

# **General Waste Discharge Requirements for Commercial Vineyards In the North Coast Region**

## **Attachment F: Templates**

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## North Coast Regional Water Quality Control Board

### VINEYARD ORDER NOTICE OF INTENT

To obtain regulatory coverage and comply with Waste Discharge Requirements General Order for discharges from Commercial Vineyards within the North Coast Region, Order R1-2024-0056.

You must complete the entire form. Please send the completed, signed form to the North Coast Regional Water Quality Control Board (Regional Board). Instructions for filling out and sending this form start on page 4.

#### Enrollment Type

**I am enrolling in the Vineyard Order individually.** By checking this box, I acknowledge that I must fulfill all Monitoring and Reporting requirements in Attachment A: MRP for Individual Enrollees.

**I am enrolling in the Vineyard Order through an approved Coalition.** By checking this box, I acknowledge that I must fulfill all Monitoring and Reporting requirements in Attachment B: MRP for Enrollees in a Coalition.

**Name of Coalition:** \_\_\_\_\_

#### 1. Owner Information

1a. Landowner First Name:	1b. Landowner Last Name:
1c. Landowner Phone Number:	1d. Landowner Email:

1e. Landowner Mailing Address: \_\_\_\_\_

1f. Have you received a Directive Letter or an Order\* from the Water Board? Yes No

\* A Directive Letter or Order is a letter that identifies your requirements to seek regulatory coverage under the Vineyard Order.

1g. Is the landowner also the operator of the commercial vineyard? Yes No  
(If you checked Yes, skip Operator Information 2a through 2d)

## 2. Operator Information

2a. Operator First Name:	2b. Operator Last Name:
2c. Operator Phone Number:	2d. Operator Email:

2e. Operator Mailing Address: \_\_\_\_\_

## Commercial Vineyard Information

Name of Operation (DBA) if applicable: \_\_\_\_\_

## 3. Parcel Information

Please list parcels for which you would like to obtain regulatory coverage (*attach additional sheets as necessary*).

Assessor's Parcel Number (APN)	County	APN Acres	Farmed Acres

## 4. Map of Operation

Attach a map of the commercial vineyard that includes all enrolled parcels with parcel boundaries. A map may be an aerial photograph, topographic map, LiDAR-derived shaded relief map, Google Earth image, or equivalent that depicts features at 1-inch = 50 feet or larger scale. The vineyard base map(s) shall include a north arrow and label.

Notice of Intent

**Owner Notification and Certification**

If the facility is currently leased or operated by someone other than the owner, this section must be signed by the operator.

*I certify that the owner of the parcel(s) I am enrolling has been notified of these General Waste Enrollee Requirements and that I have been designated by the owner as the "Enrollee".*

Operator's Printed Name: \_\_\_\_\_

Signature: \_\_\_\_\_

Title: \_\_\_\_\_ Date: \_\_\_\_\_

**Certification**

*"I certify under penalty of law that this document and all attachments were prepared under my direction and supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. In addition, I certify that the provisions of the Order, including the implementation of the Monitoring and Reporting Program, will be complied with."*

Enrollee Printed Name\*: \_\_\_\_\_

Enrollee Signature: \_\_\_\_\_ Date: \_\_\_\_\_

**Submittal of NOI Form**

**1. Fees**

[Irrigated Lands Fee information can be found at:](https://www.waterboards.ca.gov/water_issues/programs/agriculture/)

([https://www.waterboards.ca.gov/water\\_issues/programs/agriculture/](https://www.waterboards.ca.gov/water_issues/programs/agriculture/))

**2. Submittal**

This NOI must be completed for existing commercial vineyards and submitted to the North Coast Water Board no later than **July 1, 2029**, or, prior to enrollment by new, expanding, or reoperating previously inactive commercial vineyards.

**If enrolling in a Coalition**, please submit this completed NOI form and appropriate enrollment fee (when applicable) to the Coalition.

**If enrolling individually**, please submit this completed NOI Form and appropriate

Order No. R1-2024-0056

Vineyard Order

Notice of Intent

enrollment fee (when applicable) to the following address:

North Coast Regional Water Quality Control Board

ATTN: Vineyard Order

5550 Skylane Blvd., Suite A

Santa Rosa, CA 95401

Email: [NorthCoast@waterboards.ca.gov](mailto:NorthCoast@waterboards.ca.gov)

## North Coast Regional Water Quality Control Board

### VINEYARD ORDER REQUEST FOR TERMINATION

Request to Terminate Coverage of Commercial Vineyard under General Waste Discharge Requirements for Commercial Vineyards Order R1-2024-0056.

