

Irrigation and Nutrient Management Plan (INMP) Summary Report Tutorial

This video tutorial is for growers enrolled in the Central Coast Water Board's Irrigated Lands Program who are required to submit an Irrigation and Nutrient Management Plan (or INMP) Summary Report.

Link to tutorial: <https://www.youtube.com/watch?v=8rccl-bb1sl&list=PLb4ywLqRQSopS5W8b36n7quwTB76n4qT1&index=13>

In this video you will learn...

In this video, you will learn how to access and report the INMP Summary Report.

INMP Summary Report Instructions & Resources

Growers should use the INMP Summary Reporting Instructions to help with INMP recordkeeping and reporting.

To find these instructions and other helpful INMP Summary Reporting resources, including information about optional reporting on exemptions and other removal methods, visit the Irrigated Lands Program (ILP) website.

https://www.waterboards.ca.gov/centralcoast/water_issues/programs/ilp/

INMP Summary Reporting Instructions: [Coming Soon](#)

Recordkeeping Resources

For detailed instructions on TNA and INMP Recordkeeping, please see the TNA and INMP Recordkeeping tutorials and downloadable transcripts, available in the video description below:

TNA Recordkeeping Tutorial: <https://youtu.be/Y-w882JKz0w>

INMP Recordkeeping Tutorial: <https://youtu.be/1gyspUMqqKg>

Submit an INMP Summary Report as a member of the third-party program, Preservation, Inc.

Growers who are members of the approved third-party program, Central Coast Water Quality Preservation, Inc. also known as Preservation, Inc., should submit INMP Summary Reports directly to Preservation, Inc. Please visit their website or contact them directly to learn more about their INMP submittal process.

Preservation, Inc. Website: <https://ccwqp.org/>

Phone: 831-761-8644

Email: support@ccwqp.org

Submit an INMP Summary Report if you are not a third-party program member

Growers who are not members of the approved third-party program, Preservation, Inc. must submit their INMP Summary Reports directly to the Central Coast Water Board's Irrigated Lands Program through GeoTracker.

The remainder of this tutorial focuses on how to submit an INMP Summary Report for growers who are not members of Preservation, Inc.

Access the INMP Summary Report on GeoTracker

To access the INMP Summary Report, visit the GeoTracker website.

Link: <https://geotracker.waterboards.ca.gov/esi/login>.

Login by entering your username and password.

Once logged in, you will see a list of ranch names on your GeoTracker dashboard. Scroll to the right of the ranch name and select SUBMIT INMP REPORT for the ranch you are reporting on.

INMP Summary Report Overview

The INMP Summary Report Contains six primary sections, which include:

- General Ranch Information;
- Nitrogen Applied with Irrigation Water;
- Nitrogen Applied with Compost and Other Materials;
- Nitrogen Applied with Conventional and/or Organic Fertilizers;
- Irrigation Management; and
- Total Nitrogen Removed from the Field

The INMP Summary Report will show the reporting year and the reporting period on the top right corner of the form. Use the reporting year drop down menu to select the correct reporting year for which you are submitting the INMP Summary Report.

The reporting period defaults to the year for which you are submitting the INMP Summary Report. For example, when submitting an INMP Report prior to the March 1, 2024 deadline, you will be using data from calendar year 2023, so the reporting year is 2023 and the reporting period is January 1, 2023 to December 31, 2023.

General Ranch Information

Name of Operation, AW#, Ranch Name, and Global ID

The name of the operation, AW#, ranch name, and Global ID (AGL number) are auto populated from the ranch electronic notice of intent (or eNOI). Make sure this information is up to date on your ranch eNOI before you fill out the INMP Summary Report. If the operation or ranch names need to be changed, please contact Irrigated Lands Program staff before submitting the INMP Summary Report.

Physical Ranch Acres Reporting & Fallow Acres

In this section, enter the total acreage for which you are reporting INMP. The physical reporting acreage includes all farmed acres plus any fallowed acres that were not under crop production during the entire 12 months. Report the fallowed acres as part of the Physical Ranch Acres Reporting box AND separately in the corresponding Fallow Acres box. Acreage in which cover crops were grown should also be included, even if no nitrogen applications were made to the cover crops. The physical ranch acres box is automatically populated with information from the irrigated acreage reported in the eNOI but can be overwritten.

Sum of Total Crop Acres

The Sum of Total Crop Acres value is automatically calculated using the sum of total crop acres reported in a later section, Nitrogen Applied with Conventional and Organic Fertilizers. After completing this section, check to see if the Sum of Total Crop Acres box has turned grey. If so, all reported acres are accounted for. If the box remains highlighted in pink, please see the INMP Summary Report Instructions for troubleshooting this error.

