BELLA VISTA WATER DISTRICT
URBAN WATER MANAGEMENT PLAN
2020 UPDATE

APPENDIX A – ADOPTION DOCUMENTATION

BELLA VISTA WATER DISTRICT
COUNTY OF SHASTA, CALIFORNIA

Resolution No. 21-07

A Resolution of the Board of Directors of the
Bella Vista Water District

ADOPTING THE 2020 URBAN WATER MANAGEMENT PLAN FOR
THE BELLA VISTA WATER DISTRICT.

****

WHEREAS, the California Urban Water Management Planning Act (UWMPA), California Water Code Sections 10610 – 10656, requires urban water suppliers to prepare and adopt an Urban Water Management Plan (UWMP) every five years; and

WHEREAS, the Bella Vista Water District is an urban water supplier under the definition of California Water Code Section 10617; and

WHEREAS, the District has prepared a 2020 Urban Water Management Plan and completed all required coordination and legal notices, including publication in the Record Searchlight on June 7 and June 14, 2021, pursuant to Government Code Section 6066, posting on the District's website.

WHEREAS, on June 21, 2021, the District's Board of Directors conducted a duly noticed public hearing to obtain public testimony.

NOW THEREFORE, BE IT RESOLVED, that the by the Board of Directors of the Bella Vista Water District hereby:

1. Determines that adoption of the 2020 Urban Water Management Plan is exempt from the California Environmental Quality Act (CEQA) pursuant to California Water Code Section 10652.

2. Adopts the 2020 Urban Water Management Plan; and Water Shortage Contingency Plan Update;

3. Directs staff to file the 2020 Urban Water Management Plan with the California Department of Water Resources and the California State Library within thirty (30) days;

4. Directs staff to make the 2020 Urban Water Management Plan available for public review within thirty (30) days after filing a copy with the California Department of Water Resources;

5. Directs staff to provide the 2020 Urban Water Management Plan to any city or county within which the District provides water supplies within sixty (60) days after filing a copy with the California Department of Water Resources;

* * * * *

PASSED, APPROVED, AND ADOPTED this 21st day of June 2021 by the following vote:

Ayes:

Noes:

Absent:

Abstain:

BELLA VISTA WATER DISTRICT

By: Frank Schabarum
Frank Schabarum, President of the Board of Directors of Bella Vista Water District

ATTEST:

David J. Coxey
David J. Coxey, Secretary of the Board of Directors of Bella Vista Water District

BELLA VISTA WATER DISTRICT

STATE OF CALIFORNIA)
) ss
COUNTY OF SHASTA)

I, DAVID J. COXEY, Secretary of the Bella Vista Water District DO HEREBY CERTIFY that the foregoing resolution was duly adopted by the Board of Directors of said District at a Regular Meeting of said Board of Directors by the following vote:

AYES: Nash, Schabarum, Smith, and Waite

NOES: 0

ABSENT: Bambino

ABSTAINED: 0

David J. Coxey, Secretary of the
Board of Directors

STATE OF CALIFORNIA)
) ss
COUNTY OF SHASTA)

I, DAVID J. COXEY, Secretary of the Bella Vista Water District DO HEREBY CERTIFY that the foregoing is a full and correct copy of Resolution No. 21-07 of said Board of Directors, and that the same has not been amended or repealed.

David J. Coxey, Secretary of the
Board of Directors

BELLA VISTA WATER DISTRICT
URBAN WATER MANAGEMENT PLAN
2020 UPDATE

APPENDIX B – OUTREACH FOR PLAN PREPARATION

BELLA VISTA WATER DISTRICT

11368 E. STILLWATER WAY • REDDING, CALIFORNIA 96003-9510
TELEPHONE (530) 241-1085 • FAX (530) 241-8354

March 9, 2021

Mr. Chuck Aukland, Director of Public Works
City of Redding
P.O. Box 496071
Redding, California 96049-6071

Subject: Notice of Preparation of the 2020 Bella Vista Water District Urban Water Management Plan (UWMP) Update

Dear Mr. Aukland:

Pursuant to the requirements of the California Water Code, Division 6, Part 2.6 Urban Water Management Planning, Section 10621 (b), every urban water supplier required to prepare a plan pursuant to this part shall, at least 60 days prior to the public hearing on the plan required by Section 10642, notify any city or county within which the supplier provides water supplies that the urban water supplier will be reviewing the plan and considering amendments or changes to the plan.

This letter is intended to notify your agency that the Bella Vista Water District (District) is in process of preparing the 2020 UWMP update. Based on the District's current schedule, we expect to have a public review draft in May 2021, at which point your agency will receive a notification letter that the draft UWMP is available for public review.

If your agency would like to submit comments or provide input to the District in anticipation of the development of the 2020 UWMP, please submit written copies to:

Wayne Ohlin, District Engineer
11368 East Stillwater Way
Redding, CA 96003

Sincerely,

Wayne Ohlin, P.E.
District Engineer

cc: Owen Kubit, Provost & Pritchard Consulting Group

BELLA VISTA WATER DISTRICT

11368 E. STILLWATER WAY • REDDING, CALIFORNIA 96003-9510
TELEPHONE (530) 241-1085 • FAX (530) 241-8354

March 9, 2021

Mr. Jeff Cole, General Manager
Mountain Gate Community Services
14508 Wonderland Blvd.
Redding, California 96003

Subject: Notice of Preparation of the 2020 Bella Vista Water District Urban Water Management Plan (UWMP) Update

Dear Mr. Cole:

Pursuant to the requirements of the California Water Code, Division 6, Part 2.6 Urban Water Management Planning, Section 10621 (b), every urban water supplier required to prepare a plan pursuant to this part shall, at least 60 days prior to the public hearing on the plan required by Section 10642, notify any city or county within which the supplier provides water supplies that the urban water supplier will be reviewing the plan and considering amendments or changes to the plan.

