AGENDA

1) Welcome and Introductions - Chair
   a) Committee Roll Call and Membership Roster - 5 min.
   b) Review/Approve Executive Committee Meeting Notes for June 20, 2013 - 5 min.

2) Variance Proposed Basin Plan Amendment – Betty Yee/Jeannette Chilcott (15 min.)

3) Other CV-SALTS Project Updates – (10 min.)
   a) City of Live Oak Site-Specific Salinity Study Work Plan
      Revised Letter with Recommendations for Executive Committee Approval

4) Describing the Current Regulatory Approach (e.g. "No Project Condition") for Controlling Salt and Nitrate Discharges to Groundwater in the Central Valley Region - Tim Moore (2 hours)

   This is an essential task in preparation for the upcoming CEQA Scoping meetings in September. Before making a case for "new regulatory tools" it is necessary to accurately describe the legal and technical basis for the Regional Board's current permitting procedures.

5) Set next meeting objectives/date
   a) September 13th Admin Call
   b) September 26th Policy Session

CV-SALTS meetings are held in compliance with the Bagley-Keene Open Meeting Act set forth in Government Code sections 11120-11132 (§ 11121(d). The public is entitled to have access to the records of the body which are posted at http://www.cvplains.org

One or more Central Valley Regional Water Quality Board members may attend.
## CV-SALTS Committee Rosters

### Executive Committee Membership

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### CV Salinity Coalition

1. CASA - Bobbi Larson
2. County of San Joaquin - Mel Lytle
3. County of San Joaquin - Brandon Nakagawa
4. CVWCA - Debbie Webster
5. City of Fresno - Steve Hogg
6. CA League of Food Processors - Trudi Hughes
7. CA League of Food Processors - Rob Neenan
8. Wine Institute - Tim Schmelzer
9. City of Tracy - Chris Savage
10. Sacramento Regional CSD - Linda Dorn
11. San Joaquin River Group - Dennis Westcot
12. City of Modesto - Gary Delusio
13. California Rice Commission - Tim Johnson
14. City of Manteca - Phil Govea
15. Tulare Lake Drainage/Storage District - Mike Nordstrom
16. Stockton East Water District - Karna Harcafdeld
17. Western Plant Health Association - Renee Poxel
18. City of Vacaville - Royce Cunningham
19. Dairy Cares - Paul Sousa
20. Dairy Cares - J.P. Cativiela

### Comm. Chairs/Co-chairs

1. Chair Executive Committee - Parry Klasson
2. Vice Chair Executive Committee
3. Technical Advisory Committee - Roger Reynolds
4. Technical Advisory Committee - Nigel Quinn, LBL
5. Public Education and Outreach - Joe DiGianesio
6. Economic and Social Cost Committee - David Cor
7. Lower San Joaquin River Committee - Karna Harcafdeld

* = Already votes as Leadership or Coalition member

### Past Participants:

- **Participants also identified for 07/12:**
  - Pam Buford, CVRWQCB
  - Tom Groshoup, LWA
  - Richard Meyerhoff, CDM
  - Karen Ashby, LWA
  - Stan Gryczko, City of Davis
  - Casey Creamer, CCGGA
  - Gary Carlton, Kennedy/Jenks
  - Dick Krettinger Graber, LSCE
  - Vicki Kreger, LWA
  - John Dickey, Planttierra
  - John Herrick
  - Jodi Dunham, Somach
  - David Orth, SWRWQCB
  - Tom Hayes, City of Vacaville
  - Michael Johnson, LSJIR Committee
  - Stan Dean, SRCSD
  - David Rogers, CVRWQCB
  - Diane Barclay, SWRCB

- **Past Participants:**
  - Laurel Firestone, CWC
  - Josie Tellers, City of Davis
  - John Herrick
  - Bill Lewis, City of Live Oak
  - Mark Gowdy, SWRCB
  - Betty Yee, RWQCB
  - Tim Moore, Risk-Sciences
  - Joel Herr, Sytestech
  - Penny Carlo, Carollo Engineers
  - Craig Leidig, CVRWQCB
  - Penny Carlo, Carollo Engineers
  - Dwayne Gower, SWRCB
  - Mark Felton, CDM
  - Mark Felton, Culligan Water and PWQA
  - Mark Felton, Culligan Water and PWQA
  - Adam Masuk, Provost & Pritchard
  - Adam Masuk, Provost & Pritchard
  - Tony Pioronini, City of Vacaville
  - Penny Carlo, Carollo Engineers
  - Penny Carlo, Carollo Engineers

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PRELIMINARY Package Page 2
CV-SALTS Executive Committee Meeting - Summary Action Notes
For June 20, 2013 - 9:00 AM to 3:00 PM

Attendees are listed on the Membership Roster

AGENDA

1) Welcome and Introductions
   a) Chair Parry Klassen brought the meeting to order, and roll call was completed.
   b) David Cory moved to approve, and Rob Neenan seconded, and by general acclamation the May 16th action notes were approved.