Greenhouse, Nursery or Hydroponic Dropdown Selection

If your ranch is a greenhouse, nursery or hydroponic operation, select the option that best describes how irrigation water is managed, recycled, and discharged from the drop-down menu.

Assessor Parcel Numbers APN(s)

The Assessor Parcel Number (APN) is automatically generated from the eNOI ranch information page. Select all the APNs that correspond to the physical acreage reported in the INMP Summary Report.

Nitrogen Applied with Irrigation Water

Water Source (s)

The Water Sources section has two drop-down menu options that allow you to select all the irrigation water source(s) that supplied water to your ranch during the reporting period (January 1 to December 31).

Use the first dropdown menu if any irrigation water comes from a well, city, or surface water source, such as ponds, stormwater captured and delivered to the ranch, or water diverted from a surface water body. Select all that apply.

Use the second dropdown menu if any irrigation water comes from a recycled/reclaimed source.

If the ranch used water from more than one type of recycled or reclaimed water project, select all that apply.

If the recycled or reclaimed water project used to irrigate the ranch is not listed, select the last option in this drop-down menu that reads: "Another source of irrigation water from a recycled/reclaimed project, currently not in the list." Enter the name of the Other Water Source Project in the box provided.

Well / City Water / Surface Water

If you reported that a source of irrigation water is from a well, city, and/or surface water source, report the average nitrate concentration (in mg/L) and the measured volume of irrigation water applied.

Weighted Average Nitrogen Concentration

Report the precise weighted average nitrogen concentration (in mg/L) for irrigation water source(s) used on the ranch during the reporting period. A precise measurement can be obtained from a laboratory analysis or by using a portable measuring device that provides a discrete numerical value.

Select the form of nitrate reported by your laboratory or measuring device.

In instances where more than one source of water is used to irrigate, the weighted average must be calculated using measured volume and concentration information from each water source.

Use the tool linked in the INMP Summary Report and below to calculate the weighted average nitrate concentration in irrigation water.

Tool to calculate weighted average nitrogen concentration in water:

https://geotracker.waterboards.ca.gov/agland/weighted_avg_conc.xlsx

Measured Total Volume of Water Applied

Enter the total measured gallons of water applied from all sources including wells, water delivered by the city, and/or water sourced from surface water. This must include water that was applied to the entire reporting acreage during the reporting period of January 1st to December 31st.

To convert from acre-feet or acre-inches to gallons, use the Excel tool linked in the INMP Summary Report and below:

https://geotracker.waterboards.ca.gov/enoi/convert_to_gallons.xlsx

Please see the INMP Summary Report instructions and TNA Recordkeeping Tutorial for more information on how to measure the volume of water and nitrogen concentration. INMP Summary Report Instructions: [Coming Soon](#)

TNA Recordkeeping Tutorial, Irrigation Records: <https://www.youtube.com/watch?v=Y-w882JKz0w&index=1&t=261s>

TNA Recordkeeping Transcript, page 3: https://www.waterboards.ca.gov/centralcoast/water_issues/programs/ilp/docs/tna_rcrdk_ppng_trnscrpt_eng.pdf

Recycled / Reclaimed Water

If the ranch used water from a Recycled/Reclaimed source, report the total nitrogen applied and the measured volume of recycled/reclaimed water in this section.

Total Nitrogen Concentration

Enter the total nitrogen concentration of the recycled water in mg/L. Growers should contact their delivering agency or facility to obtain the total nitrogen concentration and volume of recycled or reclaimed water applied during the reporting period from each source. If the total nitrogen concentration is not available, you must sample the recycled/reclaimed water used to irrigate crops and report the total nitrogen concentration.

Measured Total Volume

Enter the measured total gallons of recycled or reclaimed water applied to the ranch during the reporting period.

The total nitrogen concentration and the volume reported in this section are used to auto-calculate the next section, Nitrogen Applied with Irrigation Water.

The INMP Summary Report Instructions contain agency and facility contact information and additional resources for reporting this information: [Link Coming Soon](#)

Nitrogen Applied with Irrigation Water

This field automatically calculates the pounds of nitrogen applied with irrigation water per ranch-acre using data entered in the water source, water volume and nitrogen concentration of water in previous sections.

Volume Check

This field automatically calculates the estimated average acre-feet of water applied to each crop-acre using the total volume of water applied to the ranch and crop acres.

Nitrogen Applied with Compost and Other Materials

Report the nitrogen applied with compost, amendments, or other materials to ALL crops grown during the reporting period. Do not include conventional fertilizers in this section.

