OUTLINE

- Intro to TNA/INMP reporting requirements
- What happens if my results are “high”?
- Records needed to report
- Calculations needed to report
- How to file a report

www.ccwqp.org/tna www.ccwqp.org/inmp

Para ver esta información en español, haga clic en la bandera mexicana en la parte superior derecho de la pantalla.

Los informes de Nitrógeno Total Aplicado (TNA) sobre el año de cosecha 2023 deben entregarse antes del 1 de marzo de 2024. Este requisito se aplica a todos los ranchos actualmente inscritos en la Orden Agrícola de la Costa Central, excepto por una pequeña cantidad de ranchos designados como "Área de Fase 1". en Ag Orden 4.0.

Los ranchos del Área 1 de la Fase deben presentar un Informe resumido del INMP. Haga clic aquí para visitar la página de informes INMP .

No presentar el informe requerido de TNA puede resultar en acciones coercitivas por parte de la Junta de Agua de la Costa Central y/o pérdida de la membresía de Tercero en Preservation, Inc.

SALTA A:

- Saltar a: Sección I – Introducción y lista de verificación
- Saltar a: Sección II – Mantenimiento de registros y cálculos
- Saltar a: Sección III – Presentar un informe
- Saltar a: Página de preguntas frecuentes de TNA

Sección I – Introducción y lista de verificación

Necesitará la siguiente información para completar el informe de TNA. Puede descargar esta lista de verificación aquí: Lista de verificación de materiales para informes de TNA

What is TNA/INMP Reporting?

- TNA = Total Nitrogen Applied
- INMP = Irrigation & Nutrient Management Plan (summary report)

  - Generally, TNA info plus crop yields (i.e. N removed at harvest)

Introductory video on TNA/INMP reporting:

www.youtube.com/watch?v=Y-w882JKz0w

A – R (or A/R) Balance

- A = Nitrogen applied to the field, primarily in fertilizers

  - also in irrigation water and organic amendments

- R = Nitrogen removed from the field, primarily in the harvested crop

  - also “sequestered” in woody vine/bush/tree material

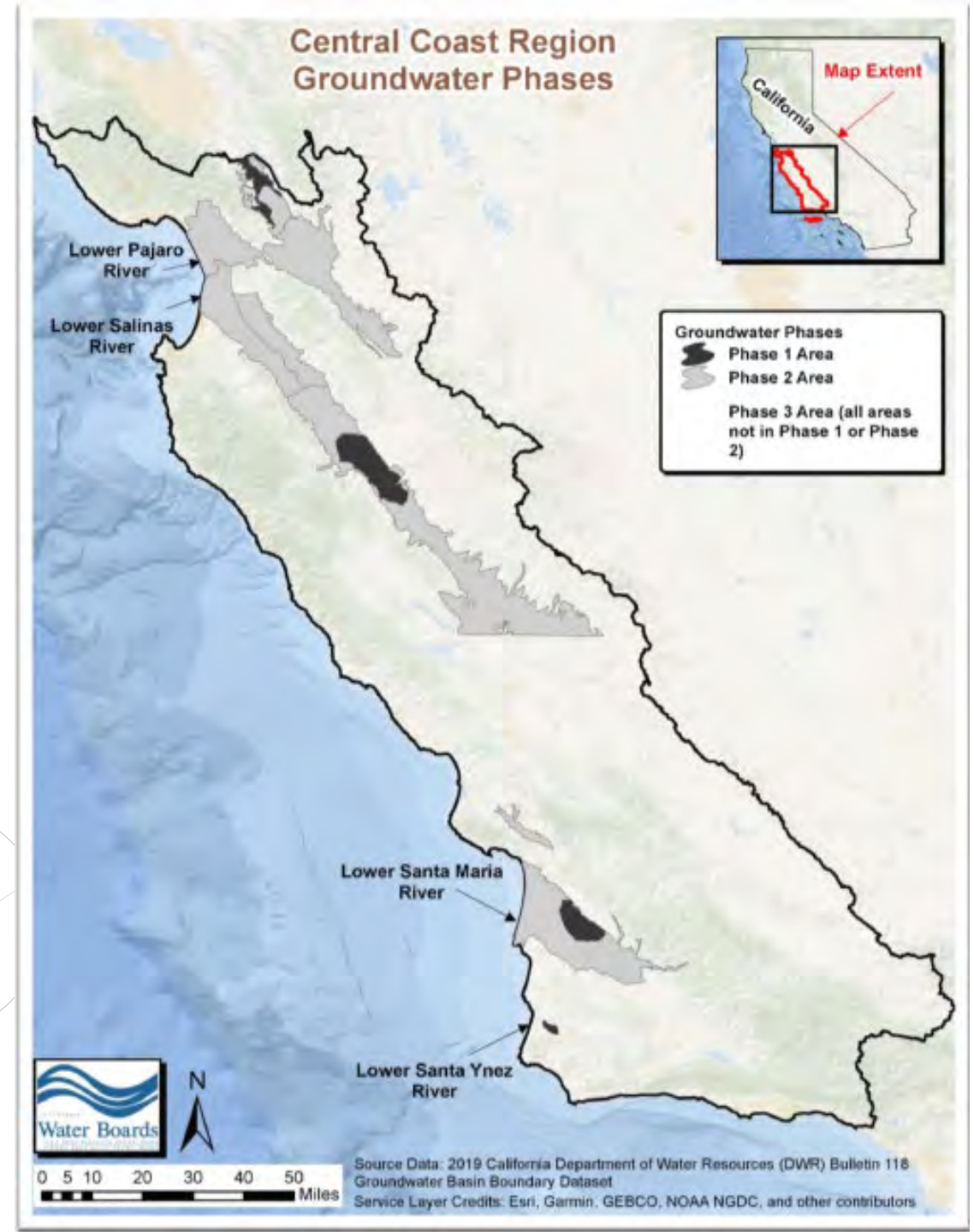
  - also “scavenged” by cover crops or high-carbon amendments

When “A” is much higher than “R”, the nitrogen left in the field can leach

GROUNDWATER PHASE AREAS IN AG ORDER 4.0

Ranches in Phase Area 1 must report INMP by March 1st, 2025 for their 2023 crops.

