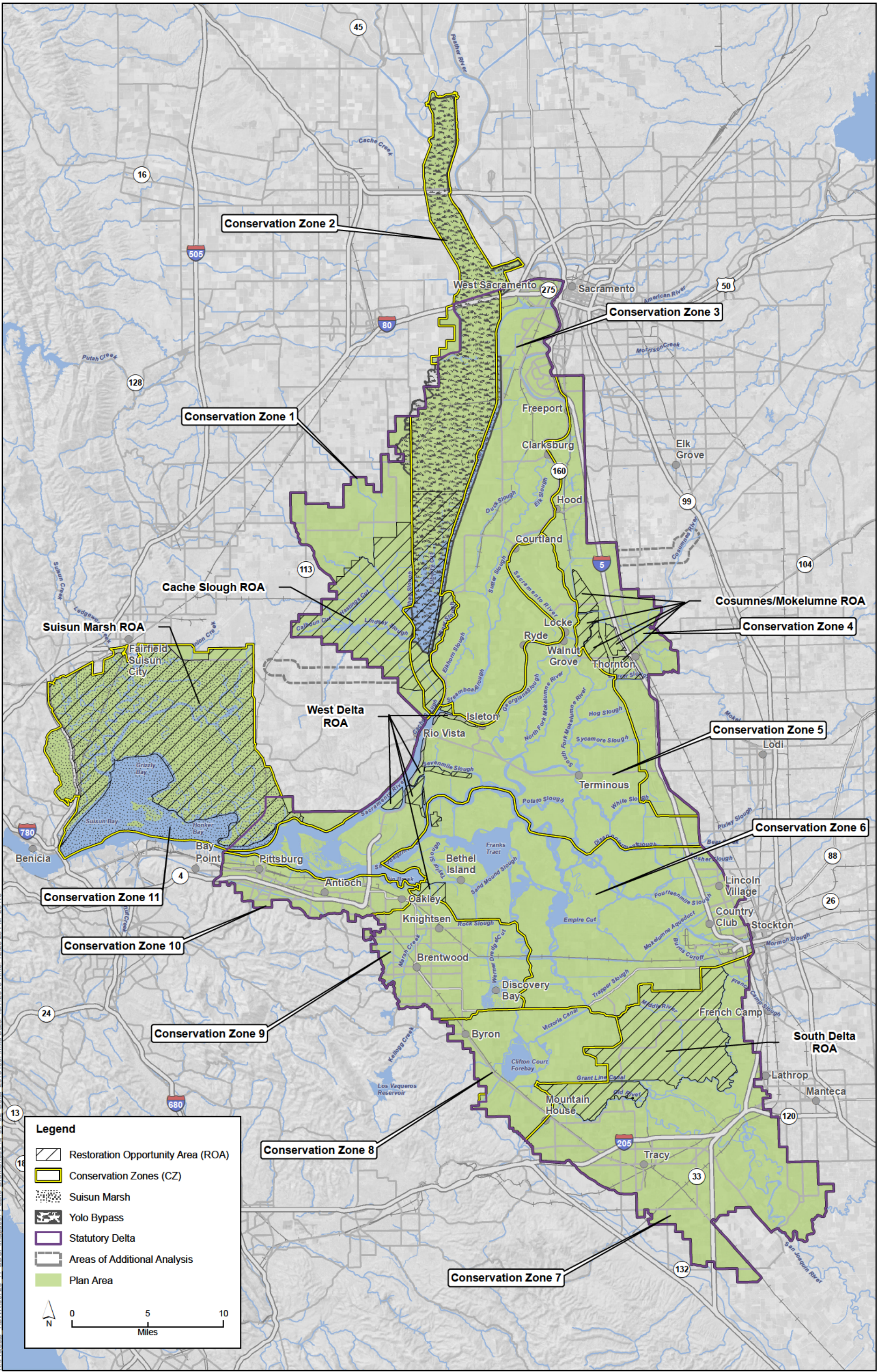


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Sources: Plan Area, ICF 2012; SWPCVP Canals/Aqueducts, HDR 2011; CVP Division Entities, USBR 2010; SWP Service Areas, ESA 2007;

Figure ES-1
Project Area



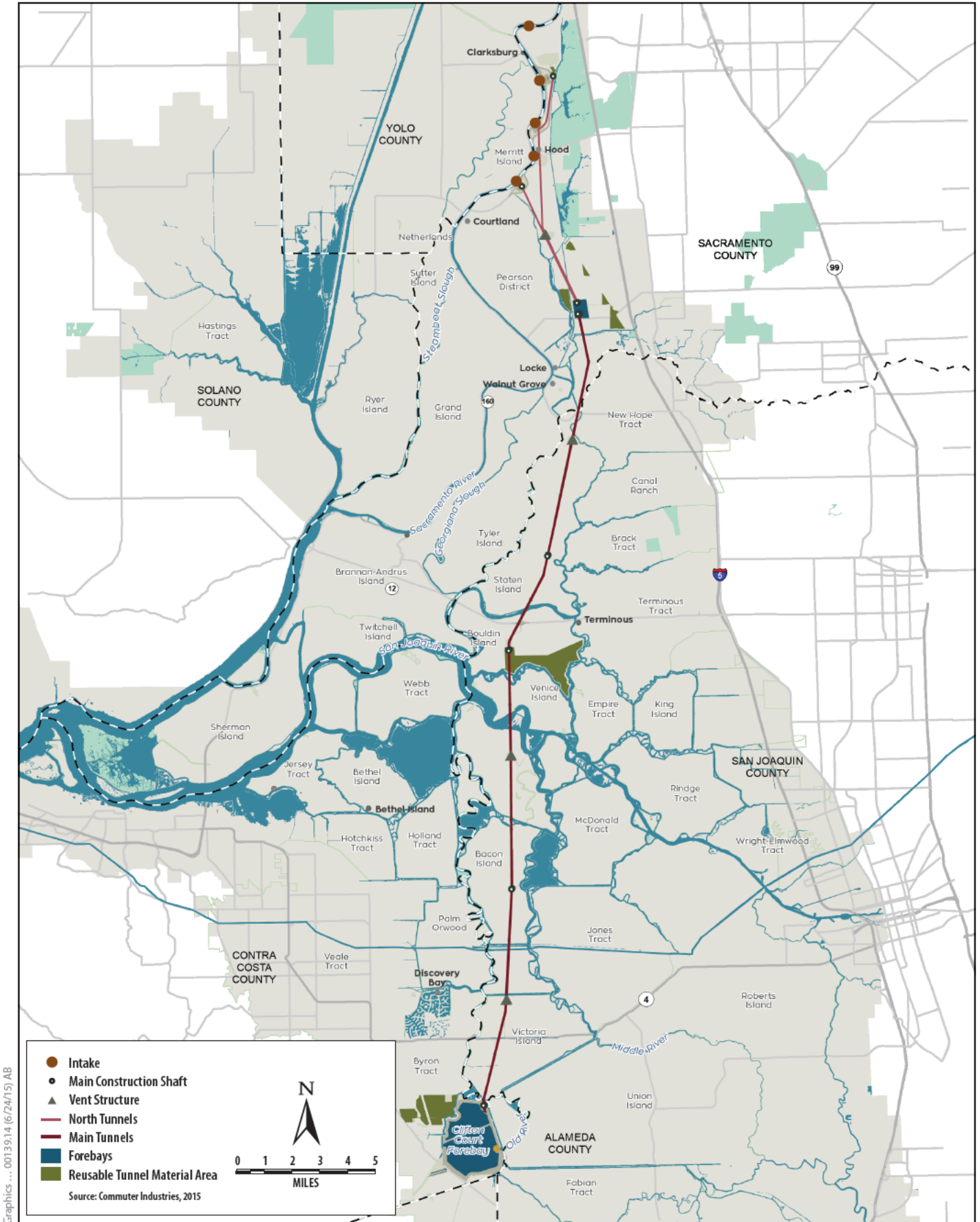
Legend

- Restoration Opportunity Area (ROA)
- Conservation Zones (CZ)
- Suisun Marsh
- Yolo Bypass
- Statutory Delta
- Areas of Additional Analysis
- Plan Area

0 5 10
Miles

Sources: Plan Area, ICF 2012; Statutory Delta Boundary, DWR 2001; Suisun Marsh, BCDC 2011; Yolo Bypass, SAIC 2008

Figure ES-2
Delta Region (Plan Area)



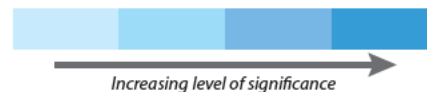
Graphics ... 00139,14 (6/24/15) AB

Figure ES-3
Location of Conveyance Facility Alignment
for Alternatives 4, 4A, 2D and 5A

Chapter 5 – Water Supply		Alternative																			
		Existing Condition	No Action	1A	1B	1C	2A	2B	2C	3	4	5	6A	6B	6C	7	8	9	4A	2D	5A
WS-2: Change in SWP/CVP deliveries (average annual total TAF)	SWP	n/a	-4%	6%	6%	6%	2%	2%	2%	6%	H1: 6% H4: 2%	2%	-5%	-5%	-5%	-5%	-9%	-1%	0%	2%	3%
		n/a	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	CVP	n/a	-11%	23%	23%	23%	15%	15%	15%	21%	H1: 17% H4: -3%	8%	-13%	-13%	-13%	-13%	-30%	-1%	5%	15%	9%
		n/a	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Key

Level of significance or effect **before** mitigation
(Quantity of impact: number of sites, structures, acres, etc. affected)



n/a not applicable
> greater than
< less than
≈ about equal to

Level of significance or effect **after** mitigation
(CEQA Finding / NEPA Finding)

CEQA Finding

- NI No Impact
- LTS Less than significant
- S Significant
- SU Significant and unavoidable
- ND No Determination

NEPA Finding

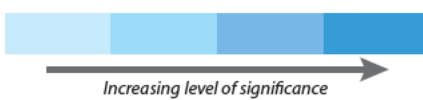
- B Beneficial
- NE No Effect
- NA Not Adverse
- A Adverse

