NOTICE OF INTENT GUIDANCE TO COMPLY WITH THE SALT CONTROL PROGRAM

PURPOSE

The Central Valley Regional Water Quality Control Board (Central Valley Water Board or Board) has established a Salt Control Program (Program) to regulate salinity impacts throughout the Central Valley. The Program requires all dischargers with permits issued by the Board (permittees) that include permit terms to limit salinity impacts to decide on one of two compliance pathways within 6 months of receiving a Notice to Comply (NTC):

Pathway 1: Conservative Salinity Permitting Approach

Pathway 2: Alternative Salinity Permitting Approach

The purpose of this document is to provide guidance to permittees on the two pathways.

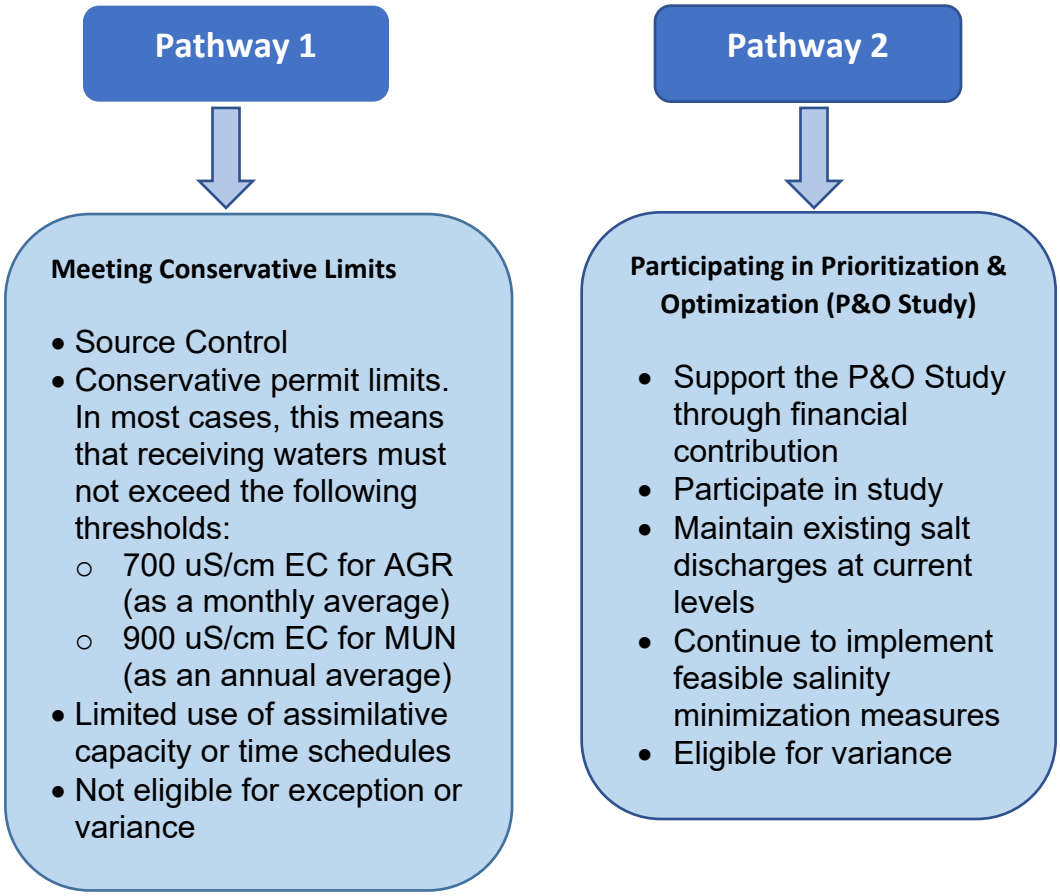
TIMELINE

Within **6 months** of receiving the NTC (please refer to the specific date listed in your letter), permittees must submit a Notice of Intent (NOI) to the Board. The NOI tells the Board which compliance pathway the permittee has chosen. The Board will then update the permittee's permit to reflect that choice. The NOI must include all necessary technical documentation that supports the decision.

BEFORE CHOOSING A PATHWAY

Before permittees decide which pathway to choose, the Board recommends visiting the website cvsalts.info (cvsalinity.org/public-info) for information. Pathway 1 is solely designed for permittees whose discharges have very low salinity concentrations, such as stormwater. To qualify for Pathway 1, a characterization study is required and must demonstrate that the permittee's discharges meet low numeric thresholds and do not threaten to further degrade groundwater or surface water. Most permittees in the Central Valley do not meet these thresholds, and therefore must choose Pathway 2. Since salts are conservative constituents (salts will continue to accumulate in water as water is reused), the Board may require all of these permittees to both limit salinity in their discharge through performance-based limits and through the implementation of salinity management planning, and will require these permittees to participate in a valley-wide study to better understand long-term salinity solutions. Figure 1, below, presents an overview of the two pathways.