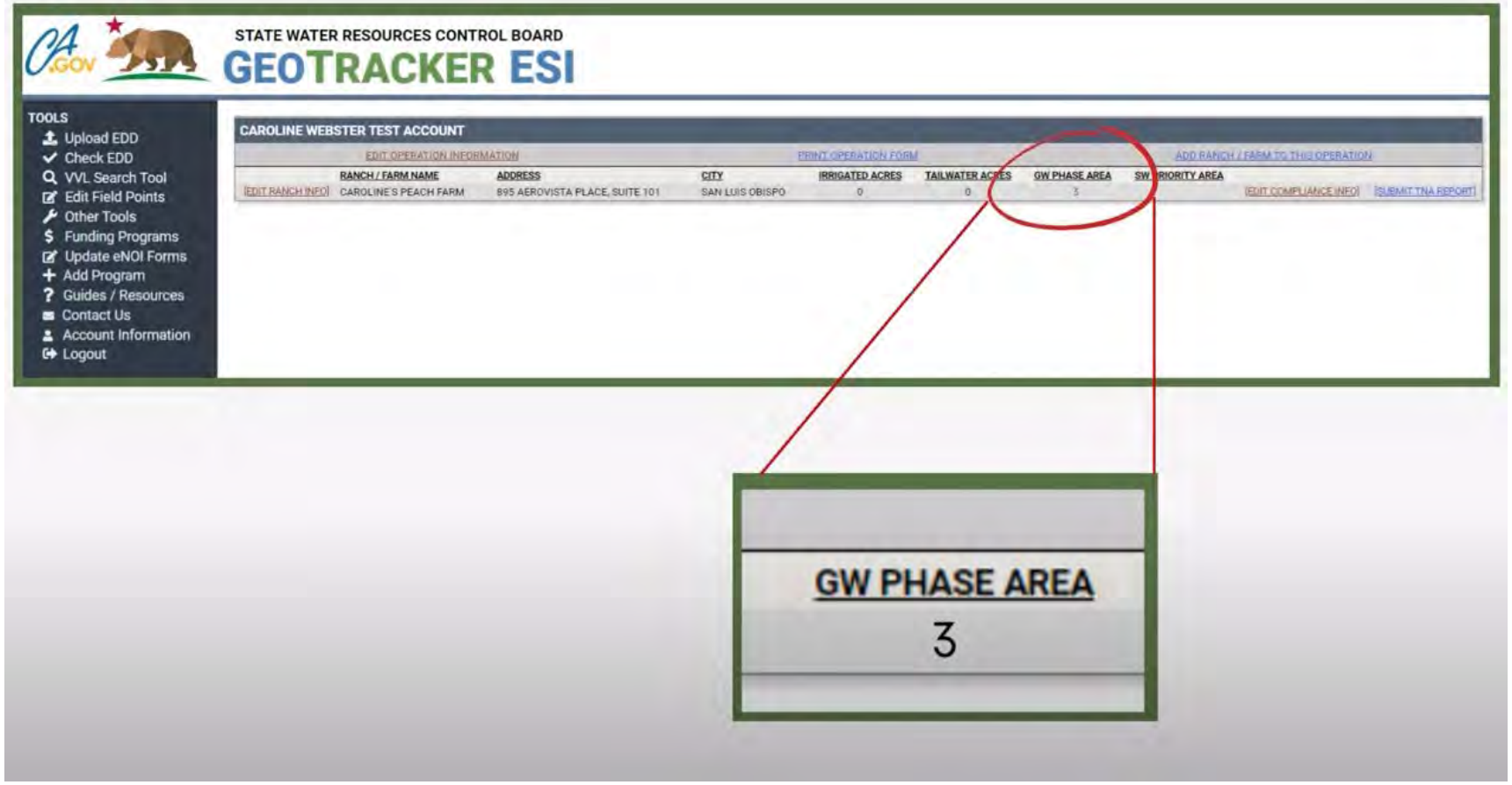
All other ranches must report TNA by March 1st, 2025 for their 2023 crops.



Finding your ranch's Phase Area in the eNOI

Or visit
www.ccwqp.org/phaseareamaps
to view a map

Or contact
Support@ccwqp.org
for help



Update: Exemptions require full compliance on all other aspects of Order and completely up-to-date GeoTracker records…

Exemptions

…This includes ranch maps, Annual Compliance Form, etc.

1. SIP-Certified wine grape growers do not need to file a TNA report that is separate from their existing SIP-Certified reporting

   - SIP sends data to Pres, Inc.; we send data to GeoTracker

2. INMP reporting exemption for any Third Party member whose TNA report documents application of 50 lbs N/acre or less (basis – Meeting final A-R Discharge Limit)… must report early to be eligible for consideration

www.ccwqp.org/inmp (click “Jump To INMP Exemption Request Form”)

What if my results are “high”? (TNA)

TNA Limits in Ag Order 4.0

Crop	90th Percentile AFER =	Compliance Date	85th Percentile AFER =	Compliance Date
Broccoli	295	12/31/2023	280	12/31/2025
Cauliflower	310		285	
Celery	360		330	
Lettuce	275		255	
Spinach	245		230	
Strawberry	320		295	
All Other Crops	500		480	

If your TNA report shows very high amounts of fertilizer application, Preservation, Inc. will contact you to discuss.

Right now, the Water Board cannot fine you for exceeding these limits, but education and/or improved management could be required.

What if my results are “high”? (INMP)

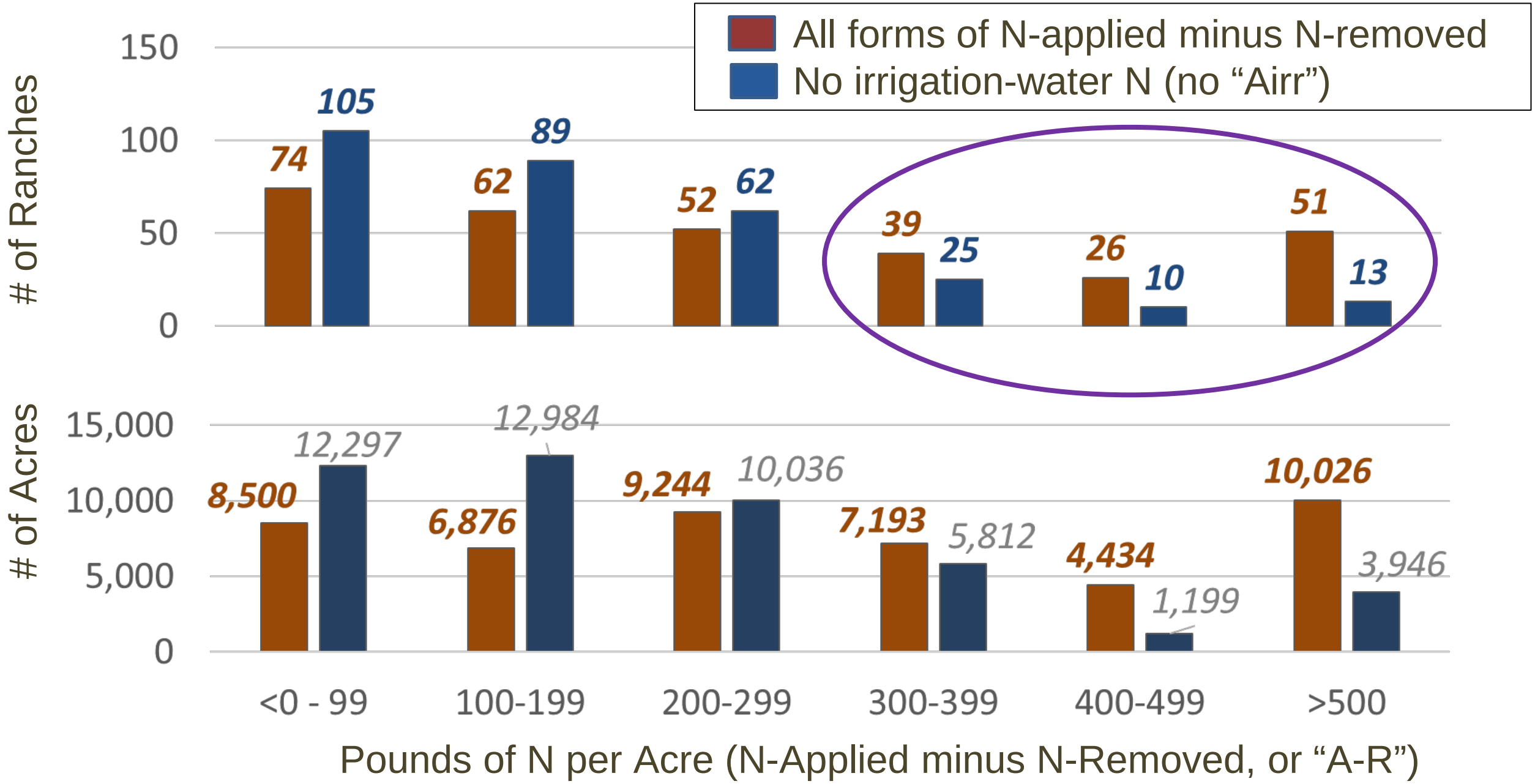
Table C.1-3. Compliance Dates for Nitrogen Discharge Targets and Limits