**Figure ES-4
Comparison of Impacts on Water Supply**

Chapter 6 – Surface Water		Alternative																				
		Existing Condition	No Action	1A	1B	1C	2A	2B	2C	3	4	5	6A	6B	6C	7	8	9	4A	2D	5A	
SW-2: Changes in Sacramento and San Joaquin River flood flows (% change in flow compared to No Action [LLT for BDCP alternatives and ELT for 4A, 2D, and 5A])	Sacramento River at Freeport	n/a	1%	-1%	-1%	-1%	-1%	-1%	-1%	-1%	-1%	-1%	-1%	-1%	-1%	-1%	-1%	-1%	3%	3%	3%	
		n/a	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA
	Sacramento River at Vernalis	n/a	<1%	<1%	<1%	<1%	<1%	<1%	<1%	<1%	<1%	<1%	<1%	<1%	<1%	<1%	<1%	<1%	<1%	<1%	<1%	<1%
		n/a	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA
SW-3: Changes in reverse flow conditions in Old and Middle Rivers (Months in which reverse flow conditions are reduced or increased)	Compared to NAA	n/a	n/a	Reduced, except in Apr, May, and Oct	Reduced, except in Apr, May, and Oct	Reduced, except in Apr, May, and Oct	Reduced, except in Apr	Reduced, except in Apr	Reduced, except in Apr	Reduced, except in Apr, May, and Oct	Reduced, except in Apr, May	Reduced, except in Apr, May	Reverse flow would not occur	Reverse flow would not occur	Reverse flow would not occur	Reverse flow would not occur	Reverse flow would not occur	Increased, except in Jun	Reduced, except in Apr, May	Reduced, except in Apr	Reduced, except in Apr	
	Compared to EC	n/a	Reduced, except in Apr, May	Reduced Jun-Mar, increased >1% Oct, Apr, May	Reduced Jun-Mar, increased >1% Apr, May	Reduced Jun-Mar, increased >1% Apr, May	Reduced Jun-Mar, increased >1% Apr, May	Reduced Jun-Mar, increased >1% Apr, May	Reduced Jun-Mar, increased >1% Apr, May	Reduced Jun-Mar, increased >1% Apr, May	Reduced Jun-Mar, increased >1% Apr, May	Reduced Jun-Mar, increased >1% Apr, May	Reduced all months	Reduced all months	Reduced all months	Reduced all months	Reduced all months	Increased all months except Jun	Reduced, except increased >1% Apr	Reduced, May-Mar, increased >1% Apr	Reduced, May-Mar, increased >1% Apr	
		n/a	LTS/NA	ND/ND	ND/ND	ND/ND	ND/ND	ND/ND	ND/ND	ND/ND	ND/ND	ND/ND	LTS/ND	LTS/ND	LTS/ND	LTS/ND	LTS/ND	ND	ND	ND	ND	

Key

Level of significance or effect **before** mitigation (Quantity of impact: number of sites, structures, acres, etc. affected)



n/a not applicable
> greater than
< less than
≈ about equal to

Level of significance or effect **after** mitigation (CEQA Finding / NEPA Finding)

<p>CEQA Finding</p> <p>NI No Impact</p> <p>LTS Less than significant</p> <p>S Significant</p> <p>SU Significant and unavoidable</p>	/	<p>NEPA Finding</p> <p>B Beneficial</p> <p>NE No Effect</p> <p>NA Not Adverse</p> <p>A Adverse</p>
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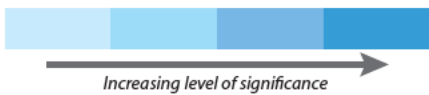
00139_14 EIR-EIS Ex. Summ. 1-21-2016 (fm)

Figure ES-5
Comparison of Impacts on Surface Water

Chapter 7 – Groundwater		Alternative																			
		Existing Condition	No Action	1A	1B	1C	2A	2B	2C	3	4	5	6A	6B	6C	7	8	9	4A	2D	5A
GW-1: During construction, deplete groundwater supplies or interfere with groundwater recharge, alter groundwater levels, or reduce the production capacity of preexisting nearby wells (Decrease in groundwater in vicinity of intakes / in vicinity of Clifton Court Forebay)		n/a	n/a	10-20 ft/ 20 ft	10-20 ft/ 20 ft	10-20 ft/ 20 ft	10-20 ft/ 20 ft	10-20 ft/ 20 ft	10-20 ft/ 20 ft	<10-20 ft/ <20 ft	<10-20 ft/ <20 ft	<10-20 ft/ <20 ft	10-20 ft/ 20 ft	10-20 ft/ 20 ft	10-20 ft/ 20 ft	10-20 ft/ 20 ft	<10-20 ft/ <20 ft	n/a	<10-20 ft/ <20 ft	<10-20 ft/ <20 ft	<10-20 ft/ <20 ft
		n/a	n/a	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	LTS/NA	SU/A	SU/A
GW-8: During operations, deplete groundwater supplies or interfere with groundwater recharge, alter groundwater levels, or reduce the production capacity of preexisting nearby wells (SWP and CVP deliveries [TAF/yr] to hydrologic regions located south of the Delta)	San Joaquin and Tulare	2,964	2,519	3,070	3,070	3,070	2,846	2,846	2,846	3,023	H1: 2,949 H2: 2,767 H3: 2,781 H4: 2,610	2,709	2,285	2,285	2,285	2,272	2,069	2,529	2,762	3,016	2,928
	Central Coast	47	40	51	51	51	49	49	49	50	H1: 49 H2: 40 H3: 48 H4: 39	45	34	34	34	36	27	43	45	51	48
	Southern California	1,647	1,484	1,853	1,853	1,853	1,711	1,711	1,711	1,821	H1: 1,784 H2: 1,491 H3: 1,668 H4: 1,370	1,613	1,136	1,136	1,136	1,162	803	1,410	1,663	1,819	1,728
		n/a	n/a	B	B	B	LTS/NA	LTS/NA	LTS/NA	LTS/B	SU/A	LTS/NA	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	LTS/B	LTS/B	LTS/B

Key

Level of significance or effect **before** mitigation (Quantity of impact: number of sites, structures, acres, etc. affected)



n/a not applicable
> greater than
< less than
≈ about equal to

Level of significance or effect **after** mitigation (CEQA Finding / NEPA Finding)

<p>CEQA Finding</p> <p>NI No Impact</p> <p>LTS Less than significant</p> <p>S Significant</p> <p>SU Significant and unavoidable</p>		<p>NEPA Finding</p> <p>B Beneficial</p> <p>NE No Effect</p> <p>NA Not Adverse</p> <p>A Adverse</p>
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Figure ES-6
Comparison of Impacts on Groundwater

Chapter 8 – Water Quality	Alternative																			
	Existing Condition	No Action	1A	1B	1C	2A	2B	2C	3	4	5	6A	6B	6C	7	8	9	4A	2D	5A
WQ-5: Bromide (CM1) - Percent increase in long-term average concentration at Barker Slough	-	-2%	38/43%	38/43%	38/43%	22/26%	22/26%	22/26%	34/38%	40/44%	23/27%	19/22%	19/22%	19/22%	-2/1%	4/8%	19/23%	-2/2%	-2/2%	-4/0%
		LTS	S/A	S/A	S/A	S/A	S/A	S/A	S/A	S/A	S/A	S/A	S/A	S/A	S/A	S/A ^a	S/A ^a	S/A	LTS/NA	LTS/NA
WQ-7: Chloride - Percent of years when 150 mg/L water quality objective exceeded at CCP#1 ^b	7%	0	13%	13%	13%	13%	13%	13%	7%	7%	13%	13%	13%	13%	20%	13%	13%	0%	0%	0%
		S	S/A	S/A	S/A	S/A	S/A	S/A	S/A	S/A	S/A	S/A	S/A	S/A	S/A	S/A	S/A	S/A	LTS/NA	LTS/NA
WQ-11: EC - Percent of days Emmatton objective would be exceeded	6%	14	31%	31%	31%	26%	26%	26%	30%	27-29% ^c	25%	32%	32%	32%	19%	22%	18%	16% ^c	7% ^c	10% ^c
		S	S/A	S/A	S/A	S/A	S/A	S/A	S/A	S/A	S/A	S/A	S/A	S/A	S/A	S/A	S/A	S/A	LTS/NA	LTS/NA
WQ-13: Mercury (CM1) - Maximum percent increase in fish tissue concentrations at Delta locations	6%	6%	8/10%	8/10%	8/10%	13/11%	13/11%	13/11%	6/8%	15/12%	8/7%	64/58%	64/58%	64/58%	45/39%	46/41%	66/59%	8/7%	10/9%	5/3%
		LTS	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	S/A	S/A	S/A	S/A	S/A	S/A	LTS/NA	LTS/NA	LTS/NA

Notes

- ^a While the long-term average increases in bromide would be low, the drought period increases would be 34% for Alternative 7 and 50% for Alternative 8, relative to Existing Conditions and the No Action Alternative. These increases in the drought period were considered significant/adverse.
- ^b Water quality degradation as measured by use of available assimilative capacity also played a significant role in determining effects by alternative, and degradation varied by alternative.
- ^c Alternative 4 does not include a change in compliance location from Emmatton to Threemile Slough, but the modeling used to evaluate the alternative did include the change. Thus, although the percent of days the Emmatton objective was exceeded is high, it is expected that under the alternative it would be similar to the No Action.

Key

Level of significance or effect **before** mitigation
(Quantity of impact: number of sites, structures, acres, etc. affected)

	Increasing level of significance →			
Bromide - Percent increase (%)	<0	1 - 20	21 - 40	>40
Chloride - % of years objective exceeded (%)	0	1-12	13-19	>20
EC - percent of days objective exceeded (%)	<10	11 - 20	20 - 30	>30
Mercury (CM1) - Percent increase (%)	<10	10 - 20	21 - 50	>50
Mercury (CM2-CM22) - restoration acres	0	1 - 100	25,000	65,000
Organic Carbon (CM1) - mg/L	<0.1	0.1 - 0.5	0.6 - 1.0	>1.0
Organic Carbon (CM2-CM21) - restoration acres	0	1 - 100	25,000	65,000
Selenium - Exceedance Quotient	0.87	0.88 - 0.93	0.94 - 0.99	>1.0
Microcystis - relative rank	1	2	3	4

Level of significance or effect **after** mitigation
(CEQA Finding / NEPA Finding)

