SWP Deliveries

WSIP 2030 Without Project 1-State Water Project (SWP) Allocations Long-term Average and Average by Water Year Type

	LUNG-lenn Average and A	weraye by water real type	
Analysis Period	Ag Service Table A Allocation (EO May)	M&I Service Table A Allocation (EO May)	FRSA Settlement Contract Allocation (EO May)
	Lon	g-term	
Full Simulation Period ¹	62%	62%	96%
	Water Ye	ear Types ²	
Wet (30%)	86%	86%	100%
Above Normal (15%)	74%	74%	100%
Below Normal (21%)	60%	60%	100%
Dry (20%)	44%	44%	94%
Critical (15%)	25%	25%	83%

1 Based on the 82-year simulation period

2 As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999)

WSIP 2030 Without Project 3-State Water Project (SWP) Contract Deliveries in and Ave-a by Water Veer Ty

	LUNG-term Average and P	werage by water rear type	
Analysis Period	Ag Service Deliveries (Jan-Dec, TAF)	M&I Service Deliveries (Jan-Dec, TAF)	Total Ag and M&I Service Deliveries (Jan-Dec, TAF)
	Lor	ng-term	
Full Simulation Period ¹	645	1,928	2,573
	Water Ye	ear Types ²	
Wet (30%)	923	2,577	3,500
Above Normal (15%)	766	2,302	3,068
Below Normal (21%)	625	1,954	2,579
Dry (20%)	443	1,438	1,881
Critical (15%)	252	853	1,105
1 0 1 1 00 1 1 1			

1 Based on the 82-year simulation period

2 As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999)

	WSIP 2030 Wit	hout Project	
	2-State Water Project (SW	/P) Delivery Operations	
	Long-term Average and Ave	erage by Water Year Type	
Analysis Period	SWP Table A Delivery (w/o Art 56) (Jan-Dec, TAF)	SWP Article 56 Delivery (Jar Dec, TAF)	n- SWP Article 21 Delivery (Jan- Dec, TAF)
	Long-	term	
Full Simulation Period ¹	2,443	65	65
	Water Yea	r Types ²	
Wet (30%)	3,315	65	120
Above Normal (15%)	2,912	70	87
Below Normal (21%)	2,434	91	54
Dry (20%)	1,819	47	15
Critical (15%)	1,044	49	12
1 Based on the 82-year simulation pe	eriod		

2 As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999)

WSIP 2030 Without Project 4-State Water Project (SWP) Contract Deliveries Long-term Average and Average by Water Year Type

Analysis Period	FRSA Settlement (Jan-Dec, TAF)					
Long-term						
Full Simulation Period ¹	946					
Wat	ter Year Types ²					
Wet (30%)	975					
Above Normal (15%)	983					
Below Normal (21%)	980					
Dry (20%)	937					
Critical (15%)	817					
1 Based on the 82-year simulation p	period					

2 As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999)

WSIP 2030 Without Project 5-State Water Project (SWP) Contract Deliveries

	Sacramento River Hydrologic	San Joaquin River Hydrologic	San Francisco Bay	Central Coast Hydrologic			South Lahonton Hydrologic		
	Region	Region	Hydrologic Region	Region	Tulare Lake H	ydrologic Region	Region	South Coast Hy	drologic Region
	M&I Service (Jan-Dec, TAF)	Ag Service (Jan-Dec, TAF)	M&I Service (Jan-Dec, TAF)	M&I Service (Jan-Dec, TAF)	Ag Service (Jan-Dec, TAF)	M&I Service (Jan-Dec, TAF)	M&I Service (Jan-Dec, TAF)	Ag Service (Jan-Dec, TAF)	M&I Service (Jan-Dec, TAF)
Analysis Period									
				Long-ter	rm				
Full Simulation Period ¹	31	3	209	43	633	82	269	8	1,296
				Water Year T	ypes ²				
Wet (30%)	37	5	279	60	906	115	368	11	1,720
Above Normal (15%)	36	4	250	51	752	97	319	9	1,550
Below Normal (21%)	33	3	214	42	614	80	267	8	1,319
Dry (20%)	25	2	155	31	435	59	198	6	970
Critical (15%)	15	1	89	17	248	33	115	3	583
1 Based on the 82-year simulation period	bd								
2 As defined by the Sacramento Valley	40-30-30 Index Water Year Hydrologic Classifica	ation (SWRCB D-1641, 1999)							

