

Irrigation Runoff From Nurseries: Addressing the Conditional Agriculture Waiver in California®

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INTRODUCTION

California nursery growers are faced with many challenges, not only in running a profitable business, but also in growing marketable crops. Among these challenges are complying with laws regulating both business and production practices. With the adoption of Conditional Waivers for Irrigated Agriculture in California, there is additional pressure to protect the natural waters in the State of California from pollutants that may be carried in runoff that results from the irrigation of crops.

BACKGROUND/HISTORICAL

The overriding law in the nation is the Clean Water Act (1948, 1965, 1972, and 1987). This law established the National Pollutant Discharge Elimination System (NPDES, Section 402) that regulates point-source discharges and includes storm-water. Also included in this law is the Nonpoint Source (NPS) Management Program (Section 319). Agriculture had been exempted from these regulations through the issuance of waivers. An additional section (303d) of the Clean Water Act established the Total Maximum Daily Load (TMDL) Program that requires each state to identify impaired water bodies, the pollutant causing the impairment, and the sources (both point and nonpoint) of the pollutant.

In California, the Porter-Cologne Act of 1969 is the principle water law. This law established the State Water Resources Control Board and nine Regional Water Quality Control Boards to enforce both Federal and State water laws. The Regional Boards are empowered to issue Waste Discharge Requirement (WDR) or NPDES permits to dischargers in order to regulate pollution.

Waivers were adopted by most of the Regional Water Quality Control Boards for agriculture. Since individual dischargers can be issued permits and it is known that agriculture produces discharges, waivers were adopted for all of agriculture. It is estimated that there are between 25,000 to 75,000 agricultural operations in the Central Valley so issuing the waiver in lieu of individual permits enabled growers to continue to function legally.

In 1999, SB 390 was passed and rescinded on 1 Jan. 2003, all existing waivers, except those meeting newer, stricter standards. This meant that the agricultural waivers that were in place would expire. The bill also established that new waivers that are created will not exceed 5 years. As of the date of this discussion, the Central Valley (Region 5) and the Central Coast (Region 3) Regions have implemented new waivers to address the runoff from agriculture.

Growers often ask: "Why should I be concerned?" Regulators are taking a "three-tier" approach to compliance where the first tier will be voluntary efforts by growers to reach compliance. At the second level, they will become more involved using "regulatory-based encouragement" to identify and implement management methods to reach compliance. Lastly, will be enforcement of limitations as specified in discharge permits that will be issued. It is very important for growers to avoid this

third tier. Discharge permits are very specific in identifying pollutants and their allowable concentrations. Complying with the permits will require modifications in production practices.

CENTRAL VALLEY REGION PROGRAM

In Dec. 2002, a new Conditional Ag Waiver was issued by the Central Valley Regional Water Quality Control Board (CVRWQCB) so that a new waiver would be in place when the older one expired. However, it was of the opinion that the waiver was too lenient and did not require adequate monitoring as required in the California Water Code. So, on July 2003, that waiver was rescinded and a new waiver was issued. This is the version that is currently in place and includes monitoring and reporting requirements by dischargers of agricultural runoff. This waiver is officially known as: Conditional Waivers of Waste Discharge Requirements For Discharges From Irrigated Lands Within the Central Valley and is detailed in the CVRWQCB document: Resolution No. R5-2003-0105.

This waiver requires that dischargers of runoff that result from agricultural irrigation must register by 1 Nov. 2003 with the Region 5 office. There are three options to registering: as an Individual Discharger, a Coalition Member, or a Nondischarger. An Individual Discharger intends to comply with the requirements of the waiver without sharing responsibilities. Members of a coalition will do so as a group. A Nondischarger must self-certify that polluting runoff is not generated from the grower's operation and will be required to obtain a Waste Discharge Requirement Permit. Whether as an individual or a coalition member, growers will be required to develop and implement management methods to protect water quality and to comply with the water quality objectives of the waiver. These requirements are more extensive for a coalition than an individual and are summarized as follows:

SUMMARY OF MONITORING REQUIREMENTS FOR THE REGION 5 PROGRAM

Individual Compliance (Attachment C)

- Develop and implement monitoring and reporting plan
- Water quality and flow
- Toxicity testing
- Pesticide use evaluation
- Evaluate management methods
- Monitor
 - 11 quality parameters
 - 4 pesticides, 5 metals
- Technical reports
 - Farm management report: 1 April 2004
 - Annual monitoring report: each March 1st

Coalition Compliance

- Develop and implement monitoring and reporting plan as in individual program
- Monitoring, more comprehensive and in phases:
- Phase 1
 - Quality parameters
 - Drinking water constituents

- Pesticide use evaluation
- All 303(d) listed pollutants
- All pesticides listed in Region 5 Basin Plan
- General water quality parameters
- Toxicity testing
- This phase may last 2 years
- Phase 2
 - Based on Phase 1 monitoring
 - Addresses quality parameters, pesticides, waste causing toxicity
 - Management methods and effectiveness
 - This phase may last 2 years
- Phase 3
 - Identify improvement in waste concentrations
 - Monitoring general water quality
 - Pesticide use evaluation including: loading, mixing, application
 - Pest management
 - Waste management
 - Cultural practices
 - Monitoring
 - 9 physical parameters, 6 drinking water parameters, 2 toxicity tests, 5 pesticides, 8 metals, 3 nutrients
- Technical reports
 - Notice of Intent & General Report (1 Nov. 2003) Monitoring and Reporting Program Plans Watershed Evaluation Report Annual Monitoring and Reporting Program Report When exceedances occur, notify Regional Board. May require submission of Management Plan.
- The entire program may last 10 years.