2) Conceptual Model Development
   - The CV-SALTS-Conceptual Model Phase II Scoping was presented by Vicki Kretsinger during the morning session. Richard Meyerhoff provided an overview and the following discussion goals for the session.
     - Direction from the Executive Committee on the key items to include in the Phase II Conceptual Model Scope of Work
     - Why Today?
       - Last two Executive Committee Policy meetings have been dedicated to discussing ICM and related policy issues
       - Goal is to have a draft SNMP in May 2014 – Next Executive Committee Policy meeting is not until August
       - Interim between meetings can be used to draft scope of work and review with Project Committee and Technical Advisory Committee
   - It was agreed that an interim group would be formed to discuss what a potential scope would entail for the development of a Management Zone Archetype in Phase II. Yolo County and the West Side areas were suggested as possible candidates for Management Zone Archetypes.
     - The group will also discuss whether additional Subarea analyses should be completed, and where.
   - Rob Neenan requested a copy of the Chino Basin documentation to better understand the structure and costs.

3) Review of Working Draft of CEQA Scoping Information Document
   - Jeanne Chilcott and Richard Meyerhoff presented the current draft document to the committee. A Word version of the document will be forwarded to committee members. Written comments should be forwarded to Jeanne and Richard no later than July 1st.

4) Review of Preliminary Products from the Agricultural Zone Map Project
   - John Dickey provided an update on the status of this project. Daniel Cozad, Richard Meyerhoff and John Dickey will meet to discuss the peer review option.

5) Progress Report to the Regional Board on July 26th
   - Tim Moore briefed the committee on the plans for the presentation. The entire presentation will focus on alternative compliance strategies.

6) Other CV-SALTS Project Updates
   - Fair Share Funding and MUN POTW Archetype Status
     - After discussion, David Cory moved, and J.P. Cativiela seconded, and with one abstention (Debbie Webster), the committee requested the Regional Board prepare the scope of work, leaving Biggs optional, and other case studies as optional.
   - City of Live Oak Site-Specific Salinity Study Work Plan
The letter was referred back to the Technical Advisory Committee for revision of the statement regarding averaging periods.

7) **Set next meeting objectives/date**
   - The next Admin meetings are July 12\textsuperscript{th} and August 9\textsuperscript{th}. The next Policy Session will be August 15\textsuperscript{th}.

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CENTRAL VALLEY SALINITY ALTERNATIVES FOR LONG-TERM SUSTAINABILITY (CV-SALTS) TECHNICAL ADVISORY COMMITTEE RECOMMENDATIONS REGARDING THE CITY OF LIVE OAK’S SITE-SPECIFIC SALINITY STUDY WORKPLAN (ORDER No. R5-2011-0034)

On May 17, 2013, the CV-SALTS Technical Advisory Committee (TAC) reviewed and discussed the Site-Specific Salinity Study Work Plan and Time Schedule submitted under Order No. R5-2011-0034, as it related to ongoing CV-SALTS evaluations to determine appropriate salinity water quality objectives to protect agricultural supply water. A summary of key discussion points and recommendations are provided below with more detail noted in Attachment 1.

- **Selection of Study Area**: Use of the Vicinity Basis method appears appropriate provided cropping patterns are compared with the Local Basis study area as proposed.
- **Selection of Most Sensitive Crop**: More detailed information on the cropping pattern for the 900-acre Vicinity Area should be provided.
- **Effective precipitation**: Clarify basis for estimating “normal” effective precipitation.
- **Leaching Requirement**: The factor used is extremely conservative and provides a significant margin of safety.

Additional discussion revolved around the focus of the Workplan on the use of an annual average of the water quality data to evaluate compliance with a water quality objective or effluent limitation to protect irrigated agriculture. Given the seasonal nature of crop irrigation, shorter averaging periods may be appropriate. While a final policy recommendation regarding this issue will be developed by the CV-SALTS Executive Committee, TAC discussions have included monthly, 30-day rolling, and seasonal and annual averaging as potential options.

