

Clear Lake Information Order:

Information Required in Reports 1 and 2

If you receive the Clear Lake Information Order,¹ you may be required to submit two reports to the State Water Resources Control Board (Board).² **Report 1 is due by March 31, 2024, and Report 2 is due by August 31, 2024.** This document outlines the types of questions that will be included in these reports. Most questions will be *multiple choice* or *select all that apply*, but some questions will require *narrative* or *short answer* responses.

IMPORTANT NOTE: The questions provided in this document are still under development and may change. State Water Board staff does not anticipate substantive changes, but the final questions may be worded differently or presented in a different order in the online reporting platform. If substantive changes are required, they will be made at least seven days before the report opens. Other changes, such as changes to improve clarity, may be made at any time. If such changes are made after you submit a report, you will not have to resubmit the report.

REPORT 1 QUESTIONS

Category	Questions
Contact	What is the contact information for the primary owner and the reporter, if different than the primary owner? <i>Contact information includes first name, last name, email address, mailing address, and phone number.</i>
Property	What Assessor Parcel Numbers (APNs) are you reporting for?
Enhanced Data	- Are you participating in any data collection or monitoring programs? If so, what are those programs? - Are you interested in participating in a data collection or monitoring program?
Water Sources	- Do you use surface water on this APN? - If so, what is the source? <i>Sources may include streams, rivers, creeks, ponds, lakes, springs, or other sources.</i> - If you have a surface water right, what is your water right ID number? - Do you use groundwater on this APN? - If so, how many active wells are on this APN? <i>An active well is a well that has been used within the last five years and has not been decommissioned.</i> - Do you have any other sources of water for this APN? <i>Other water sources may include municipal water, water delivery, water from another parcel, water stored in a pond or tank, or other sources.</i>
Water Uses	- For what purpose or purposes do you use water on this APN? <i>Purposes may include commercial crop or pasture irrigation, ranching, or stockwatering; commercial cannabis irrigation; frost protection; commercial, industrial, or institutional; recreational, aesthetic, or fire protection; other uses.</i> - How did your water use change during the 2020-22 drought?

¹ The Clear Lake Information Order means [State Water Resources Control Board Order 2024-0003-DWR: Information Order and Reporting Requirements in the Matter of the Clear Lake Watershed](#).

² Clear Lake Information Order recipients who only use water for domestic purposes; dry farm with rainwater only; receive water only from a municipal source; or have not diverted, extracted, or used water for the last five years do not have to submit Reports 1 and 2.

Clear Lake Information Order: Information Required in Reports 1 and 2

REPORT 1 QUESTIONS (continued)

Category	Questions
Groundwater Well Attributes	Answer these questions for each active well: • What uses does this well provide water for? • What is the well's location (latitude and longitude to 4 decimal places)? • What is the total depth of the well? • What are the depths of the uppermost and lowermost well screens? • What is the well's typical pumping rate and how do you know? • What is the maximum pumping rate and how do you know? • Upload well completion reports, construction information, well pump tests, or aquifer pump tests (if available). • Do you use a meter on this well?
Groundwater Measurement	• How will you measure weekly groundwater extractions from Mar. 1, 2024, through Jul. 31, 2024?
Irrigated Crops	Answer these questions for each crop you grow on this APN: • How many acres do you irrigate? • What irrigation method do you use? • What date did irrigation begin in 2022 and 2023? • Do you frost protect? If so, what method do you use, and in which months do you normally frost protect? • How will you track frost protection dates for 2024?
Water Storage	Answer these questions if you store water: • How do you store water, and how do you fill your ponds or tanks? • How much water do you store? • Are you interested in increasing your storage capacity?
Comments	• Provide any comments regarding water use in the Clear Lake watershed. • Upload photos, documents, maps, or anything else relevant to water use in the Clear Lake watershed or the Clear Lake hitch emergency.

