SWP Deliveries

WSIP 2070 Without Project
1-State Water Project (SWP) Allocations
Long-term Average and Average by Water Year Type

Analysis Period	Ag Service Table A Allocation (EO May)	M&I Service Table A Allocation (EO May)	FRSA Settlement Contract Allocation (EO May)
	Long-term		
Full Simulation Period[1]	57%	57%	91%
	Water Year Types[2]		
Wet (32%)	81%	81%	100%
Above Normal (13%)	73%	73%	100%
Below Normal (16%)	56%	56%	94%
Dry (24%)	37%	37%	88%
Critical (15%)	20%	20%	67%

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 2070 Without Project
2-State Water Project (SWP) Delivery Operations
Long-term Average and Average by Water Year Type

Analysis Period	SWP Table A Delivery (w/o Art 56) (Jan-Dec, TAF)	SWP Article 56 Delivery (Jan-Dec, TAF)	SWP Article 21 Delivery (Jan-Dec, TAF)
	Long-term		
Full Simulation Period[1]	2,262	63	72
	Water Year Types[2]		
Wet (32%)	3,165	66	159
Above Normal (13%)	2,834	53	81
Below Normal (16%)	2,268	94	33
Dry (24%)	1,534	60	17
Critical (15%)	819	29	12

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 2070 Without Project
3-State Water Project (SWP) Contract Deliveries
Long-term Average and Average by Water Year 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)
	Long-term		
Full Simulation Period[1]	597	1,801	2,398
	Water Year Types[2]		
Wet (32%)	894	2,496	3,390
Above Normal (13%)	741	2,227	2,968
Below Normal (16%)	564	1,831	2,395
Dry (24%)	370	1,241	1,611
Critical (15%)	195	666	861

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 2070 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]	906
	Water Year Types[2]
Wet (32%)	975
Above Normal (13%)	983
Below Normal (16%)	934
Dry (24%)	887
Critical (15%)	680

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 2070 Without Project
5-State Water Project (SWP) Contract Deliveries
Long-term Average and Average by Water Year Type

	Sacramento River Hydrologic Region	San Joaquin River Hydrologic Region	San Francisco Bay Hydrologic Region	Central Coast Hydrologic Region	Tulare Lake Hydrologic Region		South Lahonton Hydrologic Region	South Coast Hydrologic Region	
Analysis Period	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)
					Long-term				
Full Simulation Period[1]	29	3	198	39	586	75	248	7	1,211
					Water Year Types[2]				
Wet (32%)	37	5	269	57	878	108	349	11	1,676
Above Normal (13%)	36	4	247	51	728	97	308	9	1,488
Below Normal (16%)	31	3	199	38	554	74	249	7	1,240
Dry (24%)	22	2	142	25	363	49	168	5	834
Critical (15%)	12	1	78	13	191	26	89	2	448

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)

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

CVP Deliveries - Without Project (WSIP 2070)

WSIP 2070 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]	30%	29%	71%	71%	98%	98%	98%
Water Year Types[2]							
Wet (32%)	52%	52%	83%	83%	100%	100%	100%
Below Normal (16%)	38%	37%	75%	75%	100%	100%	100%
Below Normal (16%)	25%	24%	71%	71%	100%	100%	100%
Dry (24%)	14%	14%	63%	63%	100%	100%	100%
Critical (15%)	4%	4%	54%	54%	88%	88%	88%

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 2070 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)
Long-term					
Full Simulation Period[1]	662	452	1,115	2,799	563
Water Year Types[2]					
Wet (32%)	1,171	465	1,636	2,802	585
Above Normal (13%)	842	449	1,291	2,832	585
Below Normal (16%)	531	449	981	2,840	581
Dry (24%)	317	448	765	2,871	565
Critical (15%)	83	439	523	2,612	472

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 2070 Without Project

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

Long-term Average and Average by Water Year Type

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]	429	0
Water Year Types[2]		
Wet (32%)	448	0
Above Normal (13%)	447	0
Below Normal (16%)	443	0
Dry (24%)	428	0
Critical (15%)	352	0

period

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

WSIP 2070 Without Project
4-Central Valley Project (CVP) Contract Deliveries
Long-term Average and Average by Water Year Type

Analysis Period	Sacramento River Hydrologic Region			San Joaquin River Hydrologic Region			San Francisco Bay Hydrologic Region		Tulare Lake Hydrologic Region
	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]	105	172	1,941	176	14	859	21	267	360
Water Year Types[2]									
Wet (32%)	181	195	1,928	311	17	874	38	254	641
Above Normal (13%)	134	185	1,958	224	15	874	27	249	458
Below Normal (16%)	90	173	1,967	141	14	873	17	262	284
Dry (24%)	50	155	1,997	84	13	874	10	280	173
Critical (15%)	13	130	1,839	22	10	773	3	299	46

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 2070 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		San Joaquin River Hydrologic Region		Tulare Lake Hydrologic 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)
Long-term						
Full Simulation Period[1]	156	0	261	0	12	0
Water Year Types[2]						
Wet (32%)	168	0	267	0	12	0
Above Normal (13%)	167	0	268	0	12	0
Below Normal (16%)	165	0	266	0	12	0
Dry (24%)	151	0	265	0	12	0
Critical (15%)	115	0	226	0	10	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 2070 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)
Long-term							
Full Simulation Period[1]	30%	29%	71%	71%	98%	98%	98%
Water Year Types[2]							
Wet (32%)	52%	52%	84%	84%	100%	100%	100%
Above Normal (13%)	37%	37%	75%	75%	100%	100%	100%
Below Normal (16%)	26%	24%	72%	71%	100%	100%	100%
Dry (24%)	14%	13%	63%	62%	100%	100%	100%
Critical (15%)	4%	4%	54%	54%	88%	88%	88%