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Wayne Ohlin, District Engineer
11368 East Stillwater Way
Redding, CA 96003

Sincerely,

Wayne Ohlin, P.E.
District Engineer

cc: Owen Kubit, Provost & Pritchard Consulting Group

BELLA VISTA WATER DISTRICT

11368 E. STILLWATER WAY • REDDING, CALIFORNIA 96003-9510
TELEPHONE (530) 241-1085 • FAX (530) 241-8354

March 9, 2021

John S. Currey, General Manager
Anderson-Cottonwood Irrigation District
2810 Silver Street
Anderson, California 96007

Subject: Notice of Preparation of the 2020 Bella Vista Water District Urban Water Management Plan (UWMP) Update

Dear Mr. Currey:

Pursuant to the requirements of the California Water Code, Division 6, Part 2.6 Urban Water Management Planning, Section 10621 (b), every urban water supplier required to prepare a plan pursuant to this part shall, at least 60 days prior to the public hearing on the plan required by Section 10642, notify any city or county within which the supplier provides water supplies that the urban water supplier will be reviewing the plan and considering amendments or changes to the plan.

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Wayne Ohlin, District Engineer
11368 East Stillwater Way
Redding, CA 96003

Sincerely,

Wayne Ohlin, P.E.
District Engineer

cc: Owen Kubit, Provost & Pritchard Consulting Group

BELLA VISTA WATER DISTRICT

11368 E. STILLWATER WAY • REDDING, CALIFORNIA 96003-9510
TELEPHONE (530) 241-1085 • FAX (530) 241-8354

March 9, 2021

Mr. Jeff Tedder, City Engineer
Shasta Lake, City of
1650 Stanton Drive
Shasta Lake, CA 96019

Subject: Notice of Preparation of the 2020 Bella Vista Water District Urban Water Management Plan (UWMP) Update

Dear Mr. Tedder:

Pursuant to the requirements of the California Water Code, Division 6, Part 2.6 Urban Water Management Planning, Section 10621 (b), every urban water supplier required to prepare a plan pursuant to this part shall, at least 60 days prior to the public hearing on the plan required by Section 10642, notify any city or county within which the supplier provides water supplies that the urban water supplier will be reviewing the plan and considering amendments or changes to the plan.

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If your agency would like to submit comments or provide input to the District in anticipation of the development of the 2020 UWMP, please submit written copies to:

Wayne Ohlin, District Engineer
11368 East Stillwater Way
Redding, CA 96003

Sincerely,

Wayne Ohlin, P.E,
District Engineer

cc: Owen Kubit, Provost & Pritchard Consulting Group

BELLA VISTA WATER DISTRICT

11368 E. STILLWATER WAY • REDDING, CALIFORNIA 96003-9510
TELEPHONE (530) 241-1085 • FAX (530) 241-8354

March 9, 2021

Mr. Patrick Minturn, Director
Shasta County Public Works
1855 Placer Street
Redding, California 96001

Subject: Notice of Preparation of the 2020 Bella Vista Water District Urban Water Management Plan (UWMP) Update

Dear Mr. Minturn:

Pursuant to the requirements of the California Water Code, Division 6, Part 2.6 Urban Water Management Planning, Section 10621 (b), every urban water supplier required to prepare a plan pursuant to this part shall, at least 60 days prior to the public hearing on the plan required by Section 10642, notify any city or county within which the supplier provides water supplies that the urban water supplier will be reviewing the plan and considering amendments or changes to the plan.

This letter is intended to notify your agency that the Bella Vista Water District (District) is in process of preparing the 2020 UWMP update. Based on the District's current schedule, we expect to have a public review draft in May 2021, at which point your agency will receive a notification letter that the draft UWMP is available for public review.

If your agency would like to submit comments or provide input to the District in anticipation of the development of the 2020 UWMP, please submit written copies to:

Wayne Ohlin, District Engineer
11368 East Stillwater Way
Redding, CA 96003

Sincerely,

Wayne Ohlin, P.E.
District Engineer

cc: Owen Kubit, Provost & Pritchard Consulting Group

BELLA VISTA WATER DISTRICT
URBAN WATER MANAGEMENT PLAN
2020 UPDATE

APPENDIX C – NOTICE OF PUBLIC HEARING

NOTICE OF PUBLIC HEARING BY THE BELLA VISTA WATER DISTRICT

NOTICE IS HEREBY GIVEN that the Bella Vista Water District, Redding, California will conduct a public hearing at its regular Board Meeting on Monday, June 21, 2021, with the meeting commencing at 5:30 PM or as soon thereafter as possible, at the Bella Vista Water District Office 11368 E. Stillwater Way, Redding, California, regarding the following:

Bella Vista Water District 2020 Urban Water Management Plan (UWMP) and Water Shortage Contingency Plan (WSCP) Update

California Water Code Sections 10610 through 10656 requires urban water suppliers within the state to prepare and adopt UWMPs and WSCPs for submittal to the California Department of Water Resources (DWR). The WSCP will be included as a component of the UWMP. The UWMPs must satisfy the requirements of the Urban Water Management Planning Act of 1983, including amendments that have been made to the Act and other applicable regulations. The purpose of the UWMP is to maintain efficient use of urban water supplies, continue to promote conservation programs and policies, ensure that sufficient water supplies are available for future use, and provide a mechanism for response during drought conditions.

AVAILABILITY OF PROJECT RELATED DOCUMENTS: The Draft 2020 Urban Water Management Plan, Draft Water Shortage Contingency Plan Update, and related documents are on file and available for review Monday – Thursday, 8:00 AM – 5:00 PM and Friday 8:00 AM – 4:00 PM at the Bella Vista Water District Office, 11368 E. Stillwater Way, Redding, CA 96003.

ELECTRONIC COPIES: The Draft 2020 Urban Water Management Plan and Draft Water Shortage Contingency Plan Update are available on the District's website at: https://www.bvwd.org/forms-and-reports

PUBLIC COMMENT PERIOD: Through the end of the Public Hearing on June 21, 2021

PUBLIC COMMENTS: Oral and written testimony will be accepted at the public hearing. Written comments also may be submitted to the District prior to the public hearing.