REPORT 2 QUESTIONS

Category	Questions
Contact	• What is the contact information for the primary owner and the reporter, if different than the primary owner?
Property	• What Assessor Parcel Numbers (APNs) are you reporting for?
Irrigated Crops	Answer these questions for each crop: • What date did irrigation begin in 2024? • What dates did you frost protect in 2024?
Groundwater Use	Answer these questions for each active well: • How did you measure weekly groundwater extractions volumes? You must use a method acceptable to the State Water Board. • How much groundwater did you extract each week from Mar. 1, 2024, through Jul. 31, 2024? • Upload meter data (optional).

Last Revised: Feb. 12, 2024

Clear Lake Information Order:

Items to Gather Before You Begin Report 1

In addition to the Clear Lake Information Order you received in the mail, the items listed below will help you answer Report 1 questions. Depending on your situation, you may not need or have all these items. To streamline the reporting process, we recommend that you review the [Information Required in Reports 1 and 2](#) guide to preview the Report 1 questions and gather the following items (if you have them) before you begin reporting.

For questions about groundwater wells:

- Well completion reports
- Well servicing records
- Pump or aquifer test information
- Well meter information
- If you are using water from someone else's well, the mailing address or parcel number (APN) where the water is coming from.
- If you are providing water from your well to someone else, the mailing address or parcel number (APN) where the water is going.

For questions about the location of groundwater wells:

- "Smart Devices" like cell phones, tablets, and laptops can help you find the latitude and longitude coordinates for your well.
- Well completion reports may also contain this information.
- If you don't have a smart device or well completion reports, Lake County Environmental Health may be able to help you. You can reach them at 707-263-1164.

For questions about surface water:

- Surface water right identification numbers and documents

For questions about water use:

- Property deeds or similar documents
- Contracts for water services or delivery
- Leases, easements, or other similar agreements.

For general information:

- Photos, documents, or other relevant information you wish to share

If you need additional assistance, please email ClearLakeHitch@waterboards.ca.gov or call 916-341-5535.

Clear Lake Information Order: How to Measure Groundwater Extractions

If you receive the Clear Lake Information Order,¹ you are required to measure and report your weekly groundwater extraction volumes² from March 1, 2024, through July 31, 2024, using a method acceptable to the State Water Resources Control Board (Board). This document outlines the two methods the Board has identified as acceptable for measuring groundwater extraction volumes.³

Totalizer Method

A totalizer is a device that is permanently attached to a well and keeps a running total of how much water is extracted from the well, like an odometer in a car. This is the simplest way to measure weekly groundwater extraction volumes. Totalizers may be built into a flow meter or a separate device. Three examples of totalizers are shown below:



Using the Totalizer method to measure weekly groundwater extraction volumes:

1. Record the totalizer's volume reading at the start of the week.
2. Record the totalizer's volume reading at the end of the week.
3. Subtract the start volume from the end volume. The difference is the total volume extracted for that week. Some systems can do this calculation automatically.

Example: *If the volume reading at the start of the week is 300,342 gallons and the volume reading at the end of the week is 745,222 gallons, the total volume extracted for that week would be 443,880 gallons (745,222 gallons - 300,342 gallons = 444,880 gallons).*

Tracking:

A reporting log for the Totalizer Method is available at the end of this document.

¹ The Clear Lake Information Order means [State Water Resources Control Board Order 2024-0003-DWR: Information Order and Reporting Requirements in the Matter of the Clear Lake Watershed](#).

² Groundwater extraction volumes must be measured and reported by well for each well you own or operate on the parcels identified in the Clear Lake Information Order.

³ The State Water Resources Control Board's Division of Water Rights identified the two methods outlined in this document as acceptable for measuring groundwater extraction volumes for the specific purposes of the Clear Lake Information Order.

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How to Measure Groundwater Extractions

Run Time Method

For wells without a totalizer, you can estimate weekly groundwater extraction volumes if you know the well's Run Time and Flow Rate. Run Time is the amount of time the well is on. Flow Rate is the amount of water produced by the well over time, such as gallons per minute (GPM).

