

REVISION OF
MONITORING AND REPORTING PROGRAM
ORDERS FOR GROWERS WITHIN THE CENTRAL VALLEY THAT ARE MEMBERS
OF A THIRD-PARTY GROUP:

TULARE LAKE BASIN AREA R5-2013-0120
WESTERN TULARE LAKE BASIN AREA R5-2014-0001
EASTERN SAN JOAQUIN RIVER WATERSHED R5-2012-0116
WESTERN SAN JOAQUIN RIVER WATERSHED R5-2014-0002
GRASSLAND DRAINAGE AREA R5-2015-0095
SAN JOAQUIN COUNTY AND DELTA AREA R5-2014-0029
SACRAMENTO RIVER WATERSHED AREA R5-2014-0030

The Monitoring and Reporting Program Orders (MRP Orders) of the third-party group Waste Discharge Requirements Orders listed above are revised as shown by underline and strikethrough text in Attachment 1 of this Order.

The third party coalition groups shall comply with the MRP Orders as revised by the Executive Officer:

- Buena Vista Coalition
- Cawelo Water District Coalition
- Kaweah Basin Water Quality Association
- Kern River Watershed Coalition Authority
- Kings River Water Quality Coalition
- Tule Basin Water Quality Coalition
- Westside Water Quality Coalition
- Westlands Water Quality Coalition
- East San Joaquin Water Quality Coalition
- Westside San Joaquin River Watershed Coalition
- Grassland Basin Drainage Steering Committee
- San Joaquin County and Delta Water Quality Coalition
- Sacramento Valley Water Quality Coalition

The Coalitions, on behalf of the individual member Dischargers, shall implement the above monitoring and reporting program and modifications as of the date of this revised Order.

<u>Original signed by</u> PAMELA C. CREEDON Executive Officer	<u>5/5/17</u> Date
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ATTACHMENT 1

REVISION OF MONITORING AND REPORTING PROGRAM ORDERS FOR GROWERS WITHIN THE CENTRAL VALLEY THAT ARE MEMBERS OF A THIRD-PARTY GROUP:

TULARE LAKE BASIN AREA R5-2013-0120
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SACRAMENTO RIVER WATERSHED AREA R5-2014-0030

ATTACHMENT B

PART IV. Groundwater Quality Monitoring and Management Practice Assessment, and Evaluation Requirements

C. Groundwater Quality Trend Monitoring

This section provides the objectives and minimum sampling and reporting requirements for Groundwater Quality Trend Monitoring. As specified in section IV.E of this MRP, the third-party is required to develop a workplan that will describe the methods that will be utilized to achieve the trend monitoring requirements. This MRP allows developing and implementing a regional Groundwater Quality Trend Monitoring workplan that involves participants in other areas or third-party groups, provided the regional workplan meets the objectives and sampling and reporting requirements described herein. The third-party must submit a copy of the agreement between the parties included in the regional Groundwater Quality Trend Monitoring Group (Trend Monitoring Group). Under this option, the regional workplan may propose a phased approach to develop and implement the workplan elements specified in section IV.E of this MRP.

1. *Objectives.* The objectives of Groundwater Quality Trend Monitoring are (1) to determine current water quality conditions of groundwater relevant to irrigated agriculture, and (2) to develop long-term groundwater quality information that can be used to evaluate the regional effects (i.e., not site-specific effects) of irrigated agriculture and its practices.
2. *Implementation.* To reach the stated objectives for the Groundwater Quality Trend Monitoring program, the third-party shall develop a groundwater **quality** monitoring network that will (1) be implemented over both high and low vulnerability areas in the third-party area; and will (2) employ shallow wells, but not necessarily wells completed in the uppermost zone of first encountered groundwater. The use of existing wells is less costly than installing wells specifically designed for groundwater **quality** monitoring, while still yielding data which can be compared with historical and future data to evaluate

long-term groundwater **quality** trends. The third party may also consider using existing monitoring networks such as those used by AB 3030 and SB 1938 plans.

The third-party, **either solely or in conjunction with a regional Groundwater Quality Trend Monitoring Group**, shall submit a proposed ~~Trend~~ Groundwater **Quality Trend** Monitoring Workplan described in section IV.E below to the Central Valley Water Board. The proposed network shall consist of a sufficient number of wells to provide coverage in the third-party geographic area so that current water quality conditions of groundwater and composite regional effects of irrigated agriculture can be assessed according to the trend monitoring objectives. The rationale for the distribution of trend monitoring wells shall be included in the workplan **submitted by the third-party. If the third-party participates in a Trend Monitoring Group, the proposed well network and rationale for distribution of trend monitoring wells is not required in the initial workplan. However, the initial workplan must include a schedule for developing and submitting a proposed well network and rationale for distribution of trend monitoring wells.**

3. *Reporting.* The results of trend monitoring are to be included in the third-party's Monitoring Report and shall include a map of the sampled wells, tabulation of the analytical data, and time concentration charts. Groundwater **quality** monitoring data are to be submitted electronically to the State Water Board's GeoTracker Database and to the Central Valley Water Board.

