

KEY POINTS IN THE CENTRAL COAST REGIONAL WATER BOARD'S DRAFT AG ORDER 4.0

FARM PLANS

- All farms must develop, implement, and update as necessary, a Farm Water Quality Management Plan (Farm Plan) and include sections on:
 - Irrigation and Nutrient Management Plan (INMP)
 - Pesticide Management Plan (PMP)
 - Sediment and Erosion Management Plan (SEMP)
 - Riparian Area Management Plan (RAMP)
 - Water Quality Education
 - CEQA Mitigation Measure Implementation
- Elements of the INMP are reported annually on the Total Nitrogen Applied (TNA) report or INMP Summary Report (choice between the two reporting methods).
- Other elements of the Farm Plan will be reported in the Annual Compliance Form (ACF), due March 1 of each year.
- All records must be maintained for a minimum of 10 years, including all monitoring information, co-efficient calculations, management practice implementation and assessment, and education records.
- Farm Plans stay on the farm but must be submitted to CCRWQCB upon request.

Talking Points

- *Plans, for smaller farms, will require significant professional expertise to develop and update at considerable cost; there are not enough professionals to service all farms for these plans.*
- *Significant data collection will be required to meet annual compliance reporting.*
- *Data must be entered manually into GeoTracker; there is no upload function from standardized formats or spreadsheets, adding to compliance time reporting.*
- *Small farms lack resources to complete compliance reporting and will require technical assistance.*

IRRIGATION AND NUTRIENT MANAGEMENT FOR GROUNDWATER PROTECTION

- Fertilizer Nitrogen Application Limits
 - Cannot apply AFER greater than limits
 - Nitrogen Application Limits
 - Limits for nitrogen applications are listed for specific crops, starting in 2022:
 - Broccoli = 295#/acre
 - Cauliflower = 300#/acre
 - Celery = 375#/acre
 - Lettuce = 275#/acre
 - Spinach = 240#/acre
 - Strawberries = 330#/acre
 - All other crops = 500#/acre
- Nitrogen Discharge Targets and Limits
 - Compliance with nitrogen discharge targets and limits is assessed annually for the entire ranch in the INMP Summary report through either of the two compliance pathways shown below. Compliance with both pathways is not required.
 - Calculations for nitrogen remaining in soils post-harvest:

Compliance Pathway 1: $AFER + (C \times ACOMP) + AIRR - R = \text{Nitrogen Discharge}$

OR

Compliance Pathway 2: $AFER + (C \times ACOMP) = R$

In both formulas, $R = R_{HARV} + R_{SEQ} + R_{TREAT} + R_{OTHER}$

- a. AFER is the amount of fertilizer nitrogen applied in pounds per acre

- b. C is the compost discount factor used to represent the amount of compost nitrogen mineralized during the year that the compost was applied
 - c. ACOMP is the total amount of compost nitrogen applied in pounds per acre
 - d. AIRR is the amount of irrigation water nitrogen applied in pounds per acre
 - e. R is the amount of nitrogen removed from the field through harvest, sequestration, or other removal methods, in pounds per acre
 - f. RHARV is the amount of nitrogen removed from the field through harvest or other removal of crop material
 - g. RSEQ is the amount of nitrogen removed from the field through sequestration in woody materials of permanent or semi-permanent crops
 - h. RTREAT is the amount of nitrogen removed from the ranch through a quantifiable treatment method (e.g., bioreactor)
 - i. ROTHER is the amount of nitrogen removed from the ranch through other methods not previously quantified
- o Maximum nitrogen remaining in soils post-harvest:
 - 2022: target is 500#/acre
 - 2024: target is 400#/acre
 - 2026: *limit* is 300#/acre
 - 2030: *limit* is 200#/acre
 - 2035: *limit* is 150#/acre
 - 2040: *limit* is 100#/acre
 - 2050: *limit* is 50#/acre

Talking Points

- *Calculations for nitrogen remaining in the soil are complex and may be beyond the capability of most farmers; expert professional resources will be required to calculate each harvested crop's co-efficient.*
 - *Sampling and testing of harvested material for nitrogen content are expensive and will add up quickly given the intensity of Central Coast farming; the number of data collection points may be overwhelming for most farms.*
 - *Use of compost and mulch becomes a nitrogen penalty and disincentive.*
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SEDIMENT & EROSION CONTROL

- Farms with an established TMDL for pollutants cannot cause or contribute to exceedances in surface waters; follow-up monitoring and reporting will be required if discharges exceed TMDL limits and time-table for compliance.
- Ranches with impermeable surfaces must not exceed stormwater discharge intensity over 10-year storm equivalent as well as (up to) the 95th percentile of any 24-hour storm event.
- Impermeable surfaces with slopes equal to or greater than 5% during the wet season must have a sediment and erosion control plan developed and certified by a qualified professional.

