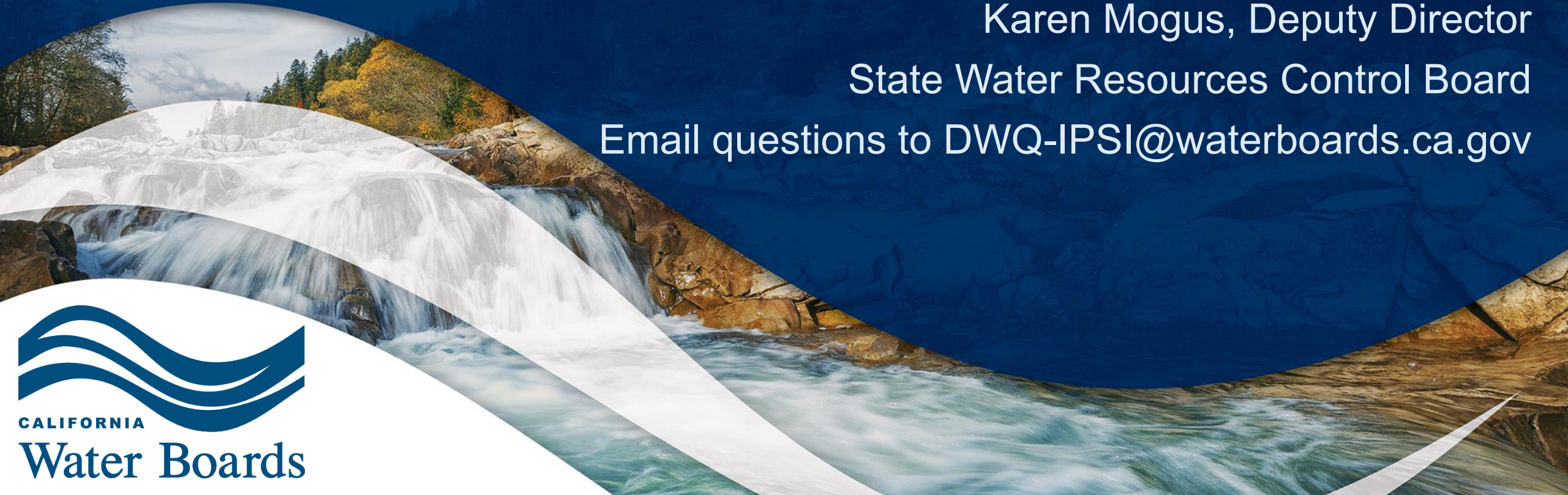


Public Staff Workshop Toxicity Provisions

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Overview of the Workshop

Purpose

- Provide an overview of the significant changes between the October 19, 2018 Draft Toxicity Provisions and the July 7, 2020 Draft Toxicity Provisions

Outline

- Proposed resolution of 3 issues from the October 3, 2019 Board Workshop
- 15 other notable changes between the 2018 and 2020 Draft Toxicity Provisions

Documents & Additional Information Available at:

https://www.waterboards.ca.gov/water_issues/programs/state_implementation_policy/tx_ass_cntrl.html

Background

- October 19, 2018 – Release of Draft Toxicity Provisions for public comment
- November 28, 2018 – State Water Board public hearing
- July 25, 2019 – Release of First Revised Draft Toxicity Provisions
- October 3, 2019 – State Water Board workshop
- December 24, 2019 – Release of Staff Report Appendices J and K for public comment
- July 7, 2020 – Release of Second Revised Draft Toxicity Provisions
- July 22, 2020 – Release of Responses to 2018 Comments
- 12:00 Noon on August 24, 2020 – End of public comment period
- December 2020 – State Water Board consideration of adoption (tentative)

Overview of the Toxicity Provisions

The Toxicity Provisions would establish:

- Numeric water quality objectives for chronic and acute toxicity
- A single statistical approach (Test of Significant Toxicity) for assessing toxicity data
- A program of implementation focused on non-storm water National Pollutant Discharge Elimination Discharge System (NPDES) dischargers
- The statewide Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California