Following collection of sufficient data (sufficiency to be determined by the method of analysis proposed by the third-party **or Trend Monitoring Group**) from each well, the third-party is to evaluate the data for trends. The methods to be used to evaluate trends shall be proposed by the third-party **or Trend Monitoring Group** in the ~~Trend~~ Groundwater **Quality Trend** Monitoring Workplan described in section IV.E below.

E. Groundwater Quality Trend Monitoring Workplan

The third-party, **either solely or in conjunction with a regional Groundwater Quality Trend Monitoring Group**, shall develop a workplan for conducting trend monitoring within its boundaries that meets the objectives and minimum requirements described in section IV.C of this MRP. The workplan shall be submitted to the Executive Officer for review and approval. **If the regional Groundwater Quality Trend Monitoring Group option is selected, the workplan must be submitted to the Executive Officer by 31 October 2017. The regional Groundwater Quality Trend Monitoring Workplan may propose a schedule for a phased approach to develop and implement items 1 through 4 below. In addition, the proposed schedule shall include submittal of a QAPP for the regional Trend Monitoring Workplan. A single third-party Trend Monitoring Workplan shall provide full information/details for items 1 through 4 below upon submittal of the workplan, due one (1) year following approval of the GAR. The Trend Monitoring Workplan shall provide information/details regarding the following topics:**

1. *Workplan approach.* A discussion of the rationale for the number of proposed wells to be monitored and their locations. The rationale needs to consider: 1) the variety of agricultural commodities produced within the third-party's boundaries (particularly those commodities comprising the most irrigated agricultural acreage), 2) the conditions discussed/identified in the GAR related to the vulnerability prioritization within the third-

party area, and 3) the areas identified in the GAR as contributing significant recharge to urban and rural communities where groundwater serves as a significant source of supply.

2. *Well details.* Details for wells proposed for trend monitoring, including:
 - i. GPS coordinates;
 - ii. Physical address of the property on which the well is situated (if available);
 - iii. California State well number (if known);
 - iv. Well depth;
 - v. Top and bottom perforation depths;
 - vi. A copy of the water well drillers log, if available;
 - vii. Depth of standing water (static water level), if available (this may be obtained after implementing the program); and
 - viii. Well seal information (type of material, length of seal).
3. *Proposed sampling schedule.* Trend monitoring wells will be sampled, at a minimum, annually at the same time of the year for the indicator parameters identified in Table 3 below.
4. *Workplan implementation and analysis.* Proposed method(s) to be used to evaluate trends in the groundwater **quality** monitoring data over time.

GRASSLAND DRAINAGE AREA R5-2015-0095

ATTACHMENT B

PART III. Groundwater Quality Monitoring and Management Practice Assessment, and Evaluation Requirements

C. Groundwater Quality Trend Monitoring

This section provides the objectives and minimum sampling and reporting requirements for Groundwater Quality Trend Monitoring. As specified in section III.E of this MRP, the Steering Committee is required to develop a workplan that will describe the methods that will be utilized to meet the trend monitoring requirements and submit a QAPP as specified in the ILRP QAPP Guidelines. **This MRP allows developing and implementing a regional Groundwater Quality Trend Monitoring workplan that involves participants in other areas or third-party groups, provided the regional workplan meets the objectives and sampling and reporting requirements described herein. The Steering Committee must submit a copy of the agreement between the parties included in the regional Groundwater Quality Trend Monitoring Group (Trend Monitoring Group). Under this option, the regional workplan may propose a phased approach to develop and implement the workplan elements specified in section III.E of this MRP.**

1. *Objectives.* The objectives of Groundwater Quality Trend Monitoring are (1) to determine current water quality conditions of groundwater relevant to irrigated agriculture, and (2) to develop long-term groundwater quality information that can be used to evaluate the regional effects (i.e., not site-specific effects) of irrigated agriculture and its practices.