Submit written comments to:

Wayne Ohlin, P.E.
District Engineer
11368 E. Stillwater Way,
Redding, CA 96003
E-mail: wohlin@bvwd.org
June 7, 14, 2021 #4768396

BELLA VISTA WATER DISTRICT
URBAN WATER MANAGEMENT PLAN
2020 UPDATE

APPENDIX D – WATER USE DATA

Bella Vista Water District
Water Use (2011-2020) in Acre-Feet

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Averages
Water Produced											
Wintu Pumping Plant (pw) (Incl. Txfers)	10,880	13,156	13,498	6,395	5,420	7,393	9,162	9,704	9,690	11,106	9,640
Injection Water	-55	-62	-58	-42	-42	-40	-42	-55	-62	-60	-52
Wintu (Net)	10,825	13,094	13,440	6,355	5,378	7,353	9,120	9,650	9,628	11,046	9,589
Well No. 1	5	24	47	420	231	74	33	30	50	33	95
Well No. 2	7	18	51	211	387	183	201	134	39	57	129
Well No. 3	12	20	55	314	342	15	34	107	11	36	94
Well No. 4	0	7	25	131	160	71	95	78	12	23	60
Well No. 6	13	23	57	249	413	231	215	118	62	72	145
Inter-ties	2	0	0	0	0	0	0	0	0	0	0
Total Acre Feet (Net Water	**10,864**	**13,187**	**13,674**	**7,680**	**6,912**	**7,927**	**9,699**	**10,117**	**9,802**	**11,268**	10,113
Reported Use											
USBR Project Water											
Agriculture	4,399	5,841	5,529	666	766	2,675	2,829	2,995	2,871	3,318	3,189
M & I	4,890	5,717	6,375	2,879	1,812	3,042	4,755	5,019	5,221	6,192	4,590
Groundwater											
Agriculture	0	0	0	0	17	57	20	14	0	0	11
M & I	37	93	234	1,325	1,517	517	559	453	174	222	513
Transfers											
ACID AG	0	0	0	1,332	1,071	0	0	0	0	0	240
ACID M & I	1,536	1,536	1,536	1,378	1,629	1,536	1,536	1,536	1,536	1,536	1,530
Other Transfers In											
AG	0	0	0	0	0	0	0	0	0	0	0
M & I (COR/McConnell)	2	0	0	100	100	100	0	100	0	0	40
Total Irrigation	4,399	5,841	5,529	1,998	1,854	2,732	2,849	3,009	2,871	3,318	3,440
Total M & I	6,465	7,346	8,145	5,682	5,058	5,195	6,850	7,108	6,931	7,950	6,673
Total Acre Feet	**10,864**	**13,187**	**13,674**	**7,680**	**6,912**	**7,927**	**9,699**	**10,117**	**9,802**	**11,268**	**10,113**
Bimonthly Usage							0				
Commercial (M & I)	442	485	496	432	378	382	470	481	465	530	456
Residential (M & I)	2,716	3,314	3,409	2,515	2,095	2,339	2,823	3,014	2,983	3,375	2,858
Rural (M & I)	2,351	2,648	2,862	1,895	1,586	1,800	2,271	2,418	2,345	2,713	2,289
Public/Institutional (M & I)	874	1,140	1,204	938	831	904	986	947	1,034	1,058	992
Other	13	26	26	8	29	3	10	22	9	10	16
Agriculture	3,471	4,652	4,421	1,482	1,596	2,730	2,200	2,651	2,249	2,572	2,802
Losses	997	923	1,256	410	398	-231	939	583	717	1,010	700
Total Acre Feet	**10,864**	**13,187**	**13,674**	**7,680**	**6,912**	**7,927**	**9,699**	**10,117**	**9,802**	**11,268**	**10,113**
M & I Totals	6,396	7,610	7,995	5,785	4,914	5,427	6,560	6,883	6,668	7,210	6,545
Irrigation Totals	3,472	4,654	4,423	1,485	1,600	2,731	2,200	2,651	1,901	2,572	2,769
TOTAL WATER BILLED	**9,867**	**12,264**	**12,418**	**7,270**	**6,514**	**8,158**	**8,760**	**9,534**	**8,569**	**9,782**	**9,314**

BELLA VISTA WATER DISTRICT
URBAN WATER MANAGEMENT PLAN
2020 UPDATE

APPENDIX E – DWR STANDARD TABLES

Submittal Table 2-1 Retail Only: Public Water Systems			
Public Water System Number	Public Water System Name	Number of Municipal Connections 2020	Volume of Water Supplied 2020 *
Add additional rows as needed			
4510014	Bella Vista Water District	6,420	11,268
	TOTAL	6,420	11,268
** Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Table 2-3.*			
NOTES:			

Submittal Table 2-2: Plan Identification			
Select Only One	**Type of Plan**		**Name of RUWMP or Regional Alliance** *if applicable* (select from drop down list)
☑	**Individual UWMP**		
	☐	Water Supplier is also a member of a RUWMP	
	☐	Water Supplier is also a member of a Regional Alliance	
☐	**Regional Urban Water Management Plan (RUWMP)**		
NOTES:			

Submittal Table 2-3: Supplier Identification	
Type of Supplier (select one or both)	
☐	Supplier is a wholesaler
☑	Supplier is a retailer
Fiscal or Calendar Year (select one)	
☑	UWMP Tables are in calendar years
☐	UWMP Tables are in fiscal years
If using fiscal years provide month and date that the fiscal year begins (mm/dd)	
Units of measure used in UWMP * (select from drop down)	
Unit	AF
** Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Table 2-3.*	
NOTES:	

Submittal Table 3-1 Retail: Population - Current and Projected						
Population Served	2020	2025	2030	2035	2040	2045*(opt)*
	18,378	18,767	19,164	19,570	19,985	20,408
NOTES: Source U.S Census data 1990, 2000, and 2010. Future growth rate of 0.42% based on Shasta County Economic Development Council projections (https://www.shastaedc.org/regional-data/demographics/).						