Talking Points

- *TMDL qualifiers are artificially low and cannot be achieved with current farming practices and available science; TMDL targets should be just that, targets.*
 - *Stormwater cannot be predicted nor controlled in high rate flows, particularly on short notice; this requires construction and maintenance of retention ponds, at great expense.*
 - *Monitoring and reporting of surface (stormwater) discharges will be difficult to achieve.*
 - *Impermeable surfaces move around due to crop rotations; additional expense to develop plans will discourage these crops being produced, which generally are high-value crops with significant up-front investment.*
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GROUNDWATER MONITORING AND REPORTING

- Irrigation well monitoring and reporting
 - o Irrigation well monitoring and reporting is required, either individually or in a cooperative effort.

- If a ranch does not have its own irrigation well, a monitoring well must be drilled to support groundwater trend monitoring data collection.
- On farm domestic well monitoring and reporting
- Groundwater trend monitoring and reporting
 - Groundwater trend monitoring is required, either individually or in a cooperative effort:
 - If individually reported, a work plan must be submitted for Executive Officer approval prior to any implementation; must be developed by qualified professional with a SAP and QAPP.
 - If cooperative effort, must join a third-party; workplan must be submitted for approval.
- Ranch level groundwater discharge monitoring and reporting (if exceed N trends or limits)
 - When required, based on groundwater quality data or exceedance of nitrogen discharge limits, ranch-level groundwater discharge monitoring and reporting will be required, including a work plan and a SAP and QAPP, all approved prior to implementation; same for pesticides exceedances in groundwater.

Talking Points

- *Individually groundwater trend monitoring will be difficult to substantiate due to groundwater movement in any aquifer or sub-basin.*
- *Trend monitoring by a third-party will required data aggregation from multiple wells and cooperation from multiple ranch managers and/or landowners.*
- *Ranch-level groundwater discharge and monitoring and reporting is punitive and will not provide additional insight into groundwater quality.*

SURFACE RECEIVING WATER MONITORING AND REPORTING

- Surface receiving water monitoring and reporting
- Follow up surface receiving water implementation workplan
- Ranch level surface discharge monitoring and reporting (if exceedance of surface water limit)

RIPARIAN AREA MANAGEMENT AND SETBACKS

- Two Types of Setback requirements:
 - Riparian setbacks are required for ranches in Riparian Priority areas
 - Are a discharge prohibition and require implementation of management measures to protect/restore riparian areas
 - Operational setbacks are required for ranches outside of the Riparian Priority areas
 - Are only a discharge prohibition
- All farms with waterbodies within or bordering their ranch (not a manmade ditch) must record an operational setback on October 1, 2022. Required riparian setback from these waterbodies ranges from 50' to 250' depending on Strahler Stream assessment designation and require establishment and maintenance of grasses, shrubs, and trees in most instances. Maintenance includes soil health, protection of wildlife, and invasive species control.
- For Riparian Priority areas, there are four possible approaches to compliance for riparian requirements:
 - Cooperative – third-party to develop (sub) watershed restoration plan where ranch is located.
 - On-farm Setback – develop and implement Riparian Area Management Plan (RAMP) to achieve minimum setback distance and vegetative requirements.
 - Rapid Assessment Method – a Riparian Rapid Assessment Method (RipRAM) must be performed for existing riparian areas on the ranch, with a minimum score of 69 to achieve compliance.
 - Alternative Proposal – submit an Alternative Proposal for riparian management to the Executive Officer for approval prior to implementation; alternative must demonstrate that the farm does not contribute to the exceedance of any water quality objectives in receiving waters.
- Riparian setbacks must consist of vegetated land extending along the side of a waterbody and its adjacent wetlands and slopes. Prohibited activities in this vegetated land area are commercial crop production, permanent structures (including roads), applications of chemicals (fertilizers and pesticides), and operation of heavy machinery.

Talking Points

- *Riparian area expansion will reduce field production areas, impacting crop production yields / acre and costs of production, reducing financial return per acre.*
 - *For landowners, loss of production areas will reduce rental income and possibly overall land value.*
 - *Establishment of vegetation will add costs and take significant effort, along with maintenance, and will require irrigation and possibly fertilizers and pest management to establish.*
 - *Significant conflicts with food safety measures come with vegetative buffers adjacent to production fields.*
 - *Riparian areas should be a management practice elective by farm, not a prescriptive requirement for compliance.*
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ADDITIONAL REQUIREMENTS

- Roads—access roads must be constructed and maintained in compliance with Cal. Code Regs., title 14, chapter 4.
- If produce and apply compost in-house, additional requirements apply.