	Compliance Date		
A – R =	Target	500	12/31/2023
	Target	400	12/31/2025
	Limit	300	12/31/2027
	Limit	200	12/31/2031
	Limit	150	12/31/2036
	Limit	100	12/31/2041
	Limit	50	12/31/2051

If your INMP report shows a large difference between “A” (N-applied) and “R” (N-removed), Preservation, Inc. will contact you to discuss.

Right now, the Water Board cannot fine you for exceeding these limits, but education and/or improved management could be required.

N-Applied minus N-Removed ("A-R"), 2023 crops



Reporting “1,2,3”

1. Keep (or Find) Your Records
2. Perform Required Calculations (or find someone to do it for you)
3. Submit a Report Form

Section I – Introduction & Checklist

You will need the following information in order to complete the TNA report. You can download this checklist here: TNA Reporting Materials Checklist

Puedes descargar esta lista de verificación aquí: TNA Checklist_SPANISH_092923

- Preparer Name
- Preparer Company
- Preparer Email
- Preparer Phone Number
- Calendar year of TNA data being reported
- Ag Waiver (AW) number
- Global ID (AGL) number
- Ranch name
- Assessor Parcel Number(s) (APN's) farmed
- The total number of acres that were farmed
- Total number of acres left fallow
- Whether or not the ranch is a greenhouse, nursery, or hydroponic operation
- Primary source of irrigation water (i.e. well versus city versus recycled, etc.)
- Total volume (in gallons) of irrigation water applied to the entire reported acreage during the reporting period
- The average nitrate concentration (in mg/L or ppm) of irrigation water applied
- The average nitrate concentration unit of irrigation water applied
- Crop(s) you are reporting
- Total crop acres for selected crop*
    - Crop acres takes into account successions (i.e. if you have 10 acres and you did two successions of lettuce then you will report 20 acres)
- Amount of Nitrogen present in soil as pounds of Nitrogen per crop acres (lbs/crop-acre)
- Amount of conventional (synthetic) fertilizers and other materials pounds of Nitrogen per crop acre (lbs/crop-acre)

Required Records

www.ccwqp.org/tna

or

www.ccwqp.org/inmp

1

Calculations Needed to Report TNA / INMP

1) Irrigation water volume applied
2) Nitrate concentration in irrigation water → Pounds of N applied
3) Soil N concentration → Pounds of N in soil
4) Fertilizers applied → Pounds of N applied
5) Organic amendments applied → Pounds of N applied
6) Crop-Evapotranspiration (INMP only)
7) Quantity of crop harvested → Pounds of N removed at harvest

2

Section II – Recordkeeping & Calculations

2

If you are not already closely tracking the types and amounts of fertilizers and irrigation water that you apply to each crop, you will need to do a significant amount of record keeping before preparing your TNA report.

Once you have all of your fertilizer and irrigation records in one place, you will need to convert this information into the total pounds of N and volume of water applied to each crop on each of your ranches for the year.

Here is a link to the Regional Water Board's introductory video on TNA reporting. Information on recordkeeping begins at the 3:50 point in the video: https://www.youtube.com/watch?v=Y-w882JKz0w

The following records or calculations are needed to complete the TNA report. In some cases there are also links to recordkeeping and/or calculator tools. Use of these tools is not required, but they may be helpful if you do not already have a system in place:

1. Volume of irrigation water applied, in gallons
   - Flow meter
   - Convert kw hours to volume
   - Unit conversions, acre feet/inches/gallons (Link to Water Board conversion instructions, see pg. 21)
2. Pounds of N in irrigation water
   - Testing methods/options
   - Converting between nitrate as N and nitrate as nitrite (Link to Water Board conversion instructions, see pg. 21)
   - Conversion to pounds of N (Link to Water Board conversion instructions, see pg. 20)
3. Soil nitrogen content from soil test
   - Testing methods/options
   - Soil analysis – N concentration
   - Conversion to pounds of N per acre (Link to Water Board conversion instructions, see pg. 22)
4. Pounds of N applied in fertilizer
   - Recordkeeping for fertilizer

Calculations

www.ccwqp.org/tna

or

www.ccwqp.org/inmp

List of calcs with links to instructions & calculators

Reporting Forms

3

- Spreadsheet Form (MS Excel)

- EZ-Form (Google; no account required unless you save progress)

- Hint: Submit a single-crop “trial” EZ-Form to receive a pre-populated Spreadsheet Form; then complete info for additional crops

6. Organic versus synthetic/conventional

Section III – Submit a Report

To Submit Your Report:

- Asistencia en espanol – Llame a 831-761-8644 o escriba a Support@ccwqp.org. Haga clic para TNA-EZ Form en espanol.

▷ TNA-EZ Tutorial de formulario

- Operations that grew five or fewer crops on a single ranch in 2024 may use Preservation, Inc's new TNA-EZ Form

2024 TNA-EZ FORM

- If you are not comfortable using computers or Excel spreadsheets, call 831-240-9533
- All others please download the TNA Reporting "Spreadsheet Form" below
  - Contact the Support Line with basic questions (phone number and email above)
  - For advanced technical support, contact Marco Sigala at marco.sigala@sjsu.edu
- If you used the Spreadsheet Form (a.k.a. Template) to submit your TNA report last year, you can start this year's report from the same saved file, however, you will need to download and populate a slightly updated Spreadsheet Form for this year's report.

EZ Form Walk-Through

2024 TNA/INMP Reporting Changes

Both TNA and INMP

- Compost/mulch/soil amendment applications are required even if the value is 'None'.
- Conventional and Organic fertilizer applications must be reported as **total pounds of nitrogen** rather than pounds of nitrogen per crop acre.
- The Crop list has been updated with deletions (e.g., flowers), spelling updates, and additions. Please check the list.
- Some fields (e.g., RHARV) have been removed.

INMP only

- Crop material removed (harvest/yield) must be reported as **total pounds of material removed** rather than pounds of nitrogen per crop acre.