Submittal Table 4-1 Retail: Demands for Potable and Non-Potable[1] Water - Actual			
Use Type	2020 Actual		
Drop down list May select each use multiple times These are the only Use Types that will be recognized by the WUEdata online submittal tool	Additional Description (as needed)	Level of Treatment When Delivered Drop down list	Volume[2]
Add additional rows as needed			
Single Family		Drinking Water	5,611
Commercial		Drinking Water	530
Institutional/Governmental		Drinking Water	1,060
Agricultural irrigation		Drinking Water	2,572
Sales/Transfers/Exchanges to other Suppliers		Drinking Water	4
Other Potable		Drinking Water	5
Losses		Drinking Water	1,486
		TOTAL	11,268

[1] *Recycled water demands are NOT reported in this table. Recycled water demands are reported in Table 6-4.*

[2] *Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Table 2-3.*

NOTES:

Submittal Table 4-2 Retail: Use for Potable and Non-Potable[1] Water - Projected						
Use Type	Additional Description (as needed)	Projected Water Use[2] *Report To the Extent that Records are Available*				
Drop down list May select each use multiple times These are the only Use Types that will be recognized by the WUEdata online submittal tool		2025	2030	2035	2040	2045 (opt)
Add additional rows as needed						
Single Family	Includes Multi-Family	5,167	5,277	5,389	5,503	5,620
Commercial		468	478	488	498	509
Institutional/Governmental		995	1,016	1,037	1,059	1,082
Agricultural irrigation		2,478	2,531	2,585	2,639	2,695
Sales/Transfers/Exchanges to other Suppliers		2	2	2	2	2
Other Potable	Construction + Run-to-waste	7	7	7	7	8
Losses		852	870	889	908	927
TOTAL		9,969	10,181	10,397	10,616	10,843

[1] *Recycled water demands are NOT reported in this table. Recycled water demands are reported in Table 6-4.* [2] *Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Table 2-3.*

NOTES:

Submittal Table 4-3 Retail: Total Water Use (Potable and Non-Potable)						
	2020	2025	2030	2035	2040	2045 (opt)
Potable Water, Raw, Other Non-potable *From Tables 4-1R and 4-2 R*	11,268	9,969	10,181	10,397	10,616	10,843
Recycled Water Demand[1] *From Table 6-4*	0	0	0	0	0	0
Optional Deduction of Recycled Water Put Into Long-Term Storage[2]						
TOTAL WATER USE	11,268	9,969	10,181	10,397	10,616	10,843

[1] *Recycled water demand fields will be blank until Table 6-4 is complete*

[2] *Long term storage means water placed into groundwater or surface storage that is not removed from storage in the same year. Supplier* ***may*** *deduct recycled water placed in long-term storage from their reported demand. This value is manually entered into Table 4-3.*

NOTES:

Submittal Table 4-4 Retail: Last Five Years of Water Loss Audit Reporting	
Reporting Period Start Date (mm/yyyy)	Volume of Water Loss [1,2]
01/2016	-248.8
01/2017	889
01/2018	507
01/2019	484
01/2020	864.5
[1] *Taken from the field "Water Losses" (a combination of apparent losses and real losses) from the AWWA worksheet.* [2] ***Units of measure (AF, CCF, MG)*** *must remain consistent throughout the UWMP as reported in Table 2-3.*	
NOTES: Quantities in AF. The above entry for the water loss volume for 2016 is correct. It was a negative number, presumably due to master meter measurement inaccuracies. The water loss volume for 2020 is preliminary; the AWWA Water Audit will not be validated until after July 1, 2021	

Submittal Table 4-5 Retail Only: Inclusion in Water Use Projections	
Are Future Water Savings Included in Projections? (Refer to Appendix K of UWMP Guidebook) *Drop down list (y/n)*	No
If "Yes" to above, state the section or page number, in the cell to the right, where citations of the codes, ordinances, or otherwise are utilized in demand projections are found.	
Are Lower Income Residential Demands Included In Projections? *Drop down list (y/n)*	No
NOTES:	

Submittal Table 5-1 Baselines and Targets Summary
From SB X7-7 Verification Form
Retail Supplier or Regional Alliance Only

Baseline Period	Start Year *	End Year *	Average Baseline GPCD*	Confirmed 2020 Target*
10-15 year	*1996*	*2005*	*947*	*758*
5 Year	*2003*	*2007*	*956*	

**All cells in this table should be populated manually from the supplier's SBX7-7 Verification Form and reported in Gallons per Capita per Day (GPCD)*

NOTES:

Submittal Table 5-2: 2020 Compliance SB X7-7 2020 Compliance Form *Retail Supplier or Regional Alliance Only*			From	
2020 GPCD			2020 Confirmed Target GPCD*	Did Supplier Achieve Targeted Reduction for 2020? Y/N
Actual 2020 GPCD*	2020 TOTAL Adjustments*	Adjusted 2020 GPCD* *(Adjusted if applicable)*		
546	*0*	*546*	*758*	*Y*
**All cells in this table should be populated manually from the supplier's SBX7-7 2020 Compliance Form and reported in Gallons per Capita per Day (GPCD)*				
NOTES:				

Submittal Table 6-1 Retail: Groundwater Volume Pumped						
☐	Supplier does not pump groundwater. The supplier will not complete the table below.					
☐	All or part of the groundwater described below is desalinated.					
Groundwater Type ***Drop Down List*** *May use each category multiple times*	Location or Basin Name	2016*	2017*	2018*	2019*	2020*
Add additional rows as needed						
Alluvial Basin	Redding Basin - Enterprise sub-basin	574	579	467	156	222
	TOTAL	574	579	467	156	222
**** Units of measure (AF, CCF, MG)*** *must remain consistent throughout the UWMP as reported in Table 2-3.*						
NOTES:						

Submittal Table 6-2 Retail: Wastewater Collected Within Service Area in 2020						
☐	There is no wastewater collection system. The supplier will not complete the table below.					
	Percentage of 2020 service area covered by wastewater collection system *(optional)*					
	Percentage of 2020 service area population covered by wastewater collection system *(optional)*					
Wastewater Collection			Recipient of Collected Wastewater			
Name of Wastewater Collection Agency	Wastewater Volume Metered or Estimated? *Drop Down List*	Volume of Wastewater Collected from UWMP Service Area 2020 *	Name of Wastewater Treatment Agency Receiving Collected Wastewater	Treatment Plant Name	Is WWTP Located Within UWMP Area? *Drop Down List*	Is WWTP Operation Contracted to a Third Party? *(optional)* *Drop Down List*
City of Redding	Estimated	833	City of Redding	Stillwater Wastewater Treatment Plant	No	No
Shasta County CSA#8	Estimated	22	Shasta County CSA#8	Palo Cedro Sewage Disposal System	No	No
Shasta College	Estimated	33	Shasta College	Shasta College Wastewater Treatment Facility	Yes	No
Total Wastewater Collected from Service Area in 2020:		888				

** Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Table 2-3 .*

NOTES: The majority of the District's service area is not served by sewage collections systems. Developed properties not within the areas served by the sewage collection systems listed above have their own on-site septict tank and leach field disposal systems.