Submission of this form constitutes an official notification to the North Coast Regional Water Quality Control Board (Regional Board) that the commercial vineyard identified below, and all associated APNs, has elected to terminate coverage under the Vineyard Order. To officially terminate your enrollment, this form must be completed, physically signed by the individual Operator and/or Operator (herein 'Responsible Party') listed on the operation eNOI and received by the Regional Board.

By submitting this Notice of Termination form, ALL parcels enrolled in the Vineyard Order will be terminated.

#### Owner/Operator Information

##### 1. Complete this section if currently enrolled in a Coalition:

Responsible Party:	
Member ID (if enrolled through Coalition):	
Phone Number:	
Email:	
Business Mailing Address:	

##### 2. Complete this section if currently enrolled Individually:

Order No. R1-2024-0056

Vineyard Order

Request for Termination

Responsible Party:	
WDID:	
Phone Number:	
Email:	
Business Mailing Address:	

**Reason for Termination**

No longer farming commercially as of (month, day, year): \_\_\_\_/\_\_\_\_/\_\_\_\_

Change in ownership as of (month, day, year): \_\_\_\_/\_\_\_\_/\_\_\_\_

Have you notified the new owner of their requirement to send a Notice of Intent to the Regional Board? \_\_\_\_ Yes \_\_\_\_ No

Change in Operator as of (month, day, year): \_\_\_\_/\_\_\_\_/\_\_\_\_

Have you notified the new operator of their requirement to send a Notice of Intent to the Regional Board? \_\_\_\_ Yes \_\_\_\_ No

**Certification**

*I certify under penalty of law that the submitted information is to the best of my knowledge true, accurate, and complete.*

Responsible Party Signature: \_\_\_\_\_

Printed Name: \_\_\_\_\_ Date: \_\_\_\_\_

**Submitting Form**

Please send this form by mail to:

North Coast Regional Water Quality Control Board

Attn: Vineyard Order

5550 Skylane Boulevard. Suite A

Santa Rosa CA, 95403

Or you may send by email to: [NorthCoast@waterboards.ca.gov](mailto:NorthCoast@waterboards.ca.gov)

## North Coast Regional Water Quality Control Board

### INSTRUCTIONS FOR DRINKING WATER WELL INFORMATION FORM

\*Note: Fields with an asterisk are the minimum data required for GeoTracker entry. The [GeoTracker link and instructions](https://www.waterboards.ca.gov/ust/electronic_submittal/) can be found online at: ([https://www.waterboards.ca.gov/ust/electronic\\_submittal/](https://www.waterboards.ca.gov/ust/electronic_submittal/)).

#### **Enrollee Information**

- 1a. Enrollee Name\*: Name of person who is enrolled in the Vineyard Order.
- 1b. Enrollee Email\*: Valid email address for Enrollee.
- 1c. Enrollee Phone\*: Provide working phone number for Enrollee.
- 1d. Coalition: Identify Third-Party enrolled in, if applicable.
- 1e. Member Mailing Address\*: Mailing address of the enrolled member
- 1f. Property Address: Address of the enrolled parcel if different from the mailing address.
- 1g. Is the Enrollee also the owner? If yes, skip 2a-2d below. If no, please provide landowner information.
- 1h. Is the Enrollee (including family) the only consumer of the drinking water?

In the event of nitrate + nitrite as nitrogen or pesticide exceedance - if yes, notify North Coast North Coast Water Board; if no, notification required to all users and the North Coast North Coast Water Board within 10 days.

#### **Landowner Information**

- 2a. Landowner Name: Provide name of landowner of enrolled parcel(s).
- 2b. Landowner Mailing Address: Provide a valid mailing address for the landowner of the enrolled parcel(s).
- 2c. Landowner phone: Provide valid phone number for landowner of enrolled parcel(s).
- 2d. Landowner email: Provide valid email for landowner of enrolled parcel(s).

