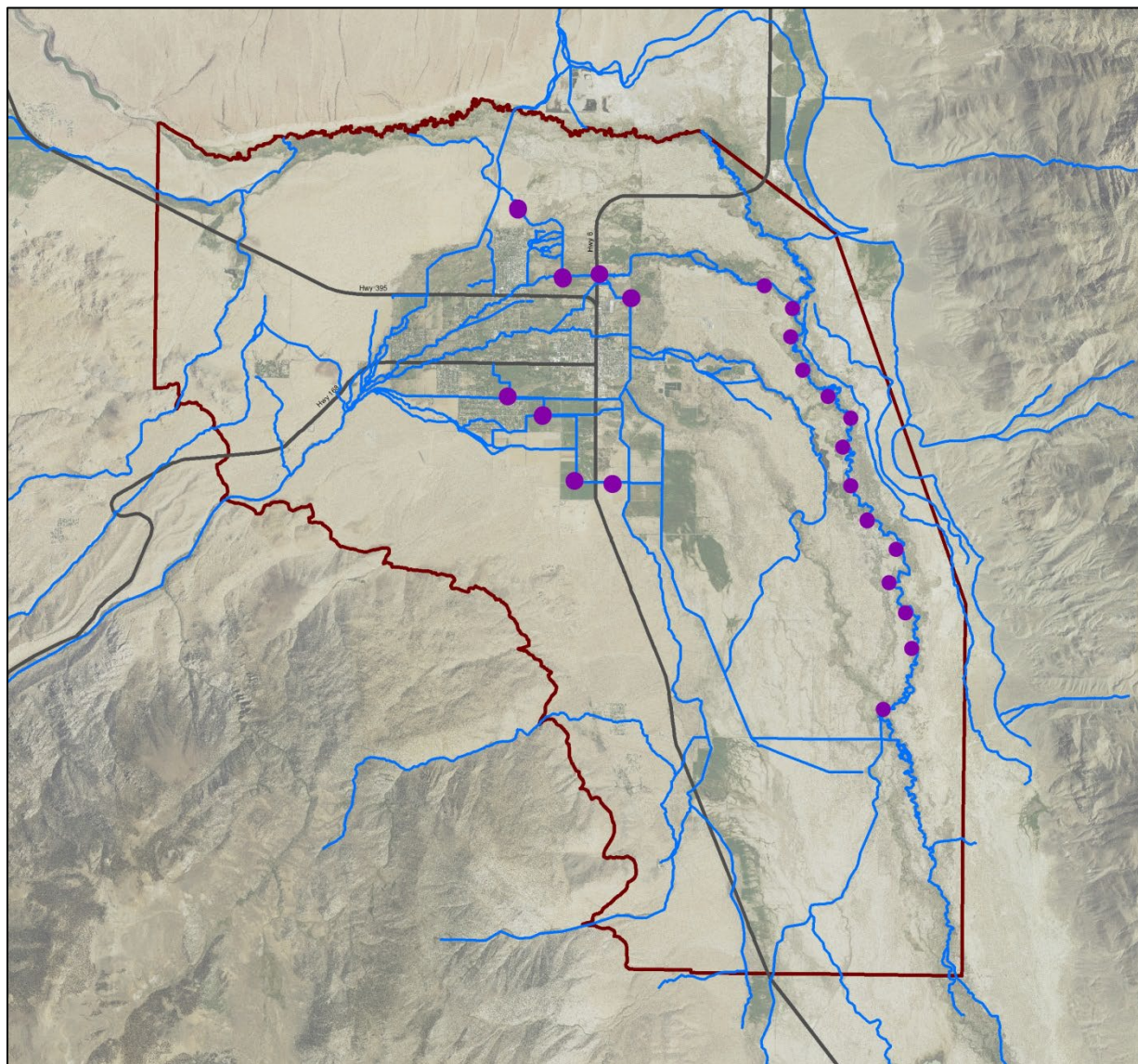


THE BISHOP CONE AUDIT FOR THE 2022-23 RUNOFF YEAR



Inyo County Water Department
Final
October 2023

THE BISHOP CONE AUDIT FOR THE 2022-23 RUNOFF YEAR

TABLE OF CONTENTS

1.0	INTRODUCTION.....	1
2.0	BACKGROUND.....	1
3.0	WATER USES ON LADWP-OWNED LAND ON THE BISHOP CONE.....	3
4.0	TOTAL LADWP GROUNDWATER EXTRACTION ON LADWP-OWNED LAND ON THE BISHOP CONE FOR RUNOFF YEARS 2021-22 AND 2022-23.....	6
5.0	COMPLIANCE WITH THE INYO COUNTY/LOS ANGELES LONG-TERM WATER AGREEMENT.....	7

TABLES

TABLE 1	WATER USES ON LOS ANGELES-OWNED LAND ON THE BISHOP CONE IN RUNOFF YEAR 2022-23.....	5
TABLE 2	FLOWING AND PUMPED GROUNDWATER BY WELL ON THE BISHOP CONE IN RUNOFF YEAR 2022-23.....	8
TABLE 3	LADWP USES IN COMPARISON TO LADWP GROUNDWATER EXTRACTION ON THE BISHOP CONE.....	9

FIGURES & MAP

FIGURE 1	TYPE OF LADWP GROUNDWATER AND TOTAL GROUNDWATER EXTRACTION ON THE BISHOP CONE FOR RUNOFF YEARS 2021-22 AND 2022-23.....	7
FIGURE 2	WATER USES VERSUS EXTRACTIONS ON THE BISHOP CONE FOR RUNOFF YEARS 1996-97 to 2022-23.....	9
MAP 1	BISHOP CONE AUDIT FEATURES.....	4

APPENDICES

APPENDIX A	Section VII of the Inyo County/Los Angeles Long-Term Water Agreement
APPENDIX B	Section IV.D of the Green Book
APPENDIX C	Data on Bishop Cone Audit Uses and Total Groundwater Extracted on the Bishop Cone (Supplied by LADWP)

THE BISHOP CONE AUDIT FOR THE 2022-23 RUNOFF YEAR

1.0 INTRODUCTION

The Bishop Cone Audit (Audit or BCA) is an annual comparison between Los Angeles Department of Water and Power's (LADWP) water usage on Los Angeles-owned lands on the Bishop Cone and its amount of groundwater extraction from wells on the Bishop Cone (Cone). The Bishop Cone Audit is required by the Inyo County/Los Angeles Long-Term Water Agreement (Water Agreement). The "Bishop Cone" is a reference to the legally defined area in the 1940 Hillside Decree which incorporates most of the Bishop Creek alluvial fan along with a portion of the northern Owens Valley from Bishop south towards Big Pine (Map 1). The Water Agreement and the Green Book (the technical appendix to the Water Agreement) define the terms, conditions, and procedures of the Bishop Cone Audit. Inyo County Water Department (ICWD) staff compiles the Bishop Cone Audit from data provided by LADWP. The Audit sums pumping and flowing well amounts and compares those totals to water use on Los Angeles-owned land during a given runoff year (April 1 to March 31) to determine whether LADWP's groundwater extractions exceed its surface water uses on the Bishop Cone.

2.0 BACKGROUND

The City of Los Angeles owns prior appropriative surface water rights in the Bishop area. Los Angeles also owns groundwater rights on the Bishop Cone as a consequence of its ownership of overlying land. A system of ditches and canals exists to convey surface water from Bishop Creek and the Owens River, as well as groundwater pumped from LADWP wells, to irrigated land throughout the Bishop Cone, with some water exiting the Cone. In 1930 and 1931, Los Angeles extracted groundwater from wells on the Bishop Cone for the purpose of export to Los Angeles. This export of groundwater was challenged by local residents, and in the 1940 Hillside Decree, Los Angeles agreed not to pump groundwater for the purpose of export off the Bishop Cone.