Submittal Table 6-3 Retail: Wastewater Treatment and Discharge Within Service Area in 2020

☐ **No wastewater is treated or disposed of within the UWMP service area.** The supplier will not complete the table below.

Wastewater Treatment Plant Name	Discharge Location Name or Identifier	Discharge Location Description	Wastewater Discharge ID Number *(optional)* [2]	Method of Disposal *Drop down list*	Does This Plant Treat Wastewater Generated Outside the Service Area? *Drop down list*	Treatment Level *Drop down list*	2020 volumes [1]				
							Wastewater Treated	Discharged Treated Wastewater	Recycled Within Service Area	Recycled Outside of Service Area	Instream Flow Permit Requirement
Shasta College Wastewater Treatment Facility	Shasta College	Section 15, T32N, R4W, MDB&M		Land disposal	No	Secondary, Undisinfected	33	0	0	0	
						Total	33	0	0	0	0

[1] **Units of measure (AF, CCF, MG)** must remain consistent throughout the UWMP as reported in Table 2-3.

[2] If the **Wastewater Discharge ID Number** is not available to the UWMP preparer, access the SWRCB CIWQS regulated facility website at https://ciwqs.waterboards.ca.gov/ciwqs/readOnly/CiwqsReportServlet?inCommand=reset&reportName=RegulatedFacility

NOTES: There were no discharges from the Shasta College Wastewater Treatment Facility in 2020 due to low wastewater volumes (due to few students and staff on campus due to Covid-19) and 2020 being a relatively dry year. Wastewater either evaporated, percolated into the ground or was stored.

Submittal Table 6-4 Retail: Recycled Water Direct Beneficial Uses Within Service Area

☑ Recycled water is not used and is not planned for use within the service area of the supplier. The supplier will not complete the table below.

Name of Supplier Producing (Treating) the Recycled Water:	
Name of Supplier Operating the Recycled Water Distribution System:	
Supplemental Water Added in 2020 (volume) *Include units*	
Source of 2020 Supplemental Water	

Beneficial Use Type *Insert additional rows if needed.*	**Potential** Beneficial Uses of Recycled Water (Describe)	Amount of **Potential** Uses of Recycled Water (Quantity) *Include volume units* [1]	General Description of 2020 Uses	Level of Treatment *Drop down list*	2020 [1]	2025 [1]	2030 [1]	2035 [1]	2040 [1]	2045 [1] (opt)
Agricultural irrigation										
Landscape irrigation (exc golf courses)										
Golf course irrigation										
Commercial use										
Industrial use										
Geothermal and other energy production										
Seawater intrusion barrier										
Recreational impoundment										
Wetlands or wildlife habitat										
Groundwater recharge (IPR)										
Reservoir water augmentation (IPR)										
Direct potable reuse										
Other (Description Required)										
				Total:	0	0	0	0	0	0
				2020 Internal Reuse						

[1] *Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Table 2-3.*

NOTES:

Submittal Table 6-5 Retail: 2015 UWMP Recycled Water Use Projection Compared to 2020 Actual		
☑	Recycled water was not used in 2015 nor projected for use in 2020. The supplier will not complete the table below. If recycled water was not used in 2020, and was not predicted to be in 2015, then check the box and do not complete the table.	
Beneficial Use Type	**2015 Projection for 2020 [1]**	**2020 Actual Use [1]**
Insert additional rows as needed.		
Agricultural irrigation		
Landscape irrigation (exc golf courses)		
Golf course irrigation		
Commercial use		
Industrial use		
Geothermal and other energy production		
Seawater intrusion barrier		
Recreational impoundment		
Wetlands or wildlife habitat		
Groundwater recharge (IPR)		
Reservoir water augmentation (IPR)		
Direct potable reuse		
Other (Description Required)		
Total	0	0
[1] **Units of measure (AF, CCF, MG)** must remain consistent throughout the UWMP as reported in Table 2-3.		
NOTE:		

Submittal Table 6-6 Retail: Methods to Expand Future Recycled Water Use			
☑	Supplier does not plan to expand recycled water use in the future. Supplier will not complete the table below but will provide narrative explanation.		
N.A.	Provide page location of narrative in UWMP		
Name of Action	Description	Planned Implementation Year	Expected Increase in Recycled Water Use *
Add additional rows as needed			
		Total	0
***Units of measure (AF, CCF, MG)** must remain consistent throughout the UWMP as reported in Table 2-3.*			
NOTES:			

Submittal Table 6-7 Retail: Expected Future Water Supply Projects or Programs						
☐	No expected future water supply projects or programs that provide a quantifiable increase to the agency's water supply. Supplier will not complete the table below.					
☐	Some or all of the supplier's future water supply projects or programs are not compatible with this table and are described in a narrative format.					
Section 6.9	Provide page location of narrative in the UWMP					
Name of Future Projects or Programs	Joint Project with other suppliers?		Description (if needed)	Planned Implementation Year	Planned for Use in Year Type *Drop Down List*	Expected Increase in Water Supply to Supplier* *This may be a range*
	Drop Down List (y/n)	*If Yes, Supplier Name*				
Add additional rows as needed						
Groundwater Wells 7 and 8	No		Construction of additional groundwater wells including iron and manganese treatment and chlorination	Within the next 5 to 10 years	All Year Types	Approximately 1,000 AF per new well
**Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Table 2-3.*						
NOTES:						

Submittal Table 6-8 Retail: Water Supplies — Actual				
Water Supply		2020		
Drop down list May use each category multiple times.These are the only water supply categories that will be recognized by the WUEdata online submittal tool	Additional Detail on Water Supply	Actual Volume*	Water Quality Drop Down List	Total Right or Safe Yield* (optional)
Add additional rows as needed				
Surface water (not desalinated)	CVP Water Service Contract supply pumped from the Sacramento River	9,510	Drinking Water	
Surface water (not desalinated)	ACID Long-term transfer supply pumped from the Sacramento River	1,536	Drinking Water	
Groundwater (not desalinated)	Wells are located in the Enterprise Sub-basin of the Redding Groundwater Basis	222	Drinking Water	
	Total	11,268		0
**Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Table 2-3.*				
NOTES:				