#### **Drinking Water Well Information**

Well Name/Field Point Name\*: Provide a specific name for each well. Name should clearly identify well for future sampling events (not to exceed 10 characters). If water is



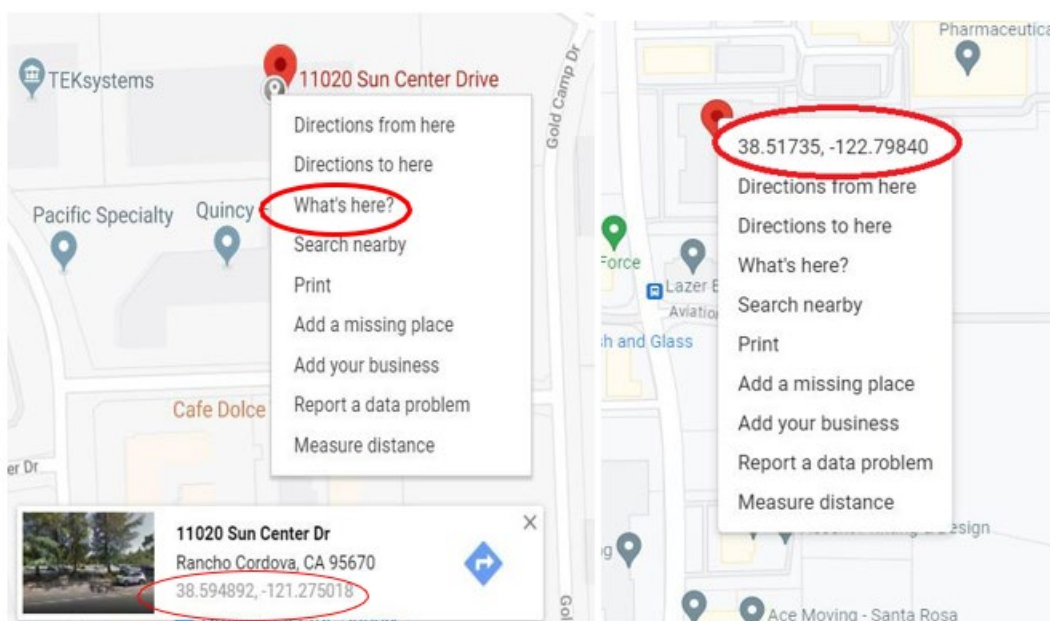
## Instructions Reporting for Drinking Water Well Information Form

collected after a treatment system provide TRT- at beginning of Well Name (e.g., TRT-SEwell)

An "X" should be placed in the column to the left of the Well Name/Field Point Name field if the well has previously been sampled. This column will be used for previously sampled wells (within the last 5 years) for data entry or during year 2 of sampling to help the laboratory identify previously sampled wells.

**Longitude and Latitude** can be found by using a cell phone or computer. Longitude and Latitude must be provided in decimal degrees. To determine your coordinates, while using google maps **on a computer**, type in the address and search. Once the address is displayed on the map, using your mouse, right click the pin drop select What's here? A display box should appear near the bottom of the screen (left). In some versions, the latitude and longitude will appear on the top of the box (right).

In this case of the property on the left, latitude = 38.594892, longitude = -121.275018.



**On your cell phone** - using google maps drop a pin (by placing finger on map and hold in place where the drinking water well is located). When a dropped pin box comes up at the bottom of the screen, scroll down to pin symbol for latitude and longitude information.

County\*: The county the enrolled parcel is located.

APN\*: An Assessor's Parcel Number (APN) is a unique number that is assigned to each tract of land in a county by the Tax Assessor. Please provide the APN of the enrolled parcel with the drinking water well.

## North Coast Regional Water Quality Control Board

### DRINKING WATER WELL INFORMATION FORM

Complete entire form if you have a drinking water well on an enrolled Assessor's Parcel Number (APN) and submit it with your well samples to an Environmental Laboratory Accreditation Program laboratory for required data entry into the State's GeoTracker. The Enrollee is responsible for uploading the data into GeoTracker if the laboratory will not submit directly to GeoTracker.

#### **1. Enrollee Information**

(Personal information will not be available to the public, only APN and well sample data will be available to view through the GeoTracker database) – \*Note: fields with asterisk are required to be filled out.

1a. Enrollee Name\*

1b. Enrollee Email\*:

1c. Enrollee Phone\*:

1d. Coalition (if applicable)\*:

1e. Member's Mailing Address\*:

1f. Property Address (if different from mailing address):

1g. Is the Enrollee also the landowner:

- ☐ YES (if Yes, skip 2a-2d below)
- ☐ NO

1h. Is the Enrollee (including family) the only consumer of the drinking water

- ☐ YES
- ☐ NO (if no, notification to all consumers and the North Coast North Coast Water Board is required if nitrate or pesticide exceedance is identified)

#### **2. Landowner Information**

(Fill out if Enrollee is not the landowner)

2a. Landowner's Name:

2b. Landowner's Mailing Address:

Drinking Water Well  
Information Form

2c. Landowner's Phone:

2d. Landowner's Email:

**3. Drinking Water Well Information\*:**

List all drinking water well on Irrigated Lands Regulatory Program enrolled parcel(s) below.