Relevant language of the 1940 Hillside Decree is presented below (a link to the entire decree can be found at the ICWD's website at www.inyowater.org/documents/hillside-decree-1940/):

XI

That the defendants [LADWP], their servants, agents, employees, and assigns, and each of them, be, and they are hereby, enjoined, prohibited, and restrained from in any manner whatsoever pumping, extracting, taking, or transporting out of the Bishop Cone area any subterranean waters from beneath said area: provided, however, that nothing in this judgment contained shall in any manner enjoin, prohibit, or restrain the defendants, their servants, agents, employees, assigns, or any of them, from maintaining or operating their presently-existing drainage ditches to the full extent of their present normal capacity, or from taking artesian water that may arise to the surface of said area outside the casings of any of defendants' capped wells, or from pumping, extracting, taking, or using any such water as may be reasonably necessary for beneficial use upon any lands belonging to the defendants,

In 1972, Inyo County filed a California Environmental Quality Act suit claiming that increased groundwater pumping by LADWP was harming the environment of the Owens Valley and demanding that an Environmental Impact Report (EIR) be completed to analyze the effects of this increased pumping. After numerous legal challenges and negotiations, in 1991 an EIR was approved for LADWP's groundwater pumping, and a long-term groundwater management plan was agreed upon by Inyo County and LADWP. Section VII.A of the 1991 Water Agreement addresses the Bishop Cone and Hillside Decree with relevant language quoted below (full text of the 1991 EIR, the Water Agreement and the Greenbook can be found at the ICWD's website at <http://www.inyowater.org/documents/governing-documents/>):

“Before the Department [LADWP] may increase groundwater pumping above present levels, or construct any new wells on the [Bishop] Cone, the Technical Group must agree on a method for determining the exact amount of water annually used on Los Angeles-owned lands on the Cone. The agreed upon method shall be based on a jointly conducted audit of such water uses. The Department's annual groundwater extractions from the Cone shall be limited to an amount not greater than the total amount of water used on Los Angeles-owned lands on the cone during that year.” (Water Agreement Section VII.A, Appendix A)

At its October 17, 1995, meeting, the Technical Group agreed to recommend to the Inyo County/Los Angeles Standing Committee the description of a Bishop Cone Audit procedure to be incorporated into the Green Book. The Standing Committee adopted the agreed-upon Bishop Cone Audit procedure on November 7, 1996, as Section IV.D of the Green Book.

Section IV.D.1.a. of the Green Book (Appendix B) states: *“For the purposes of the Bishop Cone audit, water usage on Los Angeles-owned land on the Bishop Cone is defined as the quantity of water supplied to such land, including conveyance losses, less any return flow to the aqueduct system. Water usage is documented on a runoff-year basis and is compiled by LADWP each May in the Bishop Area Water Use Report [Bishop Cone Audit Uses Report].”*

In theory, compliance with the Water Agreement and the Green Book is simple: LADWP can only extract groundwater to be used on its lands and leases on the Bishop Cone with no flow leaving the system. In a simplified, hypothetical situation, LADWP would have groundwater extraction wells at the “top” of the cone which would provide surface water to ditches running downhill to its lands and leases. Upon reaching the “lowest” land, no surface water would leave. However, there are many practical factors that dictate and complicate how the Bishop Cone Audit accounts for LADWP extractions and uses. Some of these factors are: the Bishop Cone topography (generally sloping west to east in the Bishop area, and north to south from Bishop towards Big Pine), the location of LADWP-owned lands throughout the Bishop Cone area, the location of LADWP's groundwater extraction wells (in central Bishop), the location of LADWP's flowing wells (east of Bishop adjacent to the Owens River), the location of the various ditch and canal systems used to convey water in the Bishop Cone, and operational necessities for conveying surface water both on and off the Bishop Cone.

To illustrate further, the primary source of water available for use on LADWP lands in the topographically higher west Bishop area of the cone is LADWP surface water from Bishop Creek that is diverted into various ditches for irrigation (use) on LADWP-owned land. Groundwater pumped from LADWP wells in central Bishop supplements the remaining Bishop

Creek surface water. The now commingled surface and groundwater flows east and south and is used on LADWP land in the central and southern portions of the Cone. Groundwater extracted from flowing wells provides water to the Owens River for export and/or downstream uses in the Owens Valley. Some mixture of surface and groundwater also leaves the Bishop Cone either in canals or the Owens River.

Prior to the adoption of the Water Agreement, several methods were researched to determine the best procedure for tracking LADWP's uses and extractions on the Bishop Cone. A final method was selected which compares the sum of pumped groundwater from production wells and flowing groundwater from artesian wells (extractions) to surface water applied to LADWP-owned lands on the Cone (uses). To determine the total uses, a lease-wise approach was selected which tracks the difference between water coming onto a given LADWP lease and the water (if any) that exits that lease to return to the conveyance system (ditch, canal, creek, or river). LADWP supplies a listing of surface water uses by each individual lease account in its annual Bishop Cone Audit Uses Report (Use Report). Credit for a use is granted on accounts that have been agreed to and inspected by ICWD staff. A combination of monitoring devices is used to track extractions and uses on the Bishop Cone, including flumes, weirs, and propeller meters. Flow measurements are taken either manually or continuously using data-logging devices at these sites.

It is important to note that the Bishop Cone Audit does not attempt to compute a complete surface or groundwater budget. Its purpose is to monitor compliance with the dictates of the Water Agreement, the Green Book, and the legal interpretations of the Hillside Decree. The Audit compares LADWP's total water uses to groundwater extractions during a given runoff year. ICWD staff gave a presentation on the Bishop Cone Audit to the Inyo County Water Commission on December 7, 2016, explaining the principles of the BCA in detail. A copy of the PowerPoint presented at the ICWC meeting can be found on the ICWD website: http://www.inyowater.org/wp-content/uploads/2016/12/Bishop-Cone-Audit-12_7_16.pdf

3.0 WATER USES ON LADWP-OWNED LAND ON THE BISHOP CONE

The location of the Bishop Cone and the pumping and flowing wells on the Bishop Cone are shown in Map 1. Also shown on Map 1 are the general locations of the LADWP-owned lease accounts used in the Bishop Cone Audit Uses Report (Appendix C).

Table 1 is a compilation of water usage by account number in acre-feet (AF) on LADWP-owned land on the Bishop Cone for the runoff years of 2021-22 and 2022-23. These water-usage amounts are a yearly total of the surface water (and commingled pumped groundwater) coming onto a given lease minus the surface water leaving the lease. Overall, there was an increase in total water use on the Bishop Cone of 1,080 AF from 2021-22 (26,259 AF) to 2022-23 (27,339 AF). Runoff in 2021-22 was severely below average (45%) and, due to low flows in Bishop Creek, many parcels were unable to have full irrigation amounts supplied. Runoff in 2022-23 was 57% of average, and water uses were closer to their long-term averages.