In summary, the Committee recommends that the City of Live Oak provide additional information as noted above before a determination that an EC of 1,100 umhos/cm is fully protective of the AGR beneficial use in the area potentially impacted by the City’s effluent.

Sincerely,

Nigel Quinn
Chair, CV-SALTS Technical Advisory Committee

Parry Klassen
Chair, CV-SALTS Executive Committee

Cc: Ken Landau, Central Valley Regional Water Quality Control Board
    Jeanne Chilcott, Central Valley Regional Water Quality Control Board
Background: The City of Live Oak (City) is a small economically disadvantaged community with a population of 8,500. The annual average EC of effluent discharged from the City’s new tertiary treatment plant (826 umhos/cm) exceeds the 700 umhos/cm trigger specified in their Order. Per the Order’s requirements, the City submitted a workplan to evaluate salinity concentrations needed to protect agriculture irrigation supply (AGR) in areas that may be impacted by the effluent. The effluent currently flows into Reclamation District 777 Lateral Drain No. 2 prior to Lateral Drain No. 1 which in turn flows into the East Interceptor Canal and then to the Wadsworth Canal before ultimate discharge to the Sutter Bypass. Based on the initial workplan findings, the City concludes that the annual average effluent EC of 1,100 umhos/cm is protective of the AGR beneficial use and has requested that any additional work be reduced or eliminated.

Central Valley Water Board staff received the workplan on 13 March 2013 and requested input from the CV-SALTS Technical Committee on adequacy of the plan and findings.

Workplan Summary: As part of the workplan, the City proposed a recommended study area to represent the area that may be impacted by the effluent and evaluated permitted and actual diversions from the two laterals for agricultural irrigation, the areas’ 2004 Crop Survey and the Western Fertilizing Handbook to determine cropping patterns and most salinity sensitive crop. The workplan also conducted a very preliminary “example determination of site-specific agricultural water quality objectives” using both the 40-30-20-10 (arithmetic) model and exponential model with the following inputs: a 244-day growing season, annual crop ET of 34.88 in., monthly average ET from bare soil at 0.7 in. per month; effective precipitation of 14.68 in. (assumed for normal irrigation season); leaching fractions of 0.07 and 0.10; and supply water at both 826-umhos/cm (2012 average effluent concentration) and 1,100-umhos/cm (final permit effluent limitation). The following notes the CV-SALTS Technical Committee comments/recommendation on some of the assumptions and estimates used in the workplan.

Selection of Study Area: The workplan notes three potential basis for study area selection: Vicinity; Use; and Local. The proposed area is Vicinity based (900-acres directly adjacent to the lateral drains for 1.25 miles downstream of the effluent discharge) with a cursory review of the Local area (approximately 7,780-acres of which 6,420 were surveyed as agriculture in DWR’s 2004 crop survey). If the effluent was evenly distributed over the 900-acres for 6-months, it would provide approximately 10-inches.

TAC Comment: A map of study area represented by the Vicinity Basis method is needed; however, selection of this method for delineating the study area appears to provide an adequate “worst-case” area for reviewing potential effluent impacts. The TAC concurs with the inclusion of a process that compares the cropping pattern represented by the Vicinity Basis method with the Local Based study area.

Selection of Most Sensitive Crop: The City used the DWR’s 2004 crop survey and 1995 Western Fertilizer Handbook to determine that plums (prunes) were the most salt sensitive crop grown in the area. The workplan provided a very generalized table of percentages of crop types (fruits/nuts; rice; field crops; etc.) in Table 1. Current evaluations conducted as part of the CV-SALTS AGR Zone Study are evaluating cropping patterns over a five to 10-year period and specifically identifying crops that make up 95% of the agricultural production.
**TAC Recommendation:** Since selection of the most sensitive crop is the most critical element of any evaluation, more detailed information on the cropping pattern for the 900-acre Vicinity area should be provided—by specific crop percentage over at least the last five years rather than relying only on data from 2004. Current information does not clarify whether the Vicinity Basis study area is primarily orchard or whether it currently rotates cropping patterns. Some of this information may have been collected for CV-SALTS as background for the Central Valley AGR Mapping Zone study.

**Effective Precipitation:** The City used mean monthly precipitation from the Marysville COOP station and estimated 25% of the rainfall as runoff, with adjustments for the non-growing season and annual crop ET and 0.7 in/mo. bare soil ET. While the methodology was clear, it was not clear whether the numbers cited are from one year, average of multiple years, or some other calculation of a “normal” rainfall year.