Material Applied

Select the type of material from the dropdown menu that was applied to the ranch during the reporting period if it was applied to improve the soil physical and/or chemical properties (and usually applied when there are no crops growing on the ground). If the material is not listed, select Other and describe the material applied.

If the same type of material (such as compost or amendments with the same name) is applied more than once, report them individually on their own row and provide the total pounds of nitrogen applied, the acreage, and the C:N ratio, as applicable, for each material individually on their own row.

Nitrogen Applied in Compost and Other Materials (total lbs.)

Next, report the total pounds of nitrogen applied from compost, amendments (like almond shells or glycerol), and all other nitrogen containing materials. You may need to convert pounds or tons of gross materials to pounds of nitrogen.

You must know the nitrogen content of these materials to report the pounds of nitrogen applied. The nitrogen content information must be obtained from the manufacturer or by performing a laboratory analysis.

Ranch Physical Acres Where Compost and Other Materials was Applied

Next, report the total number of ranch physical acres where nitrogen applications from compost, amendments, and other materials were made.

For example, if you applied 100 pounds of nitrogen in your compost to all four of your ranch acres, report four acres.

You can report the C:N ratio, but this is an optional field.

Nitrogen Applied with Conventional and/or Organic Fertilizers

If only compost and other materials were applied and are reported in the Nitrogen Applied with Compost and Other Materials section, and you did not apply conventional

or organic fertilizers, enter zeros in the Nitrogen Applied in Fertilizer columns and disregard the pop-up warning message.

Next we will describe reporting for any applied conventional and/or organic fertilizers.

Nitrogen Applied with Conventional Fertilizers

Specific Crop(s) Grown During Reporting Period

Report information for each specific crop grown on the ranch during the reporting period. Select the specific crop from the dropdown menu. If the crop is not listed, select Other and type in the crop name. **Specific crop is a required field.** At least one crop must be reported unless all acres were fallowed during the entire reporting period. Crop reporting must start at Crop Row #1.

Total Crop Acres

Report the total crop-acres in each row for the specific crop reported. If a specific crop is grown and harvested more than one time during the reporting period (January 1 to December 31), and the specific crop is being reported on only one line, then the total crop acres for that crop should equal the sum of acres planted each time (for each rotation).

Refer to the TNA Recordkeeping video or INMP Summary Report instructions for details on determining crop acres.

TNA Recordkeeping Tutorial, Crop Acres: <https://youtu.be/Y-w882JKz0w?t=516>

INMP Summary Report Instructions: [Coming Soon](#)

Nitrogen Present in Soil (pounds/crop-acre)

Report the nitrogen present in the soil in pounds per crop-acre (lbs./crop-ac) for at least one crop, at least one time per year.

This information must be reported as the total pounds of soil nitrogen present per acre where the crop was grown.

See the INMP Summary Report instructions and TNA Recordkeeping video tutorials for information on how to test nitrogen content in the soil.

INMP Summary Report Instructions: [Coming Soon](#)

TNA Recordkeeping Tutorial, Soil Records: <https://www.youtube.com/watch?v=Y-w882JKz0w&index=1&t=702s>

Nitrogen Applied in Conventional Fertilizers (pounds/crop-acre)

Report the total nitrogen applied in conventional fertilizers to each specific crop during the reporting period in pounds per crop-acre (lbs./crop-ac).

If a crop receives both conventional and organic fertilizers, report the conventional applications in this section and the organic applications in the next section, Nitrogen Applied with Organic Fertilizers.

Do not report compost and amendments in this section. These should be reported in the previous section, Nitrogen Applied with Compost and Other Materials.

For short-term crops like arugula or kale, this information must be reported as the total pounds of nitrogen applied to a crop-acre for a specific crop grown on the ranch during the reporting period that was finally harvested (or the kill-date). In the case of multiple crop rotations of the same specific crop, the grower has the option to combine all the nitrogen applied during all crop rotations and report them in a single row. In this case, the total nitrogen applied in pounds/crop-acre must be the calculated weighted average of all applications made to the specific crop plantings.

Use the tool linked in the INMP Summary Report and below to calculate the weighted average of fertilizer nitrogen applications:

https://geotracker.waterboards.ca.gov/enoi/n_from_fertilizers.xlsx

Alternatively, the grower has the option to report each crop rotation separately on its own row.

You can review the INMP Summary Report Instructions and the TNA recordkeeping tutorial for details on maintaining fertilizer records, calculating crop acres, and how to calculate nitrogen applications for fertilizer applications.