Central Coast Water Quality Preservation, Inc.

Total Nitrogen Applied (TNA) EZ Form

Preservation, Inc.

Please populate this form as completely as possible. You can answer questions and return later with the answers populated. Once you Submit your answers, though, you must contact Preservation, Inc. to make changes.

This form allows you to enter up to 5 parcel numbers (APNs), 3 compost/mulch/soil amendment applications, and 5 crops. If you have more APNs, compost/mulch/soil amendments, and/or crops to report, please use the Preservation, Inc. MS Excel TNA Template available on the CCWQP TNA page.

Sign in to Google to save your progress. Learn more

* Indicates required question

Email *

Your email

Central Coast Water Quality Preservation, Inc.

Total Nitrogen Applied (TNA) EZ Form

Thank you for submitting your Total Nitrogen Applied (TNA) Report. You will receive an email from "Google Forms" with a copy of your responses.

The Preservation, Inc. Data Management team will run your responses through the TNA database and business rule checks and contact you if there are any issues with your data submittal.

If you need to make changes to your TNA report, please email the Preservation, Inc. Data Management team at ccwqptnainmp@gmail.com to let them know the TNA report's AW and AGL that you wish to edit.

Please print or save this page or use the "Google Forms" email as official confirmation of your TNA report submittal.

Thank You,
Preservation, Inc. TNA Data Management Team

Submit another response

Calculations Demos

Calculations Demos

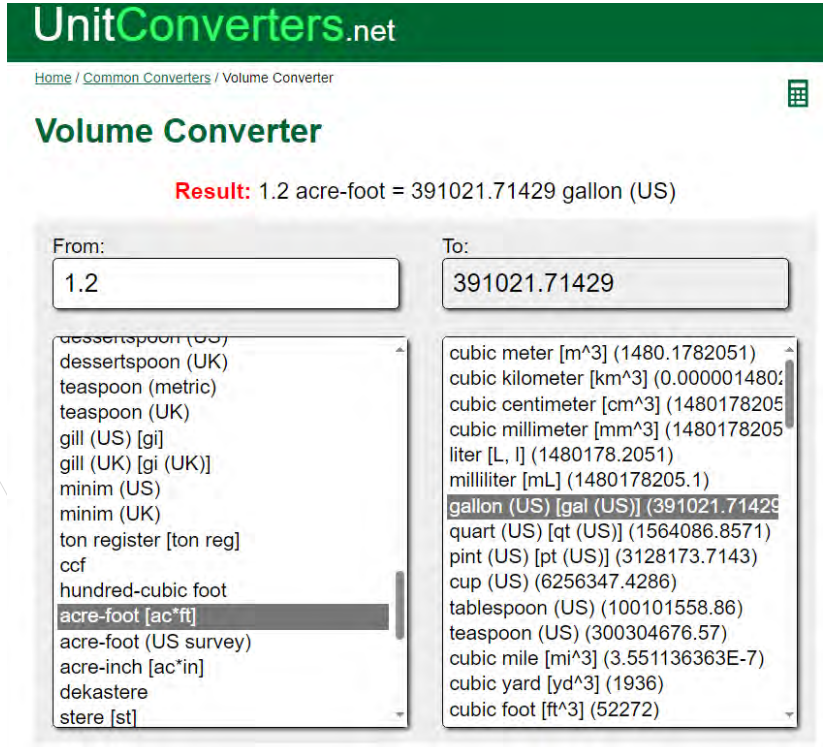
1) Acre-ft or Acre-in to Gallons

Example: Lettuce crop with 1.2 acre-feet of water applied

Multiply 1.2 ac*ft by 325,851.43 to get gallons

Result = 391,022 gallons

or visit



Calculations Demos
3) N concentration in irrigation water

- Get well water nitrate test result(s) from a lab (mg/L = ppm)
  - If results are “as Nitrate-NO3”, convert to “Nitrate-N”
  - Nitrate-NO3 (mg/L) x 0.2259 = Nitrate-N (mg/L)

- Convert concentration to pounds
  - Multiply NO3-N concentration x Acre-Feet per ranch-acre x 2.72

Calculations Demos
4) Soil N concentration

- Soil N testing
  - Service providers (labs, consultants, etc.)
  - Take your own sample

- Converting ppm to pounds per acre

N (lbs./acre) =

Nitrate-N (NO_3-N) concentration (ppm) x 2 x soil sample thickness (inches) ÷ 6 in.

Example:

13.9 mg/L (NO_3-N) concentration
X
2
X
12 inches (actual soil sample thickness)
/
6 inches

55.6 lbs N/acre available to crop

Calculations Demos

4) Soil N concentration

Nitrogen Concentration in Soil

RanchID or Ranch Name	Crop	Date	N Level in Soil (ppm)	Represented Soil Thickness (inches) *(default to 6 if unknown)*	N Level in Soil (lbs/acre)	Nitrogen_Present
Test Ranch	Lettuce	6/15/2023	90	6	180	**180**
Test Ranch	Broccoli	6/15/2023	5	18	30	**30**

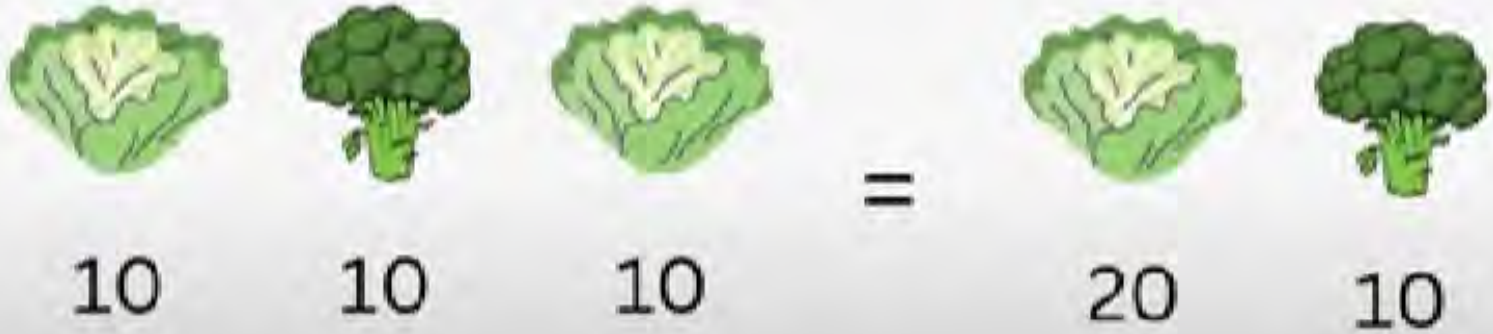
Calculations Demos
5) Fertilizers & Amendments Applied (lbs of N)

- Dry (granular) fertilizer example

- Liquid fertilizer example

Registros del Fertilizante – Calcular el Acre de Cultivo

Acre de cultivo = número total de acres en los que se cultivó y cosechó un cultivo durante el periodo de reporte