CEQA Finding	NEPA Finding
NI No Impact	B Beneficial
LTS Less than significant	NE No Effect
S Significant	NA Not Adverse
SU Significant and unavoidable	A Adverse

n/a not applicable
> greater than
< less than
≈ about equal to

Continued on Figure ES-7b

Figure ES-7a
Comparison of Impacts on Water Quality

Chapter 8 – Water Quality (continued)	Alternative																			
	Existing Condition	No Action	1A	1B	1C	2A	2B	2C	3	4	5	6A	6B	6C	7	8	9	4A	2D	5A
WQ-14: Mercury(CM2-CM21) - Amount (acres) of new tidal habitat restoration that could contribute additional methylmercury	0	0	65,000	65,000	65,000	65,000	65,000	65,000	65,000	65,000	25,000	65,000	65,000	65,000	65,000	65,000	65,000	59	65	55
		-- ^d	S/A	S/A	S/A	S/A	S/A	S/A	S/A	S/A	S/A	S/A	S/A	S/A	S/A	S/A	S/A	S/A	S/A	S/A
WQ-17: Organic Carbon (CM1) - Maximum increase in long-term average DOC (mg/L) at interior Delta locations	--	<0.1	0.3	0.3	0.3	0.4	0.4	0.4	0.2	0.4	0.2	1.2	1.2	1.2	0.8	0.8	0.7	0.2	0.2	0.1
		LTS	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	S/A	S/A	S/A	S/A	S/A	S/A	LTS/NA	LTS/NA
WQ-18: Organic Carbon (CM2-CM21) - Amount (acres) of new tidal habitat restoration that could contribute additional DOC	0	0	65,000	65,000	65,000	65,000	65,000	65,000	65,000	65,000	25,000	65,000	65,000	65,000	65,000	65,000	65,000	59	65	55
		-- ^d	S/A	S/A	S/A	S/A	S/A	S/A	S/A	S/A	S/A	S/A	S/A	S/A	S/A	S/A	S/A	S/A	LTS/NA	LTS/NA
WQ-25: Selenium (CM1) - High threshold exceedance quotient for whole body sturgeon (concentration divided by threshold) during drought period	.87	0.87	0.89	0.89	0.89	0.92	0.92	0.92	0.89	0.93	0.89	1.1	1.1	1.1	1.1	1.1	1.2	0.91	0.89	0.90
		LTS	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	S/A	S/A	S/A	S/A	S/A	S/A	LTS/NA	LTS/NA
WQ-32 and 33: Microcystis (CM1-CM21) - potential for increased production in Delta ^e	--	2	4	4	4	4	4	4	4	4	3	4	4	4	4	4	4	2	2	2
		5	S/A	S/A	S/A	S/A	S/A	S/A	S/A	S/A	S/A	S/A	S/A	S/A	S/A	S/A	S/A	S/A	LTS/NA	LTS/NA

Notes

- ^d CM2-CM21 are not a component of Existing Conditions or the No Action Alternative, thus, no impact call was made for this effect in the EIR/EIS.
- ^e The Microcystis was qualitative. Thus, the severity of the impact was established as a rank from 1 to 4, with the rankings based on the alternative-specific factors that would contribute to increased Microcystis production, including restoration area, diversions of Sacramento River water at the north intakes, and net Delta outflow.

Key

Level of significance or effect **before** mitigation
(Quantity of impact: number of sites, structures, acres, etc. affected)

	Increasing level of significance →			
Bromide - Percent increase (%)	<0	1 - 20	21 - 40	>40
Chloride - % of years objective exceeded (%)	0	1-12	13-19	>20
EC - percent of days objective exceeded (%)	<10	11 - 20	20 - 30	>30
Mercury (CM1) - Percent increase (%)	<10	10 - 20	21 - 50	>50
Mercury (CM2-CM22) - restoration acres	0	1 - 100	25,000	65,000
Organic Carbon (CM1) - mg/L	<0.1	0.1 - 0.5	0.6 - 1.0	>1.0
Organic Carbon (CM2-CM21) - restoration acres	0	1 - 100	25,000	65,000
Selenium - Exceedance Quotient	0.87	0.88 - 0.93	0.94 - 0.99	>1.0
Microcystis - relative rank	1	2	3	4

Level of significance or effect **after** mitigation
(CEQA Finding / NEPA Finding)

CEQA Finding	NEPA Finding
NI No Impact	B Beneficial
LTS Less than significant	NE No Effect
S Significant	NA Not Adverse
SU Significant and unavoidable	A Adverse

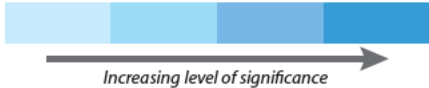
n/a not applicable
> greater than
< less than
≈ about equal to

Figure ES-7b
Comparison of Impacts on Water Quality (continued)

Chapter 9 – Geology and Seismology	Alternative																			
	Existing Condition	No Action	1A	1B	1C	2A	2B	2C	3	4	5	6A	6B	6C	7	8	9	4A	2D	5A
GEO-3: Loss of Property, Personal Injury, or Death from Ground Settlement during Construction of Water Conveyance Features (number of segments that pose greatest risk of settlement per alternative)	n/a	n/a	2	6	1	2	6	1	2	2	2	2	6	1	2	2	2	2	2	2
	n/a	n/a	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA

Key

Level of significance or effect **before** mitigation (Quantity of impact: number of sites, structures, acres, etc. affected)



n/a not applicable
> greater than
< less than
≈ about equal to

Level of significance or effect **after** mitigation (CEQA Finding / NEPA Finding)

CEQA Finding	NEPA Finding
NI No Impact	B Beneficial
LTS Less than significant	NE No Effect
S Significant	NA Not Adverse
SU Significant and unavoidable	A Adverse

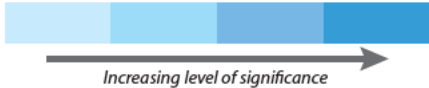
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Figure ES-8
Comparison of Impacts on Geology and Seismology

Chapter 10 – Soils	Alternative																			
	Existing Condition	No Action	1A	1B	1C	2A	2B	2C	3	4	5	6A	6B	6C	7	8	9	4A	2D	5A
SOILS-2: Loss of topsoil from excavation, overcovering, and inundation as a result of constructing the proposed water conveyance facilities (Acres)	n/a	3,618	7,771	21,832	18,039	7,771	21,832	18,039	<7,771	7,590	>7,771	7,771	21,832	18,039	<7,771	<7,771	<7,771	7,590	>7,590	<7,590
	n/a	S/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A
SOILS-7: Loss of Topsoil from Excavation, Overcovering, and Inundation Associated with Restoration Activities as a Result of Implementing the Proposed Conservation Measures (Acres)	n/a	1,352	77,600	77,600	77,600	77,600	77,600	77,600	77,600	77,600	<77,600	77,600	77,600	77,600	87,600	77,600	77,600	1,176	>1,000	≈1,000
	n/a	S/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A

Key

Level of significance or effect **before** mitigation (Quantity of impact: number of sites, structures, acres, etc. affected)



Increasing level of significance

n/a not applicable
> greater than
< less than
≈ about equal to

Level of significance or effect **after** mitigation (CEQA Finding / NEPA Finding)

<p>CEQA Finding</p> <p>NI No Impact</p> <p>LTS Less than significant</p> <p>S Significant</p> <p>SU Significant and unavoidable</p>		<p>NEPA Finding</p> <p>B Beneficial</p> <p>NE No Effect</p> <p>NA Not Adverse</p> <p>A Adverse</p>
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00139_14 EIR-EIS Ex. Summ. 1-20-2016 (mm)

Figure ES-9
Comparison of Impacts on Soils

Chapter 11 – Fish and Aquatic Resources	Alternative																		
		1A	1B	1C	2A	2B	2C	3	4	5	6A	6B	6C	7	8	9	4A	2D	5A
South Delta Entrainment of Adult Delta Smelt (% actual change in fish entrained compared to baseline, % relative change in entrainment compared to baseline)	Existing Condition	-2.3, -30	-2.3, -30	-2.3, -30	-2.2, -29	-2.2, -29	-2.2, -29	-1.2, -15	H1: -1.7, -22 H2: ≈H4 H3: -1.7, -22 H4: -1.8, -24	-0.4, -6	-2.3, -30	-2.3, -30	-2.3, -30	-3, -39	-4, -52	Lowest entrainment of all alternatives (not quantitatively analyzed)	H3: -1.7, -22 H4: -1.8, -23	-2.2, -28	-0.3, -4
	No Action	-2.1, -28	-2.1, -28	-2.1, -28	-2, -27	-2, -27	-2, -27	-1, -13	H1: -1.5, -20 H2: ≈H4 H3: -1.5, -20 H4: -1.6, -22	-0.3, -3	-2.1, -28	-2.1, -28	-2.8, -28	-2.8, -38	-3.8, -51		H3: -1.7, -22 H4: -1.8, -23	-2, -28	-0.3, -4
South Delta Entrainment of Larval/Juvenile Delta Smelt (% actual change in fish entrained compared to baseline, % relative change in entrainment compared to baseline)	Existing Condition	2.1, 17	2.1, 17	2.1, 17	1.5, 12	1.5, 12	1.5, 12	3.7, 30	H1: 1.8, 15 H2: ≈H4 H3: 1.8, 15 H4: -0.6, -4	2.9, 23	2.1, 17	2.1, 17	2.1, 17	-2.9, -24	-6.1, -50	Lowest entrainment of all alternatives (not quantitatively analyzed)	H3: 0.6, 5 H4: -1.7, -14	0.3, 3	1.4, 12
	No Action	-0.3, -2	-0.3, -2	-0.3, -2	-0.8, -5	-0.8, -5	-0.8, -5	1.3, 9	H1: -0.5, -3 H2: ≈H4 H3: -0.5, -3 H4: -2.9, -20	0.6, 4	-0.3, -2	-0.3, -2	-0.3, -2	-5.2, -36	-8.4, -58		H3: -0.4, -3 H4: -2.7, -20	-0.7, -5	0.5, 3
Effects of Water Operations on Rearing Habitat for Delta Smelt (Avg. abiotic habitat index across all years, % change in abiotic habitat index) ^a	Existing Condition	840, 21	840, 21	840, 21	2325, 58	2325, 58	2325, 58	867, 22	H1: 821, 20.6 H2: 821, 20.6 H3: 2335, 59 H4: 2289, 57.5	2264, 57	3302, 83	3302, 83	3302, 83	3037, 76	2325, 58	2109, 53	H3: 1150, 29 H4: 1184, 30	1133, 28	1036, 26
	No Action	-46, -1	-46, -1	-46, -1	1439, 30	1439, 30	1439, 30	-18, 0	H1: -155, -3 H2: -155, -3 H3: 1449, 30 H4: 1453, 28	1378, 28	2416, 50	2416, 50	2416, 50	2152, 44	1439, 30	1224, 25	H3: 99, 2 H4: 132, 3	82, 2	-15, 0
Effects of Water Operations on Spawning, Egg Incubation, and Rearing Habitat for Longfin Smelt (Avg. fall midwater trawl index across all water year types, % change in fall midwater trawl index across all water year types) ^b	Existing Condition	-1,501, -31	-1,501, -31	-1,501, -31	-1665, -32	-1665, -32	-1665, -32	-1724, -33	H1: -2879, -32 H2: -2959, -33 H3: -2959, -33 H4: -2879, -32	-1606, 31	-915, -18	-915, -18	-915, -18	-730, -14	204, 4	-1238, -24	H3: -1502, -17 H4: -622, -7	-1627, -18	-1433, -16
	No Action	-304, -8	-304, -8	-304, -8	-188, -5	-188, -5	-188, -5	-247, -7	H1: 157, 3 H2: 77, 1 H3: 77, 1 H4: 157, 3	-129, -3	561, 15	561, 15	561, 15	747, 20	1680, 46	239, 6	H3: -475, -6 H4: 404, 5	601, -8	-407, -5
Juvenile Winter-Run Chinook Salmon Through-Delta Survival (% raw change in survival rate across all water year types, % relative survival rate across all water year types)	Existing Condition	-1.6, -5	-1.6, -5	-1.6, -5	-1.9, -5	-1.9, -5	-1.9, -5	-1.4, -4	H1: -1.6, 5 H2: ≈H4 H3: -1.6, 5 H4: -1.6, 5	-1.2, -3	-1.3, -4	-1.3, -4	-1.3, -4	-1.6, -4	-1.4, -4	1.5, 4	H3: -2.1, -6 H4: -1.7, -5	-2.1, -7	-1.4, -4
	No Action	-0.9, -3	-0.9, -3	-0.9, -3	-1.2, -4	-1.2, -4	-1.2, -4	-0.7, -2	H1: -0.9, -3 H2: ≈H4 H3: -1, -3 H4: -0.9, -3	-0.6, -2	-0.7, -2	-0.7, -2	-0.7, -2	-0.9, -3	-0.8, -2	1.9, 6	H3: -2.0, -6 H4: 1.7, -5	-1.6, -5	-0.9, -3
Notes	<p>^a For more information on abiotic habitat, see Table 11-15 in Section 11.3.2, Methods for Analysis.</p> <p>^b The fall midwater trawl is an annual fish sampling survey conducted in the upper estuary during September through December by the California Department of Fish and Wildlife. Abundance indices are calculated from survey results for several pelagic species, including delta smelt, longfin smelt, threadfin shad, American shad, splittail and Age-0 striped bass.</p>																		