(Note: If well was previously sampled and data is entered into GeoTracker, place an "X" in column to the left of the Well Name/Field Point Name.)

X	Well Name / Field Point Name (required)	Latitude	Longitude	County (required)	Assessor Parcel Number (APN) (required)

**4. Certification**

*"I certify under penalty of law that to the best of my knowledge and belief, this document and any attachments submitted is, true, accurate, and complete and was prepared by me or under my direction or supervision. I am aware that there are significant penalties for knowingly submitting false information."*

Signature (required) Date

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## North Coast Regional Water Quality Control Board

### **DRINKING WATER NOTIFICATION TEMPLATE**

At a minimum, the Enrollee or non-Enrollee owner shall notify drinking water well users of the exceedance by providing them a copy of a Drinking Water Notification Template approved by the Executive Officer. The template shall be signed by the Enrollee or non-Enrollee owner certifying notice has been provided to the users. A copy of the signed template shall be sent to the North Coast Water Board and retained by the Enrollee or non-Enrollee owner.

Please complete template on next page for any Drinking Water Well that exceeds the Nitrate MCL of 10 mg/L. Provide a copy of this Drinking Water Notification Template to all users of the drinking water well within 10 days of learning of the exceedance and submit a copy to the Regional Board.

North Coast Regional Water Quality Control Board  
ATTN: Vineyard Order Drinking Water Well Notification  
5550 Skylane Blvd STE A  
Santa Rosa CA 95403-1072

Drinking Water Well  
Information Form

**Do Not Drink Your Water**

Use Only Bottled Water Until Further Notice

Failure to follow this advisory could result in serious illness.

Test Result: mg/L

Nitrate in your well was found to exceed the drinking water standard of 10 mg/L established for safe drinking water.



- **Pregnant women are at increased risk** for potential health effects and should not drink water with high levels of nitrate. Drinking water with high nitrate levels may also cause serious complications in pregnancy.
- **Do not give the water to infants.** Infant formula and other edible products should be prepared with bottled water or other water with low levels of nitrate. Infants are at increased risk to become seriously ill or even death from consumption of high levels of nitrate.
- **Do not boil your water.** Boiling your water may increase nitrate levels.

This notification was provided by:

Assessor's Parcel Number (APN):

County:

Name (of Landowner/Operator):

Date:Signature:

Coalition (if applicable):

Member ID:

- ☐ No one drinks or cooks with this well water.
- ☐ Notification has been provided to the user(s) or appropriate landowner(s).
- ☐ Replacement water has been provided to the user(s).

Please submit a signed copy of this notification to the **North Coast North Coast Water Board**:

## North Coast Regional Water Quality Control Board

### NITRATE FACT SHEET

#### **What is nitrate?**

Nitrate can occur naturally in surface and groundwater at levels that do not cause health problems. However, levels of nitrate in excess of the standard drinking water are dangerous, especially for infants and pregnant women. Nitrate contamination in groundwater is generally associated with septic systems, confined animal feeding operations, or fertilizer use.

#### **What health concerns are associated with nitrate in drinking water?**

High nitrate levels can interfere with the ability of red blood cells to carry oxygen to the tissues of the body, producing a condition called methemoglobinemia. This is of greatest concern in infants; clinical effects on infants ingesting high levels of nitrate are often referred to as the "blue baby syndrome." Symptoms include shortness of breath and blueness in the skin. Symptoms in infants can develop rapidly, with health deteriorating over a period of days. If symptoms occur, seek medical attention immediately. High nitrate levels may also reduce the oxygen-carrying ability of the blood in pregnant women and increase the risks for complication in their pregnancies.

#### **What can consumers do to reduce exposure to nitrate in drinking water?**

##### **Use bottled water until an appropriate treatment system is in place.**

Drinking water may be treated to remove nitrate. Home filters such as Brita filters do not remove nitrate from drinking water, but other systems can be used to remove nitrate. Please consult the [State Water Board's residential water treatment approved list](https://www.waterboards.ca.gov/drinking_water/certlic/device/Documents/wtd2017/76R%20registered%20Models%20for%20Nitrate%20listing%20081117_WITH%20LINKS%20TO%20PDS.pdf) ([https://www.waterboards.ca.gov/drinking\\_water/certlic/device/Documents/wtd2017/76R%20registered%20Models%20for%20Nitrate%20listing%20081117\\_WITH%20LINKS%20TO%20PDS.pdf](https://www.waterboards.ca.gov/drinking_water/certlic/device/Documents/wtd2017/76R%20registered%20Models%20for%20Nitrate%20listing%20081117_WITH%20LINKS%20TO%20PDS.pdf)).