Source: Central Coast Water Board/ Junta de Agua de la Costa Central

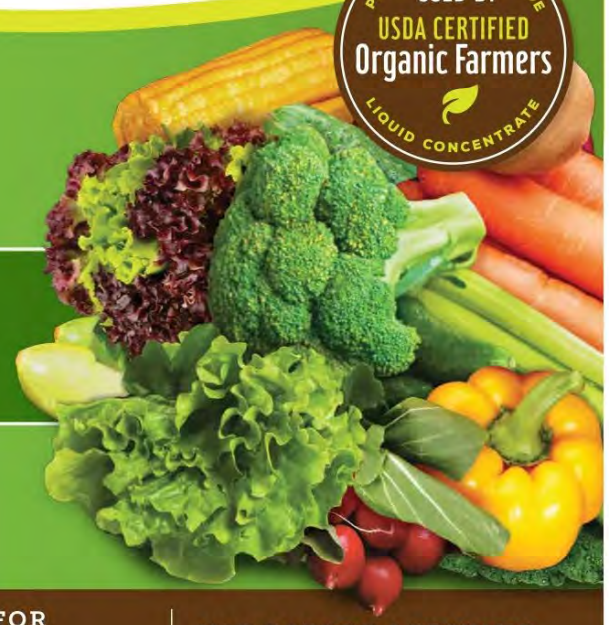
N-P-K

AgroThrive ORGANIC BIO-FERTILIZERS | ORGANIC

General Purpose

LIQUID FERTILIZER

PROFESSIONAL GRADE — USED BY USDA CERTIFIED Organic Farmers — LIQUID CONCENTRATE



FORMULATED 3-3-2

OMRI LISTED

FORMULATED FOR Everything That Grows

MIX BEFORE APPLYING

NET CONTENTS 55gal | 208L

AgroThrive General Purpose Liquid Fertilizer is a premium organic bio-fertilizer formulated to provide both nutrient supply and stimulation of soil microbes. **HOW DOES IT WORK?** Our organic bio-fertilizer feeds plants and enhances soil microbial activity helping release nutrients from the soil, increasing availability to plants.

WHAT'S THE RESULT? Vigorous root and foliar growth and improved disease resistance.

OUR BIO-FERTILIZERS are made from nutritious organic materials that may otherwise end up in landfills and harm the environment. Our proprietary technology safely converts these materials into a beneficial plant food that improves plant and soil quality, while eliminating harmful pathogens in the process.

CAN BE USED FOR: Soil drench, foliar feeding, hydroponics, and other fertilizing systems.

MANUFACTURED BY:
AgroThrive, Inc. 26775 Old Stage Road, Gonzales, CA 93926
888 449.2853 | www.agrothrive.com

AgroThrive, Inc. makes no guarantee, express, implied or statutory, whatsoever with respect to the product condition, performance or its adequacy for any use, which extends beyond the use of the product under normal conditions. Compatibility with other products should always be first tested by 'mixing in a jar' before application.

Meets the National Organic Program requirements for organic production.

GUARANTEED ANALYSIS:

Total Nitrogen (N)	3.0%
0.16% Ammoniacal Nitrogen	
2.63% Other Water Soluble Nitrogen	
0.21% Water Insoluble Nitrogen	
Available Phosphate (P_2O_5)	3.0%
Soluble Potash (K_2O)	2.0%

DERIVED FROM: Corn steep liquor and fermented fish by-products.

Density 9.6lb/gallon (US) at 68°F

Information regarding the contents and levels of metals in this product is available on the internet at www.aapfco.org/metals.html

RECOMMENDED APPLICATION RATES

Application Method	Row Crops & Grass (gpa)	Trees & Vines (gpa)
Flood or Sprinkler	15-40	20-40
Sprayer or Shank	15-40	20-40
Drip Tape	5-25	10-20

OMRI LISTED

MADE IN USA

This product was made in a solar powered facility.

Densidad (lb/gal)

Converted Organics™ 4-2-2

4 - 2 - 2

Converted Organics™ 4-2-2 is marketed as a natural fertilizer whose nutrients are derived from grain fermentation solubles and hydrolyzed soy protein. Converted Organics™ 4-2-2 has been formulated to provide the grower with a high quality, fully pasteurized liquid fertilizer suitable for use on a variety of crops. Converted Organics™ 4-2-2 is recommended for use on both organic and conventional agricultural soils where a fertilizer with readily available nitrogen is desired.

APPLICATION RECOMMENDATIONS

Lawn & Garden application:
10-20ml per gallon of water.
For a seasonal total of 100 gallons per acre (gpa) use a combination of the following methods:.

	Field/Row Crops (gpa)	Tree/Vine Crops (gpa)
Broadcast	20-40	20
Water run/sprinkler	10-15	15-20
Micro-irrigation	10-15	10-15
Under seed	5	–
Side dress	10-15	15-20

Converted Organics, LLC makes no warranty or condition, express, implied or statutory, whatsoever, with respect to the product's condition, performance or its adequacy for the Purchaser's purpose or uses, which extend beyond the use of the product under normal conditions in accordance with the statements made on this label.

CONVERTED ORGANICS.....4 - 2 - 2

GUARANTEED ANALYSIS

Total Nitrogen (N).....4.0%
0.20% Ammoniacal Nitrogen
3.30% Other Water Soluble Nitrogen
0.50% Water Insoluble Nitrogen

Available Phosphate (P_2O_5).....2.0%
Soluble Potash (K_2O).....2.0%

Derived from grain fermentation solubles and hydrolyzed soy protein.

F1707

Density(@68°F).....10.2lb./gallon (U.S.)

KEEP OUT OF REACH OF CHILDREN

Information regarding the contents and levels of metals in this product is available on the Internet at: http://www.aapfco.org/metals.htm

Manufactured by:
Converted Organics LLC
31677 Johnson Canyon Road, Gonzales, CA 93926
Phone: (831) 675-8600 Fax: (831) 675-8601
www.convertedorganics.com

☐ 2.5 Gal / 9.4 L
24.5 lb / 11 kg

☐ 55 Gal / 208.2 L
539 lb / 244 kg

☐ 275 Gal / 1041 L
2,695 lb / 1,222 kg

BULK

Pellets.