Using the Run Time method to estimate weekly groundwater extraction volumes:

1. Record the well pump's Run Time for the entire week using an hour meter or manual log as described in the *How to Measure Run Time* section below.
2. Record the well pump's Flow Rate using one of the procedures described in the *How to Obtain Flow Rate* section below.
3. Multiply the Run Time for the week by the Flow Rate. The result is the total volume used for that week.

Example:

If the pump's Run Time for the week is 16.5 hours (hrs), which equals 990 minutes (mins) (16.5 hrs x 60 mins per hour = 990 mins), and the pump's Flow Rate is 250 gallons per minute (GPM), the total volume extracted for the week is 247,500 gallons (990 mins x 250 GPM = 247,500 gallons).

Note: The measurement units you use for Run Time and Flow Rate must be compatible. Often, Run Time is recorded in hours and Flow Rate is recorded in gallons per minute (GPM). The easiest way to make these compatible is to convert hours to minutes before completing step three (above) as detailed in the following example.

How to Measure Run Time

You can measure Run Time with (A) an hour meter or (B) a manual record:

(A) Hour Meter: An hour meter (also known as a pump run time meter) is permanently attached to the pump and keeps a running total of how much time the well pump is running, like a car's odometer. Two examples are shown below:



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How to measure weekly Run Time with an hour meter:

1. Record the hour meter's hour reading at the start of the week.
2. Record the hour meter's hour reading at the end of the week.
3. Subtract the start hour from the end hour. The difference is the total run time for that week in hours.

Example:

If the hour reading at the start of the week is 46.2 hrs and the hour reading at the end of the week is 61.1 hrs, the total run time for that week would be 14.9 hrs (61.1 hrs - 46.2 hrs = 14.9 hrs), or 894 minutes (14.9 hrs x 60 mins per hour = 894 mins).

Tracking:

An hour meter reporting log for the Run Time method is available at the end of this document.

(B) Manual Record: For wells that are not equipped with an hour meter, you can keep a written record of the pump's operation for the week.

Steps for using a Manual Record to measure weekly Run Time:

1. Each time you turn the pump on and off during the week, record the date and time in a log. A sample manual log for the Run Time Method is available at the end of this document.
2. Use these dates and times to calculate the amount of time the pump was running during the week.

Example:

On Monday, the pump ran from 5 a.m. to 12 p.m., which equals 7 hrs. On Thursday, the pump ran from 7 a.m. to 4:45 p.m., which equals 9.75 hrs. The pump did not run during the rest of the week. This means the pump ran for a total of 16.75 hrs (7 hrs + 9.75 hrs = 16.75 hrs), or 1,005 mins (16.75 hrs x 60 mins per hour = 1,005 mins).

Tracking:

A manual reporting log for the Run Time Method is available at the end of this document.

How to Obtain Flow Rate

You can obtain the Flow Rate of a well using a flowmeter, pump efficiency test, or maximum pumping rate as described below:

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- **Flowmeter:** A flowmeter automatically tracks the well's Flow Rate, like a car's speedometer, and provides the reading on a screen or faceplate.
- **Pump Efficiency Test:** A pump efficiency test measures various aspects of a pump's operation, including Flow Rate. The test is often performed when the pump is first installed but can be performed at any time.
- **Maximum Pumping Rate:** If a flowmeter is not installed and a pump efficiency test is not available, you can use the pump's maximum pumping rate for Flow Rate. This information is typically available from the pump manufacturer. This is the least reliable method for obtaining flow rate.

Because Flow Rate can fluctuate over time, you should measure flow rate periodically and use the most recent Flow Rate when estimating extraction volumes for each week.

Other Approaches

There may be other approaches for measuring or estimating groundwater extraction volumes. If you want to use a different approach, it must be acceptable to the Deputy Director of the Division of Water Rights. The Deputy Director will evaluate each approach on a case-by-case basis. All requests for different measurement approaches must be emailed to ClearLakeHitch@waterboards.ca.gov by February 21, 2024.