**Boiling water is not a solution**, as it can concentrate the nitrate level.

Do not make infant formula with drinking water that contains nitrate levels above 10 mg/L.

#### **Can nitrate-contaminated water be used to bathe babies and children?**

Yes. Babies and children can be bathed in water with high levels of nitrate. Showers may also be taken. Nitrate is only a concern for ingestion (eating and drinking). Nitrate is not absorbed through your skin. People who install filter systems for nitrate often

install them just for their kitchen sink faucet, because they use that faucet for their cooking and drinking water.

**Can nitrate-contaminated water be used to wash fruits and vegetables before they are eaten?**

Generally, fruits and vegetables can be washed with water with high nitrate levels. The amount of water used for this purpose is small, and if the fruits and vegetables are wiped or blotted dry after washing, there should be no health risk. The water should not be used for cooking.

**For more information**

Or, for more information about nitrate in wells used for drinking water, visit the [Groundwater Information Sheet regarding Nitrate](http://www.waterboards.ca.gov/gama/docs/coc_nitrate.pdf) online (www.waterboards.ca.gov/gama/docs/coc\_nitrate.pdf).

## Irrigation and Nitrogen Management Plan (INMP) Worksheet

**Coalition ID (provided by Coalition):** \_\_\_\_\_

*If you are not enrolled in a Coalition, leave blank.*

Nitrogen Management Unit ID (if applicable): \_\_\_\_\_ Total Farm Area Acres: \_\_\_\_\_

Enrollee Name: \_\_\_\_\_ GeoTracker ID# (if applicable): \_\_\_\_\_

Was this parcel or Nitrogen Management Unit identified as a statistical outlier by the Coalition or North Coast Water Board last year?

☐ Yes ☐ No

Crop Year (Harvested): \_\_\_\_\_

### Instructions:

Fill out the INMP Worksheet. The INMP must be certified under the following conditions:  
 (1) the commercial vineyard is located within a high vulnerability groundwater area, or  
 (2) the Enrollee was notified that they are a statistical outlier. Complete instructions are located at the back of the worksheet.

### 1. Parcel Management

APN	Groundwater Basin or Sub-basin	Crop Age (Years)	Parcel Acres	Farm Area Acres

Total Farm Area Acres: \_\_\_\_\_

Comments:



## **2. Irrigation Pre-Season Planning**

Crop Evapotranspiration (ET, inches):

Anticipated Crop Irrigation (inches):

Irrigation Water N Concentration (ppm or mg/L, as NO<sub>3</sub> -N):

## **3. Irrigation Method**

(Check one for Primary; if applicable, check one for Secondary)

Primary Secondary<sup>1</sup>

- ☐ ☐ Drip
- ☐ ☐ Micro Sprinkler
- ☐ ☐ Furrow
- ☐ ☐ Sprinkler
- ☐ ☐ Border Strip
- ☐ ☐ Flood

<sup>1</sup> A secondary irrigation system could be used for crop germination, frost protection, crop cooling, etc.

## **4. Irrigation Efficiency Practices (Check all that apply)**

- Laser Leveling
- Use of ET in scheduling irrigations
- Water application schedule to need
- Use of moisture probe (e.g., tensiometer)
- Soil Moisture Neutron Probe
- Pressure Bomb
- Other: \_\_\_\_\_

## **5. Harvest/Yield Information**

Production Unit (e.g., tons): \_\_\_\_\_ Converted to lbs.: \_\_\_\_\_

Harvested Yield (lbs/acre): Expected: \_\_\_\_\_ Actual: \_\_\_\_\_

## **6. Nitrogen Efficiency Practices (Check all that apply):**

- Split Fertilizer Applications

## INMP Worksheet

- Irrigation Water N Testing
- Soil Testing
- Tissue/Petiole Testing
- Fertigation
- Foliar N Application
- Cover Crops
- Variable Rate Applications using GPS
- Other:

### **7. Nitrogen Applied and Nitrogen Sources:**

<b>Sources</b>	<b>Recommended/ Planned N (A)</b>	<b>Actual N (B)</b>
Soil – Available N in Root Zone (Annualized, lbs/ac)		
N in Irrigation Water* (Annualized, lbs/ac)		
Organic Amendments* (Manure/Compost/Other, lbs/ac estimate)		
Dry/Liquid Fertilizer N* (lbs/ac)		
Foliar Fertilizer N* (lbs/ac)		
Total Nitrogen Applied (lbs/ac)		