Map 1. Bishop Cone Audit Features

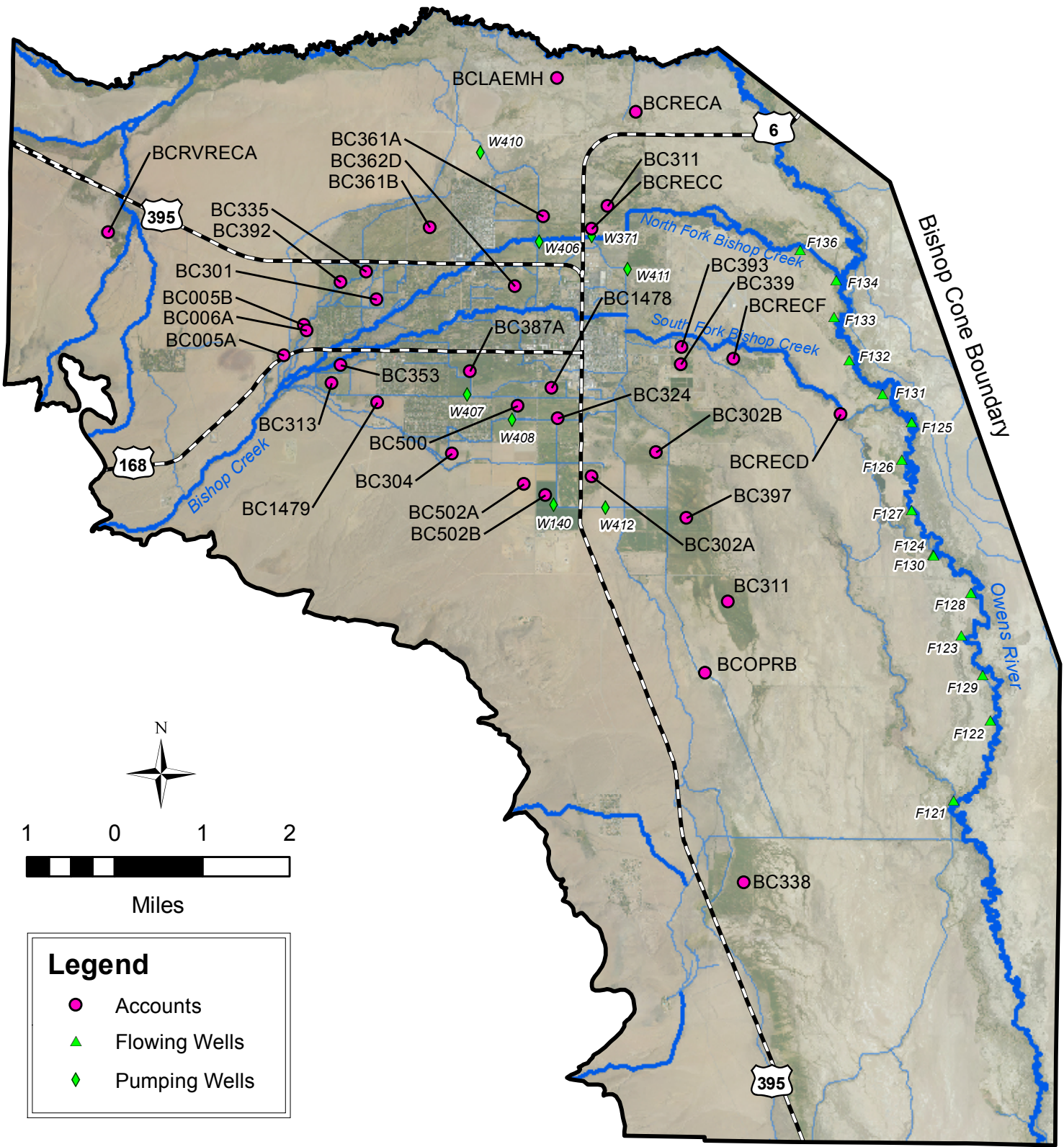


TABLE 1
WATER USES ON LOS ANGELES-OWNED LAND ON THE BISHOP CONE

LADWP ACCOUNT NUMBER^{*2}	RUNOFF YEAR^{*1} 2021-2022 (AF)	RUNOFF YEAR^{*1} 2022-2023 (AF)
BC502B (BA354B or BA362B)	631	828
BC302A	144	203
BC302B	1296	1598
BC311	3331	3867
BC313	821	894
BC324	1464	1175
BC1478 (BAICR) ^{*2}	439	442
BC387A	428	687
BCRECF	591	567
BC339	275	352
BC393	106	101
BC362D	(No Credit) ^{*3}	(No Credit) ^{*3}
BC304	232	198
BC500	818	638
BC397 (BA387B) ^{*2}	3143	4000
BC361A	1224	696
BC361B	2671	1696
BC502A (BA354A or 362A) ^{*2}	955	479
BCRECA	342	942
BCRECC	0	3
BCRECD	2559	2250
BC338	3085	3660
BCOPRB	0	436
BCLAEMH	353	482
BC353	337	391
BC005A	54	39
BC005B	49	88
BC006A	141	102
BC1479 (BA342) ^{*2}	58	35
BC392	(No Credit) ^{*3}	(No Credit) ^{*3}
BC301	579	438
BC335	133	53
BCRVRECA	(No Credit) ^{*3}	(No Credit) ^{*3}
TOTAL	26,259	27,339

^{*1} - A runoff year is defined as starting April 1 and ending March 31 of the following year.

^{*2} - Former account names listed in parenthesis; in 2015/16 "BA" prefix was changed to "BC"

^{*3} - Accounts need additional monitoring or diversion infrastructure to establish credit.

During fall 2016 through winter 2017, joint field visits to the active BCA accounts were conducted by ICWD and LADWP staff. Based on these visits, and as a result of observations and discussion of past infrastructure workings, several accounts were either granted or denied credit for the 2016/17 Audit. The accounts denied credit for 2016/17 were: BC362D, BC392, and BCRVRECA. At these three sites, ICWD staff deemed there to be insufficient flow monitoring, potentially allowing unmetered water to affect the accounts without proper quantification. ICWD staff visited these BCA accounts in 2023, and no additional flow monitoring devices have been installed at these accounts. Therefore, BC362D, BC392, and BCRVRECA were not granted credit in the current year.

Also based on the 2016/17 field inspections, the method for calculating use on a given account for the purpose of the BCA was changed. Prior to 2015/16, LADWP used Stockwater and Ditch Loss as credits to its lessees to distinguish between surface water used for irrigation and not used for irrigation. However, the Audit's water balance is to determine the total amount of water used on the Bishop Cone between metering devices. The defined scope of the Audit does not differentiate how the water is used (stockwater or irrigation). Stockwater for the purpose of this Audit is simply surface water supplied to a parcel during the year for stock instead of irrigation to grow plants; it is a distinction made by LADWP for the lessees but is a "use" for the purpose of the Audit with properly metered water flowing through diversions onto an account and not exiting the account. Ditch Loss is a similar accounting distinction made by LADWP and its lessees; it is an estimation of the water that seeps into the ground from the Account's metering device location prior to arriving at the actual surface water diversion point on the lease (these are sometimes large distances apart). The Ditch Losses are credited to the lessee to reflect water that cannot be used for irrigation. This water, however, is a use for purposes of the BCA. The Stockwater and Ditch Loss estimates from previous BCA's (prior to 2015/16) have been replaced with the more rigorous and accurate calculation of subtracting flow onto each account from flow off of that account.

The data reporting format used by LADWP for the BCA has also been updated with approval from ICWD staff. The updated Use Report contained in Appendix C has been simplified by removing LADWP's internal, lessee-related notations. The new Use Report now contains totals of water entering and leaving a lease (the pertinent information for conducting the Audit). All flow monitoring stations were inspected during the 2016/17 field campaign.

Finally, ICWD staff continues to receive the previous LADWP version of the Use Report to check for historic consistency. The changes in adding Stockwater and Ditch Loss credits for BCA reporting are the primary reason 2015-16 uses were substantially greater than 2014-15 uses. The additional increase in use between 2015-16 and 2016-17 is primarily due to increased surface water availability due to a moderately wet runoff year combined with operational spreading in early 2017. The increase in use from 2016-17 to 2017-18 is due to heavy runoff following the historic winter (appx. 200% of long-term average). As noted previously, LADWP actively spread surface water throughout the Owens Valley; and a significant amount of surface water was spread throughout the Bishop Cone.

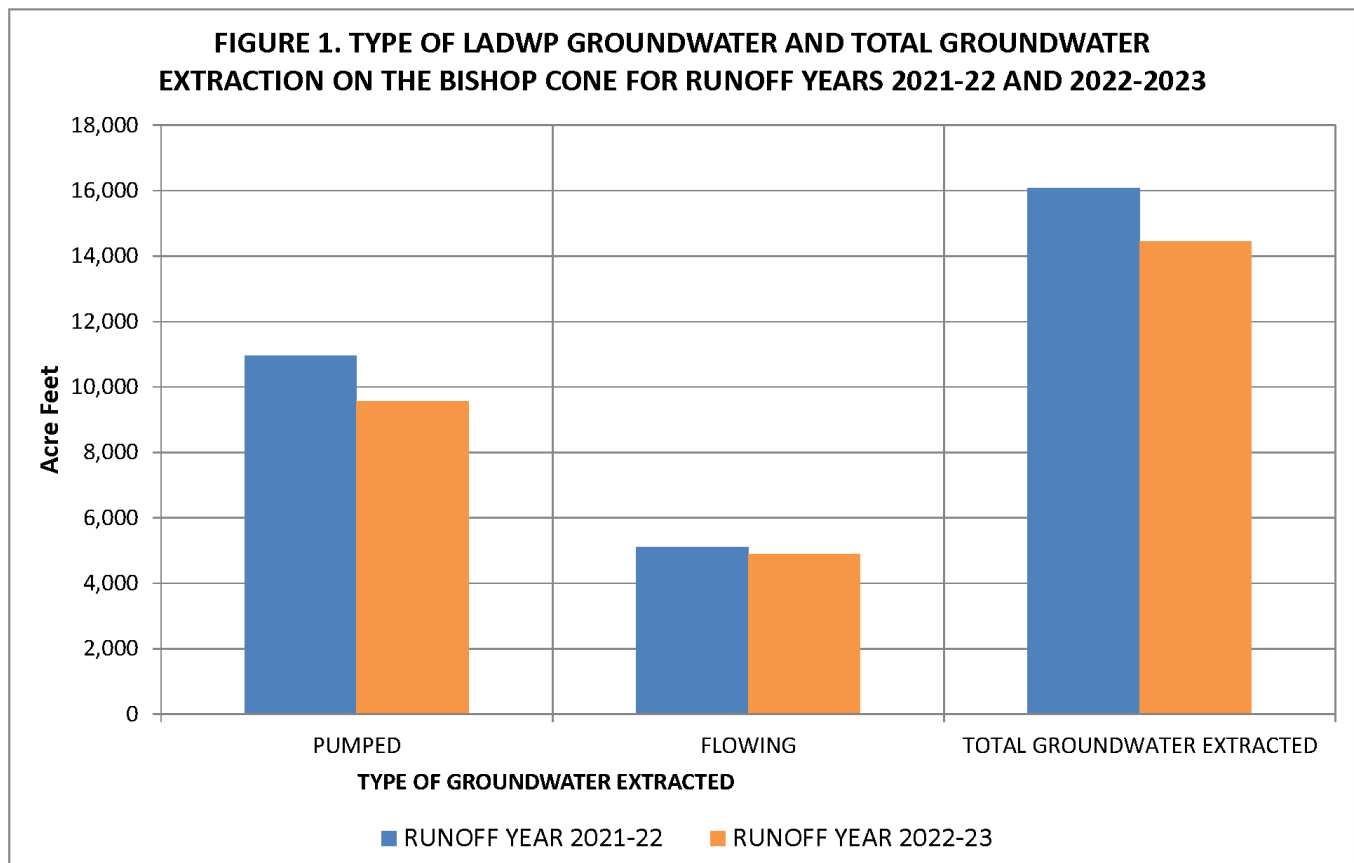
4.0 TOTAL LADWP GROUNDWATER EXTRACTION ON LADWP-OWNED LAND ON THE BISHOP CONE FOR RUNOFF YEARS 2021-22 AND 2022-23

