CONDITIONAL WAIVER OF WASTE DISCHARGE REQUIREMENTS FOR DISCHARGES FROM IRRIGATED AGRICULTURAL LANDS ORDER NO. R4-2016 – XXXX

APPENDIX 5

WATER QUALITY BENCHMARKS BASED UPON TMDL LOAD ALLOCATIONS

Callegua	s Creek Wa	atershed and	d Mugu Lag	oon OC Pesti	cides & PCB	s TMDL	Compliance Date
Compliance wit in-stream annu	h interim ar al average a	nd final sedim at the base o (na/a)	nent based lo f each subwa	ad allocations atershed.	(LAs) is mea	asured as an	
Subwatershed							
Constituent	Mugu Lagoon ¹	Calleguas Creek	Revolon Slough	Arroyo Las Posas	Arroyo Simi	Conejo Creek	
Chlordane	25.0	17.0	48.0	3.3	3.3	3.4	March 24,
4,4-DDD	69.0	66.0	400.0	290.0	14.0	5.3	2006
4,4- DDE	300.0	470.0	1,600.0	950.0	170.0	20.0	
4,4-DDT	39.0	110.0	690.0	670.0	25.0	2.0	
Dieldrin	19.0	3.0	5.7	1.1	1.1	3.0	
PCBs	180.0	3,800.0	7,600.0	25,700.0	25,700.0	3,800.0	
Toxaphene	22,900.0	260.0	790.0	230.0	230.0	260.0	
Final Sediment LAs (ng/g)							
-			Subw	vatershed			
Constituent	Mugu Lagoon ¹	Calleguas Creek	Revolon Slough	Arroyo Las Posas	Arroyo Simi	Conejo Creek	
Chlordane	3.3	3.3	0.9	3.3	3.3	3.3	March 24,
4,4-DDD	2.0	2.0	2.0	2.0	2.0	2.0	2026
4,4- DDE	2.2	1.4	1.4	1.4	1.4	1.4	
4,4-DDT	0.3	0.3	0.3	0.3	0.3	0.3	
Dieldrin	4.3	0.2	0.1	0.2	0.2	0.2	
PCBs	180.0	120.0	130.0	120.0	120.0	120.0	
Toxaphene	360.0	0.6	1.0	0.6	0.6	0.6	
¹ The Mugu La	igoon subwa	tershed includ	es Duck Ponc	I/Agricultural Dra	ain/Mugu/Oxna	ard Drain #2.	
Siltation LAs 2,704 tons/yr reduction in sediment yield to Mugu Lagoon. The baseline from which the load reduction will be evaluated will be determined by a					March 24, 2015		

Calleguas (Compliance Date			
Interim Chlorpy				
	Acute (1hour) 2.57	Chronic (4 day) 0.810		
Interim Diazin	on Load Allocatic	ons (ug/L) apply w	atershed-wide	March 24. 2006
	Acute (1hour)	Chronic (4 day)		
	0.278	0.138		
A load allocation o	f 1.0 TUc applies	watershed-wide.		March 24, 2006
Fin				
	Subwatershed	Acute & Chron		
	rroyo Simi	0.0		
	as rosas Coneio	0.0	14	March 24, 2016
	alleguas	0.013	33	
R	levolon	0.013	33	
N	lugu Lagoon	0.02	4	
Final Diazino				

Calleguas Cre	Compliance Date					
	Constituent	Interim L	.imit (ma/L)		Dec. 2, 2008	
Во	ron Total		1.8		200. 2, 2000	
Ch	loride Total		230			
Su	Ifate Total	1	962			
TD	S Total	3	995			
Interim dry weat averages at the measured as an Dry weather LAs there was no me The 86 th percent hydrologic year						
	Final Dry Weather Load Allocations					
Subwatershed	Boron Allocation (Ib/day)	Chloride Allocation (lb/day)	TDS Allocation (Ib/day)	Sulfate Allocation (lb/day)		
Simi	641	3,631	1,068	4	Dec 23 2023	
Las Posas	2,109	11,952	3,515	N/A	200.20,2020	
Conejo	743	4,212	1,239	N/A		
Camarillo	59	336	99	N/A		
Pleasant Valley	305	1,730	509	N/A		
Revolon	7,238	41,015	12,063	48		
Dry weather LAs subwatershed w no measurable p The 86 th percent hydrologic year						