Proposed Resolution of Issues from the October 3, 2019 Board Workshop

1. Chronic Toxicity Monitoring Requirements and Effluent Limitations
2. Reasonable Potential Threshold
3. Use of the *Ceriodaphnia dubia* Chronic Reproduction Toxicity Test During the *C. dubia* Study

1. Chronic Toxicity Monitoring Requirements and Effluent Limitations

October 2018 (IV.B.2.b.i., pg. 14)

- Publicly owned treatment works (POTW) dischargers that are authorized to discharge at a rate of ≥ 5 million gallons per day (MGD) are required to have chronic toxicity effluent limitations and monitoring requirements. No requirements to first conduct a reasonable potential analysis (RPA).

July 2020 (IV.B.2.c.i., pg. 19)

- POTW dischargers that are authorized to discharge at a rate of ≥ 5 MGD **and are required to have a pretreatment program** are required to have chronic toxicity effluent limitations and monitoring requirements. No requirements to first conduct a RPA.

2. Reasonable Potential Threshold

October 2018 (*IV.B.2.b.iii.*, pg. 15)

- Reasonable potential exists if any chronic or acute toxicity test results in a “fail” at the instream waste concentration (IWC) or the percent effect is > 10%
 - Use toxicity test data within 5 years of permit issuance, reissuance, or reopening
 - Minimum of 4 tests using Table 1 species, conducted at the IWC, and analyzed using the TST

July 2020 (*IV.B.2.c.iii(B).*, pg. 21)

- No change

3. Use of the *C. dubia* Chronic Reproduction Toxicity Test During the *C. dubia* Study

October 2018 (IV.B.1.b., pg. 6)

- *C. dubia*, when identified as the most sensitive species, should be used to determine compliance with chronic toxicity effluent limitations.

July 2020 (IV.B.2.e.i., pg. 34)

- 4 possible scenarios when permit reissuance, renewal, or reopening occurs after the effective date of the Toxicity Provisions and prior to December 31, 2023, which is the proposed date when this portion of the Toxicity Provisions becomes inoperable.
- Study Overview: Investigation of test conditions and factors to reduce within-test variability and increase confidence in the outcome and comparability of the *C. dubia* chronic reproduction test.

Scenario #1

Current Permit Effluent Limitations	Most Sensitive Species Identified During Permit Reissuance, Renewal, or Reopening	Reissued, Renewed, or Reopened Permit Requirements
No numeric effluent limitations	<i>C. dubia</i>	MDEL and MMET using <i>C. dubia</i>

MDEL = maximum daily effluent limitation

MMEL = median monthly effluent limitation

MMET = median monthly effluent target

(would not result in an effluent violation, but could trigger a toxicity reduction evaluation (TRE))

Scenario #2

Current Permit Effluent Limitations	Most Sensitive Species Identified During Permit Reissuance, Renewal, or Reopening	Reissued, Renewed, or Reopened Permit Requirements
No numeric effluent limitations	Another test species (not <i>C. dubia</i>)	MDEL and MMEL using the most sensitive species

Scenario #3

Current Permit Effluent Limitations	Most Sensitive Species Identified During Permit Reissuance, Renewal, or Reopening	Reissued, Renewed, or Reopened Permit Requirements
Existing numeric effluent limitations	<i>C. dubia</i>	Option 1: MDEL and MMEL using <i>C. dubia</i> or Option 2: MDEL using <i>C. dubia</i> , MMEL using next applicable species, and MMET using <i>C. dubia</i>

Scenario #4

Current Permit Effluent Limitations	Most Sensitive Species Identified During Permit Reissuance, Renewal, or Reopening	Reissued, Renewed, or Reopened Permit Requirements
Existing numeric effluent limitations	Another test species (not <i>C. dubia</i>)	MDEL and MMEL using the most sensitive species

Other Notable Changes

- Interaction of the Toxicity Provisions
- Most Sensitive Species
- Reasonable Potential
- Monitoring Requirements
- Effluent Targets to Determine When to Conduct a TRE
- Exemptions

4. Interaction of the Toxicity Provisions

October 2018 (III.B.3./III.B.4., pgs. 3/4)