Section IV.D.1.d of the Green Book (Appendix B) states: “Total groundwater extraction by LADWP will be compared with corrected water usage on the Bishop Cone for the runoff year. Total groundwater extraction is defined as the sum of all groundwater pumped by LADWP plus the amount of artesian water that flowed out of LADWP uncapped wells on the Bishop Cone during the runoff year.”

Figure 1 presents the total amount of LADWP groundwater extraction and the groundwater extraction classified as flowing and pumped groundwater on the Bishop Cone in acre-feet for runoff years of 2021-22 and 2022-23.

For runoff year 2021-22, LADWP extracted 16,081 AF of groundwater (10,969 AF from pumped wells and 5,112 AF from flowing wells). For runoff year 2022-23, LADWP extracted 14,453 AF of groundwater (9,566 AF from pumped wells and 4,887 AF from flowing wells).

LADWP groundwater extractions on the Bishop Cone for the 2022-23 runoff year decreased by 1,628 AF compared to the previous year. Both years were below average runoff.



Flowing and pumped groundwater on the Bishop Cone are broken into detail by each well in Table 2.

TABLE 2
FLOWING AND PUMPED GROUNDWATER BY WELL ON THE BISHOP CONE
IN RUNOFF YEAR 2022-23

WELL	FLOWING GROUNDWATER (AF)	PUMPED GROUNDWATER (AF)
F121	36	NA
F122	71	NA
F123	151	NA
F124	0	NA
F125	1,049	NA
F126	370	NA
F127	413	NA
F128	263	NA
F129	103	NA
F130	357	NA
F131	819	NA
F132	320	NA
F133	250	NA
F134	603	NA
F136	81	NA
W140	NA	1,394
W371	NA	904
W406	NA	1,095
W407	NA	955
W408	NA	834
W410	NA	1,584
W411	NA	1,466
W412	NA	1,334
TOTAL	4,887	9,566

5.0 COMPLIANCE WITH THE INYO COUNTY/LOS ANGELES LONG-TERM WATER AGREEMENT

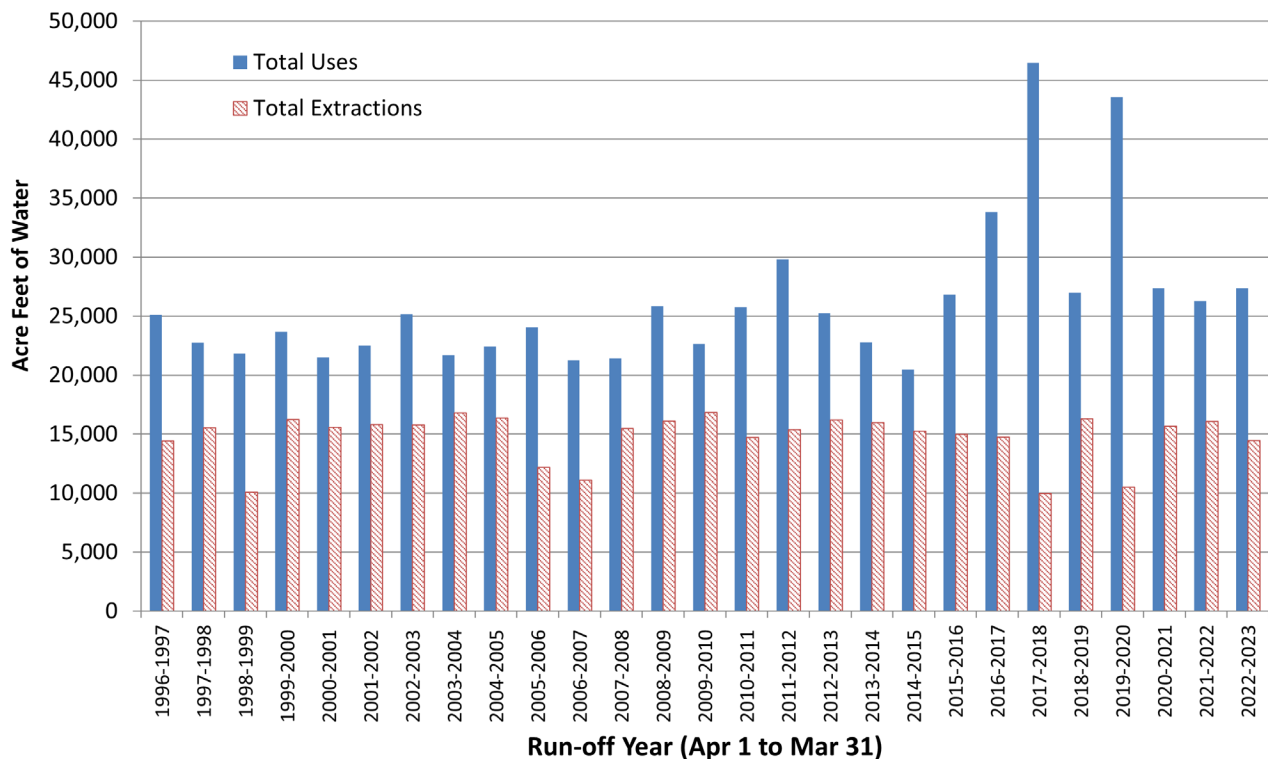
The Water Agreement provides that, during any runoff year, total groundwater extraction by LADWP on the Bishop Cone shall not exceed water usage on Los Angeles-owned land on the Cone. Table 3 shows that LADWP was in compliance with the above provision for runoff years 2021-22 and 2022-23 as the total uses on the Bishop Cone exceeded the total groundwater extractions for each year.

TABLE 3
LADWP USES IN COMPARISON TO LADWP GROUNDWATER
EXTRACTION ON THE BISHOP CONE

	RUNOFF YEAR 2021-22 (AF)	RUNOFF YEAR 2022-23 (AF)
TOTAL USES	26,259	27,339
TOTAL GROUNDWATER EXTRACTION	16,081	14,453
USES MINUS EXTRACTIONS	10,178	12,886
Hillside Decree Compliance?	YES	YES

Figure 2 presents LADWP's water uses versus extractions since runoff year 1996-97. Uses have exceeded extractions throughout the data period; therefore, LADWP has been in compliance with Section IV.D.1.a. of the Green Book and the Water Agreement.

FIGURE 2
WATER USES VERSUS EXTRACTIONS ON THE BISHOP CONE



Note: starting in 2015-16, Total Use computation was clarified and simplified (see full explanation in Section 3) and some Uses that were denied credit in previous Bishop Cone Audits were effectively granted credit

APPENDIX A

Section VII.A of the Inyo County/Los Angeles Long-Term Groundwater Management Agreement

Section VII of the Agreement

VII. GROUNDWATER PUMPING ON THE BISHOP CONE

- A. Any groundwater pumping by the Department on the "Bishop Cone" (Cone) shall be in strict adherence to the provisions of the Stipulation and Order filed on the 26th day of August, 1940, in Inyo County Superior Court in the case of Hillside Water Company, a corporation, et al. vs. The City of Los Angeles, a Municipal Corporation, et al., ("Hillside Decree").