4-4-2 NPK | #PF442P

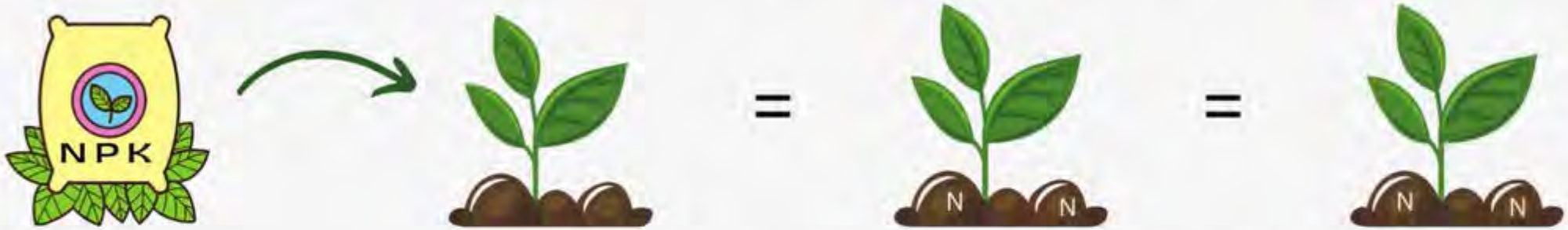
- 4% Nitrogen, 4% Phosphorus, 2% Potassium
- 100% processed and dried egg layer hen manure
- Guaranteed NPK
- 100% weed and seed free. Won't burn
- 7% calcium content along with multiple micronutrients
- Available in 1 ton super sacks and bulk
- Compliant for organic use

VIEW SAMPLE ANALYSIS

Registros del Fertilizante – Granulado

Total de libras de nitrógeno aplicado = total en libras de fertilizante usado x porcentaje de nitrógeno en la etiqueta

10-5-5 NPK = 10% nitrógeno



100 libras → 10 acres = 10 libras / 10 acres = 1 libra / acre

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

Ejemplo de cómo guardar registros y de fertilizantes y como calcular la cantidad de nitrógeno aplicada

Calculo de Nitrogeno (N), Fosforo (P) y Potasio (K) Aplicado con Fertilizantes									
Nombre del Fertilizante	Liquido/Solido	Analisis Garantizado					Lbs Aplicadas		
	L o S	%N	% P	%K	Densidad (si es liquido)	Cantidad Aplicada/Acre (lbs o galones)	lbs N	lbs P	lbs K
Guano	S	4	4	2		200	8	8	4
Agrothrive	L	3	3	2	9.6	20	6	6	4
							0	0	0
							0	0	0
							0	0	0
							0	0	0
							0	0	0
							0	0	0
							0	0	0
							0	0	0
							0	0	0
							0	0	0
							0	0	0
CANTIDAD TOTAL DE NUTRIENTES APLICADOS :							14	14	8

Ejemplo de cómo guardar registros y de fertilizantes y como calcular la cantidad de nitrógeno aplicada

Calculo de Nitrogeno (N), Fosforo (P) y Potasio (K) Aplicado con Fertilizantes									
Nombre del Fertilizante	Liquido/Solido	Analisis Garantizado					Lbs Aplicadas		
	L o S	%N	% P	%K	Densidad (si es liquido)	Cantidad Aplicada/Acre (lbs o galones)	lbs N	lbs P	lbs K
Guano	S	4	4	2		200	8	8	4
Agrothrive	L	3	3	2	9.6	20	6	6	4
							0	0	0
							0	0	0
							0	0	0
							0	0	0
							0	0	0
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							0	0	0
							0	0	0
							0	0	0
							0	0	0
CANTIDAD TOTAL DE NUTRIENTES APLICADOS :							14	14	8

200 x 0.04 = **8 lbN/ac**

20 x 9.6 x 0.03 = **6 lbN/a**

Nitrogeno en el Agua de Riego

lbs N / pulgada de agua de riego = ppm NO_3-N en el agua de riego x 0.227

RESOURCE

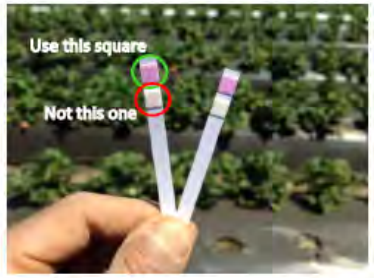
Resource Conservation District of Santa Cruz County

How to estimate the pounds of nitrogen your irrigation water provides to your crop

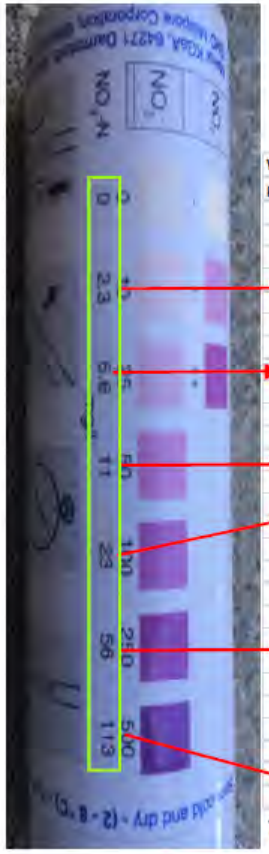
By Dr. Gerry Spinelli

This guide provides directions for measuring the concentration of nitrogen in irrigation water with a nitrate quick test strip and will help you estimate the contribution of irrigation water to your crop nitrogen balance. For a more accurate calculation, we recommend more advanced techniques (Lab nitrogen tests, CropManage, etc.). Nitrate test strips can be provided for free by the RCD of Santa Cruz County: (831) 464-2950, info@rcdsantacruz.org

1. Collect a water sample from the well and dip two strips in the water. Shake off excess water and wait one minute.
2. If the color of both strips is the same, proceed to the next step. If the strips are different colors, throw them away and repeat step 1.
3. Compare the square at the top of the strips with the lower scale (NO_3-N) on the test strip container. If the color is between two numbers, estimate visually the concentration. For example, if the color is between 11 and 23, a good estimate would be 17. This gives you the concentration of nitrogen in the irrigation water, expressed in ppm of NO_3-N.



4. In the table below, find the closest row corresponding to your sample. Pick the column corresponding to the amount of water applied to your crop. For example, if your nitrogen sample is 10 ppm NO_3-N and in the month of July you applied 4 inch of irrigation water, the contribution of the irrigation water was 9 pounds of nitrogen.
   If you do not know how much water you apply, you can use the last four columns of the table to estimate the nitrogen contribution of the irrigation water for one growingcycle of the most common crops in our area. For example, if you grow broccoli and your water sample is 20 ppm NO_3-N, the irrigation water provides 91 pounds of nitrogen during the entire cycle.
   For a direct measurement of irrigation water applied contact the RCD!