Figure 1. Overview Comparison Between Pathway 1 and 2



IF YOU CHOOSE PATHWAY 1

Submit a Salinity Characterization Report that includes or considers all of the following:

1. General Information (can be found on the cover page of your NTC)

- CV-SALTS ID(s)
- Facility ID(s)
- Facility Name(s)

2. Characterization of Discharge

You must provide a characterization of discharge to surface water or groundwater.

- *Constituent(s) to Analyze* – Characterize the discharge by using electrical conductivity (EC) data. If EC data is not available, total dissolved solids (TDS) data may be used, but prior to analysis, the TDS results should be transformed to EC values using the following standard conversion:

  TDS/0.64 = EC

  If you want to use a site-specific conversion method for converting TDS data to EC, the technical justification for the alternative conversion factor should be attached to the end of the report as an appendix.

- *Locations of Permitted Discharge* – List all discharge points and include a map with labels indicating locations of discharge points. Describe and indicate on the map the predominate direction of water flow through the area. For discharge to groundwater, indicate on the map the basin/sub-basin name and boundary.

- *Period of Record for Discharge Data Analysis* – Data from at least two years prior to the date of the NTC should be utilized for the analysis (additional data is needed by water-year type for irrigated agriculture – see below). Historical data (within the past 5-10 years) and/or regional data may be used if local or current data is not available. If historical data is used, explain how historical data is representative of current discharge.

  The frequency of water quality analysis used should be sufficient to characterize any variability or trends in the discharge quality. There should be no significant gaps within the data. You should also be able to calculate monthly and annual averages from the data. Include or consider the following:

  - Provide a table summarizing monthly and annual average calculations.
  - Provide justification for any historical data used.
  - Provide sources of data.

- Include all data utilized at the end of the report as an appendix. Data should include name of discharge point, constituent analyzed, unit, and date.

Additional information needed to characterize discharges from large-scale, regional operations (e.g., agriculture) includes:

- Characterization of irrigation source waters throughout the discharge area by water year type (e.g., critical, dry, wet) to include EC, irrigation water application rates, evapotranspiration rates, rainfall averages, and leaching fraction estimates within the sub-basin.

3. Characterization of Receiving Water

Surface Water Characterization

If your receiving water is surface water, you must characterize ambient water quality around discharge locations.

- *Constituent(s) to Analyze* – Characterize the receiving surface water by using electrical conductivity (EC) data. If EC data is not available, total dissolved solids (TDS) data may be used, but prior to analysis, the TDS results should be transformed to EC using the following standard conversion:

  TDS/0.64 = EC

  If you want to use a site-specific conversion method for converting TDS data to EC, the technical justification for the alternative conversion factor should be attached to the end of the report as an appendix.

  The surface water characterization should provide a justification for the selection of the surface water locations used to characterize the receiving water.

- *Locations of Receiving Surface Water Stations* – For each discharge point to receiving water, data must be provided from three locations that are representative of ambient water quality:

  - Upstream of discharge point(s);
  - Downstream of the facility but relatively close to discharge point(s); and
  - Downstream of the facility at a location where discharge is fully mixed with receiving water.

  The characterization should provide a justification for the selection of the surface water monitoring stations used to characterize the receiving water.

  List all receiving water bodies and water monitoring stations where data was collected. Include a map with labels identifying locations of receiving water bodies

and the monitoring stations. Describe and indicate on the map the predominate direction of surface water flow through the area.

For permits that regulate discharges across a watershed, representative monitoring sites must be selected that sufficiently characterize the conditions throughout the watershed.

- *Period of Record for Receiving Surface Water Data Analysis* – Data from at least two years prior to the date of the NTC should be utilized for the analysis. Historical data (within the past 5-10 years) and/or regional data may be used if local or current data is not available. If historical data is used, explain how historical data is representative of current ambient water quality.

  The frequency of water quality analysis used should be sufficient to characterize any variability or trends in the receiving water such as flow conditions that may be affected by water year type. There should be no significant gaps within the data. You should also be able to calculate monthly and annual averages from the data. Include or consider the following:

  - Provide a table summarizing monthly and annual average calculations.
  - Provide justification for any historical data used.
  - Provide sources of data.
  - Include all data utilized at the end of the report as an appendix. Data should include name of monitoring station, constituent analyzed, unit, and date.