With Project deliveries and allocation to SWP would be similar to Without Project

CVP Deliveries - Without Project (WSIP 2030) WSIP 2030 Without Project 1-Central Valley Project (CVP) Allocation Long-term Average and Average by Water Year Type

Analysis Period	Ag Service Allocation (EO May)	SOD Ag Service Allocation (EO May)	M&I Service Allocation (EO May)	SOD M&I Service Allocation (EO May)	Settlement Contract Allocation (EO May)	Exchange Contract Allocation (EO May)	Refuge Level 2 Contract Allocation (EO May)
				Long-term			
Full Simulation Period ¹	47%	44%	78%	77%	98%	98%	98%
			Wat	er Year Types ²			
Wet (30%)	75%	71%	91%	90%	100%	100%	100%
Above Normal (15%)	65%	57%	90%	82%	100%	100%	100%
Below Normal (21%)	44%	39%	76%	74%	100%	100%	100%
Dry (20%)	24%	23%	68%	67%	100%	100%	100%
Critical (15%)	11%	11%	60%	60%	88%	88%	88%
1 Based on the 82 year simulat	ion period						

1 Based on the 82-year simulation period

2 As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999)

WSIP 2030 Without Project 2-Central Valley Project (CVP) Contract Deliveries Long-term Average and Average by Water Year Type

Analysis Period	Ag Service Deliveries (Mar-Feb, TAF)	M&I Service Deliveries (Mar-Feb, TAF)	Total Ag and M&I Service Deliveries (Mar-Feb, TAF)	Total Settlement and Exchange Deliveries (Mar- Feb, TAF)	Total Refuge Level 2 and 4 Supplies (Mar-Feb, TAF)
		L	ong-term		
Full Simulation Period ¹	1,004	477	1,481	2,805	568
		Water	Year Types ²		
Wet (30%)	1,617	491	2,108	2,800	588
Above Normal (15%)	1,300	488	1,788	2,831	584
Below Normal (21%)	898	463	1,361	2,836	585
Dry (20%)	517	469	986	2,869	572
Critical (15%)	258	468	726	2,659	485
1 Based on the 82-year simulatio	n period				

2 As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999)

3-Refuge Water Supplies (CVP Contract, Sites and Acquisitions Supplies)

Long-term Average and Average by Water Year Type

Tot Analysis Period Supp Full Simulation Period¹ W Wet (30%) Above Normal (15%) Below Normal (21%) Dry (20%) Critical (15%) period

1999)

WSIP 2030 Without Project

tal Refuge Level 2 plies (Mar-Feb, TAF)	Total Refuge Level 4 Sites Supplies (Mar-Feb, TAF)
Long-term	
433	0
ater Year Types ²	
450	0
447	0
447	0
434	0
365	0

2 As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641,

WSIP 2030 Without Project 4-Central Valley Project (CVP) Contract Deliveries Long-term Average and Average by Water Year Type

	Sacr	amento River Hydrologic I	Region		San Joaquin River Hydrologic Re	egion	San Francisco Bay H	ydrologic Region	Tulare Lake Hydrologic Region
Analysis Period	Ag Service (Mar-Feb, TAF)	M&I Service (Mar-Feb, TAF)	Settlement (Mar-Feb, TAF)	Ag Service (Mar-Feb, TAF)	M&I Service (Mar-Feb, TAF)	Exchange (Mar-Feb, TAF)	Ag Service (Mar-Feb, TAF)	M&I Service (Mar-Feb, TAF)	Ag Service (Mar-Feb, TAF)
					Long-term		•		•
Full Simulation Period ¹	168	187	1,945	265	15	859	32	274	539
					Water Year Types ²		•		
Wet (30%)	262	211	1,926	430	18	875	53	262	872
Above Normal (15%)	231	212	1,957	342	16	874	41	260	685
Below Normal (21%)	155	184	1,961	231	15	874	29	264	483
Dry (20%)	85	167	1,996	135	13	873	17	288	280
Critical (15%)	41	146	1,885	69	12	774	8	310	140
1 Based on the 82-year simulation	neriod						•		•