CENTRAL COAST REGION PROGRAM

On 9 July 2004, the Conditional Waiver was adopted by the Central Coast Regional Water Quality Control Board (CCRWQCB) and is titled: Approving an Initial Study and Adopting a Negative Declaration for Conditional Waiver of Waste Discharge Requirements for Discharges from Irrigated Lands and is the document Resolution no. R3-20054-0118. It is important to note the inclusion of groundwater protection in this waiver is a major difference from the Region 5 Waiver.

This waiver establishes new Monitoring and Reporting Programs and requires that growers who discharge file a Notice of Intent (NOI) with the Regional Board (Region 3) office. This NOI will include a description of the growers operation that cover the following: location, contact information, management practices, map, a statement of water quality plan, education certificates, and a declaration of the monitoring option chosen. This program requires that dischargers complete a water quality education program within 3 years. A management plan must be developed and needs to address (at minimum): irrigation, nutrients, pesticides, erosion, and implementation.

There are two monitoring options: Individual and Cooperative. Monitoring of run-off is required and can be expensive. Joining a Cooperative can help to reduce costs, but it does not reduce the dischargers responsibility to protect water quality.

SUMMARY OF MONITORING REQUIREMENTS FOR THE REGION 3 PROGRAM

Cooperative Monitoring

- Monthly
 - Nitrate, ammonia, orthophosphate
 - Temperature, chlorophyll a, dissolved oxygen, total dissolved solids, pH, turbidity, flow
- Four times per year
 - Toxicity testing and in-stream health characterization

Individual Monitoring

- Four times per year
 - Nitrate, ammonia, orthophosphate
 - Temperature, total dissolved solids, pH, turbidity, flow
- Two times per year during irrigation season, tailwater and drain tile water
 - Toxicity
- Two times during or shortly after storm events
 - Nitrate, ammonia, total dissolved solids, pH, temperature, turbidity
- Monthly, tailwater contained in ponds
 - Nitrate

There are two waiver tiers in the Region 3 program, Tier 1 and Tier 2. Growers that complete 15 hr of water quality education and a farm plan will qualify for the Tier 1 waiver. This tier allows the owner to submit an updated management checklist only once midway into the 5-yr program. In Tier 2, an updated management checklist must be submitted annually. However, if the grower is in Tier 2, once the water quality education requirement has been satisfied, the grower can move to Tier 1 status to the end of the 5-year waiver cycle.

CONCLUSION

There is much more important detail of these programs than can be presented in such a short discussion. However, it is intended that this will make these changes in water quality regulations more understandable. It is advisable that, if you are a grower in either Region 3 or Region 5, you contact them to obtain all of the information necessary for you to comply. If you are unsure and are hesitant to contact a Regional Water Quality Control Board office, call your local Farm Bureau or County Agricultural Commissioner's office. It is important that growers make the effort to comply and not ignore these regulations.

WHERE TO GET MORE INFORMATION:

Central Coast Region (Region 3)

<<http://www.waterboards.ca.gov/centralcoast/index.htm>>

Alison Jones

<ajones@waterboards.ca.gov>

(805) 542-4646

Ag Waivers

<<http://www.waterboards.ca.gov/centralcoast/AGWaivers/Index.htm>>

Central Valley Region (Region 5)

<<http://www.waterboards.ca.gov/centralvalley/>>

Email: AgWaiver@rb5s.swrcb.ca.gov

(916) 464-3291

Ag Waivers

<http://www.swrcb.ca.gov/rwqcb5/programs/irrigated_lands/index.html>

OTHER SOURCES

- County Agricultural Commissioner
<www.cdfa.ca.gov/exec/cl/countyagmap.htm>
- County Farm Bureau office
<www.cfbf.com/counties>
- County Cooperative Extension office
<ucanr.org/ce.cfm>
- Central Valley Coalition groups
- Southern San Joaquin Valley Water Quality Coalition
- East San Joaquin Water Quality Coalition
- Westside San Joaquin River Watershed Coalition
- San Joaquin County & Delta Water Quality Coalition
- Sacramento Valley Water Quality Coalition
- California Rice Commission
- Root Creek Water District
- Westlands Water District
- <http://www.swrcb.ca.gov/rwqcb5/programs/irrigated_lands/coalition-grp.pdf>

COMMON QUESTIONS (AND THEIR ANSWERS) THAT GROWERS RAISE

What is a discharge? A discharge occurs whenever water that contains waste leaves your property.

Who is a discharger? If you own or operate irrigated lands and water drains from your property, you are a discharger.

What is "waste"? Any and all waste substances. Waste includes, but is not limited to, soil, salts, trace elements (e.g., selenium), pesticides, and fertilizers.

Is tailwater runoff a discharge? Yes. However, if you recycle all tailwater or use a high efficiency irrigation system, you may prevent tailwater runoff (discharges of waste) to surface waters and if you do not have any storm water runoff, you do not need coverage under the Waiver.

Is stormwater runoff a discharge? Yes. Even if water is released from the farm only during storm events, coverage under the waiver or a permit is required.

(Adapted from: Fact Sheet. 7 July 2004. Central Valley Water Quality Control Board).