**8. Nitrogen Removed\*:**

<b>Nitrogen Removed</b>	<b>Harvest Yield x Crop Removal Coefficient** (C<sub>N</sub>)</b>	<b>Nitrogen Removed (lbs/acre)</b>
Harvest Yield (lbs/acre)		

\*Nitrogen Removed includes nitrogen removal via harvest and nitrogen sequestered in permanent wood of perennial crops. This is incorporated into the Crop Removal Coefficient which calculates the nitrogen removed in one season per pound per acre of winegrapes harvested.

\*\*The Regional Board will provide you a C<sub>N</sub>

Total Nitrogen Applied (lbs./acre): \_\_\_\_\_

Total Nitrogen Removed (lbs/acre): \_\_\_\_\_

**Irrigation Nutrient Management Plan Certification**

Check a box below:

- This INMP does not need to be certified (skip Certification).
- This INMP does need to be certified.

**Certification:**

The person signing this Irrigation and Nitrogen Management Plan (INMP) certifies, under penalty of law, that the INMP was prepared under his/her direction and supervision, that the information and data reported is to the best of his/her knowledge and belief, true, accurate, and complete, and that he/she is aware that there are penalties for knowingly submitting false information. Where the person signing the INMP is not the Enrollee, he/she may rely on the information and data provided by the Member and is not required to independently verify the information and data.

The person signing the INMP below further certifies that he/she used sound irrigation and nitrogen management planning practices to develop irrigation and nitrogen application recommendations and that the recommendations are informed by applicable training for meeting the crop's agronomic needs while minimizing nitrogen loss to surface water and groundwater. Where the person signing the INMP is not the Enrollee, he/she is not responsible for any damages, loss, or liability arising from subsequent implementation of the INMP by the Member in a manner that is inconsistent with the INMP's recommendations for nitrogen application. **This certification does not create any liability for claims for environmental violations.**

**The person signing this document is:**

- Certified INMP Specialist (e.g., Certified Crop Adviser who has completed CDFA training)

## INMP Worksheet

- Self-Certified by Enrollee who has completed the CDFA training program
- Self-Certified by the Enrollee who follows NRCS or UC site-specific recommendations (documentation required)
- I do not apply nitrogen

I, \_\_\_\_\_, certify this INMP in accordance with the statement above.

\_\_\_\_\_ Signature \_\_\_\_\_ Date

If the certifier is not the Enrollee, the Enrollee additionally agrees as follows:

I, \_\_\_\_\_, Enrollee, have provided information and data to the certifier above that is, to the best of my knowledge and belief, true, accurate, and complete, that I understand that the certifier may rely on the information and data provided by me and is not required to independently verify the information and data, and that I further understand that the certifier is not responsible for any damages, loss, or liability arising from subsequent implementation of the INMP by me in a manner that is inconsistent with the INMP's recommendations for nitrogen application. I further understand that the certification does not create any liability for claims for environmental violations.

\_\_\_\_\_ Signature \_\_\_\_\_ Date

## **Irrigation and Nitrogen Management Plan (INMP) Worksheet Instructions**

Complete an Irrigation and Nitrogen Management Plan (INMP) Worksheet for every parcel or Nitrogen Management Unit enrolled in the Order. All INMP Worksheets must be kept on farm and made available upon request during inspections by the North Coast Regional Water Quality Control Board (Regional Board).

Each section heading below (in bold) corresponds to the section heading on the INMP Worksheet. The numbered references correspond to each numbered box on the INMP Worksheet.

### **Irrigation and Nitrogen Management Plan**

Enter the Enrollee ID generated by your Coalition and name of the Owner or Operator enrolled in the Order.

Indicate if the parcel(s)/Nitrogen Management Unit you are writing the plan for was identified as a **Statistical Outlier** by the Regional Board for the previous crop year. The Regional Board conducts a statistical analysis on the data provided from individually enrolled Enrollees for the nitrogen applied and nitrogen removed (based on yield) to determine statistical outliers and will notify those Enrollees. If the parcel/Nitrogen Management Unit was identified as a statistical outlier by the Regional Board in the previous crop year, mark "Yes".

Enter the **Crop Year (Harvested)**. Information on INMP Worksheets should be based on the calendar year in which harvest was completed. If the winegrape crop was harvested in November of 2028, enter '2028' in this space.