<u>Groundwater Characterization</u>

If your receiving water is groundwater (e.g., you discharge to ponds, spray fields, crops, and/or and application areas), you must characterize quality of groundwater within your area of contribution to the underlying basin/sub-basin groundwater quality.

- *Constituent(s) to Analyze* – Characterize the receiving groundwater by using electrical conductivity (EC) data. If EC data is not available, total dissolved solids (TDS) data may be used, but prior to analysis, the TDS results should be transformed to EC values using the following standard conversion:

  TDS/0.64 = EC

  If you want to use a site-specific conversion method for converting TDS data to EC, the technical justification for the alternative conversion factor should be attached to the end of the report as an appendix.

- *Locations of Receiving Groundwater Wells* – Characterize groundwater within and around area of contribution. This characterization should be conducted at first encountered groundwater without any volume-weighted averaging. For the purpose of the Salinity Characterization Report, first encountered groundwater is defined as

water that is first encountered when drilling underground whether it is sufficient to supply a well or not.

To determine first encountered groundwater depth, you should use drilling methods or tools such as Piezometers or Direct Push Drilling. Alternative types of drilling methods and/or tools may be necessary if depth of first encountered groundwater is beyond too deep. To ensure certainty in determining direction of groundwater flow, these tools should be installed, at a minimum, in a set of three in a triangular manner in each of the following locations:

- Upgradient of the area of contribution;
- Within the area of contribution; and
- Downgradient of the area of contribution.

Provide method and sources used to determine first-encountered groundwater depth. Include graphs of depth measurements and meter readings along with a geologic log. A California Licensed Professional Geologist should perform these analyses as appropriate.

Once first encountered groundwater depth has been determined, data that is representative of groundwater quality must be provided for each location. If there is existing data available, the characterization should provide a justification for the selection of the existing sampling locations used to characterize groundwater within and around the area of contribution. Well data should represent the depth of first encountered groundwater. Data from drinking water wells may not be representative because they are often screened lower in the aquifer system. If there is no existing data available, refer to Section 7.

List all basin/sub-basin(s) and monitoring well stations where data was collected. Include a map with labels identifying name and boundary of basin/sub-basins and location of monitoring well stations. Describe and indicate on the map the predominate direction of groundwater flow through the area.

- For permits that regulate discharges across an entire groundwater sub-basin, representative monitoring sites must be selected that sufficiently characterize the conditions throughout the entire sub-basin to include upgradient and downgradient conditions with adequate well density to capture variations in source water quality and geologic conditions. Characterization must include data for all water-year types (e.g., critical, dry, wet).

- *Period of Record for Receiving Groundwater Data Analysis* – If there is existing data available, data from at least two years prior to the date of the NTC should be utilized for the analysis. Historical data (within the past 5-10 years) and/or regional data may be used if local or current data is not available. If historical data is used, explain how

historical data is representative of current underlying groundwater quality within and around area of contribution.

The frequency of water quality analysis used should be sufficient to characterize any variability or trends in groundwater quality such as during drier and wetter than normal rainfall periods. The analysis should make best efforts to project the area of contribution over a 20-year horizon. There should be no significant gaps within the data. You should also be able to calculate monthly and annual averages from the data. Include or consider the following:

- Provide a table summarizing monthly and annual average calculations.
- Provide justification for any historical data used.
- Provide sources of data.
- Include all data utilized at the end of the report as an appendix. Data should include name of groundwater monitoring well, well location, well type, well depth, constituent analyzed, unit, and date.

4. Evaluation of Applicable Beneficial Uses and Appropriate Numeric Threshold(s)

Eligibility for Pathway 1 requires a finding that your discharge will not cause an exceedance of conservative numeric thresholds AND that your discharge will not further degrade groundwater or surface water. The appliable numeric threshold(s) apply based on whether the Board's Basin Plan designates the groundwater or surface water that receives your discharge as supporting the Agricultural Supply beneficial use (AGR) and/or the Municipal or Domestic Supply beneficial use (MUN). Note that your receiving water defaults to supporting the MUN use unless it is specifically de-designated in the Basin Plan.[1] Unless the Board's Basin Plans designate a site-specific numeric water quality objective, a permittee seeking to be regulated under Pathway 1 must meet the following thresholds:

AGR – 700 uS/cm EC, as a monthly average

MUN – 900 uS/cm EC, as an annual average

If the receiving water has a site-specific numeric water quality objective, that objective will be used for determining whether the permittee may be regulated under Pathway 1. Otherwise, the evaluation should rely on the above values. Fill out the table in III.A.2. of the Notice of Intent (NOI).

