and comments from Agency Board members and the public. Following this hearing the Agency's redistricting consultant will prepare draft maps reflecting the 2020 census data and considering any comments received. A second public hearing is tentatively scheduled for March 15 to consider the proposed division boundary adjustments and adoption of revised boundary maps.

Desert Water Agency must complete the current redistricting process by April 17, 2022. SB 594, enacted earlier this month, established this date which consolidated the redistricting deadline for all municipalities and most special districts onto a single date. Previous to SB 594, the deadline for special districts was May 12, 2022 (180 days before the November 8, 2022 general election). However, certain types of districts had deadlines as early as November 1, 2021, and with the delay of census data from the US Census Bureau as a result of the COVID-19 pandemic, that deadline was impossible to meet. To accommodate those districts, and at the request of county Registrar of Voters statewide, the deadline for special districts was moved up 25 days to April 17th, while the November 1st deadline was extended to April 17th.

Staff requests the Board:

1. Receive a report from BB&K Election Services on the redistricting process and permissible criteria to be considered to redraw Agency Division Election District Boundaries; and
2. Conduct a Public Hearing to receive testimony and comments regarding Agency Division Boundaries.

STAFF REPORT
TO
DESERT WATER AGENCY
BOARD OF DIRECTORS

SEPTEMBER 21, 2021

RE: REQUEST BOARD APPROVAL TO EXECUTE AN AGREEMENT BETWEEN DESERT WATER AGENCY AND THE CALIFORNIA DEPARTMENT OF WATER RESOURCES (SWPAO #21034)

In an effort to restore reliability in Desert Water Agency's (DWA's) State Water Project (SWP) supply, DWA has been participating in the Site Reservoir Project (Project) since 2016. The Project is an off-stream water storage facility originally envisioned as part of the SWP to increase its operational flexibility through tributary releases into the Sacramento River. Recognizing the enormity of costs associated with the SWP, the 1959 Burns-Porter Act (California Water Code Section 12930) authorized the reimbursement of SWP-related costs to be collected through a special local property tax as an alternative to other revenue streams.

On February 5, 2019, the Board approved DWA's participation in the Sites Reservoir Project, Phase 2, at a level of 6,500 acre-feet (af); the goal of this phase is to complete permitting and other activities required in advance of the final design. It is anticipated that Phase 2 will continue through 2024, and another amendment to the agreement (Amendment 3) will need to be executed between DWA and the SPA to continue Project participation; Amendment 3 is not expected to be ready for DWA Board consideration until late 2021 or early 2022.

A companion action to Amendment 3 is to request inclusion of Project planning costs on Department of Water Resources (DWR) Statement of Charges (SOCs), starting in CY 2022, which allows DWA to use SWP property tax as a funding mechanism. Authorization must be provided to DWR from interested parties by October 2021 to allow sufficient time to place these charges on the 2022 SOC. Although the Sites Project Authority (SPA) is still finalizing Amendment 3, the costs associated with the Project 36-month work plan (covering 2022 to 2024) is anticipated to not exceed $400/af ($100/af (2022), $140/af (2023), $160/af (2024). For DWA, the total estimated cost for Amendment 3 will not exceed $2.6 million (M) (based on 6,500 af of participation), and DWA's total participation cost to date is $1,355,250.

Realizing that the request to DWR will precede the Board discussion on Amendment 3, staff is seeking Board authorization to place the Amendment 3 charges on DWR's SOC, contingent on DWA's continued Project participation after 2021. DWA has the option to exit participation in the Project consistent with its agreement with the Authority. If DWA opts out of its agreement with the Authority, some future payments may be due and payable consistent with the agreement. DWA will notify both DWR and the SPA at the

same time of its intention to opt out. In this case, DWA will work with both DWR and the SPA to coordinate final payments to the SPA consistent with the agreement.

The attached agreement, SWPAO #21034 (Agreement), is in response to DWA's request for DWR to include certain charges in the Agency's SWP annual SOC related to planning costs for the Project owned and managed by the SPA. DWA legal counsel has reviewed this agreement and has given its approval.