**TAC Recommendation:** Clarify basis for estimating “normal” effective precipitation.

**Leaching Fraction:** The City uses the published leaching requirement of the crop (7%) and a slight adjustment to 10% as inputs for both the arithmetic and exponential models.

**TAC Comment:** Use of the leaching requirement of the crop is an extremely conservative input and likely does not represent actual water management capabilities of the local growers (unless they are using a highly managed drip or micro-sprinkler system). The City should have the option to consider identifying typical irrigation methods in the Vicinity Basis study area and determining whether the 15% leaching fraction currently being considered as a default by CV-SALTS more accurately represents anticipated practices.

**Annual Averaging:** The document focuses on annual average EC concentrations.

**TAC Comment:** The focus on use of an annual average of the water quality data for evaluating compliance with a water quality objective or effluent limitation likely is an artifact of the wording of the overall effluent limitation as an annual average. Protection of the AGR use is typically evaluated using monthly water quality data or 30-day rolling average concentration data (e.g. Vernalis objective in the Lower San Joaquin River). These shorter averaging periods take into account the seasonal nature of crop irrigation. The permit itself contains the following wording:

**a) Salinity/EC Site-Specific Study.** If, after one year following construction of the tertiary Facility, the effluent EC level is greater than 700 µmhos/cm for the annual average EC discharge, the Discharger shall complete and submit to the Central Valley Water Board a report on the results of a site-specific investigation of appropriate EC levels to protect the beneficial uses of the receiving water (i.e. AGR and MUN). For protection of the AGR beneficial use the study must consider how climate, soil chemistry, background water quality (surface water and groundwater), rainfall, and flooding affect salinity (EC) requirements necessary to protect the AGR beneficial use. The study shall include, at minimum, the following:

i. The most salt sensitive crops in areas irrigated with Reclamation District 777 Lateral Drain No. 1 or Lateral Drain No. 2 waters in the vicinity of the discharge under reasonable worst-case conditions.

ii. The sodium adsorption ratio of soils in the affected area.

iii. The alkalinity of soils to whether site specific conditions would reduce fluoride impacts.
iv. The effects of rainfall and flood-induced leaching; and

v. The background receiving water quality.

Based on these factors, as well as economic and environmental impacts (such as increased irrigation water usage, groundwater hydraulics and degraded water quality), the study shall recommend site-specific numeric values for EC that provide reasonable protection for the agricultural supply use designation in the receiving water.

Protection of AGR may be better met utilizing a monthly, 30-day rolling or seasonal average. Selection of an appropriate averaging period for protection of the AGR beneficial use is a subject of discussion by the CV-SALTS Executive Committee. It is recommended that the project proponents monitor the ongoing CV-SALTS discussions in this area.
Policy Discussion Outline for CV-SALTS Executive Committee Meeting (8/15/2013)

Describing of the CURRENT Regulatory Approach (e.g. "No Project" Condition) for Controlling Salt and Nitrate Discharges to Groundwater in the Central Valley Region

**General:** the Regional Water Quality Control Board authorizes discharges to groundwater in accordance with the California Water Code (Porter-Cologne Act). The Board imposes Waste Discharge Requirements (WDR) to ensure compliance with applicable water quality objectives which, in turn, are intended to protect designated beneficial uses in the receiving waters. These uses and objectives (collectively referred to as "water quality standards") are defined in the Water Quality Control Plans (aka "Basin Plans"). Water quality objectives may be expressed as specific numeric thresholds (e.g. 10 mg/L nitrate-nitrogen) or in a narrative form (e.g. "discharges may not cause nuisance"). In either case, the state-issued permit must include WDRs to ensure the discharge complies with water quality objectives. Over time, the Regional Board has developed a number of policies, procedures and common practices for establishing water quality standards and issuing WDRs.