- The interaction of the Toxicity Provisions with Basin Plans and the State Implementation Policy
- The interaction of the Toxicity Provisions with narrative and numeric aquatic toxicity water quality objectives

July 2020 (III.B.3./III.B.4., pgs. 3/4)

- For non-storm water NPDES dischargers only, when the permitting authority includes the Toxicity Provisions numeric effluent limitations, it cannot include any other numeric effluent limitations (except for more protective total maximum daily load (TMDL)-based requirements).
- Allow the permitting authority to rely solely on the numeric aquatic toxicity water quality objectives to address non-chemical specific aquatic toxicity except when it would not fully protect all aquatic species in the relevant water body.

5. Most Sensitive Species: Acute Toxicity

October 2018 (*IV.B.2.a.ii., pg. 12*)

- For POTW dischargers, the permitting authority may require a species sensitivity screening for acute toxicity.
- All other non-storm water NPDES dischargers must conduct a species sensitivity screening for acute toxicity.

July 2020 (*IV.B.2.b.ii., pg. 16*)

- Provide the permitting authority the discretion to determine when a species sensitivity screening for acute toxicity is required.
- Clarify that chronic toxicity testing is generally protective of acute toxicity.

6. Most Sensitive Species: Initial Species Sensitivity Screening for Chronic Toxicity

October 2018 (*IV.B.2.a.i., pg. 12*)

- All non-storm water NPDES dischargers must conduct species sensitivity screening for chronic toxicity either prior to, or within 18 months after, the first issuance, reissuance, renewal, or reopening of the permit after the effective date of the Toxicity Provisions.

July 2020 (*IV.B.2.b.i(A)., pg. 15*)

- No change
- Allow data from a species sensitivity screening generated within 10 years prior to the effective date to be used to determine the most sensitive species, when the data meets certain conditions.

7. Most Sensitive Species: Subsequent Species Sensitivity Screening for Chronic Toxicity

October 2018 (*IV.B.2.a.i., pg. 12*)

- Species sensitivity screening is required no less than once every 10 years, unless the discharger is participating in a regional monitoring program.

July 2020 (*IV.B.2.b.i(B)., pg. 15*)

- Extend the amount of time, from 10 years to 15 years, the permitting authority may allow before requiring a new species sensitivity screening for chronic toxicity.
- Remove the exception for dischargers who participate in a regional monitoring program.

8. Most Sensitive Species: Non-Continuous Dischargers

October 2018 (*IV.B.2.a.iii.*, pg. 13)

- Species sensitivity screening includes 4 sets of testing completed within a 1-year period, evenly distributed across the discharge season.

July 2020 (*IV.B.2.b.iii.*, pg. 17)

- Allow seasonal and intermittent dischargers to use fewer than 4 sets of tests for the species sensitivity screening.
- For dischargers that discharge ≤ 15 days in every quarter of the year, the permitting authority would have the discretion to not require a species sensitivity screening.

9. Most Sensitive Species: Next Applicable Species

October 2018 (*IV.B.2.a.iv., pg. 14*)

- When the most sensitive species cannot be used, such as when the discharger encounters unresolvable test interference or cannot secure a reliable supply of test organisms, the Executive Director or Executive Officer may specify the next applicable species as the most sensitive species.

July 2020 (*IV.B.2.b.iv., pg. 19*)

- Allow the permitting authority to specify in permits that the Executive Office or Executive Director can authorize the temporary use of the next applicable species as the most sensitive species under certain conditions.

10. Reasonable Potential: Acute Toxicity

October 2018 (*IV.B.2.b.ii., pg. 14*)

- The permitting authority determines which POTW dischargers are required to conduct a reasonable potential analysis for acute toxicity.
- All other non-storm water NPDES dischargers are required to conduct a reasonable potential analysis for acute toxicity.

July 2019 (*IV.B.2.c.ii., pg. 20*)

- The permitting authority determines when a reasonable potential analysis for acute toxicity is required.