Before the Department may increase groundwater pumping above present levels, or construct any new wells on the Cone, the Technical Group must agree on a method for determining the exact amount of water annually used on Los Angeles-owned lands on the Cone. The agreed upon method shall be based on a jointly conducted audit of such water uses.

The Department's annual groundwater extractions from the Cone shall be limited to an amount not greater than the total amount of water used on Los Angeles-owned lands on the Cone during that year. Annual groundwater extractions by the Department shall be the total of all groundwater pumped by the Department on the Cone, plus the amount of artesian water that flowed out of the casing of uncapped wells on the Cone during the year. Water used on Los Angeles-owned lands on the Cone, shall be the quantity of water supplied to such lands, including conveyance losses, less any return flow to the aqueduct system.

- B. The overall management goals and principles and the specific goals and principles for each vegetation classification of this Stipulation and Order apply to vegetation on the Cone.

APPENDIX B

Section IV.D of the Green Book

AGENDA ITEM 4

MEMORANDUM

7 November 1996

TO: Inyo County/Los Angeles Standing Committee
FROM: Inyo County/Los Angeles Technical Group

**CONSIDERATION OF GREEN BOOK SECTION
DESCRIBING THE BISHOP CONE AUDIT**

Background

Section VII.A of the Inyo County/Los Angeles long-term water management agreement provides that "before the Department may increase groundwater pumping above present levels, or construct any new wells on the [Bishop] Cone, the Technical Group must agree on a method for determining the exact amount of water annually used on Los Angeles-owned lands on the Cone. The agreed upon method shall be based on a jointly conducted audit of such water uses."

At its 17 October 1995 meeting, the Technical Group agreed to recommend to the Inyo County/Los Angeles Standing Committee the attached description of a Bishop Cone audit to be incorporated into the Green Book (the technical appendix to the long-term agreement).

Request

The Technical Group requests that the Standing Committee adopt the attached description as section IV.D of the Green Book.

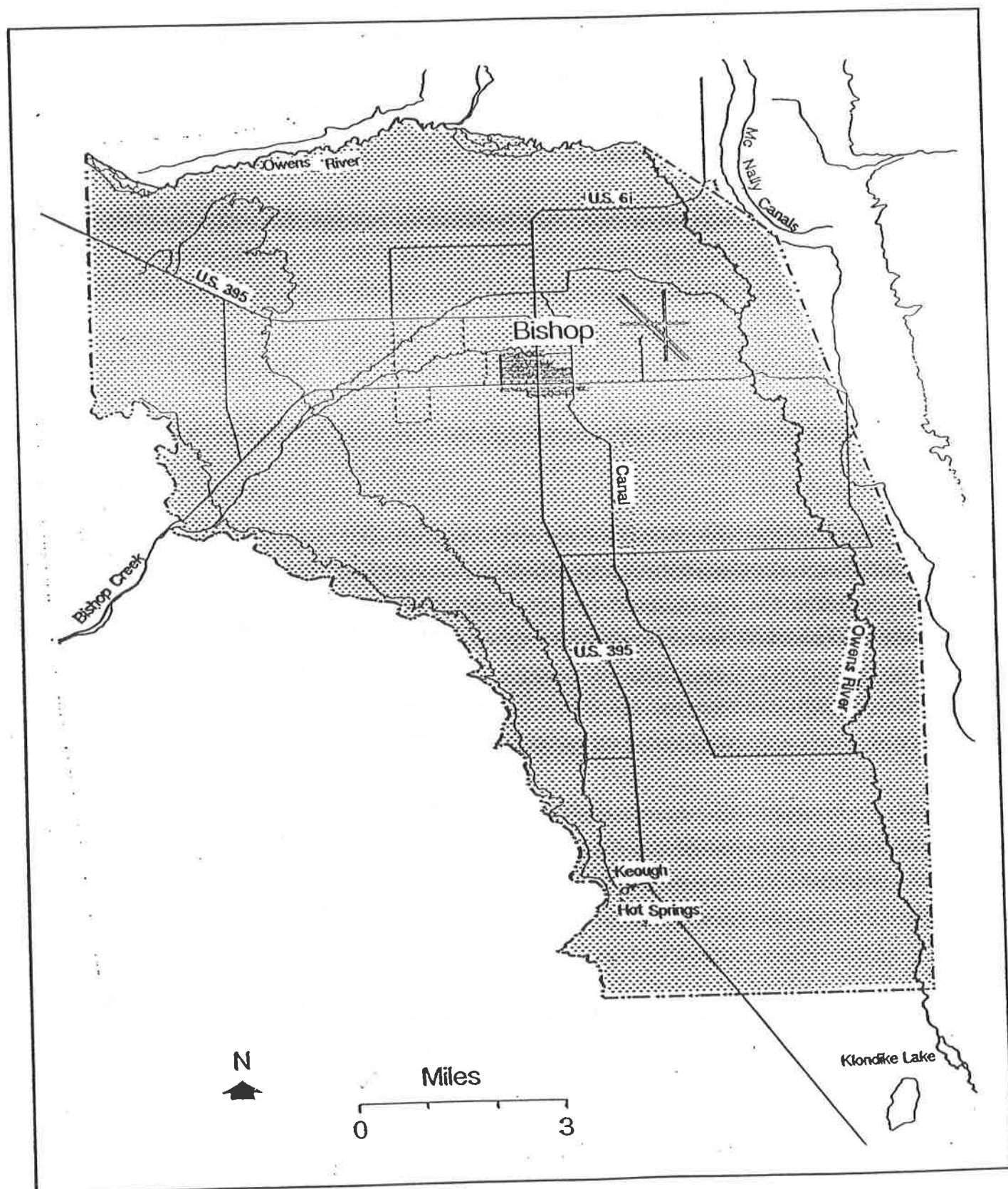
D. Bishop Cone Audit

This sub-section describes the procedures for conducting the Bishop Cone audit in accordance with Section VII.A of the Agreement. The Bishop Cone audit is an annual accounting of LADWP groundwater extraction and water usage on Los Angeles-owned land on the Bishop Cone. The Agreement provides that, during any runoff year, total groundwater extraction by LADWP on the Bishop Cone shall not exceed water usage on Los Angeles-owned land on the Cone. The area defined as the Bishop Cone is shown as Figure IV.D.1.

1. Procedures for Conducting the Bishop Cone Audit
 - a. For the purposes of the Bishop Cone audit, water usage on Los Angeles-owned land on the Bishop Cone is defined as the quantity of water supplied to such land, including conveyance losses, less any return flow to the aqueduct system. Water usage is documented on a runoff-year basis and is compiled by LADWP each May in the Bishop Area Water Use Report. At the conclusion of each runoff year, LADWP will forward the final water use report for the runoff year to Inyo County.
 - b. The final water use report will be compared for consistency with the previous year's report. If measuring stations have been added or removed from the water-use report during the year, or if a significant change in the pattern of water usage occurs (for example, an account that has not received water for one year receives a

FIGURE IV.D.1

Bishop Cone Boundary



considerable amount the next year), the location will be field-checked. The field-check will evaluate whether changes in water usage warrant the changes noted in the report. If a change is made in the method of delivery to or return from an account that results in an overestimation of uses on the Bishop Cone, water usage for that account will not be credited to the total uses for the audit.

- c. Water usage for accounts BAIND (Bishop Indian Reservation), BA391 (outside of Bishop Cone boundary), and BAWEST (West Bishop private uses) will be subtracted from the total reported water usage.
- d. Total groundwater extraction by LADWP will be compared with the corrected water usage on the Bishop Cone for the runoff year. Total groundwater extraction is defined as the sum of all groundwater pumped by LADWP plus the amount of artesian water that flowed out of uncapped wells on the Bishop Cone during the runoff year. During any runoff year, total groundwater extraction by LADWP on the Bishop Cone shall not exceed water usage on Los Angeles-owned land on the Cone.
- e. A draft report summarizing the results of the Bishop Cone audit will be prepared annually as an Inyo County Water Department report and will be submitted to the Technical Group in June for a 30-day review.
- f. A final Bishop Cone audit report will be submitted in July to the Technical Group, the Standing

Committee, the Inyo County Board of Supervisors,
and the Inyo County Water Commission.

LADWP will notify Inyo County of any changes in the status, location, or operation of any measuring station used to conduct the Bishop Cone audit at the time the final Bishop Area Water Use Report is submitted to the County. LADWP will also notify the County of any changes in the boundaries of the accounts included in the audit.

Upon request by Inyo County, LADWP will provide measuring station data for accounts included in the audit to assist the County in verifying water usage for individual accounts.