2. *Implementation.* To reach the stated objectives for the Groundwater Quality Trend Monitoring program, the Steering Committee shall develop a groundwater **quality** monitoring network that will (1) be implemented over both high and low vulnerability areas in the Grassland Drainage Area, and (2) employ shallow wells, but not necessarily wells completed in the uppermost zone of first encountered groundwater. The use of existing wells is less costly than installing wells specifically designed for groundwater **quality** monitoring, while still yielding data which can be compared with historical and future data to evaluate long-term groundwater trends. The Steering Committee may also consider using existing monitoring networks such as those used by AB 3030 and SB 1938 plans.

The Steering Committee, **either solely or in conjunction with a regional Groundwater Quality Trend Monitoring Group,** shall submit a proposed **Trend** Groundwater **Quality Trend** Monitoring Workplan described in section III.E below to the Central Valley Water Board. The proposed network shall consist of a sufficient number of wells to provide coverage in the Grassland Drainage Area so that current water quality conditions of groundwater and composite regional effects of irrigated agriculture can be assessed according to the trend monitoring objectives. The rationale for the distribution of trend monitoring wells shall be based on the findings in the GAR and included in the workplan **submitted by the third-party.** **If the Steering Committee participates in a Trend Monitoring Group, the proposed well network and rationale for distribution of trend monitoring wells is not required in the initial workplan. However, the initial workplan must include a schedule for developing and submitting a proposed well network and rationale for distribution of trend monitoring wells.**

3. *Reporting.* The results of trend monitoring are to be included in the Steering Committee's Monitoring Report and shall include a map of the sampled wells, tabulation of the analytical data, and time concentration charts. Groundwater **quality** monitoring data are to be submitted electronically to the State Water Board's GeoTracker Database and to the Central Valley Water Board in a format specified by the Executive Officer.

Following collection of sufficient data (sufficiency to be determined by the method of analysis proposed by the Steering Committee **or Trend Monitoring Group**) from each well, the Steering Committee is to evaluate the data for trends. The methods to be used to evaluate trends shall be proposed by the Steering Committee **or Trend Monitoring Group** in the **Trend** Groundwater **Quality Trend** Monitoring Workplan described in section III.E below.

E. Groundwater Quality Trend Monitoring Workplan

The Steering Committee, **either solely or in conjunction with a regional Groundwater Quality Trend Monitoring Group,** shall develop a workplan for conducting trend monitoring within its boundaries that meets the objectives and minimum requirements described in section III.C of this MRP. The QAPP for trend monitoring must be submitted for approval as specified in section VI. The workplan shall be submitted to the Executive Officer for review and approval. **If the regional Groundwater Quality Trend Monitoring Group option is selected, the workplan must be submitted to the Executive Officer by 31 October 2017. The regional Groundwater Quality Trend Monitoring Workplan may propose a schedule for a phased approach to develop and implement items 1 through 4 below. In addition, the proposed schedule shall include submittal of a QAPP for the regional Trend Monitoring Workplan. A single third-party Trend Monitoring Workplan shall provide full information/details for items 1 through 4 below upon submittal of the**

~~**workplan, due one (1) year following approval of the GAR. The Trend Monitoring Workplan shall provide information/details regarding the following topics:**~~

1. *Workplan approach.* A discussion of the rationale for the number of proposed wells to be monitored and their locations is required in the workplan. The rationale needs to consider: 1) the variety of agricultural commodities produced within the GDA boundaries (particularly those commodities comprising the most irrigated agricultural acreage), 2) the conditions discussed/identified in the GAR related to the vulnerability or data gap prioritization within the GDA, and 3) the areas identified in the GAR as contributing significant recharge to urban and rural communities where groundwater serves as a significant source of supply.
2. *Well details.* *The Workplan will provide details for wells proposed for trend monitoring, including:*
 - i. GPS coordinates;
 - ii. Physical address of the property on which the well is situated (if available);
 - iii. California State well number (if known);
 - iv. Well depth;
 - v. Top and bottom perforation depths;
 - vi. A copy of the water well drillers log, if available;
 - vii. Depth of standing water (static water level), if available (this may be obtained after implementing the program); and
 - viii. Well seal information (type of material, length of seal).
3. *Proposed sampling schedule.* Trend monitoring wells will be sampled, at a minimum, annually at the same time of the year for the indicator parameters identified in Table 1 below. Staff will also consider the uses of the groundwater in evaluating the constituents to be monitored in groundwater. Groundwater to be used as wetland supply water will be required to be monitored for selenium.
4. *4. Workplan implementation and analysis.* The Workplan will describe proposed method(s) to be used to evaluate trends in the groundwater **quality** monitoring data over time.