DWA is joined by other State Water Contractors (SWC's) in this request, the Coachella Valley Water District, Desert Water Agency, San Bernardino Valley Municipal Water District, and San Gorgonio Pass Water Agency. In the agreement we are referred to individually as "Agency" or collectively as "Agencies." Collectively, DWR, SPA, and the Agencies are referred to as "Parties."

Through Proposition 1 and Water Code Section 79759, DWR is an ex officio member of the SPA. DWR is willing to facilitate the planning of the Sites Reservoir Project and is willing to provide for the Sites Reservoir Project Planning Costs in the Agency's SOC's under the SWP Water Supply Contract (WSC) between each Agency and DWR.

The Project Participants and SPA are preparing Amendment 3 to Sites Reservoir Planning Agreement (Amendment 3) that provides for the SPA to be reimbursed for the Sites Reservoir Planning Costs (A3 Planning Costs) based on each Participants level of participation in the Project. To facilitate the reimbursement to the SPA, the Agencies are requesting that the A3 Planning Costs be included in each Agency's SOC for calendar years 2022-2024.

The purpose of this Agreement is to establish a funding mechanism for the planning costs for the Sites Reservoir Project that are the responsibility of the Agencies. This Agreement does not represent a commitment by DWR, SPA or the Agencies to approve the Sites Reservoir Project under the California Environmental Quality Act.

Through this agreement DWR approves the inclusion of Agency's allocation of A3 Planning Costs in each Agency's SOC beginning in January 2022 subject to the terms and conditions contained in said agreement. Key terms and conditions are summarized hereafter. This Agreement is contingent upon the approval of Amendment 3 between the SPA and Desert Water Agency.

Each Agency recognizes that the Project may not proceed to construction. No reimbursements of money advanced or contributed to DWR pursuant to this Agreement will occur, except for unspent funds as determined by the SPA pursuant to the separate agreement between the SPA and each Agency for the SPA Planning Costs.

The Agencies agree to defend and hold DWR, its officers, employees, and agents harmless.

This Agreement shall not be administered or interpreted in any way that would cause financial harm to other contractors not participating in this Agreement.

Fiscal Impact:
This Board action addresses the method of billing only, and creates no additional fiscal impact.

Recommendation:

Staff recommends the General Manager to execute SWPAO #21034 Agreement, dated: September 8, 2021 authorizing the California Department of Water Resources to include Desert Water Agency's Sites Reservoir Project Phase 2, Amendment 3 charges on the State Water Project Statement of Charges starting Calendar Year 2022. Authorization of DWA funding contributions will require additional Board actions.

Attachments:
Attachment #1: California Department of Water Resources SWPAO #21034 Agreement

DEPARTMENT OF WATER RESOURCES
1416 NINTH STREET, P.O. BOX 942836
SACRAMENTO, CA 94236-0001
(916) 653-5791

9/8/2021

Mr. Jerry Brown, Executive Director
Sites Project Authority
122 Old Highway 99 West
Maxwell, California 95955

Mr. Mark Krause, General Manager
Desert Water Agency
Post Office Box 1710
Palm Springs, California 92263-1710

Mr. Jim Barrett, General Manager
Coachella Valley Water District
Post Office Box 1058
Coachella, California 92236-1058

Ms. Heather Dyer, General Manager
San Bernardino Valley Municipal Water District
380 East Vanderbilt Way
San Bernardino, California 92408-3593

Mr. Lance Eckhart, General Manager
San Gorgonio Pass Water Agency
1210 Beaumont Avenue
Beaumont, California 92223-1506

This Agreement, SWPAO #21034 (Agreement), is in response to the request by your Agencies for the Department of Water Resources (DWR) to include certain charges in the Agency's State Water Project (SWP) Annual Statement of Charges (SOC) related to planning costs for the Sites Reservoir Project owned and managed by the Sites Project Authority (SPA).

The requesting agencies are Coachella Valley Water District, Desert Water Agency, San Bernardino Valley Municipal Water District, and San Gorgonio Pass Water Agency, herein referred to individually as "Agency" or collectively as "Agencies." Collectively, DWR, SPA, and the Agencies are herein referred to as "Parties."

The Agencies are working through DWR to obtain water from the Sites Reservoir Project to address shortages in their respective SWP Water Supply Contracts (WSC) and to help meet water needs in the Agencies' service areas.