Submittal Table 6-9 Retail: Water Supplies — Projected

Water Supply	Additional Detail on Water Supply	Projected Water Supply * Report To the Extent Practicable									
Drop down list May use each category multiple times. These are the only water supply categories that will be recognized by the WUEdata online submittal tool		2025		2030		2035		2040		2045 (opt)	
		Reasonably Available Volume	Total Right or Safe Yield (optional)	Reasonably Available Volume	Total Right or Safe Yield (optional)	Reasonably Available Volume	Total Right or Safe Yield (optional)	Reasonably Available Volume	Total Right or Safe Yield (optional)	Reasonably Available Volume	Total Right or Safe Yield (optional)
Add additional rows as needed											
Surface water (not desalinated)	CVP Water Service Contract supply pumped from the Sacramento River	18,700	24,578	18,700	24,578	18,700	24,578	18,700	24,578	18,700	24,578
Surface water (not desalinated)	ACID Long-term transfer supply pumped from the Sacramento River	1,459	1,536	1,459	1,536	1,459	1,536	1,459	1,536	1,459	1,536
Groundwater (not desalinated)	Wells are located in the Enterprise Sub-basin of the Redding Groundwater Basis	4,315		5,315		5,315		5,315		5,315	
Surface water (not desalinated)	Short-term Transfers										
	Total	24,474	26,114	25,474	26,114	25,474	26,114	25,474	26,114	25,474	26,114

**Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Table 2-3.*

NOTES: Reasonably available volume for the CVP and ACID Long-term Transfer supplies is based on the average supplies available over the past 10 years (2011-2020). Reasonably available volume for the Well supply is based on the construction of one new well by 2025 and a second new well by 2030. No quantities are given for Short-term Transfers because they are typically only needed and utilized during shortage years.

Submittal Table 7-1 Retail: Basis of Water Year Data (Reliability Assessment)				
Year Type	**Base Year** If not using a calendar year, type in the last year of the fiscal, water year, or range of years, for example, water year 2019-2020, use 2020	Available Supplies if Year Type Repeats		
		☐	Quantification of available supplies is not compatible with this table and is provided elsewhere in the UWMP. Location _____	
		☐	Quantification of available supplies is provided in this table as either volume only, percent only, or both.	
			Volume Available *	**% of Average Supply**
Average Year	2019		29,114	100%
Single-Dry Year	2015		7,550	75%
Consecutive Dry Years 1st Year	2013		25,020	250%
Consecutive Dry Years 2nd Year	2014		9,609	96%
Consecutive Dry Years 3rd Year	2015		7,166	72%
Consecutive Dry Years 4th Year	2014		10,109	101%
Consecutive Dry Years 5th Year	2015		7,486	75%

Supplier may use multiple versions of Table 7-1 if different water sources have different base years and the supplier chooses to report the base years for each water source separately. If a Supplier uses multiple versions of Table 7-1, in the "Note" section of each table, state that multiple versions of Table 7-1 are being used and identify the particular water source that is being reported in each table.

**Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Table 2-3.*

NOTES: The first year of the 2013-2015 drought period saw reduced CVP allocations, but the District's water supplies were more than adequate to meet all of its customers' water needs.

Submittal Table 7-2 Retail: Normal Year Supply and Demand Comparison					
	2025	2030	2035	2040	2045 *(Opt)*
Supply totals *(autofill from Table 6-9)*	24,474	25,474	25,474	25,474	25,474
Demand totals *(autofill from Table 4-3)*	9,969	10,181	10,397	10,616	10,843
Difference	14,505	15,293	15,077	14,858	14,631
NOTES: Normal year supplies are projected to be in excess or projected demands for all of the years in the table.					

Submittal Table 7-3 Retail: Single Dry Year Supply and Demand Comparison					
	2025	2030	2035	2040	2045 (Opt)
Supply totals*	10,050	11,050	11,050	11,050	11,050
Demand totals*	11,505	11746	11,993	12,245	12,502
Difference	(1,455)	(696)	(943)	(1,195)	(1,452)
**Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Table 2-3.*					
NOTES: Supply totals assume the construction of one new well capable of producing 1,000 AF per year by 2025 and construction of a second new well capable of producing 1,000 AF per year by 2030. It also assumes the availability of short-term water transfers of 1,500 AF in a single dry year. Water demands are based on 2020 usage adjusted for growth.					

Submittal Table 7-4 Retail: Multiple Dry Years Supply and Demand Comparison						
		2025*	2030*	2035*	2040*	2045* (Opt)
First year	Supply totals	22,020	22,020	22,020	22,020	22,020
	Demand totals	9,969	10,181	10,397	10,616	10,843
	Difference	12,051	11,839	11,623	11,404	11,177
Second year	Supply totals	10,609	11,609	11,609	11,609	11,609
	Demand totals	10,011	10,224	10,441	10,661	10,889
	Difference	598	1,385	1,168	948	720
Third year	Supply totals	8,036	8,936	8,936	8,936	8,936
	Demand totals	10,053	10,267	10,485	10,705	10,934
	Difference	(2,017)	(1,331)	(1,549)	(1,769)	(1,998)
Fourth year	Supply totals	9,792	10,602	10,602	10,602	10,602
	Demand totals	10,095	10,310	10,529	10,750	10,980
	Difference	(303)	292	73	(148)	(378)
Fifth year	Supply totals	7,301	8,030	8,030	8,030	8,030
	Demand totals	10,138	10,353	10,573	10,795	11,026
	Difference	(2,837)	(2,323)	(2,543)	(2,765)	(2,996)
Sixth year *(optional)*	Supply totals					
	Demand totals					
	Difference	0	0	0	0	0

**Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Table 2-3.*

NOTES:

1 – Multiple dry year supply quantities based on values in Table 7-1 plus planned new wells by 2025 and 2030.

2 – Projected water demand based on 2016-2020 average demand adjusted for growth.

3 – Demands projected to increase along with population growth at an annual rate of 0.42%.

4 – Difference can be supplemented using short term transfer agreements and water use restrictions.

5 – New wells are scheduled to be added (one before 2025 and a second by 2030 with a water production capacity of 1,000 AFY each with well production decreasing by 10% per year starting with year 3 of the 5-year drought.