**Images used in this document are for illustration purposes only. Their inclusion does not constitute endorsement, recommendation, or favoring by the State Water Board.*

Reporting Logs

The reporting logs on pages 5, 6, and 7 of this document were designed to help you track your weekly groundwater extraction volumes. You are not required to use these logs.

Questions

If you have questions about measuring your weekly groundwater extraction volumes, please email clearlakehitch@waterboards.ca.gov or call 916-341-5355.

Last Updated: February 5, 2024

Clear Lake Information Order: How to Measure Groundwater Extractions

TOTALIZER METHOD REPORTING LOG

Well Name:

Measurement Units:

Week	Start Date	Start Volume (SV)	End Date	End Volume (EV)	Total Volume (TH=EV-SV)	Notes
<i>Example</i>	<i>03/01/24</i>	<i>300,342 gallons</i>	<i>03/03/24</i>	<i>745,222 gallons</i>	<i>444,880 gallons</i>	<i>This is an example.</i>
1	03/01/24		03/03/24			
2	03/04/24		03/10/24			
3	03/11/24		03/17/24			
4	03/18/24		03/24/24			
5	03/25/24		03/31/24			
6	04/01/24		04/07/24			
7	04/08/24		04/14/24			
8	04/15/24		04/21/24			
9	04/22/24		04/28/24			
10	04/29/24		05/05/24			
11	05/06/24		05/12/24			
12	05/13/24		05/19/24			
13	05/20/24		05/26/24			
14	05/27/24		06/02/24			
15	06/03/24		06/09/24			
16	06/10/24		06/16/24			
17	06/17/24		06/23/24			
18	06/24/24		06/30/24			
19	07/01/24		07/07/24			
20	07/08/24		07/14/24			
21	07/15/24		07/21/24			
22	07/22/24		07/28/24			
23	07/29/24		07/31/24			

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HOUR METER REPORTING LOG

Well Name:

Week	Start Date	Start Hour (SH)	End Date	End Hour (EH)	Total Hours (TH=EV-SV)	Total Minutes (TM=THx60)	Flow Rate in GPM (FR)	Total Volume (TV=TMxFR)	Notes
Example	03/01/24	46.2 hrs	03/03/24	61.1 hrs	14.9 hrs	894 mins	250 GPM	223,500 gallons	This is an example.
1	03/01/24		03/03/24						
2	03/04/24		03/10/24						
3	03/11/24		03/17/24						
4	03/18/24		03/24/24						
5	03/25/24		03/31/24						
6	04/01/24		04/07/24						
7	04/08/24		04/14/24						
8	04/15/24		04/21/24						
9	04/22/24		04/28/24						
10	04/29/24		05/05/24						
11	05/06/24		05/12/24						
12	05/13/24		05/19/24						
13	05/20/24		05/26/24						
14	05/27/24		06/02/24						
15	06/03/24		06/09/24						
16	06/10/24		06/16/24						
17	06/17/24		06/23/24						
18	06/24/24		06/30/24						
19	07/01/24		07/07/24						
20	07/08/24		07/14/24						
21	07/15/24		07/21/24						
22	07/22/24		07/28/24						
23	07/29/24		07/31/24						

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MANUAL RUN TIME LOG

Well:

Pump Turned On		Pump Turned Off		Hours On	Minutes On	Notes
Date	Time	Date	Time			
3/1/2024	5:00 a.m.	3/1/2024	12:00 p.m.	7 hrs	420 mins	This is an example.
3/2/2024	7:00 a.m.	3/2/2024	4:45 p.m.	9.75 hrs	585 mins	This is an example.
Total Minutes On for the Week (Run Time)						
Flow Rate in gallons per minute (Flow Rate)						
Total Extractions for the Week (Run TimexFlow Rate)						