Proposition 1, adopted by the California voters in 2014, dedicated funds for investments in water storage projects that improve the operation of the state water system and California Water Plan. The California Water Commission is administ+ering the Water Storage Investment Program (WSIP) to fund the public benefits associated with these projects. SPA is a project participant in the WSIP, and the Sites Reservoir Project would provide public benefits of flood control, recreation, and ecosystem improvements. Sites Reservoir Project would also augment the supplies of water in the Sacramento-San Joaquin Delta and is expedient for the accomplishment of the purposes of the State Water Resources Development System. Through Proposition 1 and Water Code Section 79759, DWR is an ex officio member of the SPA. DWR is willing to facilitate the planning of the Sites Reservoir Project and is willing to provide for the Sites Reservoir Project Planning Costs in the Agencies' SOC under the WSC between each Agency and DWR.

The Agencies and SPA are preparing Amendment 3 to Sites Reservoir Planning Agreement (Amendment 3) that provides for the SPA to be reimbursed for the Sites Reservoir Planning Costs (A3 Planning Costs) based on each Agency's allocation of Sites Reservoir Project. To facilitate the reimbursement to SPA, the Agencies are requesting that the A3 Planning Costs be included in each Agency's SOC for calendar years 2022-2024.

The purpose of this Agreement is to establish a funding mechanism for the planning costs for the Sites Reservoir Project that are the responsibility of the Agencies. This Agreement does not represent a commitment by DWR, SPA or the Agencies to approve the Sites Reservoir Project under the California Environmental Quality Act.

DWR approves the inclusion of Agency's allocation of A3 Planning Costs in each Agency's SOC beginning in January 2022 subject to the following terms and conditions:

TERM

1. This Agreement addresses the inclusion of A3 Planning Costs in the SOC for calendar years 2022, 2023, and 2024. This Agreement shall become effective upon execution by all Parties and shall terminate on December 31, 2024, or upon final payment to SPA of all costs attributable to this Agreement, whichever occurs later. The term of this Agreement may be extended by mutual agreement by DWR, SPA, and one or more of the Agencies.

APPROVALS

2. This Agreement is contingent upon the approval of Amendment 3 between the SPA and each Agency.

UNIQUENESS OF AGREEMENT

3. DWR's approval under this Agreement is unique and shall not be considered a precedent for future agreements or DWR activities.

PAYMENTS THROUGH SOC AND PAYMENTS TO SPA

4. Payments to DWR through the SOC are scheduled to start in January 2022, or upon execution of Amendment 3 between the SPA and each Agency for A3 Planning Costs, whichever comes last.

5. SPA shall send to DWR, for each of the years included in this Agreement, projected total annual charges under A3 Planning Costs for each Agency by February of the previous year to cover A3 Planning Costs for the following calendar year.

6. DWR shall include projected A3 Planning Costs from SPA as a charge under the Transportation Minimum Operations, Maintenance, Power & Replacement Component in each Agency's SOC pursuant to Articles 25 and 29 of the WSC. Notwithstanding the typical method of collection of Minimum Component charges pursuant to Article 29(g) of the WSC, each Agency shall pay DWR one or two lump sum payments each year for the total annual A3 Planning Costs as shown in the SOC during the term of this Agreement.

7. DWR recently received projected A3 Planning Costs from SPA for 2022. Because DWR received these costs after the 2022 SOCs were already sent to SWP contractors, DWR shall send a revised 2022 SOC to each Agency that includes 2022 A3 Planning Costs and 2023 A3 Planning Costs. The 2022 A3 Planning Costs payment from each Agency to DWR will be due in January of 2022. If Amendment 3 between the SPA and the Agency is not executed in 2021, but will be executed in 2022, the payment to DWR from the Agency shall be due within 30 days upon execution of Amendment 3. The 2023 A3 Planning Costs from each Agency to DWR will be due in October of 2022.

8. After DWR receives payment from the Agencies, DWR will transmit the payment amounts to SPA within 60 days from the date of the last payment received from the Agencies.

9. All charges under this Agreement are subject to redetermination (true-up). This true--up process is common to other charges included in the SOC. The need for a true--up under this Agreement would likely come from, though not limited to, an update of total annual A3 Planning Costs from SPA to DWR.