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Figure ES-10
Comparison of Impacts on Fish and Aquatic Resources

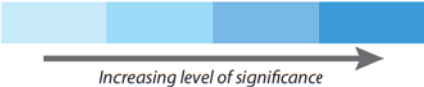
Chapter 11 – Fish and Aquatic Resources (continued)	Alternative																		
		1A	1B	1C	2A	2B	2C	3	4	5	6A	6B	6C	7	8	9	4A	2D	5A
Juvenile Spring-Run Chinook Salmon Through-Delta Survival (% raw change in survival rate across all water year types, % relative survival rate across all water year types)	Existing Condition	-1.9, -5	-1.9, -5	-1.9, -5	-2.3, -7	-2.3, -7	-2.3, -7	-1.8, -6	H1: -2.2, -7 H2: ≈H4 H3: -2.2, -7 H4: -0.6, -2	-1.6, -5	-2.3, -7	-2.3, -7	-2.3, -7	-2.3, -7	-0.9, -3	1.4, 4	H3: -2.5, -8 H4: -0.7, -2.2	-2.5, -7	-1.8, -5
	No Action	-1.0, -2	-1.0, -2	-1.0, -2	-1.4, -5	-1.4, -5	-1.4, -5	-0.9, -3	H1: -1.2, -4 H2: ≈H4 H3: -1.3, -4 H4: 0.4, 1	-0.6, -2	-1.4, -5	-1.4, -5	-1.4, -5	-1.4, -5	0, 0	2.3, 8	H3: -2.5, -8 H4: -0.7, -2.2	-1.9, -6	-1.2, -4
Juvenile Sac. R. Fall-Run Chinook Salmon Through-Delta Survival (% raw change in survival rate across all water year types, % relative survival rate across all water year types)	Existing Condition	-1.4, -6	-1.4, -6	-1.4, -6	-1.5, -6	-1.5, -6	-1.5, -6	-1.2, -5	H1: -1.4, -6 H2: ≈H4 H3: -1.4, -1 H4: -0.3, -1	-1.2, -4	-1.9, -7	-1.9, -7	-1.9, -7	-2, -8	-0.9, -4	2.3, 9	H3: -1.5, -6 H4: -0.1, -0.4	-4.3, -12	0, 2
	No Action	-0.3, -1	-0.3, -1	-0.3, -1	-0.3, -1	-0.3, -1	-0.3, -1	-0.1, <-1	H1: -0.3, -1 H2: ≈H4 H3: -0.2, -1 H4: 0.8, 3	0, 0	-0.8, -3	-0.8, -3	-0.8, -3	-0.8, -3	0.2, 1	3.4, 14	H3: -1.5, -6 H4: 0.1, -0.4	-2.8, -8	-0.3, 0
Upstream flow and temperature-related effects to winter-run Chinook salmon ^c	(vs. NAA)																		
	(vs. EC)																		
	CEQA/NEPA finding (spawning, rearing, migration)	S/A, S/A, S/A	S/A, S/A, S/A	S/A, S/A, S/A	S/A, LTS/NA, S/A	S/A, LTS/NA, S/A	S/A, LTS/NA, S/A	S/A, S/A, LTS/A	LTS/NA, LTS/NA, LTS/NA	LTS/NA, LTS/NA, LTS/NA	LTS/NA, LTS/NA, S/A	LTS/NA, LTS/NA, S/A	LTS/NA, LTS/NA, S/A	LTS/NA, LTS/NA, LTS/NA	LTS/NA, LTS/NA, S/A	LTS/NA, LTS/NA, LTS/NA	LTS/NA, LTS/NA, LTS/NA	S/A, LTS/NA, S/A	LTS/NA, LTS/NA, LTS/NA
Upstream flow and temperature-related effects to spring-run Chinook salmon	(vs. NAA)																		
	(vs. EC)																		
	CEQA/NEPA finding (spawning, rearing, migration)	S/A, LTS/NA, S/A	S/A, LTS/NA, S/A	S/A, LTS/NA, S/A	LTS/NA, LTS/NA, S/A	LTS/NA, LTS/NA, S/A	LTS/NA, LTS/NA, S/A	S/A, LTS/NA, LTS/NA	LTS/NA, LTS/NA, LTS/NA	LTS/NA, LTS/NA, LTS/NA	LTS/NA, LTS/NA, S/A	LTS/NA, LTS/NA, S/A	LTS/NA, LTS/NA, S/A	LTS/NA, LTS/NA, LTS/NA	LTS/NA, LTS/NA, S/A	LTS/NA, LTS/NA, LTS/NA	LTS/NA, LTS/NA, LTS/NA	LTS/NA, LTS/NA, S/A	LTS/NA, LTS/NA, LTS/NA

Notes ^c Upstream effects are based on the combination of all analyses of impacts to spawning, rearing, and migration. As such, this summary cannot conform to the format for in-Delta results and is, therefore, presented differently here.

Figure ES-10
Comparison of Impacts on Fish and Aquatic Resources (continued)

Chapter 11 – Fish and Aquatic Resources (continued)	Alternative																		
		1A	1B	1C	2A	2B	2C	3	4	5	6A	6B	6C	7	8	9	4A	2D	5A
Upstream flow and temperature-related effects to steelhead	(vs. NAA)																		
	(vs. EC)																		
	CEQA/NEPA finding (spawning, rearing, migration)	LTS/NA, LTS/NA, S/A	LTS/NA, LTS/NA, S/A	LTS/NA, LTS/NA, S/A	LTS/NA, S/A, S/A	LTS/NA, S/A, S/A	LTS/NA, S/A, S/A	LTS/NA, LTS/NA, S/A	LTS/NA, LTS/NA, LTS/NA	LTS/NA, S/A, LTS/NA	LTS/NA, LTS/NA, S/A	LTS/NA, LTS/NA, S/A	LTS/NA, LTS/NA, S/A	LTS/NA, LTS/NA, LTS/NA	LTS/NA, S/A, S/A	LTS/NA, LTS/NA, LTS/NA	LTS/NA, LTS/NA, LTS/NA	LTS/NA, LTS/NA, S/A	LTS/NA, LTS/NA, S/A
Upstream flow and temperature-related effects to green sturgeon	(vs. NAA)																		
	(vs. EC)																		
	CEQA/NEPA finding (spawning, rearing, migration)	LTS/NA, LTS/NA, S/A	LTS/NA, LTS/NA, S/A	LTS/NA, LTS/NA, S/A	LTS/NA, LTS/NA, LTS/NA	LTS/NA, LTS/NA, LTS/NA	LTS/NA, LTS/NA, LTS/NA	LTS/NA, LTS/NA, S/A	LTS/NA, LTS/NA, LTS/NA	LTS/NA, LTS/NA, LTS/NA	LTS/NA, LTS/NA, LTS/NA	LTS/NA, LTS/NA, LTS/NA	LTS/NA, LTS/NA, LTS/NA	LTS/NA, LTS/NA, LTS/NA	LTS/NA, LTS/NA, S/A	LTS/NA, LTS/NA, LTS/NA	LTS/NA, LTS/NA, LTS/NA	LTS/NA, LTS/NA, LTS/NA	LTS/NA, LTS/NA, LTS/NA

Key Level of significance or effect **before** mitigation (Quantity of impact: number of sites, structures, acres, etc. affected)



n/a not applicable
 > greater than
 < less than
 ≈ about equal to

Level of significance or effect **after** mitigation (CEQA Finding / NEPA Finding)

CEQA Finding	NEPA Finding
NI No Impact	B Beneficial
LTS Less than significant	NE No Effect
S Significant	NA Not Adverse
SU Significant and unavoidable	A Adverse

Figure ES-10
Comparison of Impacts on Fish and Aquatic Resources (continued)

Chapter 12 – Terrestrial Biological Resources		Alternative																			
		Existing Condition	No Action	1A	1B	1C	2A	2B	2C	3	4	5	6A	6B	6C	7	8	9	4A	2D	5A
Direct Effects of Alternatives on Natural Communities and Cultivated Lands in the Terrestrial Biological Resources Study Area	BIO-6: Tidal Freshwater Emergent Wetland (total acres)	n/a	n/a	21	28	10	20	33	10	18	20	18	21	28	10	20	20	194	1	1	1
		n/a	S/A (longterm)	B/B, LTS/NA	B/B, LTS/NA	B/B, LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA
	BIO-9: Valley/Foothill Riparian (total acres)	n/a	n/a	893	897	933	897	914	933	883	868	882	893	897	933	890	890	1,116	48	55	42
		n/a	S/A (longterm)	B/B, LTS/NA	B/B, LTS/NA	B/B, LTS/NA	B/B, LTS/NA	B/B, LTS/NA	B/B, LTS/NA	B/B, LTS/NA	B/B, LTS/NA	B/B, LTS/NA	B/B, LTS/NA	B/B, LTS/NA	B/B, LTS/NA	B/B, LTS/NA	B/B, LTS/NA	B/B, LTS/NA	B/B, LTS/NA	LTS/NA	LTS/NA
	BIO-15: Nontidal Freshwater Perennial Emergent Wetland (total acres)	n/a	n/a	127	136	130	127	137	130	127	131	127	127	136	130	127	127	150	3	3	3
		n/a	S/A (longterm)	B/B, LTS/NA	B/B, LTS/NA	B/B, LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA
	BIO-21: Vernal Pool Complex (total acres)	n/a	n/a	375	376	438	375	376	438	375	394	375	375	376	438	375	375	372	44	44	44
		n/a	S/A (longterm), NI/NE	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA
	BIO-176: Fill of Wetlands and Other Waters of the United States from Construction of Water Conveyance Facilities (total acres)	n/a	n/a	426	803	799	449	855	799	376	698	355	426	803	799	390	390	1,004	698	827	750
		n/a	S/A (longterm)	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA

Key

Level of significance or effect **before** mitigation (Quantity of impact: number of sites, structures, acres, etc. affected)

≤ 9	10-14	15-19	≥ 20
Increasing level of significance →			

n/a not applicable
> greater than
< less than
≈ about equal to

Level of significance or effect **after** mitigation (CEQA Finding / NEPA Finding)

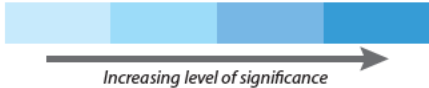
CEQA Finding NI No Impact LTS Less than significant S Significant SU Significant and unavoidable	NEPA Finding B Beneficial NE No Effect NA Not Adverse A Adverse
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Figure ES-11
Comparison of Impacts on Terrestrial Biological Resources

Chapter 13 – Land Use	Alternative																			
	Existing Condition	No Action	1A	1B	1C	2A	2B	2C	3	4	5	6A	6B	6C	7	8	9	4A	2D	5A
LU-1: Incompatibility with Applicable Land Use Designations, Goals, and Policies as a Result of Constructing the Proposed Water Conveyance Facility (Total acres)	n/a	n/a	7,160	21,992	17,362	7,695	22,552	17,362	6,557	7,957	6,352	7,160	21,992	17,362	< 1A	< 1A	4,884	7,957	8,064	7,303
	n/a	n/a	NI/NE	NI/NE	NI/NE	NI/NE	NI/NE	NI/NE	NI/NE	NI/NE	NI/NE	NI/NE	NI/NE	NI/NE	NI/NE	NI/NE	NI/NE	NI/NE	NI/NE	NI/NE
LU-2: Conflicts with existing land uses as a result of constructing the proposed water conveyance facility (CM1) (Estimated total conflicts with existing structures)	n/a	n/a	207	412	726	225	434	726	147	76	126	207	409	726	146	146	255	76	114	61
	n/a	n/a	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A

Key

Level of significance or effect **before** mitigation
(Quantity of impact: number of sites, structures, acres, etc. affected)



Increasing level of significance

n/a not applicable
> greater than
< less than
≈ about equal to

Level of significance or effect **after** mitigation
(CEQA Finding / NEPA Finding)

<p>CEQA Finding</p> <p>NI No Impact</p> <p>LTS Less than significant</p> <p>S Significant</p> <p>SU Significant and unavoidable</p>		<p>NEPA Finding</p> <p>B Beneficial</p> <p>NE No Effect</p> <p>NA Not Adverse</p> <p>A Adverse</p>
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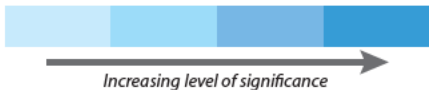
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Figure ES-12
Comparison of Impacts on Land Use

Chapter 14 – Agricultural Resources		Alternative																			
		Existing Condition	No Action	1A	1B	1C	2A	2B	2C	3	4	5	6A	6B	6C	7	8	9	4A	2D	5A
AG-1: Temporary conversion, short-term conversion, and permanent conversion of Important Farmland or of farmland under Williamson Act contracts or in Farmland Security Zones as a result of constructing the proposed water conveyance facility.	Temporary and Short-term Conversion of Important Farmland (Acres)	n/a	40	1,329	2,144	3,170	1,826	2,669	3,170	953	1,495	833	1,329	2,144	3,170	1,105	1,105	559	1,495	981	902
		n/a	S/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A
	Permanent Conversion of Important Farmland (Acres)	n/a	65	4,984	18,875	13,014	4,992	18,868	13,019	4,838	3,909	4,770	4,984	18,875	13,014	4,883	4,883	2,459	3,909	4,040	3,452
		n/a	S/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A
	Temporary and Short-term Conversion of Williamson Act and Farmland Security Zone (Acres)	n/a	415	787	1,326	1,243	1,272	1,877	1,243	722	1,132	632	787	1,326	1,243	744	744	790	1,132	657	617
		n/a	S/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A
	Permanent Conversion of Williamson Act and Farmland Security Zone (Acres)	n/a	30	2,857	14,080	7,647	2,910	14,125	7,646	2,813	2,035	2,753	2,857	14,080	7,647	2,847	2,847	2,347	2,035	1,994	1,836
		n/a	S/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A

Key

Level of significance or effect **before** mitigation
(Quantity of impact: number of sites, structures, acres, etc. affected)



n/a not applicable
> greater than
< less than
≈ about equal to

Level of significance or effect **after** mitigation
(CEQA Finding / NEPA Finding)

CEQA Finding NI No Impact LTS Less than significant S Significant SU Significant and unavoidable		NEPA Finding B Beneficial NE No Effect NA Not Adverse A Adverse
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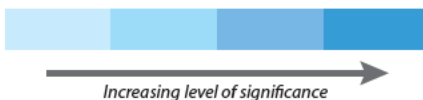
00139_14 EIR-EIS Ex. Summ. 1-20-2016 (mm)

Figure ES-13
Comparison of Impacts on Agricultural Resources

Chapter 15 – Recreation	Alternative																			
	Existing Condition	No Action	1A	1B	1C	2A	2B	2C	3	4	5	6A	6B	6C	7	8	9	4A	2D	5A
REC-1: Permanent displacement of existing well-established public use or private commercial recreation facility available for public access as a result of the location of the proposed water conveyance facilities (Number of sites)	n/a	n/a	0	3	0	0	0	0	0	2	0	0	3	0	0	0	6	2	2	2
	n/a	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	SU/A	LTS/NA	LTS/NA
REC-2: Result in long-term reduction of recreation opportunities and experiences as a result of constructing the proposed water conveyance facilities (Number of sites)	n/a	--	7	18	11	7	18	11	5	8	7	7	18	11	8	8	3	8	8	8
	n/a	LTS/NA	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A

Key

Level of significance or effect **before** mitigation
(Quantity of impact: number of sites, structures, acres, etc. affected)



Increasing level of significance

n/a not applicable
> greater than
< less than
≈ about equal to

Level of significance or effect **after** mitigation
(CEQA Finding / NEPA Finding)

<p>CEQA Finding</p> <p>NI No Impact</p> <p>LTS Less than significant</p> <p>S Significant</p> <p>SU Significant and unavoidable</p>	<p>NEPA Finding</p> <p>B Beneficial</p> <p>NE No Effect</p> <p>NA Not Adverse</p> <p>A Adverse</p>
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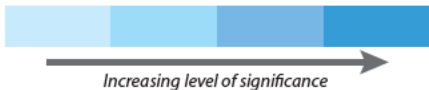
00139_14 EIR-EIS Ex. Summ. 1-29-2016 (tm)

Figure ES-14
Comparison of Impacts on Recreation

Chapter 16 – Socioeconomics		Alternative																			
		Existing Condition	No Action	1A	1B	1C	2A	2B	2C	3	4	5	6A	6B	6C	7	8	9	4A	2D	5A
ECON-1: Temporary effects on regional economics and employment in the Delta region during construction of the proposed water conveyance facilities.	Total FTE jobs during construction (peak year)	n/a	n/a	12,716	12,985	11,698	≈Alt1A	≈Alt1B	≈Alt1C	10,297	8,673	5,073	≈Alt1A	≈Alt1B	≈Alt1C	11,018	11,018	6,371	8,673	9,818	7,528
	Total FTE jobs - Agriculture (over 14-year construction period)	n/a	n/a	-100	-340	-240	-100	-340	-240	-88	-47	-83	-100	-340	-240	-94	-94	-38	-47	-44	-37
		n/a	n/a	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA
ECON-6: Effects on agricultural economics in the Delta region during construction of the proposed water conveyance facilities.	Total Crop Acreage Change from EC and NAA during Construction (thousand acres)	n/a	n/a	-5.6	-19.6	-14.3	-5.6	-19.6	-14.3	-5.1	-4.7	-5	-5.6	-19.6	-14.3	-5.3	-5.3	-2.6	-4.7	-4.9	-4.3
		n/a	n/a	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA
ECON-7: Permanent regional economic and employment effects in the Delta region during operation and maintenance of the proposed water conveyance facilities.	Total FTE jobs during Operations and Maintenance	n/a	n/a	269	294	269	269	294	269	269	183	269	269	294	269	269	269	177	183	183	183
	Total FTE jobs - Agriculture during Operations and Maintenance	n/a	n/a	-86	321	-216	-86	-321	-216	-86	-39	-86	-86	-321	-216	-86	-86	-36	-39	-39	-39
		n/a	n/a	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA
ECON-12: Permanent effects on agricultural economics in the Delta region during operation and maintenance of the proposed water conveyance facilities.	Total Crop Acreage Change from EC and NAA during Operation (thousand acres)	n/a	n/a	-4.4	-17.7	-11.7	-4.4	-17.7	-11.7	-4.3	-3.4	-4.3	-4.4	-17.7	-11.7	-4.4	-4.4	-2.3	-3.4	-3.4	-3.4
		n/a	n/a	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA

Key

Level of significance or effect **before** mitigation (Quantity of impact: number of sites, structures, acres, etc. affected)



n/a not applicable
> greater than
< less than
≈ about equal to

Level of significance or effect **after** mitigation (CEQA Finding / NEPA Finding)

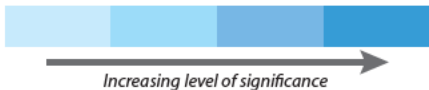
<p>CEQA Finding</p> <p>NI No Impact</p> <p>LTS Less than significant</p> <p>S Significant</p> <p>SU Significant and unavoidable</p>		<p>NEPA Finding</p> <p>B Beneficial</p> <p>NE No Effect</p> <p>NA Not Adverse</p> <p>A Adverse</p>
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Figure ES-15
Comparison of Impacts on Socioeconomics