11. Reasonable Potential: Toxicity Data

October 2018 (*IV.B.2.b.iii.*, pg. 14)

- All toxicity test data generated within 5 years prior to permit issuance, reissuance, renewal, or reopening that is representative of effluent quality during discharge conditions must be evaluated in determining reasonable potential.

July 2019 (*IV.B.2.c.iii(A).*, pg. 21)

- No change
- Require the reanalysis of toxicity test data or require additional toxicity testing to determine reasonable potential when the discharger has not conducted 4 toxicity tests at the IWC.

12. Monitoring Requirements: Start of the Calendar Month

October 2018 (*IV.B.2.c., pg. 16*)

- The permitting authority must specify the day and the month that correspond to the start of the calendar month.

July 2020 (*IV.2.d.i., pg. 24*)

- No change
- Require the permitting authority to consider relevant scheduling constraints identified by the discharger and laboratories when setting the start of the calendar month.

13. Monitoring Requirements: Monitoring Frequency

October 2018 (IV.B.2.c.i(A)., pg. 16)

- Non-storm water NPDES dischargers with effluent limitations:
 - Dischargers ≥ 5 MGD must conduct monthly monitoring
 - Dischargers < 5 MGD must conduct quarterly monitoring

July 2020 (IV.B.2.d.ii.(A)(1)., pg. 25)

- Non-storm water NPDES dischargers with effluent limitations:
 - Dischargers ≥ 5 MGD must conduct monthly monitoring
 - Except for POTW dischargers ≤ 1 MGD, dischargers < 5 MGD must conduct quarterly monitoring
 - POTW dischargers ≤ 1 MGD must conduct biannual monitoring
- Non-storm water NPDES dischargers without effluent limitations:
 - Conduct at least 2 routine chronic aquatic toxicity tests per year

14. Monitoring Requirements: Reduced Monitoring Frequency

October 2018 (*IV.B.2.c.i.(B).*, pg. 17)

- The permitting authority may reduce a discharger's chronic toxicity routine monitoring, when, for the prior five consecutive years, certain conditions are met, including compliance with effluent limitations.

July 2020 (*IV.B.2.d.ii.(A)(2).*, pg. 26)

- No change
- Provide the permitting authority the discretion to reduce chronic toxicity routine monitoring frequency for dischargers whose previous permit did not include a chronic toxicity effluent limitation, when certain conditions are met.

15. Monitoring Requirements: Reduced Monitoring Frequency During a TRE

October 2018 (*IV.B.2.c.i.(B).*, pg. 18)

- During a TRE, the permitting authority may grant a temporary reduced monitoring frequency of at least 2 chronic toxicity tests per year.

July 2020 (*IV.B.2.d.ii.(A)(2).*, pg. 28)

- During a TRE, the permitting authority may grant a temporary reduced monitoring frequency of at least 2 chronic toxicity tests per year *if* toxicity testing is conducted as part of the TRE process.

16. Monitoring Requirements: Replacement Tests

October 2018

- Not included

July 2020 (*IV.B.2.d.iv., pg. 31*)

- Require a discharger to conduct a replacement test as soon as possible when a routine monitoring test, MMET test, or MMEL compliance test is not completed.
- Allow dischargers additional time to initiate required tests when the permitting authority determines that the test was not initiated in the required time period due to circumstances outside the discharger's control that were not preventable with the reasonable exercise of care, and the discharger promptly initiates, and ultimately completes, a replacement test.

17. Effluent Targets to Determine When to Conduct a TRE

October 2018

- Not included

July 2020 (*IV.B.2.d.iii., pg. 30*)

- Require the permitting authority to include daily and monthly chronic toxicity effluent targets in non-storm water NPDES permits for dischargers without chronic toxicity effluent limitations.