INVOICES, NOTICES, OR OTHER COMMUNICATIONS

10. All invoices, notices, or other communications required under this Agreement shall be in writing, and will be deemed to have been duly given upon the date of service, if: (i) served personally on the Party to whom notice is to be given; (ii) sent by electronic mail, and the Party to whom notice is to be given confirms receipt; or (iii) on the third day after mailing, if mailed to the Party to whom invoice, notice or other communication is directed, by first-class mail, postage prepaid, and properly addressed to the designated representative(s) of the Parties set forth below.

Department of Water Resources
Division of Fiscal Services
715 P Street, 6th Floor
Post Office Box 942836
Sacramento, California 94236-0001

Sites Project Authority
Mr. Jerry Brown, Executive Director
Sites Project Authority
122 Old Highway 99 West
Maxwell, California 95955

Mr. Mark Krause, General Manager
Desert Water Agency
Post Office Box 1710
Palm Springs, California 92263-1710

Mr. Jim Barrett, General Manager
Coachella Valley Water District
Post Office Box 1058
Coachella, California 92236-1058

Ms. Heather Dyer, General Manager
San Bernardino Valley Municipal Water District
380 East Vanderbilt Way
San Bernardino, California 92408-3593

Mr. Lance Eckhart, General Manager
San Gorgonio Pass Water Agency
1210 Beaumont Avenue
Beaumont, California 92223-1506

STATUS OF SITES RESERVOIR PROJECT AND FUNDS

11. Each Agency recognizes that Sites Reservoir Project may not proceed to construction. No reimbursements of money advanced or contributed to DWR pursuant to this Agreement will occur, except for unspent funds as determined by SPA pursuant to the separate agreement between the SPA and each Agency for the SPA Planning Costs.

GENERAL PROVISIONS

12. This Agreement may be amended or modified only by a subsequent written agreement approved and executed by the Parties. However, the Term may be extended as described in Paragraph 1 of this Agreement.

13. This Agreement does not amend, abridge, or modify each Agency's respective WSC in any way.

14. This Agreement constitutes the sole, final, complete, exclusive and integrated expression and statement of the terms of this Agreement among the Parties concerning the subject matter, and supersedes all prior negotiations, representations or agreement, either oral or written, that may be related to the subject matter of this Agreement, except as to those other agreements that are expressly referred to in this Agreement.

15. The Agencies agree to defend and hold DWR, its officers, employees, and agents harmless from any direct or indirect loss, liability, lawsuits, cause of action, judgment or claim, and shall indemnify DWR, its officers, employees, and agents from all lawsuits, costs, damages, judgments, attorneys' fees, and liabilities that DWR, its officers, employees and agents incur as a result of DWR approving this Agreement or providing services under this Agreement, except to the extent resulting from the sole negligence or willful misconduct of DWR, its officers, employees, and agents.

16. This Agreement shall not be administered or interpreted in any way that would cause financial harm to other contractors not participating in this Agreement. The Agencies shall be responsible, jointly and severally, as determined by DWR, for any demonstrable increase in costs to the other contractors that may result from the implementation of this Agreement.

17. The Parties agree that this Agreement will be executed using DocuSign by electronic signature, which shall be considered an original signature for all purposes and shall have the same force and effect as an original signature. The Agreement shall take effect as soon as all Parties have signed.

18. All Parties will receive an executed copy of this Agreement via DocuSign after all Parties have signed.

19. If Agency requires a Board of Directors' approval of this Agreement, it shall send an electronic file of the board approval to DWR.

If the terms and conditions in this Agreement are acceptable, please sign and date using DocuSign.

Sincerely,

Ted Craddock

Ted Craddock
Deputy Director
State Water Project

ACCEPTED:

SITES PROJECT AUTHORITY

_____
Signature

_____
Title

_____
Date

COACHELLA VALLEY WATER DISTRICT

_____
Signature

General Manager
Title

_____
Date

DESERT WATER AGENCY

_____
Signature

_____
Title

_____
Date

SAN BERNARDINO VALLEY MUNICIPAL WATER DISTRICT

_____
Signature

CEO/General Manager
Title

_____
Date

SAN GORGONIO PASS WATER AGENCY

_____
Signature

General Manager
Title

_____
Date