Chapter 17 – Aesthetics and Visual Resources		Alternative																			
		Existing Condition	No Action	1A	1B	1C	2A	2B	2C	3	4	5	6A	6B	6C	7	8	9	4A	2D	5A
AES-2, 3, and 4: Permanent impacts after construction is complete.	Overall number of Very Noticeable effect on viewers	n/a	n/a	16	14	13	16	14	13	16	10	16	16	14	13	16	16	6	10	13	6
	Overall number of Noticeable effect on viewers	n/a	n/a	1	1	1	1	1	1	1	0	1	1	1	1	1	1	7	0	0	0
	Overall number of Moderately Noticeable effect on viewers	n/a	n/a	3	1	0	3	1	0	3	2	3	3	1	0	3	3	0	2	2	2
	Overall number of Minimally Noticeable effect on viewers	n/a	n/a	0	0	1	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0
		n/a	LTS/NA	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A
AES-5: Substantial alteration in existing visual quality or character during operation.		n/a	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA

Key

Level of significance or effect **before** mitigation
(Quantity of impact: number of sites, structures, acres, etc. affected)



n/a not applicable
> greater than
< less than
≈ about equal to

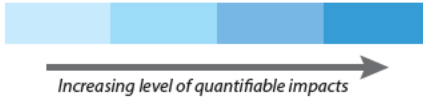
Level of significance or effect **after** mitigation
(CEQA Finding / NEPA Finding)

<p>CEQA Finding</p> <p>NI No Impact</p> <p>LTS Less than significant</p> <p>S Significant</p> <p>SU Significant and unavoidable</p>	<p>NEPA Finding</p> <p>B Beneficial</p> <p>NE No Effect</p> <p>NA Not Adverse</p> <p>A Adverse</p>
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Figure ES-16
Comparison of Impacts on Aesthetics and Visual Resources

Chapter 18 – Cultural Resources		Alternative																			
		Existing Condition	No Action	1A	1B	1C	2A	2B	2C	3	4	5	6A	6B	6C	7	8	9	4A	2D	5A
CUL-1: Effects on Known Archaeological Sites	Number of sites affected	0	--	7	17	12	6	16	12	6	10	5	7	17	12	6	6	4	10	10	7
	Total acreage of each alternative with high potential for buried archaeological sites (acres)	0	--	9,176	22,163	18,482	9,947	23,007	18,487	8,483	10,865	8,274	9,176	22,163	18,482	8,699	8,699	4,875	10,865	10,010	8,829
		n/a	A	S/A	S/A	S/A	S/A	S/A	S/A	S/A	S/A	S/A	S/A	S/A	S/A	S/A	S/A	S/A	S/A	S/A	S/A
CUL-5: Effects on Historic Structures (Number of structures affected)		0	--	24	24	22	24	24	22	20	10	17	24	24	24	19	19	13	10	10	10
		n/a	A	S/A	S/A	S/A	S/A	S/A	S/A	S/A	S/A	S/A	S/A	S/A	S/A	S/A	S/A	S/A	S/A	S/A	S/A

Key

Quantifiable impact (number of sites, structures, acres, etc. affected)  n/a not applicable
> greater than
< less than
≈ about equal to

Level of significance or effect **after** mitigation (CEQA Finding / NEPA Finding)

CEQA Finding	NEPA Finding
NI No Impact	B Beneficial
LTS Less than significant	NE No Effect
S Significant	NA Not Adverse
SU Significant and unavoidable	A Adverse

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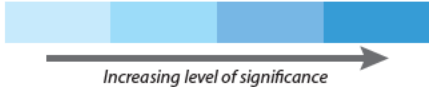
Figure ES-17
Comparison of Impacts on Cultural Resources

Chapter 19 – Transportation		Alternative																			
		Existing Condition	No Action	1A	1B	1C	2A	2B	2C	3	4	5	6A	6B	6C	7	8	9	4A	2D	5A
TRANS-1: Increased construction vehicle trips resulting in unacceptable LOS conditions (Number of roadway segments with unacceptable LOS conditions)	n/a	n/a	47	48	56	47	48	56	47	38	47	47	48	56	47	47	56	38	45	33	
	n/a	n/a	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	
TRANS-2: Increased construction vehicle trips exacerbating unacceptable pavement conditions (Number of segments that could experience substantial pavement condition effects)	n/a	n/a	46	48	43	46	48	43	46	46	46	46	48	43	46	46	42	46	41	42	
	n/a	n/a	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	
TRANS-4: Disruption of marine traffic during construction	Number of barge unloading facilities	n/a	n/a	6	1	2	6	1	2	6	7	6	6	1	2	6	6	7	7	7	
	Number of barge trips	n/a ^a	n/a	n/a ^a	n/a ^a	n/a ^a	n/a ^a	n/a ^a	n/a ^a	n/a ^a	11,800	n/a ^a	n/a ^a	n/a ^a	n/a ^a	n/a ^a	n/a ^a	n/a ^a	11,800	11,800	11,800
		n/a	n/a	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA
TRANS-10: Increased traffic volumes during implementation of CM2-CM22 (Number of roadways estimated to be affected)	n/a	n/a	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	<15	<15	<15
	n/a	n/a	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A

^a Tugboats and barges would be used during construction of the Clifton Court forebay, intakes, tunnel reaches 6 and 7, and the combined pumping plant, as applicable.

Key

Level of significance or effect **before** mitigation (Quantity of impact: number of sites, structures, acres, etc. affected)



n/a not applicable
> greater than
< less than
≈ about equal to

Level of significance or effect **after** mitigation (CEQA Finding / NEPA Finding)

CEQA Finding	NEPA Finding
NI No Impact	B Beneficial
LTS Less than significant	NE No Effect
S Significant	NA Not Adverse
SU Significant and unavoidable	A Adverse

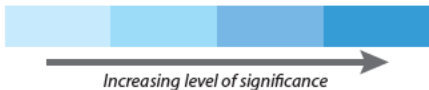
00139_14 EIR-EIS Ex. Summ. 4-6-2016 (trm)

Figure ES-18
Comparison of Impacts on Transportation

Chapter 20 – Public Services and Utilities		Alternative																			
		Existing Condition	No Action	1A	1B	1C	2A	2B	2C	3	4	5	6A	6B	6C	7	8	9	4A	2D	5A
UT-6: Effects on regional or local utilities as a result of constructing the proposed water conveyance facilities.	Number of transmission lines, pipelines, aqueducts, or wells interfered	n/a	0	29	28	33	29	28	34	29	30	29	29	28	33	29	29	6	30	30	30
	Miles of agricultural canals affected	n/a	0	38	136	124	41	138	124	38	43	37	38	136	124	38	38	27	43	43	43
		n/a	LTS/NA	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A

Key

Level of significance or effect **before** mitigation
(Quantity of impact: number of sites, structures, acres, etc. affected)



n/a not applicable
> greater than
< less than
≈ about equal to

Level of significance or effect **after** mitigation
(CEQA Finding / NEPA Finding)

CEQA Finding	NEPA Finding
NI No Impact	B Beneficial
LTS Less than significant	NE No Effect
S Significant	NA Not Adverse
SU Significant and unavoidable	A Adverse

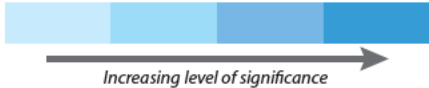
00139_14 EIR-EIS Ex. Summ. 1-20-2016 (mm)

Figure ES-19
Comparison of Impacts on Public Services and Utilities

Chapter 21 – Energy	Alternative																				
	Existing Condition	No Action ELT	No Action LLT	1A	1B	1C	2A	2B	2C	3	4	5	6A	6B	6C	7	8	9	4A	2D	5A
ENG-1: Total electric energy use for construction (GWh)	n/a	0	0	1,428	407	791	1,428	407	791	1,321	H1: 2,132 H2: 2,132 H3: 2,132 H4: 2,132	730	1,428	407	791	1,357	1,357	186	2,132	2,148	2,116
	n/a		LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA
ENG-2: Total electric energy use for Conveyance (GWh/yr)	n/a	0	0	291	176	297	328	190	322	122	H1: 62 H2: 54 H3: 61 H4: 54	78	421	244	413	193	185	18	61	107	26
	n/a		LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA

Key

Level of significance or effect **before** mitigation
(Quantity of impact: number of sites, structures, acres, etc. affected)



Increasing level of significance

n/a not applicable
> greater than
< less than
≈ about equal to

Level of significance or effect **after** mitigation
(CEQA Finding / NEPA Finding)

<p>CEQA Finding</p> <p>NI No Impact</p> <p>LTS Less than significant</p> <p>S Significant</p> <p>SU Significant and unavoidable</p>		<p>NEPA Finding</p> <p>B Beneficial</p> <p>NE No Effect</p> <p>NA Not Adverse</p> <p>A Adverse</p>
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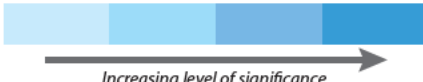
00139_14 EIR-EIS Ex. Summ. 1-20-2016 (tm)

Figure ES-20
Comparison of Impacts on Energy

Chapter 22 – Air Quality	Alternative																			
	Existing Condition	No Action	1A	1B	1C	2A	2B	2C	3	4	5	6A	6B	6C	7	8	9	4A	2D	5A
AQ-1: Generation of criteria pollutants in excess of the SMAQMD regional thresholds during construction of the proposed water conveyance facility (Max Daily NOx emissions from any year, lb/day)	n/a	n/a	4,992	3,652	684	4,992	3,652	684	2,920	1,273	2,231	4,992	3,652	684	3,529	3,529	4,980	1,273	3,573	1,230
	n/a	S/A	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA
AQ-2: Generation of criteria pollutants in excess of the YSAQMD regional thresholds during construction of the proposed water conveyance facility (Max Daily NOx emissions from any year, lb/day)	n/a	n/a	454	447	3,620	454	447	3,620	225	174	142	454	447	3,620	292	292	n/a	174	224	124
	n/a	S/A	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA
AQ-3: Generation of criteria pollutants in excess of the BAAQMD regional thresholds during construction of the proposed water conveyance facility (Max Daily NOx emissions from any year, lb/day)	n/a	n/a	1,174	932	3,619	1,174	932	3,619	960	1,700	909	1,174	932	3,619	927	927	1,424	1,700	1,728	1,671
	n/a	S/A	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA
AQ-4: Generation of criteria pollutants in excess of the SJVAPCD regional thresholds during construction of the proposed water conveyance facility (Max Yearly NOx emissions from any year, tons/year) *	n/a	n/a	217	327	n/a	217	217	217	171	112	168	217	217	n/a	190	190	69	112	112	112
	n/a	S/A	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA
AQ-9: Exposure of Sensitive Receptors to Health Hazards from Localized Particulate Matter in Excess of SMAQMD's HealthBased Concentration Thresholds (PM10 Annual/24-hr; PM2.5 Annual/24-hr)	n/a	n/a	0.5/11 0.09/1.7	0.5/21.1 0.1/3.5	0.13/6.7 0.02/1.13	0.5/11 0.09/1.7	0.5/21.1 0.1/3.5	0.13/6.7 0.02/1.13	<0.5/11 <0.09/1.7	0.4/3.2 0.06/0.52	<0.5/11 <0.09/1.7	0.5/11 0.09/1.7	0.5/21.1 0.1/3.5	0.13/6.7 0.02/1.13	<0.5/11 <0.09/1.7	<0.5/11 <0.09/1.7	2.9/131 0.45/21	0.4/3.2 0.06/0.52	<0.5/11 <0.09/1.7	<0.4/3.2 <0.06/0.52
	n/a	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA

* SJVAPCD is listed in tons/year rather than lbs/day because SJVAPCD requires analyses based on a yearly duration, while the other air districts require a daily duration.