Submittal Table 7-5: Five-Year Drought Risk Assessment Tables to address Water Code Section 10635(b)	
2021	**Total**
Total Water Use	9,969
Total Supplies	22,020
Surplus/Shortfall w/o WSCP Action	12,051
Planned WSCP Actions (use reduction and supply augmentation)	
WSCP - supply augmentation benefit	0
WSCP - use reduction savings benefit	0
Revised Surplus/(shortfall)	12,051
Resulting % Use Reduction from WSCP action	0%

2022	Total
Total Water Use	10,011
Total Supplies	9,609
Surplus/Shortfall w/o WSCP Action	(402)
Planned WSCP Actions (use reduction and supply augmentation)	
WSCP - supply augmentation benefit	0
WSCP - use reduction savings benefit	402
Revised Surplus/(shortfall)	0
Resulting % Use Reduction from WSCP action	4%

2023	Total
Total Water Use	10,053
Total Supplies	7,166
Surplus/Shortfall w/o WSCP Action	(2,887)
Planned WSCP Actions (use reduction and supply augmentation)	
WSCP - supply augmentation benefit	0
WSCP - use reduction savings benefit	2,887
Revised Surplus/(shortfall)	0
Resulting % Use Reduction from WSCP action	29%

2024	Total
Total Water Use	10,095
Total Supplies	9,109
Surplus/Shortfall w/o WSCP Action	(986)
Planned WSCP Actions (use reduction and supply augmentation)	
WSCP - supply augmentation benefit	1000
WSCP - use reduction savings benefit	0
Revised Surplus/(shortfall)	14
Resulting % Use Reduction from WSCP action	0%

2025	Total
Total Water Use	10,138
Total Supplies	6,586
Surplus/Shortfall w/o WSCP Action	(3,552)
Planned WSCP Actions (use reduction and supply augmentation)	
WSCP - supply augmentation benefit	900
WSCP - use reduction savings benefit	2,652
Revised Surplus/(shortfall)	0
Resulting % Use Reduction from WSCP action	26%

Submittal Table 8-1
Water Shortage Contingency Plan Levels

Shortage Level	Percent Shortage Range	Shortage Response Actions (*Narrative description*)
1	Up to 10%	Response actions include voluntary reductions in water use, restrictions on inefficient uses of water and prohibitions on wasteful uses of water like washing of driveway and sidewalks with potable water.
2	Up to 20%	Response actions include all of those in Stage 1 plus requires 10% to 25% reductions in water use (the reduction varies among customer classes) and setting smart irrigation controllers to 90 to 95% of ET.
3	Up to 30%	Response actions include all of those in Stages 1 & 2, plus limiting landscape irrigation to 3 days a week, requires 20% to 35% reductions in water use (the reduction varies among customer classes), implementing tiered pricing for water use exceedence and setting smart irrigation controllers to 75% of ET.
4	Up to 40%	Response actions include all of those in Stages 1 - 3, plus limiting water use for ornamental water featuress, requires 30% to 50% reductions in water use (the reduction varies among customer classes), prohibitions on new landscaping and limiting water for new customers to that required for public health and safety.
5	Up to 50%	Response actions include all of those in Stages 1 - 4 ,plus prohibiting water use for ornamental ponds and fountains, no potable water for construction purposes, fixing leaks within 24 hours, requires 40% to 50% reductions in water use (the reduction varies among customer classes)
6	>50%	Response actions include all of those in Stages 1 - 4, plus landscape irrigation is prohibited, requires 50% to 100% reductions in water use (the reduction varies among customer classes), and no commitments ("will serves") for new water service connections.

NOTES: More detailed descriptions of the shortage response actions can be found in the District's Water Shortage Contingency Plan.

Submittal Table 8-2: Demand Reduction Actions				
Shortage Level	Demand Reduction Actions ***Drop down list*** *These are the only categories that will be accepted by the WUEdata online submittal tool. Select those that apply.*	How much is this going to reduce the shortage gap? *Include units used (volume type or percentage)*	Additional Explanation or Reference *(optional)*	Penalty, Charge, or Other Enforcement?
1	Expand Public Information Campaign	0% to 10% for all of the Level 1 DRAs combined.		No
1	Expand Public Information Campaign	0% to 10% for all of the Level 1 DRAs combined.		No
1	Landscape - Restrict or prohibit runoff from landscape irrigation	0% to 10% for all of the Level 1 DRAs combined.		Yes
1	Landscape - Limit landscape irrigation to specific times	0% to 10% for all of the Level 1 DRAs combined.		Yes
1	Other - Require automatic shut of hoses	0% to 10% for all of the Level 1 DRAs combined.		Yes
1	Other water feature or swimming pool restriction	0% to 10% for all of the Level 1 DRAs combined.	Must be equipped with a recirculation pump and b leakproof	Yes
1	Other - Customers must repair leaks, breaks, and malfunctions in a timely manner	0% to 10% for all of the Level 1 DRAs combined.		Yes
1	Other - Prohibit use of potable water for washing hard surfaces	0% to 10% for all of the Level 1 DRAs combined.		Yes
2	Implement or Modify Drought Rate Structure or Surcharge	10% to 20% for all of the Level 2 DRAs combined.	May adopt penalty rates for usage above customers' allocations.	Yes
2	Landscape - Other landscape restriction or prohibition	10% to 20% for all of the Level 2 DRAs combined.	Adjust smart controllers to 90 to 95% of ET	No
2	CII - Lodging establishment must offer opt out of linen service	10% to 20% for all of the Level 2 DRAs combined.		No
2	CII - Restaurants may only serve water upon request	10% to 20% for all of the Level 2 DRAs combined.		No
3	Implement or Modify Drought Rate Structure or Surcharge	20% to 30% for all of the Level 3 DRAs combined.	May adopt penalty rates for usage above customers' allocations. If penalties were adopted at Satge 2, may adjust penalty rates or allocations above which the penalty rate applies.	Yes
3	Landscape - Other landscape restriction or prohibition	20% to 30% for all of the Level 3 DRAs combined.	Adjust smart controllers to 90 to 75% of ET	No
3	Decrease Line Flushing	20% to 30% for all of the Level 3 DRAs combined.		No
4	Implement or Modify Drought Rate Structure or Surcharge	30% to 40% for all of the Level 4 DRAs combined.	May adjust penalty rates or allocations above which the penalty rate applies.	Yes
4	Landscape - Other landscape restriction or prohibition	30% to 40% for all of the Level 4 DRAs combined.	Installation of new or landscaping is prohibited	Yes
4	Other water feature or swimming pool restriction	30% to 40% for all of the Level 4 DRAs combined.	Wate for water features prohibited unless required to support aquatic life	Yes
4	Other	30% to 40% for all of the Level 4 DRAs combined.	New connections allowed but with water limited to PH&S needs	Yes
4	Landscape - Prohibit certain types of landscape irrigation	30% to 40% for all of the Level 4 DRAs combined.	Irrigation of street medians with potable water is prohibited	Yes