Based on the 82-year simulation period

2 As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999)

			WSIP 2030 Without Proj	ect		
		5-Refuge Water Su	pplies (CVP Contract, Sites a	and Acquisitions Supplies)		
		Long-ter	m Average and Average by	Water Year Type		
	Sacramento River I	Hydrologic Region	San Joaquin River	Hydrologic Region	Tulare Lake Hy	drologic Region
Analysis Period	Refuge L2 (Mar-Feb, TAF)	Refuge L4 - Sites (Mar- Feb, TAF)	Refuge L2 (Mar-Feb, TAF)	Refuge L4 - Sites (Mar- Feb, TAF)	Refuge L2 (Mar-Feb, TAF)	Refuge L4 - Sites (Mar-Feb, TAF)
			Long-term		•	
Full Simulation Period ¹	158	0	263	0	12	0
			Water Year Types ²			
Wet (30%)	170	0	268	0	12	0
Above Normal (15%)	166	0	268	0	12	0
Below Normal (21%)	167	0	268	0	12	0
Dry (20%)	155	0	267	0	12	0
Critical (15%)	120	0	234	0	11	0

1 Based on the 82-year simulation period

2 As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999)

CVP Deliveries - With Project WSIP 2030 With Project 1-Central Valley Project (CVP) Allocation Long-term Average and Average by Water Year Type

Analysis Period	Ag Service Allocation (EO May)	SOD Ag Service Allocation (EO May)	M&I Service Allocation (EO May)	SOD M&I Service Allocation (EO May)	Settlement Contract Allocation (EO May)	Exchange Contract Allocation (EO May)	Refuge Level 2 Contract Allocation (EO May)
			l	.ong-term			
Full Simulation Period ¹	48%	44%	78%	76%	98%	98%	98%
			Wate	r Year Types ²			
Wet (30%)	75%	71%	91%	89%	100%	100%	100%
Above Normal (15%)	65%	55%	91%	82%	100%	100%	100%
Below Normal (21%)	44%	37%	75%	74%	100%	100%	100%
Dry (20%)	25%	23%	68%	68%	100%	100%	100%
Critical (15%)	12%	12%	59%	59%	88%	88%	88%
1 Based on the 82-year simulati	ion period						

1 Based on the 82-year simulation period

2 As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999)

WSIP 2030 With Project 2-Central Valley Project (CVP) Contract Deliveries Long-term Average and Average by Water Year Type

Analysis Period	Ag Service Deliveries (Mar-Feb, TAF)	M&I Service Deliveries (Mar-Feb, TAF)	Total Ag and M&I Service Deliveries (Mar-Feb, TAF)	Total Settlement and Exchange Deliveries (Mar- Feb, TAF)	Total Refuge Level 2 and 4 Supplies (Mar-Feb, TAF)
		L	ong-term		
Full Simulation Period ¹	996	475	1,472	2,808	576
		Water	Year Types ²		
Wet (30%)	1,608	490	2,098	2,799	591
Above Normal (15%)	1,280	488	1,768	2,833	587
Below Normal (21%)	871	461	1,331	2,837	593
Dry (20%)	529	468	997	2,867	586
Critical (15%)	263	464	727	2,685	498

1 Based on the 82-year simulation period

2 As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999)

1999)

Analysis Period	Total Refuge Level 2 Supplies (Mar-Feb, TAF)	Total Refuge Level 4 Sites Supplies (Mar-Feb, TAF)				
	Long-term					
Full Simulation Period ¹	441	35				
	Water Year Types ²					
Wet (30%)	454	53				
Above Normal (15%)	450	47				
Below Normal (21%)	456	38				
Dry (20%)	448	21				
Critical (15%)	377	1				
period						
2 As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641,						

WSIP 2030 With Project

3-Refuge Water Supplies (CVP Contract, Sites and Acquisitions Supplies)

Long-term Average and Average by Water Year Type

nto Valley 40-30-30 Index Water Year Hydrologic Classification (SWR

WSIP 2030 With Project 4-Central Valley Project (CVP) Contract Deliveries Long-term Average and Average by Water Year Type