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 2070 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)
Long-term					
Full Simulation Period[1]	664	452	1,117	2,800	573
Water Year Types[2]					
Wet (32%)	1,183	467	1,650	2,799	590
Above Normal (13%)	835	448	1,283	2,829	590
Below Normal (16%)	542	449	990	2,835	592
Dry (24%)	301	445	746	2,867	579
Critical (15%)	85	442	526	2,635	484

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 2070 With Project
3-Refuge Water Supplies (CVP Contract, Sites and Acquisitions Supplies)
Long-term Average and Average by Water Year Type

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]	438	31
Water Year Types[2]		
Wet (32%)	452	51
Above Normal (13%)	452	41
Below Normal (16%)	455	30
Dry (24%)	441	17
Critical (15%)	364	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 2070 With Project
4-Central Valley Project (CVP) Contract Deliveries
Long-term Average and Average by Water Year Type

Analysis Period	Sacramento River Hydrologic Region			San Joaquin River Hydrologic Region			San Francisco Bay Hydrologic Region		Tulare Lake Hydrologic Region
	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]	105	171	1,940	176	14	859	22	268	361
Water Year Types[2]									
Wet (32%)	182	196	1,924	315	17	874	39	255	648
Above Normal (13%)	133	183	1,955	222	15	874	27	250	454
Below Normal (16%)	92	173	1,961	143	14	874	18	262	289
Dry (24%)	49	153	1,993	81	12	874	10	280	162
Critical (15%)	13	130	1,861	22	11	773	3	301	47

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 2070 With 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		San Joaquin River Hydrologic Region		Tulare Lake Hydrologic 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)
Long-term						
Full Simulation Period[1]	164	1	261	25	12	6
Water Year Types[2]						
Wet (32%)	172	1	268	41	12	9
Above Normal (13%)	172	1	268	33	12	7
Below Normal (16%)	176	1	267	24	12	5
Dry (24%)	164	0	265	14	12	3
Critical (15%)	125	0	229	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 2070 With Project minus WSIP 2070 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%
				Water Year Types[2]			
Wet (32%)	1%	1%	1%	1%	0%	0%	0%
Above Normal (13%)	0%	0%	0%	0%	0%	0%	0%
Below Normal (16%)	1%	0%	0%	0%	0%	0%	0%
Dry (24%)	0%	-1%	0%	-1%	0%	0%	0%
Critical (15%)	0%	0%	0%	0%	0%	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)

Difference: WSIP 2070 With Project minus WSIP 2070 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)
			Long-term		
Full Simulation Period[1]	2	0	2	0	9
			Water Year Types[2]		
Wet (32%)	12	2	14	-3	5
Above Normal (13%)	-7	-1	-8	-3	5
Below Normal (16%)	10	-1	10	-5	12
Dry (24%)	-15	-3	-19	-4	14
Critical (15%)	1	2	4	23	13

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 2070 Without Project

Difference: WSIP 2070 With Project minus WSIP 2070 Without Project

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

Long-term Average and Average by Water Year Type

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]	9	31
	Water Year Types[2]	
Wet (32%)	5	51
Above Normal (13%)	5	41
Below Normal (16%)	12	30
Dry (24%)	14	17
Critical (15%)	13	1

period

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

Difference: WSIP 2070 With Project minus WSIP 2070 Without Project
4-Central Valley Project (CVP) Contract Deliveries
Long-term Average and Average by Water Year Type

Analysis Period	Sacramento River Hydrologic Region			San Joaquin River Hydrologic Region			San Francisco Bay Hydrologic Region		Tulare Lake Hydrologic Region
	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	0	1	0	0	0	1	1
Water Year Types[2]									
Wet (32%)	1	1	-4	4	0	0	1	1	7
Above Normal (13%)	-1	-1	-3	-3	0	0	0	1	-4
Below Normal (16%)	2	-1	-5	3	0	1	0	0	5
Dry (24%)	-1	-3	-4	-3	0	0	0	0	-11
Critical (15%)	0	-1	23	0	0	0	0	2	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)

Difference: WSIP 2070 With Project minus WSIP 2070 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		San Joaquin River Hydrologic Region		Tulare Lake Hydrologic 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)
Long-term						
Full Simulation Period[1]	8	1	1	25	0	6
Water Year Types[2]						
Wet (32%)	4	1	0	41	0	9
Above Normal (13%)	5	1	0	33	0	7
Below Normal (16%)	11	1	0	24	0	5
Dry (24%)	13	0	0	14	0	3
Critical (15%)	10	0	3	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 2070 With Project minus WSIP 2070 Without Project

1-Sites Deliveries to Sacramento Valley Members

Long-term Average and Average by Water Year Type

Analysis Period	(Mar-Feb, TAF)
	Long-term
Full Simulation Period[1]	155
	Water Year Types[2]
Wet (32%)	110
Above Normal (13%)	178
Below Normal (16%)	182
Dry (24%)	190
Critical (15%)	143

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 2070 With Project minus WSIP 2070 Without Project

2-Sites Deliveries to South of Delta Members

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]	85	26	112
		Water Year Types[2]	
Wet (32%)	1	0	1
Above Normal (13%)	22	7	29
Below Normal (16%)	56	17	73
Dry (24%)	226	69	295
Critical (15%)	119	36	155

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