INMP Summary Report Instructions: [Coming Soon](#)

TNA Recordkeeping Tutorial, Fertilizer Records: <https://www.youtube.com/watch?v=Y-w882JKz0w&index=1&t=475s>

Example on how to calculate the pounds of nitrogen applied from liquid fertilizers: <https://edis.ifas.ufl.edu/publication/hs1200>

Fertilizer Type

Specify if the crop received only conventional fertilizer, only organic fertilizer, or both conventional and organic fertilizers using the drop-down selections.

Crop Duration

Select the crop duration from the drop-down selections.

Short-term crops, like kale, broccoli, or cabbage, should be reported in the reporting year when they were harvested (finally harvested or killed).

For example, if a kale crop is planted on December 2023 but harvested in February 2024, that kale crop must be omitted from the reporting year 2023 INMP Summary Report and instead included in the reporting year 2024 INMP Summary Report, which must be submitted by March 1, 2025.

For intermediate-term crops, like strawberries, report if the crop was harvested that year (within the reporting period) by selecting either I-FH, “Intermediate-Final Harvest,” if it has been harvested or I-NFH, “Intermediate Not Final Harvest” if it has not been harvested.

For long-term crops, like grapes or avocados, report if the crop was harvested that year (within the reporting period) by selecting the L-FAH option “Long term crop – Final or Annual Harvest” if it has been harvested or the L-NFAH option “Long term crop – NOT Final or Annual harvest” if it has not been harvested.

Additional Information

Report any additional information about the specific crop reported. Please note that all crops must be reported/included even if they have not been harvested, were killed, disked-in, left on the field, or terminated, during the reporting period.

Nitrogen Applied with Organic Fertilizer

In this section, the Specific Crop(s) Grown During Reporting Period, Total Crop Acres and Fertilizer Type sections are automatically populated with information entered in the previous section, Nitrogen Applied with Conventional Fertilizers.

Report the total nitrogen applied to each specific crop grown during the reporting period from organic fertilizers.

This information must be reported as the total pounds of nitrogen applied to a crop-acre (lbs./crop-ac) for a specific crop grown on the ranch during the reporting period. Organic fertilizers must be reported for all crops whether they were harvested or not.

If a crop receives fertilizer applications from multiple and different types of organic fertilizers, the amount of nitrogen applied from each organic fertilizer can be reported in this section, one by one, on separate lines.

To report the amount of nitrogen applied from multiple organic fertilizers to a single crop on separate lines, click on the “Add additional fertilizer applications” button, located to the right of the column. Then report the amount of nitrogen in organic fertilizers applied in pounds/crop-acre, the C:N ratio, and the acreage that received each fertilizer application.

The C:N ratio of organic fertilizer is an optional field.
Acres Receiving Organic Fertilizer

Report the number of crop acres that received nitrogen from each organic fertilizer application during the reporting period.

Exemptions

Exemptions are optional for reporting. For more information on exemptions please refer to the INMP Summary Reporting Instructions.

Irrigation Management

Irrigation Management (Surface Water)

Report the estimated volume of irrigation water discharged to surface water (like creeks, streams or lakes) through surface outflows, including tile drains.

Report the total volume of water discharged from the entire reporting acreage during the entire year, as surface runoff or sheet flow, and/or comingled into ditches, canals, drains or other conveyances, including tile drains.

Report as a percentage of water applied to the entire acreage or a percentage per acre. This percentage is based on the measured total volume of water applied to the ranch and entered in the previous section, Nitrogen Applied with Irrigation Water.

If there is no irrigation water discharge to surface waterbodies, enter a zero (0) and select any one of the reporting units.

Crop Evapotranspiration

Calculate and report the evapotranspiration for each specific crop grown on the entire reporting acreage.

Specific Crop(s) Grown During Reporting Period

The Specific Crop(s) Grown During Reporting Period column is auto-populated in real time with the list of crops reported in the previous section, Nitrogen Applied with Conventional Fertilizers.

Reference ETo

The reference evapotranspiration (Eto) represents an estimate of the loss of water from plant transpiration and soil water evaporation measured on a reference crop, usually grass. The drivers of evapotranspiration are sunlight, wind, humidity, and temperature.

In the Reference ETo column, report the total reference evapotranspiration value based on reference crops such as grasses or hay, measured in inches.

Crop Coefficient (Kc)

The crop coefficient (Kc) is the ratio of the crop evapotranspiration (ETc) to the reference evapotranspiration (ETo). In the Crop Coefficient (Kc) column, report the average crop coefficient for the entire duration of the crop.

Crop ETc

Once both the Reference Eto and the Kc have been reported, the form will automatically calculate the crop evapotranspiration or Etc.