Submittal Table 8-2: Demand Reduction Actions				
Shortage Level	Demand Reduction Actions ***Drop down list*** *These are the only categories that will be accepted by the WUEdata online submittal tool. Select those that apply.*	How much is this going to reduce the shortage gap? *Include units used (volume type or percentage)*	Additional Explanation or Reference *(optional)*	Penalty, Charge, or Other Enforcement?
5	Implement or Modify Drought Rate Structure or Surcharge	40% to 50% for all of the Level 5 DRAs combined.	May adjust penalty rates or allocations above which the penalty rate applies.	Yes
5	Other water feature or swimming pool restriction	40% to 50% for all of the Level 5 DRAs combined.	Water use for ornamental ponds and fountains is prohibited	Yes
5	Landscape - Other landscape restriction or prohibition	40% to 50% for all of the Level 5 DRAs combined.		Yes
5	Other - Prohibit use of potable water for construction and dust control	40% to 50% for all of the Level 5 DRAs combined.		Yes
5	Other - Prohibit vehicle washing except at facilities using recycled or recirculating water	40% to 50% for all of the Level 5 DRAs combined.		Yes
5	Other - Customers must repair leaks, breaks, and malfunctions in a timely manner	40% to 50% for all of the Level 5 DRAs combined.	Within 24 hours	Yes
6	Implement or Modify Drought Rate Structure or Surcharge	50% to 60% for all of the Level 6 DRAs combined.	May adjust penalty rates or allocations above which the penalty	Yes
6	Landscape - Prohibit all landscape irrigation	50% to 60% for all of the Level 6 DRAs combined.		Yes
6	Other - Customers must repair leaks, breaks, and malfunctions in a timely manner	50% to 60% for all of the Level 6 DRAs combined.	Immediately	Yes
6	Moratorium or Net Zero Demand Increase on New Connections	50% to 60% for all of the Level 6 DRAs combined.	Moratorium on commitments to provide service for new water service connections	No
NOTES:				

Submittal Table 8-3: Supply Augmentation and Other Actions			
Shortage Level	Supply Augmentation Methods and Other Actions by Water Supplier ***Drop down list*** *These are the only categories that will be accepted by the WUEdata online submittal tool*	How much is this going to reduce the shortage gap? *Include units used (volume type or percentage)*	Additional Explanation or Reference *(optional)*
Add additional rows as needed			
2 and above	Transfers	up to 3,000 AF	Transfer quantities depend on availability and price.
2 and above	Other Actions (describe)	up to 3,000 AF	Run wells as needed.
2 and above	Implement or Modify Drought Rate Structure or Surcharge	Varies	The usage level that the drought exceedence penalty will kick in at and the penalty charge will vary depending on the severity of the drought.
NOTES:			

Urban Water Supplier: **Bella Vista Water District**

Water Delivery Product (If delivering more than one type of product use Table O-1C)

Retail Potable Deliveries

Table O-1A: Recommended Energy Reporting - Water Supply Process Approach

Enter Start Date for Reporting Period: 1/1/2020

End Date: 12/31/2020

☐ Is upstream embedded in the values reported?

		Urban Water Supplier Operational Control							
		Water Management Process						Non-Consequential Hydropower	
	Water Volume Units Used	Extract and Divert	Place into Storage	Conveyance	Treatment	Distribution	Total Utility	Hydropower	Net Utility
Volume of Water Entering Process	AF	*11,268*	*0*	*11,046*	*11,046*	*11,268*	*11,268*	*0*	*11,268*
Energy Consumed (kWh)	*N/A*	*4,959,356*	*0*	*0*	*214,108*	*1,114,562*	*6,288,026*		*6,288,026*
Energy Intensity (kWh/vol.)	*N/A*	*440.1*	*0.0*	*0.0*	*19.4*	*98.9*	*558.0*	*0.0*	*558.0*

Quantity of Self-Generated Renewable Energy

1,257,804 kWh

Data Quality *(Estimate, Metered Data, Combination of Estimates and Metered Data)*

Combination of Estimates and Metered Data

Data Quality Narrative:

All energy usage numbers are based on actual electrical providers' meter readings. Most of the electrical meter readings fell on dates other than January 1st or December 31st. Electrical usage and generation at the beginning and end of the year was prorated based on the number of days that fell within calendar year 2020. Some of the self-generated renewable energy metering data for 2020 was missing due to metering equipment outages. Where data for self-generated power was missing, data for the same dates in 2019 were used to provide 366 days of generated data energy for 2020.

Narrative:

The District's surface water supply is pumped from the Sacramento River and treated using direct filtration without having to repump the water that enters the distribution system. At the Water Treatment plant, pumps are used to recycle backwash water and filter-to-waste flows. Pumps are also used to boost the water pressure for backwash water flows and for chemical feed and chemical injection. For the District's groundwater supplies, the well pumps are used to extract the water and deliver it into the distribution system at distribution system pressures. Chemical feed pumps are used at the wells to inject chlorine solution into the raw groundwater before it goes through pressure filters for iron and manganese removal. Pumps recycle all of the filter backwash water through the treatment process. Within the distribution system booster pump stations pump water from lower elevation pressures zones to higher elevation zones, pump water into storage tanks and, for some pressure zones, booster pumps maintain set water pressures within their associated pressure zone. The District has four solar power generating facilities that are used to offset their energy demands on the electrical grid. In 2020, the energy generated at the District's solar facilities offset approximately 20% of their total electrical energy usage.