[1] State Water Resources Control Board Resolution No. 88- 63 (Sources of Drinking Water Policy) designates all surface and ground waters in California with the MUN use unless they have been specifically de-designated of the MUN use in the Basin Plan.

5. Evaluation of Whether Discharge Results in Exceedances of Numeric Thresholds or Threatens to Cause Additional Degradation of Groundwater or Surface Water[2]

Using findings from 2 through 4, you must both determine if your discharge will result in an exceedance of the MUN and/or AGR numeric thresholds in the receiving water and if your discharge will cause additional salinity degradation.

Surface Water

Compare discharge and receiving water data. Provide a table summarizing the results and indicate whether the discharge will result in an exceedance of the MUN and/or AGR numeric thresholds in the receiving water or if your discharge will cause additional salinity degradation. Consider the following:

- If the monthly or annual discharge averages exceed applicable thresholds, the discharge cannot be permitted under Pathway 1.

- If monthly or annual discharge averages do not exceed applicable thresholds but are above the receiving water average concentrations, and if that degradation has not been authorized by the Board in a Board-issued permit, this degradation precludes the discharge from being permitted under Pathway 1.

Groundwater

Compare discharge and receiving water data while making best effort to project the area of contribution over a 20-year horizon considering all water year types. Provide a table summarizing the results and indicate whether the discharge is degrading receiving water quality. The technical basis for a finding of no degradation now or in the future (e.g., findings from application of numerical models) must be attached to the end of the report as an appendix. Consider the following:

- If monthly or annual discharge averages, as they are calculated based on when they reach groundwater, exceed applicable thresholds, the discharge cannot be permitted under Pathway 1.

- If monthly or annual discharge averages, as they are calculated based on when they reach groundwater, do not exceed applicable thresholds, but if the discharge is anticipated to contribute to degradation that has not been authorized by the Board in

[2] For irrigated agriculture, biosolids, percolation ponds, manure application, and other discharges associated with soil amendments, the point of compliance would be defined as leachate below any existing root zone as it leaches downward to impact groundwater.

a Board-issued permit over a 20-year horizon, the discharge cannot be permitted under Pathway 1.

EXAMPLES

Surface Water

The City of Big Hills is the owner/operator of a municipal wastewater treatment plant subject to an individual NPDES Permit. Upon receipt of the Notice to Comply, the municipality will need to conduct an evaluation to determine if its discharges cause an exceedance of the conservative EC-based salinity values to protect AGR or MUN beneficial uses. The City conducts an evaluation as described above and the analysis of water quality data shows that the EC of the discharge has never exceeded 300 µS/cm, which is well below the conservative threshold values for protection of the AGR and MUN beneficial uses and of higher quality than the receiving water, which ranges from 450-650 µS/cm. The City is able to be permitted under the Conservative Permitting Approach and must provide its Notice of Intent within six months of receiving the Notice to Comply.

In contrast, when the City of Small Hills (which has a similar NPDES permit) conducted its analyses, the monthly average EC of the discharge ranged from 400 uS/cm to 700 uS/cm which was above the background receiving water quality of 150 to 350 uS/cm. Although the City of Small Hills discharges into a river that dilutes its discharge, the City of Small Hills had never conducted a thorough analysis of other salinity sources to support a site-specific objective. The City of Small Hills will need to either request that the Board allow the river's dilution to be used to help determine compliance (using "assimilative capacity," or the capacity of the river to absorb and dilute salinity) or pursue compliance under the Alternative Permitting Approach. Since the Amendments strongly discourage the use of assimilative capacity, preferring instead to conduct a larger analyses through the P&O Study, the City of Small Hills will likely find it more cost-effective to select compliance under the Alternative Permitting Approach, which will require the City to contact the lead entity managing the P&O Study and complete requirements necessary to be documented as fully participating. The City's permit would be amended to incorporate provisions related to the P&O Study and identify that the permittee is in compliance with salinity effluent limits as long as they continue to fully participate in the P&O Study.