### **1. Parcel Management**

Use this table to account for all parcels for which the plan applies. Multiple parcels, portions of parcels, or Nitrogen Management Units (not to exceed 640 acres) may be included in a single plan if they all have the same: crop, fertilizer inputs, irrigation management, and nitrogen management practices.

Enter the **Assessor's Parcel Number (APN)** and **County** for each parcel associated with your plan.

Enter the **Crop Age** (in years). Count the crop age from the date the vineyard was planted.

Enter the Farm Area acres for each parcel or portion of parcel to which this plan applies. Farm Area acres incorporate all of the Farm Area (The planted area and appurtenant structures, vineyard avenues (Seasonal Roads), maintenance areas, mixing and loading sites, and appurtenant storage yards on a commercial vineyard). For example, if the parcel is 10 acres, but the Farm Area only includes 5 acres, record 5 acres in that box. Sum the Farm Area acres from each parcel for the Total Acres covered under the plan. Use the Comment/Notes box to provide any further information that may be pertinent to the worksheet (e.g., nitrogen use efficiency, nitrogen removal rates, reasons

for substantial differences between plan and actual numbers, etc.).

## 2. Irrigation Pre-Season Planning

**Crop Evapotranspiration.** Enter the potential crop evapotranspiration (ETc) in inches anticipated for the season. Evapotranspiration rates are provided by geographical location and multiplied by a crop-specific coefficient to estimate the amount transpired by your crops.

**Anticipated Crop Irrigation.** Enter the amount of irrigation water in inches expected to be applied over the course of the season.

**Irrigation Water N Concentration.** Enter the concentration of nitrogen in the irrigation water used on your crop as parts per million (ppm) or milligrams per liter (mg/L). The concentration of nitrogen in your irrigation water can be obtained from sources such as local district testing, laboratory analysis, or other sources. These results can be reported as either Nitrate as N, nitrate-nitrogen, or NO<sub>3</sub>-N.

**Irrigation Method.** Check the box to indicate the irrigation method used the most for crop irrigation (primary irrigation) during the growing season for the parcel/Nitrogen Management Unit under this plan. If applicable, indicate any secondary irrigation systems. Secondary irrigation systems include those used for crop germination, frost protection, crop cooling, or salinity management.

**Irrigation Efficiency Practices\* (5).** Check all boxes that apply to indicate irrigation efficiency practices used on your parcels during the season. Indicate if, to your knowledge, the parcels have been laser leveled.

## 3. Harvest/Yield Information

**Production Unit.** This is the standard unit in which you measure your harvest. For example, if winegrapes are harvested in tons per year, calculate harvested tons per acre for the parcels identified under **Parcel Management**. **You will need to convert this number to lbs per acre later.**

**Harvested Yield.** This includes all crop yield harvested for the season. For pre-season planning, fill in the Expected Yield for the season. The Expected Yield should be reported on a per-acre basis for the parcel or Nitrogen Management Unit covered by the plan. Expected Yield expectations will guide nitrogen management decisions and will inform the **TOTAL NITROGEN Recommended** to be used in the Nitrogen Management section below. Enter actual harvested Yield in the next box following harvest in lbs. per acre.

## 4. Nitrogen Efficiency Practices

**Nitrogen Efficiency Practices.** Check all boxes that apply to indicate any nitrogen efficiency practices used on your parcels during the season.

### Nitrogen Applied and Nitrogen Sources

**Recommended/Planned N (Column A):** Complete the boxes in the Nitrogen Sources section in **Column A** based on the anticipated Nitrogen Sources required to obtain the

Expected Yield. Use crop recommendations from CDFA, UCCE, NRCS, commodity organizations or site-specific knowledge to appropriately estimate the amount of nitrogen (N) necessary. Use Recommended/Planned N totals for each source of N and schedule applications for the crop year. Use additional tools/spreadsheets to plan timing for each application. Proper scheduling of N applications and irrigations is essential for efficient nitrogen management.

**Recommended / Planned TOTAL NITROGEN:** All Nitrogen Sources in this section should be the total for **Recommended / Planned TOTAL NITROGEN (14A)**.

**5. Recommended / Planned TOTAL NITROGEN: Sum all values from Column A.**

Complete the following sections based on the nitrogen source:

**Soil – Available N in Root Zone.** Represents nitrogen in the soil root zone that is available to the crop during the growing season. Enter the amount of residual soil nitrogen based on soil samples or other available data.