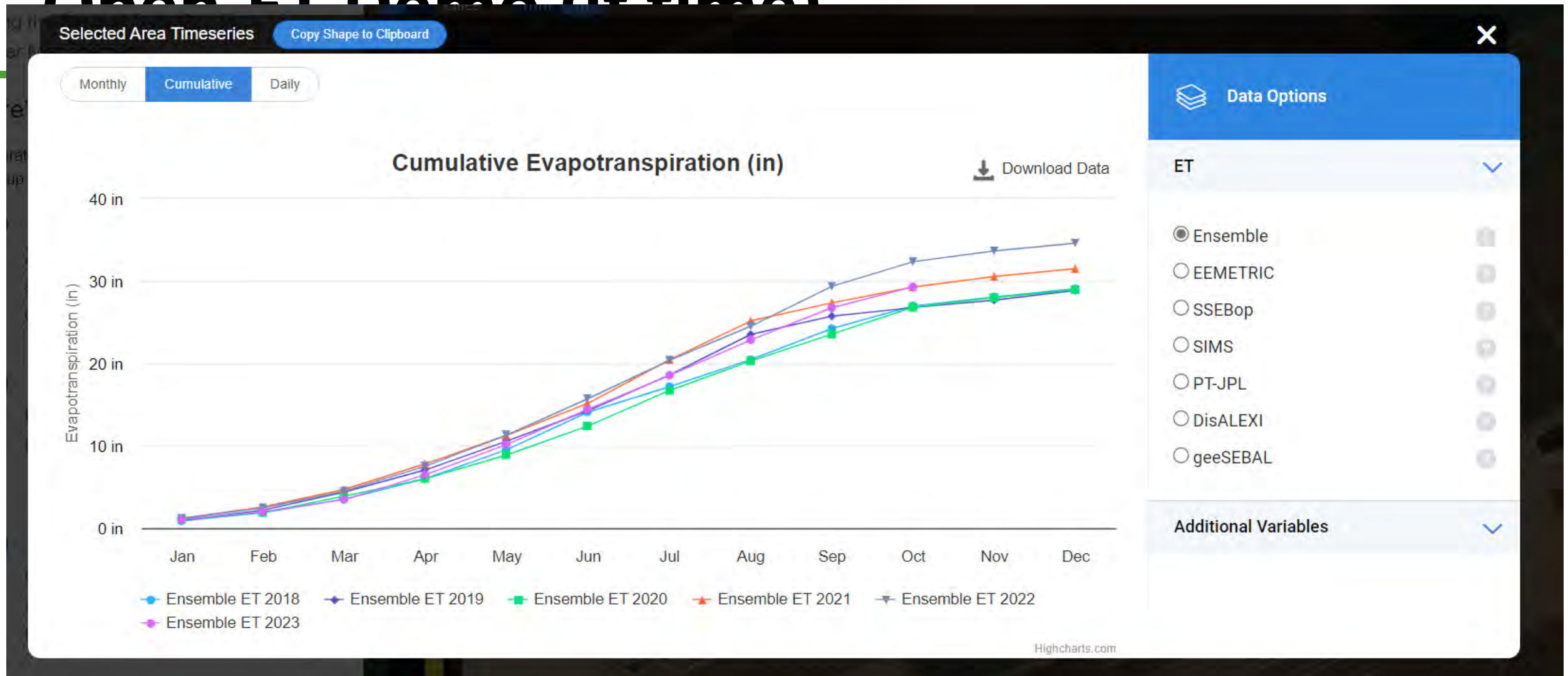


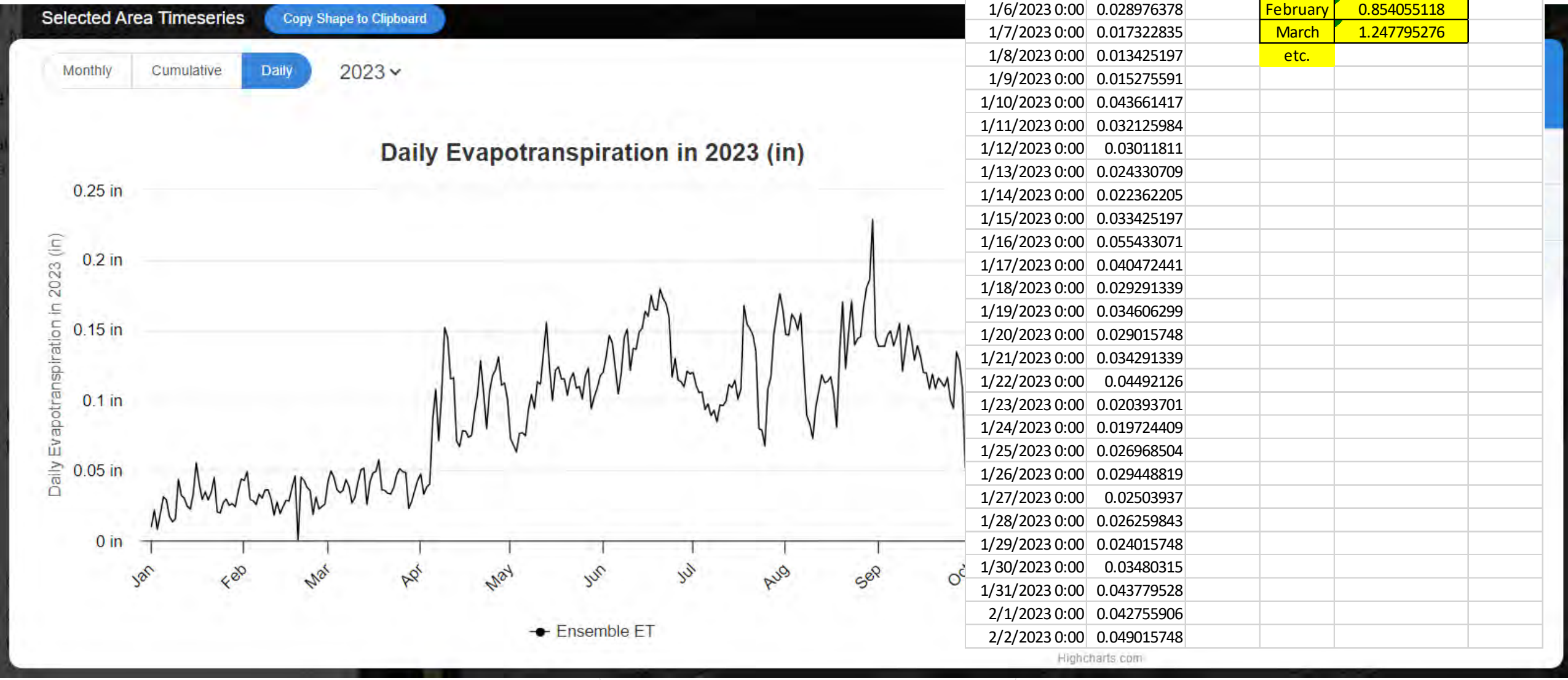
Water Sample	Inch of water applied										Estimate per cycle			
ppm of NO_3-N											Strawberry	Lettuce	Caneberry	Broccoli
	1	2	3	4	5	10	12	15	20	25	26	8	20	20
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	0	0	1	1	1	2	3	3	5	6	6	2	5	5
2	0	1	1	2	2	5	5	7	9	11	12	4	9	9
3	1	1	2	3	3	7	8	10	14	17	18	5	14	14
4	1	2	3	4	5	9	11	14	18	23	24	7	18	18
5	1	2	3	5	6	11	14	17	23	28	29	9	23	23
6	1	3	4	5	7	14	16	20	27	34	35	11	27	27
7	2	3	5	6	8	16	19	24	32	40	41	13	32	32
8	2	4	5	7	9	18	22	27	36	45	47	15	36	36
9	2	4	6	8	10	20	24	31	41	51	53	16	41	41
10	2	5	7	9	11	23	27	34	45	57	59	18	45	45
15	3	7	10	14	17	34	41	51	68	85	88	27	68	68
20	5	9	14	18	23	45	54	68	91	113	118	36	91	91
25	6	11	17	23	28	57	68	85	113	142	147	45	113	113
30	7	14	20	27	34	68	82	102	136	170	177	54	136	136
35	8	16	24	32	40	79	95	119	159	198	206	63	159	159
40	9	18	27	36	45	91	109	136	181	227	236	73	181	181
45	10	20	31	41	51	102	122	153	204	255	265	82	204	204
50	11	23	34	45	57	113	136	170	227	283	295	91	227	227
60	14	27	41	54	68	136	163	204	272	340	354	109	272	272
70	16	32	48	63	79	159	190	238	317	397	413	127	317	317
80	18	36	54	73	91	181	218	272	363	453	471	145	363	363
90	20	41	61	82	102	204	245	306	408	510	530	163	408	408
100	23	45	68	91	113	227	272	340	453	567	589	181	453	453
110	25	50	75	100	125	249	299	374	499	623	648	199	499	499
120	27	54	82	109	136	272	326	408	544	680	707	218	544	544

Table 1. Total pounds of nitrogen provided by irrigation water based on different NO3-N concentrations and amounts of water applied

Central Coast Water Quality Preservation, Inc.