Groundwater

Ripe Tomatoes, Inc. is a food processor in Merced County and has a WDR that authorizes the facility to discharge treated effluent to a nearby pasture owned and operated by Ripe Tomatoes. The facility assesses the quality of the groundwater within its area of contribution to the underlying groundwater sub-basin to determine background EC levels. The assessment must make best efforts to project the area of contribution over a 20-year horizon. The assessment finds that the monthly and annual average EC varies closely around 500 µS/cm. The land-applied effluent has a monthly average EC of 575 µS/cm. Through various processes, the EC increases as it percolates to the underlying groundwater and is typically around 800 µS/cm when it

enters the groundwater. The treated effluent that enters the groundwater is above the AGR threshold of 700 µS/cm and the facility cannot be permitted under the Conservative Permitting Approach unless Ripe Tomatoes can demonstrate that other cleaner water sources will interact with its wastewater in the aquifer, which would be considered using assimilative capacity to help determine compliance. However, the Basin Plan Amendments limit new salinity-related allocations of assimilative capacity and the Board will not likely authorize an allocation of assimilative capacity to determine whether the facility complies with the Salt Control Program. While the facility could potentially upgrade its treatment capabilities to reduce the EC of its treated effluent, it will likely be more cost-effective for Ripe Tomatoes to seek compliance under the Alternative Permitting Approach. The permittee's selected permitting approach and the required supporting documentation must be submitted to the Central Valley Water Board within six months of receiving the Notice to Comply.

6. Assessment of Compliance

Using findings from Section 5 above, you must determine your ability to comply with the requirements of Pathway 1.

The compliance assessment must be based solely on existing treatment controls and not include any planned changes in the facilities treatment controls or source of water. If planned modifications to the facility will allow the facility to comply with the Pathway 1 requirements in the future, see Section 7 ("Ability to Comply with Pathway 1 Requirements in the Future") below.

Note that Pathway 1 limits the availability of the use of compliance tools to achieve compliance over the long term, including:

- A time schedule order to meet a salinity–related effluent limit or waste discharge requirement; or

- A new or expanded allocation of assimilative capacity or mixing zone (if it exists).

Approval of either of these compliance tools is very limited and subject to the discretion of the Board. If the findings from Section 5 indicate that the facility cannot comply with Pathway 1 except through the use of one of these compliance tools, you must contact the Board regarding the potential to receive approval of a request for allocation of any available assimilative capacity, mixing zone, or a time schedule order. A request for the Board to consider one of these compliance tools may require you to complete additional technical analyses and documentation as needed. Alternatively, you can consider selecting Pathway 2 to comply with the Program and evaluate the potential to change your permitting approach at a later date (see Section 7 below).

If your existing permit already has an approved allocation of assimilative capacity or mixing zone, supported by a previously accepted antidegradation study or analysis, the Board may consider continuing previously-approved assimilative capacity.

A modification to the facility's current operation that improves effluent quality through changes in blending of source waters may be considered, if it can be demonstrated that the facility has the authority and capability to implement that change at the time this assessment is submitted to the Central Valley Water Board.

7. Ability to Comply with Pathway 1 Requirements in the Future

You may find that it is not possible to demonstrate an ability to comply with the Pathway 1 requirements within the time frame allowed to submit the NOI. Reasons may include:

- Lack of sufficient data to adequately characterize a receiving water or facility's effluent (which could be remedied with additional data collection in the future).

- Planned facility modifications that will result in compliance with Pathway 1 requirements that will not be completed in time to meet the Program's timeline for submitting an NOI.

Under these scenarios or others, you should consider selecting Pathway 2 when submitting an NOI. At a later date, you have the option to revisit the selected permitting approach. Specifically, the Program states:

> *Permittees may switch from one approach to another by submitting a written request to the Executive Officer of the Central Valley Water Board to change its selected compliance pathway. This request must include documentation regarding how the permittee will comply with the requirements applicable to the compliance pathway it is now requesting to be permitted under and the basis for the change. If the permittee requests to change from the Alternative to the Conservative Permitting Approach, the permittee must demonstrate to the Board that it has complied with all provisions associated with the Alternative Permitting Approach, including financial support to the P&O study, up through the time of permit revision to incorporate requirements for the Conservative Permitting Approach.*

Permittees that decide to implement this provision of the Program will need to submit the information that is required in the assessment, as described in Sections 1 through 6. At the time of submittal of a request to change the permitting approach and until the Board approves the change, you must continue to comply with the Pathway 2 requirements.

IF YOU CHOOSE PATHWAY 2

You must contact the lead entity of the P&O Study which is Central Valley Salinity Coalition (CVSC) through cvsalts.info (cvsalinity.org/public-info) or contacting the CVSC Executive Director, Daniel Cozad, at dcozad@cvsalinity.org to determine the annual fee required to participate in the P&O Study. Annual fees are set by CVSC and vary by permit type or industry category. For general fee breakdown, see the P&O Fee Summary by Industry/Permit Type Tables

(https://www.cvsalinity.org/images/P&O%20Fees.pdf). Once you provide the appropriate level of financial support, CVSC will provide you with documentation to submit with the NOI.