**N in Irrigation Water.** Enter the amount of nitrogen applied via irrigation water over the course of the crop year in pounds per acre. For planning, this value is calculated based on the **Anticipated Crop Irrigation** and the **Irrigation Water N Concentration**. For the Actual N column, this value is calculated based on the *actual* crop irrigation and irrigation water N concentration. To calculate N in irrigation water, use the following formula:

$$\text{N concentration (ppm or mg/L)} \times \text{inches of irrigation applied} \times 0.226$$

Nitrate as nitrogen is also referred to as Nitrate as N, nitrate-nitrogen, or  $\text{NO}_3\text{-N}$ .

**Organic Amendments.** Organic Amendments include any nutrient applications from sources that do not have a guaranteed nutrient content, such as compost and manure applications. Applied organic amendments should be reported as the amount of nitrogen available to the plant during the crop year, in pounds per acre.

**Dry/Liquid Fertilizer N.** The Dry/Liquid Fertilizers include any nitrogen-containing product with a guaranteed nutrient content. This number should be reported as the amount of nitrogen applied as pounds per acre; this may be different than the amount of fertilizer applied which may include other nutrients.

**Foliar Fertilizer N.** Foliar nitrogen applications include any nitrogen-containing product applied to the crop canopy or above ground plant parts, and should be reported in pounds per acre.

**Actual N (Column B):** Fill in the **Actual N (Column B)** based on actual applied nitrogen amounts. This should be completed after the crop is harvested for each of the nitrogen sources outlined above. Use the Recommended/Planned N schedule to guide nitrogen applications throughout the growing season. Actual application amounts and timing can be adjusted based upon changing conditions (weather, pest damage, expected yield, tissue samples, etc.). The information in this column should reflect the actual application during the Crop Year. Refer to the Nitrogen Source section above for additional instructions and definitions.

**Actual TOTAL NITROGEN:** Actual applied Nitrogen Sources. Actual TOTAL NITROGEN: Sum of all values from Column B.

### **Nitrogen Removed**

**Harvested Yield.** This includes all crop yield harvested for the season in lbs/acre.

**Harvest Yield x Crop Removal Coefficient\*\* (C<sub>N</sub>).** Use this box to multiply the harvested yield by the crop removal coefficient. Nitrogen Removed includes nitrogen removal via harvest and nitrogen sequestered in permanent wood of perennial crops. This is incorporated into the Crop Removal Coefficient which calculates the nitrogen removed in one season per pound per acre of winegrapes harvested. The Regional Board will provide you a C<sub>N</sub>.

### **Nitrogen Applied and Removed Totals**

Enter your total Nitrogen Applied (from 6) and Nitrogen Removed (from 7) in lbs./acre.

## **6. INMP Certification**

INMPs must be certified for the following conditions: (1) for parcels in a **High Vulnerability Area** (HVA) to groundwater must be certified. Please contact the Regional Board for more information regarding the vulnerability to groundwater of your parcels, and (2) If the Enrollee was identified as a statistical outlier by the Regional Board in the previous year. The person certifying the plan must complete the **INMP Certification** section including signature, date, and method of certification. Any plan certifier should also initial the INMP Worksheet page in the box in the bottom right corner.

Any INMP requiring certification must be certified by an Irrigation and Nitrogen Management Specialist, such as:

*Crop Advisers certified by the American Society of Agronomy (CCA). Any Certified Crop Adviser who certifies an INMP must also have completed the nitrogen management training program offered by the University of California Agriculture and Natural Resources (UCANR) and the California Department of Food and Agriculture (CDFA).*

*Certified Professional Soil Scientists (CPSS)*

*Certified Professional Agronomists (CPAg)*

*Technical Service Providers (TSP) certified in nutrient management in California by the Natural Resources Conservation Service (NRCS)*

*Certified Agricultural Irrigation Management Specialists (CAIS) certified by The Irrigation Association.*

Additionally, plans may be self-certified by the Enrollee if:

*The certifying Enrollee has attended the California Department of Food and Agriculture (CDFA) or other approved training program for INMP certification. The Member must retain written documentation of their attendance in the training program.*



## INMP Worksheet

*The certifying Enrollee adheres to a site-specific recommendation from the Natural Resources Conservation Service (NRCS Nutrient Management Plan) or the University of California Cooperative Extension (UCCE). The Member must retain written documentation of the recommendation.*

If you do not apply nitrogen fertilizer:

*You must state that you do not apply nitrogen fertilizer to the vineyard on your INMP Worksheet.*