**Beneficial Uses**

1) **MUN:** In accordance with the State Board’s Sources of Drinking Water Policy (Res. No. 88-63) the Regional Board presumes that all groundwaters in the Central Valley are or should be capable of supporting a municipal or domestic drinking water use. The MUN use is presumed to apply irrespective of whether the receiving water is explicitly identified, or the use explicitly designated, in the Basin Plan. In addition, the MUN use is presumed to apply at all depths throughout the length and breadth of the entire saturated zone. Exceptions to these presumptions may be made for groundwaters that meet one or more of the exceptions identified in the Sources of Drinking Water Policy. However, such exceptions require a formal Board action, including proper notice, opportunity for public comment and a public hearing to amend the designated uses in the Basin Plan. In addition These exceptions must also be approved by the State Water Resources Control Board before becoming effective.
2) **AGR:** The Regional Board presumes that all groundwaters in the Central Valley are or should be capable of supporting agricultural uses because commercial agriculture is ubiquitous throughout the region and there are tens of thousands of irrigation wells operating to support this use. The Regional Board may make site-specific exceptions to this presumption on a case-by-case basis. The State Board has not established formal exception criteria for AGR as it has for MUN. Nevertheless, such determinations still require formal Board action to amend the Basin Plan where AGR was previously identified as a designated use for a given groundwater body or where a groundwater body was not previously named in the Basin Plan. The Board recognizes that in many instances the current cropping practices are dependent on imported water and such practices could not be maintained based on the volume and quality of native groundwater that is generally available in the same area. Thus, there is not always a clear connection between the existing or potential AGR use and the current water quality in the underlying aquifer.

3) **Most Sensitive Use:** Where a groundwater basin supports multiple beneficial uses, the Regional Board is required to impose WDRs that will protect the "most sensitive use." Historically, the Regional Board has defined the "most sensitive use" as that use which requires the highest water quality. This determination is made on a pollutant-by-pollutant basis. Therefore, the most sensitive use may be defined differently when developing a discharge limitation for nitrate-nitrogen than when developing a similar limitation for salinity.

4) **Existing vs. Potential Uses:** The Regional Board has not previously drawn any distinction between "existing" and "potential" uses when identifying the most sensitive use. However, the Board has the authority to do so at its discretion.

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### Water Quality Objectives

5) **Nitrate-Nitrogen:** When establishing a water quality objective for nitrate-nitrogen, the Regional Board has determined that MUN is the most sensitive use. Because groundwater may be used directly as a source of supply for domestic drinking water, without additional treatment, the water quality objective for nitrate-nitrogen was set equal to 10 mg/L (the Primary Maximum Contaminant Level recommended by both U.S. EPA and the California Department of Public Health). Since MUN is a presumed use for all groundwaters, meeting the water quality objective for nitrate-nitrogen in these waters will be protective of all other existing or potential uses that may occur in the same aquifers. And, since water supply well may pump from any location within an aquifer, WDRs must ensure compliance with the nitrate-nitrogen objective at or before the point where the discharge reaches the receiving water.
6) **Salinity:** When establishing a water quality objective for salinity, the Regional Board has determined that MUN is the most sensitive use. The water quality objective for salinity was set equal to 500 mg/L (the Secondary Maximum Contaminant Level recommended at Table 64449-A and Table 64449-B in Title 22 of the California Code of Regulations. The salinity objective was established to prevent excessive salinity from adversely affecting the taste or odor of drinking water or causing other nuisance to water users.

Although the Regional Board has not established specific numeric water quality objectives to protect salt-sensitive crops, it has enacted a narrative objective which prohibits the discharge of chemical constituents (including salt) in concentrations that adversely affect beneficial uses. In general, the Regional Board has concluded that the salinity objective established to protect the MUN use (e.g. <500 mg/L as TDS) will also assure that water quality is adequate to protect any salt-sensitive crops grown in the region.

7) **Natural Background Concentrations:** The water quality objectives established in the Basin Plans do not require improvement over naturally-occurring background concentrations of these same constituents in the groundwater. However, where the existing background concentration of a given pollutant exceeds the applicable water quality objective prior State Board decisions require the Regional Board to impose WDRs limiting the discharge of that pollutant to concentrations no greater than the applicable objective. To date, the Regional Board has not established any criteria for determining what constitutes a naturally-occurring condition or a specific method for quantifying the "background concentration" of a given pollutant.

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**Waste Discharge Requirements**

8) **First Encountered Groundwater:** Because beneficial uses are deemed to apply at all depths and at every location throughout the length and breadth of the aquifer, any discharges are required to meet the applicable water quality objectives at the point where the effluent first encounters the groundwater. However, in practice, the Regional Board has not relied on the availability of assimilative capacity to authorize discharges to groundwater in excess of Basin Plan objectives because compliance with the objectives is evaluated at "First Encountered Groundwater" before there is any significant opportunity for mixing to occur. The Regional Board can take into account transformations (including dilution by other sources of recharge, such as stormwater) that may occur in the vadoze zone (between the point of surface discharge and the saturated zone) when and where there is adequate data to demonstrate consistent transformation is occurring.
9) **Assimilative Capacity:** Assimilative capacity exists when and where the groundwater is able to accept the discharge of additional pollutants at concentrations in excess of the applicable water quality objective without causing water quality in the aquifer to actually exceed that objective. This is functionally-equivalent to the surface-water concept of a mixing zone. Assimilative capacity is determined on a pollutant-by-pollutant basis. When there is assimilative capacity for a given pollutant in the receiving water and the concentration of that same pollutant is greater in the discharge than in the receiving water, the Regional Board may permit such a discharge subject to conditions set forth in the State Board’s antidegradation policy (Res. No. 68-16). Where water quality in the receiving water is better than the Basin Plan objective, the Regional Board is not obligated to allocate that assimilative capacity to any discharger. The assimilative capacity may be apportioned or reserved at the Board’s discretion.