Key Level of significance or effect **before** mitigation (Quantity of impact: number of sites, structures, acres, etc. affected)



Level of significance or effect **after** mitigation (CEQA Finding / NEPA Finding)

CEQA Finding	NEPA Finding
NI No Impact	B Beneficial
LTS Less than significant	NE No Effect
S Significant	NA Not Adverse
SU Significant and unavoidable	A Adverse

n/a not applicable
> greater than
< less than
≈ about equal to

Continued on Figure 21-b
See Figure 21-c for Key

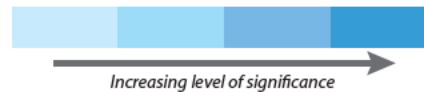
00139_14 EIR-EIS Ex. Summ. 1-27-2016 (r.m)

Figure ES-21a
Comparison of Impacts on Air Quality

Chapter 22 – Air Quality (continued)	Alternative																			
	Existing Condition	No Action	1A	1B	1C	2A	2B	2C	3	4	5	6A	6B	6C	7	8	9	4A	2D	5A
AQ-10: Exposure of Sensitive Receptors to Health Hazards from Localized Particulate Matter in Excess of YSAQMD's HealthBased Concentration Thresholds (PM10 Annual/24-hr; PM2.5 Annual/24-hr)	n/a	n/a	0.3/7 0.04/1	0.2/6.6 0.03/1.1	0.55/8.7 0.08/1.4	0.3/7 0.04/1	0.2/6.6 0.03/1.1	0.55/8.7 0.08/1.4	<0.3/7 <0.04/1	0.6/2.5 0.01/0.4	<0.3/7 <0.04/1	0.3/7 0.04/1	0.2/6.6 0.03/1.1	0.55/8.7 0.08/1.4	<0.3/7 <0.04/1	<0.3/7 <0.04/1	n/a	0.6/2.5 0.01/0.4	<0.3/7 <0.04/1	<0.6/2.5 <0.01/0.4
	n/a	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA
AQ-11: Exposure of Sensitive Receptors to Health Hazards from Localized Particulate Matter in Excess of BAAQMD's HealthBased Concentration Thresholds (PM10 Annual/24-hr; PM2.5 Annual/24-hr)	n/a	n/a	0.33/31 0.07/6	0.2/53 0.04/9	1.1/108 0.2/19	0.33/31 0.07/6	0.2/53 0.04/9	1.1/108 0.2/19	<0.33/31 <0.07/6	0.21/37 0.04/6	<0.33/31 <0.07/6	0.33/31 0.07/6	0.2/53 0.04/9	1.1/108 0.2/19	<0.33/31 <0.07/6	<0.33/31 <0.07/6	0.2/18 0.05/4	0.21/37 0.04/6	0.21/37 0.04/6	0.21/37 0.04/6
	n/a	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA
AQ-12: Exposure of Sensitive Receptors to Health Hazards from Localized Particulate Matter in Excess of SJVAPCD's HealthBased Concentration Thresholds (PM10 Annual/24-hr; PM2.5 Annual/24-hr)	n/a	n/a	0.1/37.1 0.07/6.1	0.7/88 0.1/13	n/a	0.1/37.1 0.07/6.1	0.7/88 0.1/13	n/a	<0.1/37.1 <0.07/6.1	0.09/6.9 0.02/1.1	<0.1/37.1 <0.07/6.1	0.1/37.1 0.07/6.1	0.7/88 0.1/13	n/a	<0.1/37.1 <0.07/6.1	<0.1/37.1 <0.07/6.1	0.11/25.8 0.02/18.3	0.09/6.9 0.02/1.1	0.09/6.9 0.02/1.1	0.09/6.9 0.02/1.1
	n/a	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA
AQ-14: Exposure of Sensitive Receptors to Health Hazards from Diesel Particulate Matter in Excess of SMAQMD's Chronic Non Cancer and Cancer Risk Thresholds (Chronic Health Hazard/Cancer Health Risk Max Values)	n/a	n/a	0.003/9	0.003/9	0.001/3	0.003/9	0.003/9	0.001/3	<0.003/9	0.001/5	<0.003/9	0.003/9	0.003/9	0.001/3	<0.003/9	<0.003/9	0.019/57	0.001/5	0.001/5	<0.001/5
	n/a	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA

Key

Level of significance or effect **before** mitigation
(Quantity of impact: number of sites, structures, acres, etc. affected)



n/a not applicable
> greater than
< less than
≈ about equal to

Level of significance or effect **after** mitigation
(CEQA Finding / NEPA Finding)

CEQA Finding
NI No Impact
LTS Less than significant
S Significant
SU Significant and unavoidable

NEPA Finding
B Beneficial
NE No Effect
NA Not Adverse
A Adverse

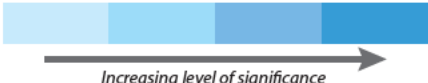
Continued on Figure 21-c
See Figure 21-c for Key

Figure ES-21b
Comparison of Impacts on Air Quality (continued)

Chapter 22 – Air Quality (continued)	Alternative																			
	Existing Condition	No Action	1A	1B	1C	2A	2B	2C	3	4	5	6A	6B	6C	7	8	9	4A	2D	5A
AQ-15: Exposure of Sensitive Receptors to Health Hazards from Diesel Particulate Matter in Excess of YSAQMD's Chronic NonCancer and Cancer Risk Thresholds (Chronic Health Hazard/Cancer Health Risk Max Values)	n/a	n/a	0.002/5	0.0014/4	0.003/9	0.002/5	0.0014/4	0.003/9	<0.002/5	0.0003/1	<0.002/5	0.002/5	0.0014/4	0.003/9	<0.002/5	<0.002/5	n/a	0.0003/1	0.0003/1	<0.0003/1
	n/a	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA
AQ-16: Exposure of Sensitive Receptors to Health Hazards from Diesel Particulate Matter in Excess of BAAQMD's Chronic NonCancer and Cancer Risk Thresholds (Chronic Health Hazard/Cancer Health Risk Max Values)	n/a	n/a	0.004/13	0.0017/5	0.006/18	0.004/13	0.0017/5	0.006/18	<0.004/13	0.001/5	<0.004/13	0.004/13	0.0017/5	0.006/18	<0.004/13	<0.004/13	0.019/57	0.001/5	0.001/5	0.001/5
	n/a	LTS/NA	SU/A	LTS/NA	SU/A	SU/A	LTS/NA	SU/A	SU/A	LTS/NA	SU/A	SU/A	LTS/NA	SU/A	SU/A	SU/A	LTS/NA	LTS/NA	SU/A	SU/A
AQ-17: Exposure of Sensitive Receptors to Health Hazards from Diesel Particulate Matter in Excess of SJVAPCD's Chronic NonCancer and Cancer Risk Thresholds (Chronic Health Hazard/Cancer Health Risk Max Values)	n/a	n/a	0.001/3	0.004/15	0.006/18	0.001/3	0.004/15	n/a	<0.001/3	0.0008/3	<0.001/3	0.004/15	0.006/18	n/a	<0.001/3	<0.001/3	0.003/11	0.0008/3	0.0008/3	0.0008/3
	n/a	LTS/NA	LTS/NA	SU/A	LTS/NA	LTS/NA	SU/A	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	SU/A	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA

Key

Level of significance or effect **before** mitigation (Quantity of impact: number of sites, structures, acres, etc. affected)



Increasing level of significance

n/a not applicable
> greater than
< less than
≈ about equal to

Level of significance or effect **after** mitigation (CEQA Finding / NEPA Finding)

<p>CEQA Finding</p> <p>NI No Impact</p> <p>LTS Less than significant</p> <p>S Significant</p> <p>SU Significant and unavoidable</p>	/	<p>NEPA Finding</p> <p>B Beneficial</p> <p>NE No Effect</p> <p>NA Not Adverse</p> <p>A Adverse</p>
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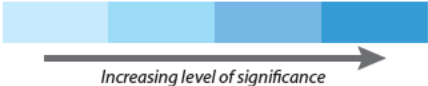
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Figure ES-21c
Comparison of Impacts on Air Quality (continued)

Chapter 23 – Noise		Alternative																			
		Existing Condition	No Action	1A	1B	1C	2A	2B	2C	3	4	5	6A	6B	6C	7	8	9	4A	2D	5A
NOI-1: Exposure of Noise-Sensitive Land Uses to Noise from Construction of Conveyance Facilities (County: Number of residential parcels affected daytime/nighttime)	Intakes:	n/a	n/a	S:121/121 Y: 4/98	S:120/120 Y: 4/98	S: 48/122 Y: 15/107	S: 3/112 Y: 4/98	S: 3/112 Y: 4/98	S: 48/122 Y: 15/107	Y: 4/98	S: 87/106 Y: 27/71	0	S:121/121 Y: 4/98	S:120/120 Y: 4/98	S: 48/122 Y: 15/107	S:3/112 Y: 4/98	S:3/112 Y: 4/98	S:197/234 SJ: 15/18	S:87/106 Y: 27/71	S:121/121 Y: 27/71	S:121/121 Y: 27/71
	Conveyance Facilities:	n/a	n/a	S:121/121 Y: 4/98	S: 99/99 Y: 21/125 SJ: 9/26	S: 27/107 Y: 23/129 CC: 1,098 /2,851	S: 105/121 Y: 0/89 SJ: 9/18	S: 100/100 Y: 21/125 SJ: 9/26	S: 27/107 Y: 23/129 CC: 1,098 /2,851	S: 116/119 Y: 0/89 SJ: 9/18	S: 118/120 Y: 10/105 SJ: 8/18	S: 116/119 Y: 0/89 SJ: 9/18	S: 116/119 Y: 0/89 SJ: 9/18	S: 99/99 Y: 21/125 SJ: 9/26	S: 27/107 Y: 23/129 CC: 1,098 /2,851	S:116/119 Y: 0/89 SJ: 9/18	S:116/119 Y: 0/89 SJ: 9/18	S:197/234 SJ: 15/18	S:118/120 Y: 10/105 SJ: 8/18	S:119/120 Y: 11/95 SJ: 8/18	S:119/121 Y: 11/95 SJ: 8/18
		n/a	LTS/NA	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A
NOI-2: Land Use Affected by Vibrations from Pile Driving During Construction of Intakes (County: Number of residential parcels affected)		n/a	n/a	S: 88 Y: 1 SJ: 13	S: 80 Y: 1 SJ: 4	S: 1 Y: 85 So: 2	S: 79 Y: 1 SJ: 13	S: 76 Y: 1 SJ: 4	S: 1 Y: 85 SJ: 2	S: 41 Y: 1 SJ: 13	S: 62 SJ: 7 CC: 1	S: 28 Y: 1 SJ: 13	S: 88 Y: 1 SJ: 13	S: 80 Y: 1 SJ: 4	S: 1 Y: 85 So: 2	S: 40 SJ: 13	S: 88 Y: 1 SJ: 13	0	S: 62 SJ: 7 CC: 1	S: 75 SJ: 3 CC: 1	S: 24 SJ: 7 CC: 1
		n/a	LTS/NA	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	LTS/NA	SU/A	SU/A
NOI-3: Land Use Affected by Noise from Operation of Pumping Plants (County, Number of residential parcels affected daytime/nighttime)		n/a	n/a	S:108/121	S:108/121	S:2/71 Y: 0/6	0	0	S: 2/71 Y: 0/6	0	0	0	S:108/121	S:108/121	S: 2/71 Y: 0/6	0	0	0	0	0	0
		n/a	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA

Key

Level of significance or effect **before** mitigation (Quantity of impact: number of sites, structures, acres, etc. affected)



Increasing level of significance

n/a not applicable
> greater than
< less than
≈ about equal to

CC Contra Costa County
S Sacramento County
SJ San Joaquin County
So Solano County
Y Yolo County

Level of significance or effect **after** mitigation (CEQA Finding / NEPA Finding)

<p>CEQA Finding</p> <p>NI No Impact</p> <p>LTS Less than significant</p> <p>S Significant</p> <p>SU Significant and unavoidable</p>	<p>NEPA Finding</p> <p>B Beneficial</p> <p>NE No Effect</p> <p>NA Not Adverse</p> <p>A Adverse</p>
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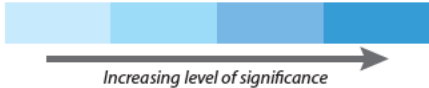
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Figure ES-22
Comparison of Noise Impacts

Chapter 24 – Hazards and Hazardous Materials	Alternative																			
	Existing Condition	No Action	1A	1B	1C	2A	2B	2C	3	4	5	6A	6B	6C	7	8	9	4A	2D	5A
HAZ-3: Potential to conflict with a known hazardous materials site and, as a result, create a significant hazard to the public or environment (Number of sites of concern within 0.5 miles of conveyance alignment)	n/a	n/a	4	9	9	4	9	9	4	3	4	4	9	9	4	4	4	3	3	3
	n/a	LTS/NA	NI/NE	LTS/NA	LTS/NA	NI/NE	LTS/NA	LTS/NA	NI/NE	NI/NE	NI/NE	NI/NE	LTS/NA	LTS/NA	NI/NE	NI/NE	LTS/NA	NI/NE	NI/NE	NI/NE

Key

Level of significance or effect **before** mitigation
(Quantity of impact: number of sites, structures, acres, etc. affected)



Increasing level of significance

n/a not applicable
> greater than
< less than
≈ about equal to

Level of significance or effect **after** mitigation
(CEQA Finding / NEPA Finding)

CEQA Finding	NEPA Finding
NI No Impact	B Beneficial
LTS Less than significant	NE No Effect
S Significant	NA Not Adverse
SU Significant and unavoidable	A Adverse

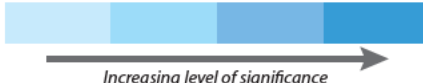
00139_14 EIR-EIS Ex. Summ 1-20-2016 (tm)

Figure ES-23
Comparison of Impacts on Hazards and Hazardous Materials

Chapter 25 – Public Health	Alternative																			
	Existing Condition	No Action	1A	1B	1C	2A	2B	2C	3	4	5	6A	6B	6C	7	8	9	4A	2D	5A
PH-1: Increase in surface water in Plan Area that could result in increase in vector-borne diseases as a result of construction and operation of the water conveyance facilities (Number of lagoons/basins/forebays/inundation areas)	n/a	0	28	26	26	23	21	26	11	24	7	23	26	26	15	18	0	24	26	22
	n/a	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA
PH-5: Increase in surface water in Plan Area that could result in increase in vector-borne diseases as a result of implementing CM2-CM7, CM10 and CM11 (Acres of restoration)	n/a	0	83,839	83,839	83,839	83,839	83,839	83,839	83,839	83,839	43,839	83,839	83,839	83,839	93,839	83,839	83,839	15836	18,097	15,516
	n/a	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA

Key

Level of significance or effect **before** mitigation (Quantity of impact: number of sites, structures, acres, etc. affected)



Increasing level of significance

n/a not applicable
> greater than
< less than
≈ about equal to

Level of significance or effect **after** mitigation (CEQA Finding / NEPA Finding)

<p>CEQA Finding</p> <p>NI No Impact</p> <p>LTS Less than significant</p> <p>S Significant</p> <p>SU Significant and unavoidable</p>		<p>NEPA Finding</p> <p>B Beneficial</p> <p>NE No Effect</p> <p>NA Not Adverse</p> <p>A Adverse</p>
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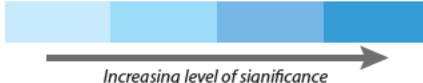
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Figure ES-24
Comparison of Impacts on Public Health

Chapter 26 – Mineral Resources	Alternative																			
	Existing Condition	No Action	1A	1B	1C	2A	2B	2C	3	4	5	6A	6B	6C	7	8	9	4A	2D	5A
MIN-2: Loss of availability of extraction potential from natural gas fields as a result of constructing the water conveyance facilities (Number of acres of non-abandoned natural gas field affected)	n/a	0	296	924	880	296	924	880	296	352	296	296	924	880	296	296	32	352	352	352
	n/a	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA	LTS/NA

Key

Level of significance or effect **before** mitigation
(Quantity of impact: number of sites, structures, acres, etc. affected)



Increasing level of significance

n/a not applicable
> greater than
< less than
≈ about equal to

Level of significance or effect **after** mitigation
(CEQA Finding / NEPA Finding)

CEQA Finding	NEPA Finding
NI No Impact	B Beneficial
LTS Less than significant	NE No Effect
S Significant	NA Not Adverse
SU Significant and unavoidable	A Adverse

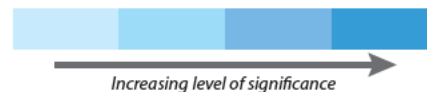
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**Figure ES-25
Comparison of Impacts on Minerals**

Chapter 27 – Paleontological Resources	Alternative																			
	Existing Condition	No Action	1A	1B	1C	2A	2B	2C	3	4	5	6A	6B	6C	7	8	9	4A	2D	5A
PALEO-1: Amount of excavation that could potentially result in the destruction of unique or significant paleontological resources as a result of construction of water conveyance facilities (thousand cubic yards of material excavated for borrow, tunnels, and canals)	n/a	n/a	28,197	238,902	228,660	28,197	238,902	228,660	<28,197	56,000	<28,197	28,197	238,902	228,660	56,000	56,000	4,608	56,000	>56,000	<56,000
	n/a	S/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	SU/A	LTS/NA	SU/A	SU/A	SU/A

Key

Level of significance or effect **before** mitigation
(Quantity of impact: number of sites, structures, acres, etc. affected)



n/a not applicable
> greater than
< less than
≈ about equal to

Level of significance or effect **after** mitigation
(CEQA Finding / NEPA Finding)

CEQA Finding

- NI No Impact
- LTS Less than significant
- S Significant
- SU Significant and unavoidable

NEPA Finding

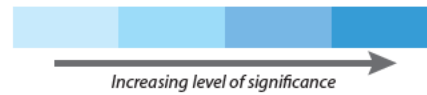
- B Beneficial
- NE No Effect
- NA Not Adverse
- A Adverse

Figure ES-26
Comparison of Impacts on Paleontological Resources

Chapter 28 – Environmental Justice	Alternative																			
	Existing Condition	No Action	1A	1B	1C	2A	2B	2C	3	4	5	6A	6B	6C	7	8	9	4A	2D	5A
Number of impacts that could potentially result in adverse EJ effects	0	2	20	20	19	20	21	19	18	22	18	19	22	20	22	21	19	18	20	19
	n/a	n/a	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A

Key

Level of significance or effect **before** mitigation
(Quantity of impact: number of sites, structures, acres, etc. affected)



n/a not applicable
> greater than
< less than
≈ about equal to

Level of significance or effect **after** mitigation
(CEQA Finding / NEPA Finding)

CEQA Finding
 NI No Impact
 LTS Less than significant
 S Significant
 SU Significant and unavoidable

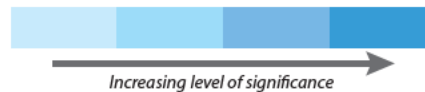
NEPA Finding
 B Beneficial
 NE No Effect
 NA Not Adverse
 A Adverse

Figure ES-27
Comparison of Impacts on Environmental Justice

Chapter 30 – Growth	Alternative																				
	Existing Conditions Deliveries (TAF/yr)	No Action Alternative (ELT) Deliveries (TAF/yr)	No Action Alternative (LLT) Deliveries (TAF/yr)	1A	1B	1C	2A	2B	2C	3	4	5	6A	6B	6C	7	8	9	4A	2D	5A
Change in south-of-Delta CVP/SWP water deliveries that could remove obstacles to growth in comparison to Existing Conditions	4,940	n/a	n/a	338	338	338	-48	-48	-48	253	H1: 138 H2: -376 H3: -164 H4: -671	-304	-1274	-1274	-1274	-1256	-1879	-704	-157	247	97
Change in south-of-Delta CVP/SWP water deliveries that could remove obstacles to growth in comparison to No Action Alternative (ELT or LLT)	n/a	4,690	4,290	988	988	988	602	602	602	903	H1: 788 H2: 274 H3: 486 H4: -21	346	-624	-624	-624	-606	-1229	-54	93	497	347

Key

Level of significance or effect **before** mitigation
(Quantity of impact: number of sites, structures, acres, etc. affected)



n/a not applicable
> greater than
< less than
≈ about equal to

Level of significance or effect **after** mitigation
(CEQA Finding / NEPA Finding)

CEQA Finding

- NI No Impact
- LTS Less than significant
- S Significant
- SU Significant and unavoidable

NEPA Finding

- B Beneficial
- NE No Effect
- NA Not Adverse
- A Adverse

**Figure ES-28
Comparison of Impacts on Growth**