Calleg	Calleguas Creek Watershed and Mugu Lagoon Metals and Selenium TMDL						
Interim I	Interim Load Allocations for total recoverable metals						
		Cal	leguas and Co	nejo Creek		March 26, 2007	
	Constituent	Dry Daily Maximum (ug/L)	Dry Monthly Average (ug/L)	Wet Daily Maximum (ug/L)			
	Copper	24	19	1390			
	Nickel	43	42				
	Selenium						
			Revolon Slou	gh			
	Constituent	Dry Daily Maximum (ug/L)	Dry Monthly Average (ug/L)	Wet Daily Maximum (ug/L)			
	Copper	24	19	1390			
	Nickel	43	42				
	Selenium	6.7 (c)	6 (c)				
c – Attainm available. Dry wea 86 th pero days wh subwate The 86 th hydrolog	c – Attainment of interim limits will be evaluated in consideration of background loading data, if available. Dry weather LAs apply to days when flows in the stream are less than the 86 th percentile flow rate for each subwatershed. Wet weather LAs apply to days when flows in the stream exceed the 86 th percentile flow rate for each subwatershed. The 86 th percentile flow rate shall be calculated based on flow in the hydrologic year (Oct. 1 st – Sept. 30 th) that the sample was collected.						
Interim I	Interim Load allocations for Mercury in Suspended Sediment (lbs/year) Flow Range Calleguas Revolon Flow Range Creek Slough			March 26, 2007			
	million gallor	ns/year					
	0-15,000		3.9	2			
	15,000-25,00	00	12.6	4.8			
	Above 25,00	0	(1.5	12.2			
Interim load allocations are measured in-stream at the based of Revolon Slough and Calleguas Creek.							

Calleg	Calleguas Creek Watershed and Mugu Lagoon Metals and Selenium TMDL					Compliance Date			
	othor Fir		d allocations	(lbo/dov) for tot	ol roo	overable	motolo	
Diy wea	amer - Fir	Iai Loa		(IDS/Uay		arrec	overable	metais	
	Calleguas Creek								
	Constit	uent	Low Flow	Avg. l	low	Ele F	vated Iow		
	Copper*		0.07 x (WER – 0.03)	0.12 - WER)	2 x • 0.02)	0 (WEF	.31 x R – 0.05)		
	Nickel		0.420	0.26	50	0	.970	_	
	Seleniur	n							
implemente	ed in accorda	Calleg Flo	the approved WEF	Flow	Rate (0 - 5	s set for	th above.		
	-	Averag	ye od		$\frac{5 - 21}{21 - 20}$		_		
	L	Lieval	eu		21-30		<u>]</u>		
				Revolor	n Sloug	h			
	Constitu	ient	Low Flow	Avg.	Flow	Ele	evated Flow		
	Copper*		0.07 x (WER – 0.03)	0.1 (WER	4 x – 0.07)	0.35 >	(WER 0.07)		March 26, 2022
	Nickel		0.390	0.6	90	1	.600		
	Selenium	า	0.008	0.0	07	C	.018		
* If site-spe implemente	ecific WERs a ed in accorda	are appro ance with Revol	wed by the Regiona the approved WEF	al Board, TI as using the	MDL load equation	allocations set for	ons shall be th above.		
	ł		w Category	FIOW	/ Rate (0	cis)			
	-	Avera	ae		<u>0 10</u> 10 - 17		-		
		Elevat	ed		17 - 22				
Wet We	ather Fina	al Load	d Allocations (lbs/day)	for tota	l reco	overable	metals	
Const	ituent	С	alleguas Creel	(Revol	on Sloug	ıh	
Coppe	r* ((0.00017	x Q ² x 0.01 x Q - WER - 0.02	- 0.05) x	(0.00	123 x C	2 ² +0.0034 WER	xQ)x	
Nickel		0.01	4 x Q ² + 0.82 x	Q	0.0)27 x (Q ² +0.47	хQ	
Seleni	um				().1 x C	2 ² +1.8 x	Q	
* If site-spe implemente Q = Daily :	ecific WERs a ed in accorda storm volume	are appro ance with e	ived by the Regiona the approved WEF	al Board, TI ts using the	MDL load	allocatic s set for	ons shall be th above.		