When multiple crop rotations of the same specific crop occur during the year, the grower has the option to combine all the crop rotations and report them in a single row. In this case, the grower must calculate the weighted average reference evapotranspiration from all months when the crop rotations occurred. Conversely, the grower has the option to report each crop separately in its own row.

Refer to the INMP Summary Report Instructions (Link [Coming Soon](#)) for details on which inputs are required, an example on how to correctly calculate the weighted average monthly reference evapotranspiration, the Etc value for each specific crop, and to troubleshoot potential errors.

Total Nitrogen Removed from the Field

Report the total amount of nitrogen removed from the field through harvest (R_{HARV}).

Total Nitrogen Removed from the Field for Each Specific Crop Through Harvest or Sequestration

Report the total amount of nitrogen removed from the field through harvest (R_{HARV}). This is a required field for crops that were harvested during the reporting year. You may also report the total nitrogen removed from the field through sequestration (R_{SEQ}), which is optional.

The Specific Crop(s) Grown During Reporting Period column is auto populated with the list of crops reported in a previous section, Nitrogen Applied with Conventional Fertilizers.

For intermediate and long-term crops that were not harvested during the report year, leave the corresponding R_{HARV} , and the crop conversion coefficient columns blank. Make sure NFH (Not final harvest) or NFAH (Not final or annual harvest) were selected in the crop duration column in the section, Nitrogen Applied with Conventional Fertilizers.

Crop Nitrogen Removal Conversion Coefficient

In the Crop Nitrogen Removal Conversion Coefficient column, select the crop and the associated nitrogen removal conversion coefficient, as listed in the drop-down menu selection.

If there is no conversion coefficient for the reported crop, select “Other” from the dropdown and either choose a coefficient for a similar crop or report a coefficient determined based on the Crop Nitrogen Removal Conversion Coefficient Standard Protocols.

You may also obtain the crop conversion coefficient from the MPEP Crop Yield to Nitrogen Removed Calculator and enter it in the box provided. A link to this calculator is linked below.

MPEP Calculator: <https://agmpep.com/tools/calc-y2r/>

Crop Material Removed (pounds/crop-acre)

Report the amount of nitrogen-containing material removed from the field through harvest or other methods in pounds per crop acre (lbs./cr.-ac.)

Please see the INMP Instructions for more information and common crop yield units that contain the approximate net weight (in lbs.) for each unit packed in the field. For example, a crate of tomatoes weights approximately 60 pounds.

Please see the INMP Recordkeeping Tutorial for more information on crop material removed. <https://www.youtube.com/watch?v=1qysspUMqgKg&index=1&t=211s>

R_{HARV} (lbs./cr.-ac)

The R_{HARV} column will be automatically calculated by multiplying the Conversion Coefficient by the Material Removed in pounds per crop acre (lbs./cr.-ac.). This is the pounds of nitrogen removed when the crop was harvested.

R_{TREAT}, R_{OTHER}, and R_{SCAVENGE} (Optional)

Please refer to the INMP Summary Report instructions for optional reporting information about:

- Total Nitrogen Removed through treatment (R_{TREAT}), and/or other methods and technologies (R_{OTHER}), and/or
- Nitrogen scavenged by cover crops that qualify for a Calculated Credit ($R_{SCAVENGE}$).

Basis for Amount of Total Nitrogen Applied

Select all options that helped you determine your basis for total nitrogen applied. At least one option must be selected.

This includes sources of information used to guide your fertilizer application decisions, and knowledge or data about the nitrogen taken up by the crops to produce the desired yield without overapplying fertilizer nitrogen.

Explanations and Comments

Provide a brief explanation if the information reported does not represent the entire 12-month reporting period, reporting acreage is different than the ranch acreage (e.g., due to fallow acres), or any section in the report is incomplete.

Certification

This section certifies that the INMP Summary report has been reviewed and certified by the Operator/Responsible Party listed on the Operation enrollment form (also known as the eNOI) in GeoTracker.

Once you have attested to this, select Save and Submit.

A notification box should pop up indicating the report was submitted successfully.

GeoTracker will not allow an incomplete INMP Summary Report to be saved or submitted. If an INMP Summary Report is incomplete and "Save & Submit" is clicked on, a highlighted yellow list of incomplete and required fields will appear at the top of the form. If this occurs, please correct the errors listed in yellow at the top of the page and resubmit the INMP Summary Report.

Thank you for working to protect water quality!

Irrigated Lands Program staff can be reached at: AgNOI@waterboards.ca.gov or (805) 549-3148.

Members of the Third-Party Program can contact Preservation, Inc. at: support@ccwqp.org or (831) 761-8644.