10) **Effluent Limitations:** When developing a WDR permit, the Regional Board usually sets the effluent limitation for any given pollutant equal to the water quality objective for that pollutant to ensure that the discharge will comply with the applicable water quality standard at First Encountered Groundwater. In practice, this means that the average nitrate-nitrogen concentration in the discharge must not exceed 10 mg/L and the average TDS concentration cannot exceed 500 mg/L. In addition, where pollutant concentrations in the receiving water are already better than the applicable Basin Plan objectives, the Regional Board is required to establish effluent limitations designed to preserve the higher water quality in accordance with the state antidegradation policy.

11) **Point-of-Compliance:** Most permits require waste discharges to demonstrate compliance with applicable water quality objectives at the point-of-discharge. This is especially true when the Regional Board has no reason to expect significant pollutant transformation following discharge and there is no assimilative capacity in the receiving water. The Regional Board assumes an effluent that meets the water quality objective at the point-of-discharge will continue to comply with the water quality standard at First Encountered Groundwater. This is a rebuttable presumption and the effluent limitation may be adjusted (up or down) to reflect site-specific conditions.

12) **Time-to Comply:** Dischargers are generally required to comply with WDRs immediately upon issuance. An exception may be made where a new effluent limitation is imposed and it is infeasible or impracticable for the discharger to come into immediate compliance. Under such circumstances, the Regional Board may authorize a Compliance Schedule to provide sufficient time for dischargers to implement the means needed to meet the effluent limitation. Most compliance schedule require conformance prior to the expiration of the permit (usually 5 years) and rarely ever exceed 10 years.
Enforcement Options

Where a discharger is unwilling or unable to comply with the Waste Discharge Requirements, the Regional Board has a number of options:

13) **Civil and Criminal Penalties**: Permit violations are subject to both civil and criminal enforcement. The Regional Board has authority to levy fines and impose more severe penalties (e.g. prison terms). Such penalties are usually reserved for those who violate the terms of the permit and have not made a good-faith effort to come into compliance in the time allotted.

14) **Time Schedule Order**: Where a discharger is unable to comply with the WDR's by the deadlines specified in the permit, the Regional Board may adopt a Time Schedule Order. Unlike a Compliance Schedule, where the discharger is deemed "in compliance" while developing and implementing the means to comply with new effluent limitations, a TSO is an enforcement action that recognizes the discharger is out of compliance while imposing additional interim and final deadlines to ensure final conformance with the permit. As such, the Regional Board usually imposes a fine associated with the dischargers failure to meet prior deadlines at the same time the TSO is adopted.

15) **Cease and Desist Order (CDO)**: Where a discharger is unable or unwilling to comply with the terms and conditions specified in the permit, the Regional Board may issue a Cease and Desist Order prohibiting any further discharges unless and until the discharger is able to comply with the effluent limitation in the WDRs. It should be noted that the inability to comply may justify approval of a Compliance Schedule or a Time Schedule Order but it does not provide a long-term waiver from the obligation to comply with the WDRs even where it is impractical or infeasible to comply with the effluent limitations in the permit. Such an approach would require the Basin Plan be amended to grant the Regional Board the authority to issue conditional variances.

16) **Cleanup and Abatement Orders (CAO)**: Where a prior discharge has violated a narrative or numeric water quality objective, the Regional Board may issue a Cleanup and Abatement Order requiring the person(s) responsible for that discharge to undertake specific actions designed to mitigate and remediate the resulting adverse effects on beneficial uses in the receiving water. This may include, but is not limited to, requiring the discharger to provide an alternate water supply to those who have been adversely impacted by the prior discharge. At present, the Board is not authorized to allow dischargers to achieve compliance by providing an alternate water supply where it is otherwise impractical or infeasible to meet the effluent limitations in the discharge.