Calleguas Creek Watershed and Mugu Lagoon Metals and Selenium TMDL					Compliance Date
Final Load					
		Calleguas Creek	Revolon Slough		March 26, 2022
	Flow Range MGY	Agriculture	Agriculture		,
	0-15,000	0.5	0.2		
	15,000-25,000	1.9	0.8		
	Above 25,000	11.2	2.2		
Final load a Slough and	allocations are meas d Calleguas Creek.	ured in-stream a	t the based of R	evolon	

Calleguas Creek N	Compliance Date		
	Nitrate-N + Nitrite-N (mg/L)		July 16, 2010
	9.0]	

Revolon Slough and Beardsley Wash Trash TMDL	Compliance Date
LAs are zero trash. Dischargers may achieve compliance with the LAs by implementing a minimum frequency of assessment and collection/best management practice (MFAC/BMP) program. By March 6, 2010, agricultural dischargers must demonstrate full compliance and attainment of the zero trash target's requirement that trash is not accumulating in deleterious amounts between the required trash assessment and collection events.	March 6, 2010

Upper Santa Clara	Compliance Date	
Reach	Chloride LA (mg/L)	April 28, 2015
4B, 5, and 6	100	

Santa Clara River Nit	Cor	npliance Date	
Reach	NH ₃ -N + NO ₂ -N + NO ₃ -N (mg-N/L)		
7	8.5	Marcl	h 23, 2004
Mint Canyon Reach 1 Wheeler Canyon/Todd Barranca Brown Barranca/Long Canyon Other Santa Clara River Reaches	10		

	Malibu Creek Watershed Nutrients TMDL					
	Season	Total Nitrogen (Ibs/day)	Total Phosphorus			
Sum	mer (April 15 – November 15)	3	0.2			
				March 21, 2003		
	Season	Nitrogen (nitrate-N +	Nitrogen (mg/L) (nitrate-N + nitrite-N)			
	Winter (November 16 – April	14) 8	8			

Ventura River Estuary Trash TMDL	Compliance Date
LAs are zero trash. Dischargers may achieve compliance with the LAs by implementing a minimum frequency of assessment and collection/best management practice (MFAC/BMP) program. By March 6, 2010, agricultural dischargers must demonstrate full compliance and attainment of the zero trash target's requirement that trash is not accumulating in deleterious amounts between the required trash assessment and collection events.	March 6, 2010

	The Santa Clara I	River Estuary To	exaphene TMDL		Compliance Date
	Reach	Toxaphene Fish Tissue Target	Toxaphene Allocation for Concentration in Suspended Sediment		October 7, 2010
	Santa Clara River Estuary	6.1 (µg/kg)	0.1 (µg/kg)		
Within ten yea shall be attenu 15 years.	rs of the compliance lating such that it ap	date, toxaphene pears that numer	concentrations in ic targets will be a	fish tissue chieved within	

Grath Lake P	CBs, Pesticides an	d Sediment Toxicity TM	IDL	Compliance Date
Pollutant	Water Column Load Allocation (µg/L)	Load Allocation for Concentration in Suspended Sediment (µg/dry kg)		
Chlordane	0.00059	0.5		
Dieldrin	0.00014	0.02		June 30, 2021
4,4'-DDT	0.00059	1		
4,4'-DDE	0.00059	2.2		
4,4'-DDD	0.00084	2		
Total DDT		1.58		
Total PCBs	0.00007	22.7		

