

**ATTACHMENT S – TMDLS IN THE LOS CERRITOS CHANNEL AND ALAMITOS BAY
WATERSHED MANAGEMENT AREA**

I. LOS CERRITOS CHANNEL METALS TMDL

- A. Permittees subject to the provisions below are identified in Attachment J, Table J-17.
- B. Permittees shall comply with the following grouped¹ dry weather² mass-based water quality-based effluent limitation for discharges to Los Cerritos Channel no later than September 30, 2023, expressed as total recoverable metals:

MS4 Permittee	Constituent	Effluent Limitations Daily Maximum (g/day)
Los Angeles County MS4 Permittees	Copper	67.2
City of Long Beach	Copper	41.4

- C. In lieu of calculating loads, Permittees may demonstrate compliance with the following dry-weather³ concentration-based water quality-based effluent limitations for discharges to Los Cerritos Channel no later than September 30, 2023, expressed as total recoverable metals:

Constituent	Effluent Limitation Daily Maximum (µg/L total recoverable metals)
Copper	19.1

- D. Permittees shall comply with the following grouped⁴ wet weather⁵ mass-based water quality-based effluent limitation for discharges to Los Cerritos Channel no later than September 30, 2026, expressed as total recoverable metals:

MS4 Permittee	Effluent Limitations Daily Maximum (g/day)		
	Copper	Lead	Zinc
Los Angeles County MS4 Permittees	$4.709 \times 10^{-6} \times \text{Daily Storm Volume (L)}$	$26.852 \times 10^{-6} \times \text{Daily Storm Volume (L)}$	$46.027 \times 10^{-6} \times \text{Daily Storm Volume (L)}$
City of Long Beach	$2.904 \times 10^{-6} \times \text{Daily Storm Volume (L)}$	$16.560 \times 10^{-6} \times \text{Daily Storm Volume (L)}$	$28.385 \times 10^{-6} \times \text{Daily Storm Volume (L)}$

¹ The grouped mass-based effluent limitation assigned to the Los Angeles County MS4 Permittees are shared among all the MS4 Permittees within the Los Cerritos Channel drainage area, except for the City of Long Beach. An individual mass-based effluent limitation is assigned to the City of Long Beach.

² Dry weather is defined as any day when the maximum daily flow in Los Cerritos Channel is less than 23 cubic feet per second (cfs) measured at Stearns Street Monitoring Station.

³ Ibid.

⁴ The grouped mass-based effluent limitations assigned to the Los Angeles County MS4 Permittees are shared among all the MS4 Permittees within the Los Cerritos Channel drainage area, except for the City of Long Beach. Individual mass-based effluent limitations are assigned to the City of Long Beach.

⁵ Wet weather is defined as any day when the maximum daily flow in Los Cerritos Channel is equal to or greater than 23 cfs measured at Stearns Street Monitoring Station.

- E. In lieu of calculating loads, Permittees may demonstrate compliance with the following wet weather⁶ concentration-based water quality-based effluent limitations for discharges to Los Cerritos Channel no later than September 30, 2026, expressed as total recoverable metals:

Constituent	Effluent Limitations Daily Maximum (µg/L total recoverable metals)
Copper	7.613
Lead	43.412
Zinc	74.412

- F. Permittees shall comply with the dry and wet weather water quality-based effluent limitations for discharges of metals to Los Cerritos Channel, per the schedule below:

Deadline	Percentage of Total Drainage Area Served by the MS4 required to meet the Effluent Limitations	
	Dry weather	Wet weather
Effective Date of the Order	37 0%	35 40%
September 30, 2020	70 %	35 %
September 30, 2023	100%	65%
September 30, 2026	100%	100%

- G. Alternatively, Permittees shall attain the following percent reduction in the difference between the current loadings and the dry and wet weather water quality-based effluent limitations at storm drain outfalls, as measured at the relevant existing MS4 permit monitoring location and/or at relevant MS4 monitoring stations identified in an approved monitoring plan:

Deadline	Percent Reduction in the difference between the current loadings and the Effluent Limitations	
	Dry weather	Wet weather
Effective Date of the Order	37 0%	35 40%
September 30, 2020	70 %	35 %
September 30, 2023	100 %---	65%
September 30, 2026	100 %	100 %

II. COLORADO LAGOON OC PESTICIDES, PCBS, SEDIMENT TOXICITY, PAHS, AND METALS TMDL

- A. Permittees subject to the provisions below are identified in Attachment J, Table J-17.
- B. Permittees shall comply with the following concentration-based receiving water limitations for bed sediments in Colorado Lagoon, as of the effective date of the Order:

Constituent	Receiving Water Limitations Monthly Average (µg/kg dry weight)
Lead	46,700

⁶ Ibid.

Constituent	Receiving Water Limitations Monthly Average (µg/kg dry weight)
Zinc	150,000
Total Chlordane	0.50
Dieldrin	0.02
Total PAHs	4,022
Total PCBs	22.70
Total DDTs	1.58

- C. To determine compliance with the concentration-based receiving water limitations, Permittees shall monitor pollutant concentrations in the bed sediment of Colorado Lagoon at sampling locations in the Western Arm, Central Arm and Northern Arm that represent the cumulative inputs from MS4 discharges to Colorado Lagoon.
- D. Permittees shall comply with the following grouped annual mass-based water quality-based effluent limitations for storm-borne sediments discharged to Colorado Lagoon from the three major storm drains listed below, as of the effective date of the Order:

Constituent	Annual Mass-Based Effluent Limitations (mg/yr)		
	Long Beach and LACFCD	Long Beach	Long Beach
	Project 452	Line I	Line K
Lead	476,646.68	329,171.33	181,573.76
Zinc	1,530,985.05	1,057,295.47	583,213.37
Total Chlordane	5.10	3.53	1.94
Dieldrin	0.20	0.14	0.08
Total PAHs	41,050.81	28,349.62	15,637.89
Total PCBs	231.69	160.00	88.26
Total DDTs	16.13	11.14	6.14

- E. To determine compliance with the annual mass-based water quality-based effluent limitations, Permittees shall monitor pollutant concentrations of the storm-borne sediment discharged from Project 452 storm drain, Line I storm drain, and Line K storm drain outfalls to Colorado Lagoon. In addition, flow from these storm drains shall be measured when samples are collected.