	Sac	ramento Piver Hydrologic	Pegion	c	San Joaquin River Hydrologic Re	aion	San Francisco Bay H	vdrologic Pegion	Tulare Lake Hydrologic
Analysis Period	Ag Service (Mar-Feb, TAF)	M&I Service (Mar-Feb, TAF)	Settlement (Mar-Feb, TAF)	Ag Service (Mar-Feb, TAF)	M&I Service (Mar-Feb, TAF)	Exchange (Mar-Feb, TAF)	Ag Service (Mar-Feb, TAF)	M&I Service (Mar-Feb, TAF)	Ag Service (Mar-Feb, TAF)
	Long-term							•	
Full Simulation Period ¹	168	186	1,949	263	15	859	32	274	533
				v	/ater Year Types ²				
Wet (30%)	261	210	1,925	428	18	875	53	262	865
Above Normal (15%)	231	212	1,958	335	16	875	41	260	673
Below Normal (21%)	154	183	1,962	225	15	875	28	263	464
Dry (20%)	88	166	1,994	139	13	873	17	288	285
Critical (15%)	41	142	1,910	70	12	774	8	310	144
1 Based on the 82-year simulation	n period								

2 As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999)

			WSIP 2030 With Projec	t		
		5-Refuge Water Su	pplies (CVP Contract, Sites a	nd Acquisitions Supplies)		
		Long-ter	rm Average and Average by V	Vater Year Type		
	Sacramento River H	Hydrologic Region	San Joaquin River H	lydrologic Region	Tulare Lake Hy	drologic Region
	Refuge L2 (Mar-Feb, TAF)	Refuge L4 - Sites (Mar- Feb, TAF)	Refuge L2 (Mar-Feb, TAF)	Refuge L4 - Sites (Mar- Feb, TAF)	Refuge L2 (Mar-Feb, TAF)	Refuge L4 - Sites (Mar-Feb, TAF)
Analysis Period						
			Long-term			
Full Simulation Period ¹	166	1	263	28	12	6
			Water Year Types ²			
Wet (30%)	173	1	268	42	12	10
Above Normal (15%)	170	1	267	37	12	9
Below Normal (21%)	176	1	268	30	12	7
Dry (20%)	169	0	267	17	12	4
Critical (15%)	131	0	235	1	11	0

1 Based on the 82-year simulation period

2 As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999)

CVP Deliveries - Comparison

Difference: WSIP 2030 With Project minus WSIP 2030 Without Project

1-Central Valley Project (CVP) Allocation

Long-term Average and Average by Water Year Type

Analysis Period	Ag Service Allocation (EO May)	SOD Ag Service Allocation (EO May)	M&I Service Allocation (EO May)	SOD M&I Service Allocation (EO May)	Settlement Contract Allocation (EO May)	Exchange Contract Allocation (EO May)	Refuge Level 2 Contract Allocation (EO May)
				Long-term			
Full Simulation Period ¹	0%	0%	0%	0%	0%	0%	0%
			Wat	er Year Types ²			
Wet (30%)	0%	0%	0%	0%	0%	0%	0%
Above Normal (15%)	0%	-1%	1%	0%	0%	0%	0%
Below Normal (21%)	0%	-1%	0%	0%	0%	0%	0%
Dry (20%)	1%	1%	0%	0%	0%	0%	0%
Critical (15%)	0%	0%	0%	0%	0%	0%	0%
1 Deced on the 02 year simulat	ion noried						

1 Based on the 82-year simulation period

2 As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999)

Difference: WSIP 2030 With Project minus WSIP 2030 Without Project 2-Central Valley Project (CVP) Contract Deliveries Long-term Average and Average by Water Year Type

Analysis Period	Ag Service Deliveries (Mar-Feb, TAF)	M&I Service Deliveries (Mar-Feb, TAF)	Total Ag and M&I Service Ex Deliveries (Mar-Feb, TAF)	Total Settlement and xchange Deliveries (Mar- Feb, TAF)	Total Refuge Level 2 and 4 Supplies (Mar-Feb, TAF)
		L	ong-term		
Full Simulation Period ¹	-8	-2	-10	4	8
		Water	Year Types ²		
Wet (30%)	-9	-1	-10	-1	3
Above Normal (15%)	-20	0	-20	1	3
Below Normal (21%)	-27	-2	-30	1	9
Dry (20%)	12	-1	11	-2	14
Critical (15%)	5	-4	2	26	12
1 Based on the 82-year simulation	an period				

1 Based on the 82-year simulation period

2 As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999)

WSIP 2030 Without Project

Tota Analysis Period Supp Full Simulation Period¹ W Wet (30%) Above Normal (15%) Below Normal (21%) Dry (20%) Critical (15%) period

1999)