Chronic Toxicity Effluent Targets

- For dischargers not required to comply with chronic toxicity effluent limitations
- Monitoring includes chronic toxicity routine monitoring and MMET tests
 - Monitoring must be used with the maximum daily effluent target (MDET) and MMET specified in the Toxicity Provisions
- Would not be subject to effluent limitation violations but would be used to determine whether a TRE is needed
- Specify when a TRE is required for dischargers that do not meet chronic toxicity targets

18. Exemptions

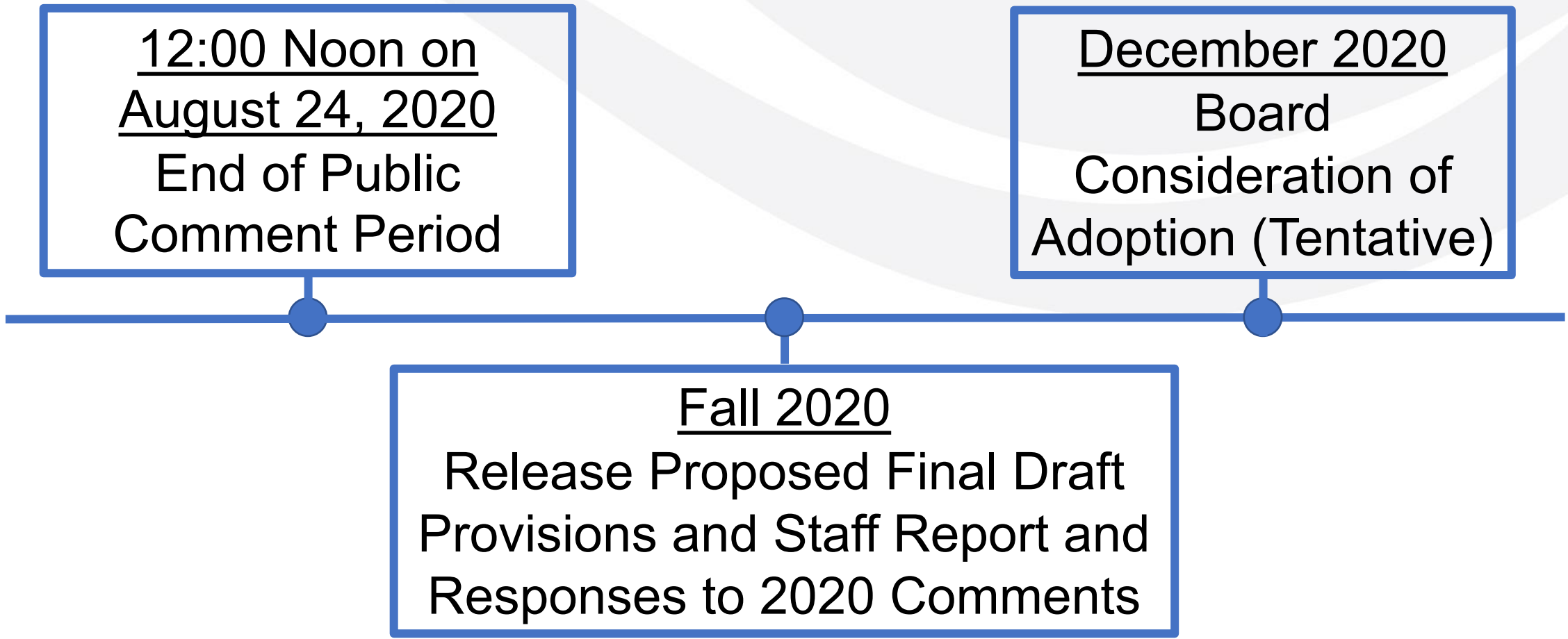
October 2018 (*IV.B.2.j., pg. 24*)

- The permitting authority may exempt POTW dischargers serving small disadvantaged communities from all or some of the Toxicity Provisions if the discharge will have no reasonable potential to cause or contribute to an exceedance of the toxicity water quality objectives.

July 2020 (*IV.B.2.k., pg. 39*)

- Remove the exemption for POTWs serving small disadvantaged communities.
- Add an exemption for:
 - Biological pesticide and residual pesticide dischargers
 - Drinking water system discharges
 - Natural gas facilities discharges

Project Timeline



Contacts

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Documents & Additional Information Available at:

https://www.waterboards.ca.gov/water_issues/programs/state_implementation_policy/tx_ass_cntrl.html

Questions?