APPENDIX C

Data on Uses and Total Groundwater Extracted on the Bishop Cone
(Supplied by LADWP)

LOS ANGELES DEPARTMENT OF WATER AND POWER
NORTHERN AQUEDUCT OPERATIONS
RUNOFF YEAR 2022-23

BISHOP CONE AUDIT RUNOFF SUMMARY
IN ACRE-FEET

STAID	STATION NAME	+/-	2022										2023			TOTAL
			APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR-MAR	
	3049 #161 OTEY		53	50	57	67	42	25	8	3	3	7	11	65	392	
	3377 OTEY DITCH RETURN AT MATLICK DITCH	(-)	46	40	47	52	32	21	11	9	11	12	15	58	354	
BC005A			7	10	11	15	10	4	-2	-6	-8	-5	-4	7	39	
	3378 OTEY DITCH DIV. ABOVE MATLICK DITCH		5	10	9	6	5	6	0	0	0	0	0	47	88	
BC005B			5	10	9	6	5	6	0	0	0	0	0	47	88	
	3048 #61-A FRANK ROUFF		44	32	37	43	61	53	36	15	16	27	21	51	436	
	3063 DUGGAN DITCH FLOW THROUGH	(-)	27	22	27	36	51	45	32	9	9	20	15	41	335	
BC006A			17	10	11	8	10	8	4	6	6	7	6	9	102	
	3002 GEORGE DITCH W. OF SUNLAND AVENUE		35	35	31	50	35	49	33	33	24	14	12	18	368	
	3264 NORTH INDIAN DITCH BELOW A-1 DRAIN B3A		92	41	73	120	159	179	154	81	25	73	67	97	1160	
	3068 GEORGE DITCH C-3	(-)	18	23	20	33	22	23	23	24	17	9	6	7	226	
	3370 NORTH INDIAN DIVERSION W/O SUNLAND	(-)	9	3	10	11	10	3	1	0	1	2	0	0	50	
	3364 NORTH INDIAN DITCH W/O HWY 395	(-)	44	14	19	66	115	143	127	57	11	78	49	88	809	
BC1478			56	35	55	60	47	59	36	33	19	-2	24	20	442	
	3025 SOUTH INDIAN DITCH DIVERSION #3		4	5	5	7	7	5	1	0	0	0	0	0	35	
BC1479			4	5	5	7	7	5	1	0	0	0	0	0	35	
	3396 NELLIGAN DIV. #1		61	32	22	28	50	100	70	73	70	70	31	77	683	
	3397 NELLIGAN BELOW DIV. #1		67	95	105	96	100	65	43	44	24	24	29	44	735	
	3401 YOUNG DITCH #2		49	62	56	58	83	91	23	37	23	21	25	70	598	
	3421 TOM KEY DITCH ABOVE DIVERSION		32	51	46	48	54	49	46	40	32	19	13	10	439	
	3050 HOLLAND #63-B	(-)	17	21	21	24	23	24	28	22	17	16	15	18	247	
	3404 NELLIGAN DITCH #2	(-)	74	76	75	67	84	87	78	76	73	69	59	43	863	
	3402 YOUNG DITCH #3	(-)	30	35	39	45	57	72	34	60	33	26	45	38	514	
	3407 YOUNG DITCH #4	(-)	0	0	0	0	0	0	0	0	0	0	0	1	1	
	3422 TOM KEY DITCH BELOW DIVERSION	(-)	27	44	39	41	50	44	45	38	30	16	11	6	392	
BC301			60	64	53	53	73	78	-3	-3	-3	7	-33	93	438	

STAID	STATION NAME	+/-	2022										2023			TOTAL
			APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR-MAR	
	3006 HALL DITCH @ GOLF COURSE RETURN		0	38	42	35	30	54	3	0	0	0	0	0	203	
BC302A			0	38	42	35	30	54	3	0	0	0	0	0	203	
	3161 BISHOP CK DITCH #16		47	69	46	61	42	34	36	36	30	87	33	139	660	
	3162 BISHOP CK DITCH #17		111	46	53	44	31	0	0	0	0	0	0	0	285	
	3164 BISHOP CK DITCH #20		19	42	48	58	61	28	30	22	15	85	17	113	539	
	3165 BISHOP CK DITCH #21		0	0	0	0	0	0	0	0	0	0	0	115	115	
BC302B			177	156	147	164	135	62	66	57	46	172	50	367	1598	
	3026 NEWLON DITCH BOYD PUMP PLANT		33	55	36	35	35	4	0	0	0	0	0	0	198	
BC304			33	55	36	35	35	4	0	0	0	0	0	0	198	
	3166 BISHOP CK DITCH #5		102	75	51	46	60	58	0	0	0	0	0	122	514	
	3022 BISHOP CK DITCH #5-A		49	59	82	62	42	48	0	0	0	2	0	40	386	
	3167 BISHOP CK DITCH #9		48	75	79	90	57	47	0	0	0	47	0	267	708	
	3168 BISHOP CK DITCH #30		310	250	236	231	292	300	55	49	50	148	63	257	2240	
	3392 FORD RAWSON-DIV 1A		3	1	3	6	4	2	0	0	0	0	0	0	20	
BC311			512	461	450	435	454	456	55	49	50	197	63	686	3867	
	3016 NORTH INDIAN DITCH ABOVE MUMY LANE #58-E		286	394	556	547	539	425	271	260	270	240	296	393	4477	
	3017 WONACOTT A-2		36	38	60	55	64	42	24	27	33	28	24	62	494	
	3015 WONACOTT A-1	(-)	70	72	106	89	101	62	33	37	42	37	32	98	778	
	3054 WONACOTT A-3 RETURN	(-)	11	25	29	17	19	8	1	0	7	9	9	51	186	
	3051 WONACOTT #58-F	(-)	22	15	15	32	32	29	14	19	20	17	14	11	240	
	3018 NORTH INDIAN B-2	(-)	148	208	322	330	346	308	199	190	196	174	224	227	2872	
BC313			70	112	145	135	105	60	47	40	37	31	42	68	894	
	3370 NORTH INDIAN DIVERSION W/O SUNLAND		9	3	10	11	10	3	1	0	1	2	0	0	50	
	3270 SOUTH INDIAN D-3		182	237	242	305	404	303	121	92	62	45	73	57	2124	
	3005 SOUTH INDIAN DITCH D-4	(-)	66	53	58	89	138	240	91	71	45	40	57	50	999	
BC324			125	188	194	226	276	67	30	21	18	8	15	7	1175	
	3402 YOUNG DITCH #3		30	35	39	45	57	72	34	60	33	26	45	38	514	
	3407 YOUNG DITCH #4		0	0	0	0	0	0	0	0	0	0	0	1	1	
	3403 YOUNG DITCH RETURN TO NELLIGAN	(-)	12	15	16	34	44	78	43	85	46	34	29	27	462	
BC335			18	19	23	11	13	-6	-10	-25	-13	-7	17	13	53	