Difference: WSIP 2030 With Project minus WSIP 2030 Without Project

3-Refuge Water Supplies (CVP Contract, Sites and Acquisitions Supplies)

Long-term Average and Average by Water Year Type

al Refuge Level 2 lies (Mar-Feb, TAF)	Total Refuge Level 4 Sites Supplies (Mar-Feb, TAF)
Long-term	
8	35
ater Year Types ²	
3	53
3	47
9	38
14	21
12	1

2 As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641,

Difference: WSIP 2030 With Project minus WSIP 2030 Without Project 4-Central Valley Project (CVP) Contract Deliveries Long-term Average and Average by Water Year Type

	Sacra	amento River Hydrologic I	Region		San Joaquin River Hydrologic Re	egion	San Francisco Bay H	ydrologic Region	Tulare Lake Hydrologic Region
Analysis Period	Ag Service (Mar-Feb, TAF)	M&I Service (Mar-Feb, TAF)	Settlement (Mar-Feb, TAF)	Ag Service (Mar-Feb, TAF)	M&I Service (Mar-Feb, TAF)	Exchange (Mar-Feb, TAF)	Ag Service (Mar-Feb, TAF)	M&I Service (Mar-Feb, TAF)	Ag Service (Mar-Feb, TAF)
					Long-term				•
Full Simulation Period ¹	0	-1	3	-2	0	0	0	0	-6
					Water Year Types ²		•		
Wet (30%)	-1	-1	-1	-1	0	0	0	0	-6
Above Normal (15%)	-1	0	1	-7	0	0	-1	0	-12
Below Normal (21%)	-1	-2	1	-7	0	0	-1	-1	-19
Dry (20%)	2	-1	-2	4	0	0	0	0	5
Critical (15%)	1	-4	26	1	0	0	0	0	4
1 Based on the 82-year simulation p	period		-				•		

2 As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999)

Difference: WSIP 2030 With Project minus WSIP 2030 Without Project 5-Refuge Water Supplies (CVP Contract, Sites and Acquisitions Supplies) Long-term Average and Average by Water Year Type

Analysis Period	Sacramento River Hydrologic Region Refuge L2 (Mar-Feb, TAF) Refuge L4 - Sites (Mar- Analysis Period Feb, TAF)		San Joaquin River Refuge L2 (Mar-Feb, TAF)	Hydrologic Region Refuge L4 - Sites (Mar- Feb, TAF)	Tulare Lake Hydrologic Region Refuge L2 (Mar-Feb, TAF) Refuge L4 - Sites (Mar-Feb, TAF)		
			Long-term		1		
Full Simulation Period ¹	8	1	0	28	0	6	
			Water Year Types ²		1		
Wet (30%)	3	1	0	42	0	10	
Above Normal (15%)	4	1	-1	37	0	9	
Below Normal (21%)	9	1	0	30	0	7	
Dry (20%)	14	0	0	17	0	4	
Critical (15%)	11	0	1	1	0	0	

1 Based on the 82-year simulation period

2 As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999)

Sites Reservoir Benefits

Difference: WSIP 2030 With Project minus WSIP 2030 Without Project

1-Sites Deliveries to Sacramento Valley Members

Long-term Average and Average by Water Year Type

Analysis Period	Sacramento Valley (Mar-Feb, TAF)				
Long-term					
Full Simulation Period ¹	129				
	Water Year Types ²				
Wet (30%)	62				
Above Normal (15%)	118				
Below Normal (21%)	155				
Dry (20%)	186				
Critical (15%)	165				

1 Based on the 82-year simulation period

2 As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999)

3 Includes Sites delivery to TCCA members, GCID, RD108, County of Colusa, and Western Canal WD

Difference: WSIP 2030 With Project minus WSIP 2030 Without Project 2-Sites Deliveries to South of Delta Members

LUI	Long-term Average and Average by water year type						
Analysis Period	M&I (Jan-Dec, TAF)	Ag (Jan-Dec, TAF)	Total (Jan-Dec, TAF)				
Long-term							
Full Simulation Period ¹	76	23	99				
Water Year Types ²							
Wet (30%)	6	2	8				
Above Normal (15%)	-2	-1	-2				
Below Normal (21%)	77	23	100				
Dry (20%)	171	52	223				
Critical (15%)	163	50	213				

1 Based on the 82-year simulation period

2 As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999)

3 Accounts for 18% deduction for carriage water for Delta Export