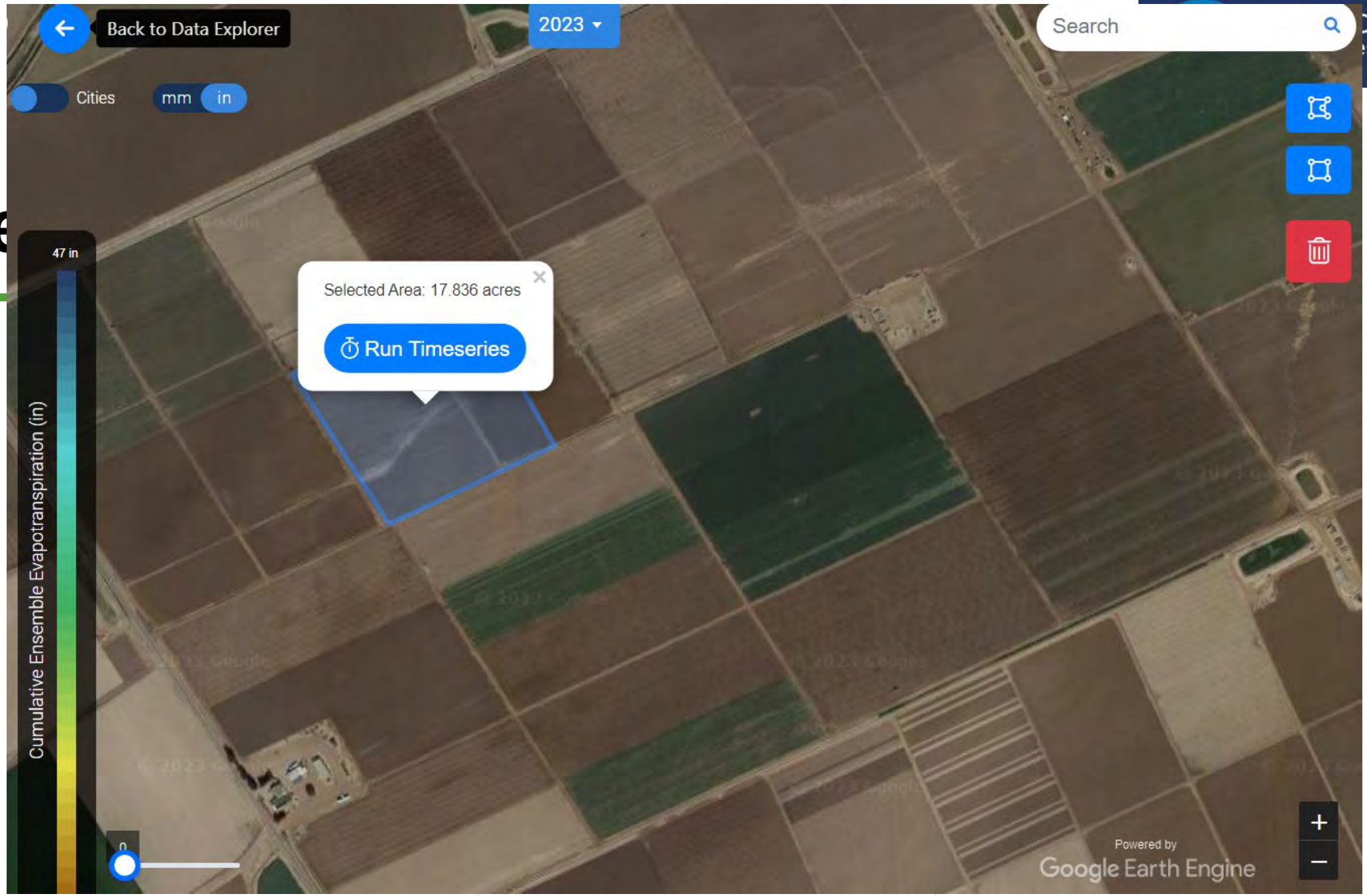
Open ET Demo (if time)





DateTime	Ensemble ET	Acre-feet	ET Units	Source	Method
1/1/2023 0:00	0.00988189	in	OpenET	https://openetdata.org/#too	
1/2/2023 0:00	0.021614173				
1/3/2023 0:00	0.007834646				
1/4/2023 0:00	0.019488189		**Month**	**Summed daily ET**	
1/5/2023 0:00	0.031062992		January	0.869370079	
1/6/2023 0:00	0.028976378		February	0.854055118	
1/7/2023 0:00	0.017322835		March	1.247795276	
1/8/2023 0:00	0.013425197		etc.		
1/9/2023 0:00	0.015275591				
1/10/2023 0:00	0.043661417				
1/11/2023 0:00	0.032125984				
1/12/2023 0:00	0.03011811				
1/13/2023 0:00	0.024330709				
1/14/2023 0:00	0.022362205				
1/15/2023 0:00	0.033425197				
1/16/2023 0:00	0.055433071				
1/17/2023 0:00	0.040472441				
1/18/2023 0:00	0.029291339				
1/19/2023 0:00	0.034606299				
1/20/2023 0:00	0.029015748				
1/21/2023 0:00	0.034291339				
1/22/2023 0:00	0.04492126				
1/23/2023 0:00	0.020393701				
1/24/2023 0:00	0.019724409				
1/25/2023 0:00	0.026968504				
1/26/2023 0:00	0.029448819				
1/27/2023 0:00	0.02503937				
1/28/2023 0:00	0.026259843				
1/29/2023 0:00	0.024015748				
1/30/2023 0:00	0.03480315				
1/31/2023 0:00	0.043779528				
2/1/2023 0:00	0.042755906				
2/2/2023 0:00	0.049015748				

Ope


Back to Data Explorer
2023
Search
Cities
mm
in
47 in
Cumulative Ensemble Evapotranspiration (in)
Selected Area: 17.836 acres
Run Timeseries
0
Powered by
Google Earth Engine

Open-ET Demo (if time)

Why is TNA/INMP reporting required?

- Groundwater throughout California's irrigated Ag lands is significantly impaired by Nitrate
- Ag fertilizers (and dairy waste) are the largest source of N, and have not been regulated to the same extent as WWTP's or septic
- A statewide Expert Panel concluded that the most important management tool for this issue would be to monitor, report, and manage the balance of N-Applied to fields vs. N-Removed from fields

    - Because the difference (A/R or A-R) is highly susceptible to leaching