STAID	STATION NAME	+/-	2022										2023			TOTAL
			APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR-MAR	
	2026 FORD RAWSON CANAL BELOW BISHOP CK CANAL		355	465	622	786	985	185	0	0	0	248	0	853	4499	
	3368 RAWSON & KEOUGH DITCH E/O HWY 395		14	13	13	14	14	11	11	10	11	6	11	25	155	
	2004 FORD RAWSON CANAL DIV. #7	(-)	0	125	168	249	350	0	0	0	0	4	0	74	971	
	2043 YRIBARREN RETURN #2	(-)	0	0	0	0	0	0	0	0	0	0	0 --		0	
	3369 RAWSON & KEOUGH DITCH RETURN AT A-DRAIN	(-)	0	0	0	0	0	0	0	0	0	1	2	20	22	
BC338			369	354	467	551	649	196	11	10	11	249	9	784	3660	
	3170 KINGSLEY C-1		42	55	28	49	84	37	11	8	8	7	9	14	352	
BC339			42	55	28	49	84	37	11	8	8	7	9	14	352	
	3015 WONACOTT A-1		70	72	106	89	101	62	33	37	42	37	32	98	778	
	3053 TOMMY SMITH DITCH #162-A		10	11	17	11	11	0	0	0	0	0	0	48	107	
	3017 WONACOTT A-2	(-)	36	38	60	55	64	42	24	27	33	28	24	62	494	
BC353			43	45	63	45	47	19	9	10	9	9	7	84	391	
	3036 NORTH FORK BISHOP CREEK I-1(#155 STANLEY MATLICK)		20	54	60	31	24	49	22	32	7	0	0	1	301	
	3004 BISHOP CK N. FORK I-2		0	0	0	0	0	0	0	0	0	0	0	146	146	
	3316 IRRIGATION FROM WELL #406		106	78	92	140	147	122	0	0	0	0	0	0	685	
	3042 TATUM RETURN AT HIGHWAY 6	(-)	6	8	3	6	6	15	0	0	0	3	0	3	51	
	3039 TATUM RETURN AT BISHOP CK CANAL	(-)	22	18	14	11	11	24	39	41	40	53	38	73	385	
BC361A			97	106	135	153	154	133	-17	-9	-34	-56	-37	70	696	
	3009 MATLICK DITCH F-10		34	48	159	177	133	187	82	53	62	43	43	73	1093	
	3040 MATLICK DITCH F-13 N		53	47	66	53	60	59	97	114	86	95	89	78	897	
	3008 MATLICK DITCH F-13 E		4	11	7	15	9	6	7	16	27	10	1	10	121	
	3007 MATLICK DITCH F-14		16	28	24	19	20	26	30	22	15	14	11	8	235	
	3035 MATLICK DITCH #154		42	76	101	107	105	98	34	16	13	6	7	57	663	
	3154 SCHILDER RETURN G-2	(-)	6	2	15	17	18	10	8	7	7	51	26	71	238	
	3037 MATLICK DITCH #63-A	(-)	20	35	27	25	30	51	88	94	47	38	19	21	494	
	3038 TATUM RETURN H-1	(-)	2	15	8	4	2	25	1	7	6	22	0	6	99	
	3003 MATLICK DITCH RETURN @ B-1 DRAIN	(-)	0	2	0	0	0	0	4	0	0	2	0	5	14	
	3010 MATLICK RETURN TO "C" DRAIN	(-)	16	5	3	0	0	2	76	76	83	82	64	59	467	
BC361B			105	148	303	325	277	287	74	36	59	-27	42	65	1696	
	3388 INDIAN S. RETURN ON SEE-VEE LANE		34	53	140	145	174	99	26	16	20	26	23	26	782	
	3389 INDIAN MIDDLE RETURN ON SEE-VEE LANE		0	0	0	0	0	0	0	0	0	0	0	0	0	
	3390 INDIAN N. RETURN ON SEE-VEE LANE		23	38	20	6	4	12	13	16	12	12	15	6	177	
BC362D			57	90	161	151	178	112	39	31	32	38	38	33	959	

STAID	STATION NAME	+/-	2022										2023			TOTAL
			APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR-MAR	
	3043 NORTH INDIAN DITCH B-3		19	37	76	65	107	96	0	0	0	0	1	174	576	
	3011 WEST LINE L-2		9	10	9	13	13	12	11	11	13	11	1	0	111	
BC387A			28	47	85	78	120	108	11	11	13	11	2	174	687	
	3387 MATLICK DITCH TO THE N.		99	165	198	192	159	131	58	55	60	36	34	169	1356	
	3398 MATLICK DITCH #1		94	121	231	320	370	343	184	152	156	111	108	230	2422	
	3399 REINHACKLE #1		59	73	124	124	107	106	136	180	212	107	79	121	1428	
	3400 YOUNG DITCH #1		42	71	57	81	83	76	7	0	0	1	0	60	479	
	3424 MCLAREN TAILWATER		51	50	52	45	53	44	47	39	32	47	38	58	557	
	3401 YOUNG DITCH #2	(-)	49	62	56	58	83	91	23	37	23	21	25	70	598	
	3406 C-DRAIN AT INTAKE	(-)	143	190	272	362	427	356	294	339	368	227	172	426	3576	
	3009 MATLICK DITCH F-10	(-)	34	48	159	177	133	187	82	53	62	43	43	73	1093	
BC392			119	181	176	166	129	67	32	-4	8	12	19	70	974	
	3061 KINGSLEY DITCH PUMP DIV. AT DIV. #2		3	5	1	5	5	0	0	0	0	0	0	0	20	
	3171 BISHOP CK DITCH #11		26	0	24	0	0	0	0	0	0	22	0	9	81	
BC393			30	5	25	5	5	0	0	0	0	22	0	9	101	
	3163 BISHOP CK DITCH #19		125	36	45	52	0	0	0	0	0	58	0	294	611	
	3174 BISHOP CK DITCH #22		69	133	66	71	0	0	0	0	0	15	0	167	520	
	3019 BISHOP CK CANAL DIV. #24		99	131	123	127	0	0	39	42	28	101	26	207	922	
	3020 BISHOP CK CANAL DIV. #25		0	0	33	31	0	0	0	0	0	0	0	0	64	
	3177 BISHOP CK DITCH #26		98	123	122	152	0	0	0	0	0	2	0	231	729	
	3178 BISHOP CK DITCH #27		7	8	13	7	0	0	0	0	0	0	0	0	35	
	3179 BISHOP CK DITCH #28		22	25	55	38	0	0	0	0	0	0	0	0	140	
	3024 BISHOP CK CANAL DIV. #29		91	83	101	149	0	0	44	96	65	60	40	251	979	
BC397			512	539	557	627	0	0	83	138	93	236	66	1150	4000	
	3012 GEORGE DITCH C-1		63	48	76	77	81	99	24	24	19	13	10	13	548	
	3365 PARK W. RETURN S/O A-DRAIN		53	97	107	130	119	84	27	31	10	4	2	45	708	
	3047 4 X - 58D		61	63	108	118	173	148	93	129	182	165	201	239	1681	
	3366 SOUTH INDIAN DITCH DIVERSION #1 N/O SCHOBBER LANE		4	0	8	3	4	10	0	0	0	3	0	7	39	
	3367 SOUTH INDIAN DITCH DIVERSION #2 N/O SCHOBBER LANE		0	0	30	48	84	15	0	0	0	0	0	24	202	
	W408 WELL 408		128	127	103	126	180	169	0	0	0	0	0	0	834	
	3002 GEORGE DITCH W. OF SUNLAND AVENUE	(-)	35	35	31	50	35	49	33	33	24	14	12	18	368	
	3046 SOUTH INDIAN RETURN AT A-1 DRAIN	(-)	24	14	23	20	2	21	0	77	144	137	225	195	883	
	3270 SOUTH INDIAN D-3	(-)	182	237	242	305	404	303	121	92	62	45	73	57	2124	
BC500			67	48	137	128	202	152	-9	-19	-18	-11	-96	57	638	

STAID	STATION NAME	+/-	2022										2023			TOTAL
			APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR-MAR	
BC502A	3027 HALL DITCH PUMP PLANT #2@DON TATUM LEASE(KOCH)		3	20	5	2	3	1	0	0	0	0	0	0	34	
	3028 HALL DITCH PUMP PLANT #4 AT DON TATUM LEASE		40	89	59	77	70	69	35	6	0	0	0	0	445	
			43	109	64	79	72	70	35	6	0	0	0	0	479	
BC502B	3031 A-1 DRAIN PUMP PLANT #1 S/O HALL DITCH		0	0	0	0	0	0	0	0	0	0	0	0	0	
	3032 A-1 DRAIN PUMP PLANT #3 AT WELL #140		145	143	97	119	109	117	82	15	0	0	0	0	828	
			145	143	97	119	109	117	82	15	0	0	0	0	828	
BCOPRB	2086 A-DRAIN DIV. TO ARKANSAS FLATS		0	0	0	0	0	0	0	0	0	0	0	436	436	
			0	0	0	0	0	0	0	0	0	0	0	436	436	
BCRECA	3155 BISHOP CK DITCH #5-B		0	0	0	0	0	0	115	113	106	193	108	307	942	
			0	0	0	0	0	0	115	113	106	193	108	307	942	
BCRECC	3021 BISHOP CK CANAL DIV. #67		0	0	0	0	0	0	0	0	0	3	0	0	3	
			0	0	0	0	0	0	0	0	0	3	0	0	3	
BCRECD	3194 SOUTH FORK BISHOP CREEK BELOW BISHOP CREEK CANAL		414	460	485	691	637	560	440	355	354	330	254	892	5872	
	3193 SANDERS POND RETURN AT OWENS RIVER	(-)	156	140	87	108	176	127	86	173	148	258	169	456	2083	
	3066 RAWSON POND #3 RETURN TO OWENS RIVER	(-)	134	108	98	184	156	155	157	76	139	88	45	198	1538	
			125	212	301	399	305	278	197	105	68	-16	40	239	2250	
BCRECF	3023 KINGSLEY DITCH DIV. C-4		121	75	69	77	98	78	76	44	36	44	43	198	959	
	3183 CEMETERY DITCH AT E. LINE ST.	(-)	73	42	39	37	58	54	68	18	0	0	0	4	392	
			48	33	30	40	40	24	8	25	36	44	43	193	567	
BCLAEMH	3242 BISHOP CK CANAL DIV. TO 5 BRIDGES #2		44	22	0	0	0	0	0	0	0	19	26	59	170	
	3317 BISHOP CK CANAL DIV. TO 5 BRIDGES #6		15	21	19	26	23	19	12	9	7	22	10	129	312	
			59	43	19	26	23	19	12	9	7	41	36	188	482	
BCRVRECA	3185 MCGEE CK AT ABERLOUR RANCH		206	210	163	159	156	150	163	172	218	291	185	433	2506	
	3235 MILL POND RETURN	(-)	60	110	80	13	76	31	66	60	61	63	80	106	805	
			147	100	82	147	80	119	97	113	156	228	105	328	1702	