С	xnard Drain No. 3	B Pesticides, PCBs,	and Sediment T	oxicity TMDL	Compliance Date
	Constituents	Water Allocations, chronic (ug/L)	Sediment ^{1,2}	Alternate Sediment ^{1,3}	
	Bifenthrin4	0.0006	-	-	
	Chlordane, total	0.00059	0.5	3.3	
	Chlorpyrifos ⁴	0.0056	-	-	
	4,4'-DDT	0.00059	1	0.3	
	4,4'-DDE	0.00059	2.2	2.2	October 6, 2011
	4,4'-DDD	0.00084	2	2	
	Dieldrin	0.00014	0.02	4.3	
	PCBs, total	0.00017	22.7	180	
	Sediment Toxicity	-	No significant chronic sediment toxicity (See below and Section 3 for more details)	-	
	Toxaphene	0.0002	0.1	360	
	L	1	1		
1: Se	diment concentrations as	sociated with suspended sed	iment and Oxnard Dra	in 3 bottom sedimen	t.
2: Se alloc was s	diment allocations apply ations are ERLs, except to selected.	if there are fish tissue or sed oxaphene. Toxaphene does r	iment toxicity exceedant to the sector of th	nces. All sediment e TEL concentration	
3: 1f	ation are achieved in Ovr	and Drain 3. The alternate se	diment allocation con	centrations match th	a

allocation are achieved in Oxnard Drain 3. The alternate sediment allocation concentrations match the Mugu Lagoon TMDL allocations.

4: Bifenthrin and chlorpyrifos allocations included to address the sediment toxicity impairment.

Malibu Creek an Ade	d Lagoon TMDLs t dress Benthic Cor	for Sedimentation nmunity Impairme	and Nutrients to ents	Compliance Date
Total Nitrogen (mg/L) Summer	Total Nitrogen (mg/L) Winter	Total Phosphorus (mg/L) Summer	Total Phosphorus (mg/L) Winter	March 26, 2012
0.65	1.00	0.10	0.10	

		Ve	ntura Rive	r Algae T	MDL			Compliance Date
Dry-we estimat	ather LAs f ted 331 dry	or Agricultu -weather da	ire are expr ays per yea	essed as r as follow	daily loads b s:	ased on a	าท	
	Rea	ach	Total Nit (Ib/d	trogen ay)	Total Phos (lb/da	sphorus ay)		
	All Re	aches	16	6	0.12	2		
Wet-we	eather alloc	ations are a	as follows:			1		
		Reach		Nitrate-N (n	I + Nitrite-N ng/L)			
		Estuary			*			
		Reach 1			*			June 28, 2019
		Reach 2			10			
		Cañada La	arga		10			
		Reach 3			5			
		San Anton	io Creek		5			
		Reach 4			5			
		Reach 5			5			
To ass used, t	ist in impler hey shall be	mentation o e 0.008 lb/c	f LAs, area lay/acre TN	-weighted and 6.3x ²	benchmarks 10 ⁻⁵ lb/acre/c	s can be a lay TP.	pplied; if	

	Santa Clara River Ba	cteria TMDL	Compliance Date
Interim Allowable	exceedance days:		
Time Period	Santa Clara River Reaches 3, 5, 6, & 7	Santa Clara River Estuary	
Dry Weather	17 allowable exceedance days of single sample objectives	Not Applicable	January 31, 2012
Wet Weather	61 allowable exceedance days of single sample objectives	62 allowable exceedance days of single sample objectives	,
Summer Dry Weather (April 1 – October 31)	Not Applicable	150 allowable exceedance days of single sample objectives	
Time Period	Santa Clara River Reaches 3, 5, 6, & 7	Santa Clara River Estuary	
Winter Dry Weather (November 1 – March 31)	Not Applicable	49 allowable exceedance days of single sample objectives	

Time Period	Santa Clara River Reaches 3, 5, 6, & 7	Santa Clara River Estuary	
Dry Weather	5 allowable exceedance days of single sample objectives 0 allowable exceedances of geometric mean objectives	Not Applicable	March 21, 20 dry weather
Mat Maathar	16 allowable exceedance days of single sample objectives	25 allowable exceedance days of single sample objectives	wet weather
wet weather	0 allowable exceedances of geometric mean objectives	0 allowable exceedances of geometric mean objectives	
Summer Dry Weather	Not Applicable	10 allowable exceedance days of single sample objectives 0 allowable exceedances of geometric mean objectives	
Winter Dry Weather (November 1 – March 31)	Not Applicable	12 allowable exceedance days of single sample objectives 0 allowable exceedances of geometric mean objectives	
e calculated num ducted. To dete ppling, a ratio is	l ber of exceedance days a rmine the number of allow used.	geometric mean objectives assumes that daily sampling is able exceedances for less freque	nt