STAID	STATION NAME	+/-	2022								2023				TOTAL	
			APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR-MAR	
BC005A	ONEY - OTEY DITCH		7	10	11	15	10	4	-2	-6	-8	-5	-4	7	39	
BC005B	SAFSTROM - MATLICK DITCH		5	10	9	6	5	6	0	0	0	0	0	47	88	
BC006A	BARTON - MATLICK DITCH		17	10	11	8	10	8	4	6	6	7	6	9	102	
BC1478	INDIAN CREEK RANCH - GEORGE AND N. INDIAN DITCH		56	35	55	60	47	59	36	33	19	-2	24	20	442	
BC1479	HIDDEN CREEKS RANCH - SOUTH INDIAN DITCH		4	5	5	7	7	5	1	0	0	0	0	0	35	
BC301	AUBREY AND MOXLEY - NELLIGAN AND YOUNG DITCHES		60	64	53	53	73	78	-3	-3	-3	7	-33	93	438	
BC302A	BOOTHE - HALL DITCH		0	38	42	35	30	54	3	0	0	0	0	0	203	
BC302B	BOOTH - BISHOP CREEK CANAL		177	156	147	164	135	62	66	57	46	172	50	367	1598	
BC304	ANDREW AND DAN BOYD - NEWLON DITCH		33	55	36	35	35	4	0	0	0	0	0	0	198	
BC311	J.W. CASHBAUGH, ET AL - BISHOP CREEK CANAL		512	461	450	435	454	456	55	49	50	197	63	686	3867	
BC313	BOYD AND ONEY - NORTH INDIAN DITCH		70	112	145	135	105	60	47	40	37	31	42	68	894	
BC324	DANIELS, ROSSI, HANNON - N. AND S. INDIAN DITCH		125	188	194	226	276	67	30	21	18	8	15	7	1175	
BC335	PARTRIDGE AND JOHNSON - YOUNG DITCH		18	19	23	11	13	-6	-10	-25	-13	-7	17	13	53	
BC338	YRIBARREN AND OPS - FORD RAWSON CANAL AND KEOUGH		369	354	467	551	649	196	11	10	11	249	9	784	3660	
BC339	DOHNEL - KINGSLEY DITCH		42	55	28	49	84	37	11	8	8	7	9	14	352	
BC353	HADELER AND MILORADICH - WONACOTT AND SMITH DITCH		43	45	63	45	47	19	9	10	9	9	7	84	391	
BC361A	ST RANCH - NORTH FORK BISHOP CREEK		97	106	135	153	154	133	-17	-9	-34	-56	-37	70	696	
BC361B	ST RANCH - MATLICK DITCH		105	148	303	325	277	287	74	36	59	-27	42	65	1696	
BC362D	JJ TATUM, LJ TATUM - DAIRY DITCH		57	90	161	151	178	112	39	31	32	38	38	33	959	
BC387A	GIACOMINI - NORTH INDIAN DITCH		28	47	85	78	120	108	11	11	13	11	2	174	687	
BC392	LACEY LIVESTOCK - YOUNG AND MATLICK DITCHES		119	181	176	166	129	67	32	-4	8	12	19	70	974	
BC393	CABALLERO - KINGSLEY DITCH		30	5	25	5	5	0	0	0	0	22	0	9	101	
BC397	GIACOMINI - BISHOP CREEK CANAL		512	539	557	627	0	0	83	138	93	236	66	1150	4000	
BC500	TALBOT - GEORGE AND S. INDIAN DITCH		67	48	137	128	202	152	-9	-19	-18	-11	-96	57	638	
BC502A	SMITH AND STICKELLS - HALL DITCH		43	109	64	79	72	70	35	6	0	0	0	0	479	
BC502B	SMITH AND STICKELLS - A-1 DRAIN		145	143	97	119	109	117	82	15	0	0	0	0	828	
BCOPRB	A DRAIN - A DRAIN		0	0	0	0	0	0	0	0	0	0	0	436	436	
BCRECA	FARMERS PONDS - BISHOP CREEK CANAL		0	0	0	0	0	0	115	113	106	193	108	307	942	
BCRECC	SADDLE CLUB - BISHOP CREEK CANAL		0	0	0	0	0	0	0	0	0	3	0	0	3	
BCRECD	BUCKLEY PONDS - SOUTH FORK BISHOP CREEK		125	212	301	399	305	278	197	105	68	-16	40	239	2250	
BCRECF	FOREST SERVICE - KINGSLEY DITCH		48	33	30	40	40	24	8	25	36	44	43	193	567	
BCLAEMH	FIVE BRIDGES RECHARGE - BISHOP CREEK CANAL		59	43	19	26	23	19	12	9	7	41	36	188	482	
BCRVRECA	MILL POND - MCGEE CREEK		147	100	82	147	80	119	97	113	156	228	105	328	1702	
BC Audit Raw Total			3121	3421	3910	4276	3676	2598	1018	771	707	1388	571	5518	30974	
Accounts with no ICWD Credit Totals (RVRECA, 362D, 392)			(-)	323	371	419	464	387	298	168	140	196	278	162	431	3635
BC AUDIT ICWD "Use" Total			2798	3050	3491	3812	3289	2300	850	631	511	1110	409	5087	27339	

2022/23 RUNOFF YEAR BISHOP CONE FLOWING WELL TOTALS
(ACRE-FEET)

	2022									2023			
WELL	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	TOTAL
F121	3	3	3	3	3	3	3	3	3	3	3	3	36
F122	6	6	6	6	6	6	6	6	6	6	5	6	71
F123	13	10	12	13	12	12	13	13	13	13	12	14	151
F124	0	0	0	0	0	0	0	0	0	0	0	0	0
F125	85	63	77	85	83	82	93	96	103	98	88	97	1049
F126	31	33	32	29	30	27	31	34	31	31	29	32	370
F127	33	33	33	35	34	34	37	35	36	36	32	36	413
F128	23	22	22	22	23	22	21	21	23	22	21	23	263
F129	6	8	15	12	11	8	7	7	7	8	7	7	103
F130	32	29	30	28	30	26	30	29	31	31	29	33	357
F131	71	73	68	65	65	64	67	66	68	71	66	76	819
F132	24	23	25	26	27	26	31	26	26	30	27	29	320
F133	21	21	23	21	20	20	20	19	21	22	20	23	250
F134	54	46	45	48	45	46	50	48	47	52	57	66	603
F136	5	4	6	5	4	4	7	7	5	9	11	13	81
TOTAL	406	373	397	399	392	380	418	408	419	430	407	458	4887

2022/23 RUNOFF YEAR BISHOP CONE PUMPING WELL TOTALS
(ACRE-FEET)

	2021									2022			
<u>WELL</u>	<u>APR</u>	<u>MAY</u>	<u>JUN</u>	<u>JUL</u>	<u>AUG</u>	<u>SEP</u>	<u>OCT</u>	<u>NOV</u>	<u>DEC</u>	<u>JAN</u>	<u>FEB</u>	<u>MAR</u>	<u>TOTAL</u>
W140	205	208	199	203	205	197	177	0	0	0	0	0	1394
W371	96	99	97	99	98	94	99	95	99	27	0	0	904
W406	187	189	181	184	183	171	0	0	0	0	0	0	1095
W407	160	166	150	159	164	156	0	0	0	0	0	0	955
W408	128	127	103	126	180	169	0	0	0	0	0	0	834
W410	227	234	225	231	230	221	34	0	118	65	0	0	1584
W411	240	251	242	249	249	235	0	0	0	0	0	0	1466
W412	134	247	237	245	244	228	0	0	0	0	0	0	1334
TOTAL	1376	1520	1433	1497	1554	1472	310	95	218	93	0	0	9566