

Groundwater Local Cooperative Solutions

2024 Scott-Shasta Emergency
Regulation



Etna, CA | March 12, 2024

Presentation Overview

- Background on Emergency Regulation
- Update to LCS Program for 2024 Emergency Regulation
 - Overview
 - Three Groundwater LCS Options:
 - Best Management Practices (BMPs)
 - Graduated Cessation Schedule
 - Percent Reduction
 - Metering
 - Coordinating Entities
 - Groundwater Recharge
- Questions/Discussion

Background on Emergency Regulation

- Effective February 1, 2024 through January 30, 2025
- Some key provisions:
 - Establishes baseline minimum instream flows
 - Provides for curtailment when flows are not met
 - Provides for exceptions to curtailment for minimum human health and safety, minimum livestock needs, and non-consumptive uses
 - **Provides for alternatives to curtailment – local cooperative solutions (LCSs)**
 - Limitations on diversions for livestock from September – March

[Regulation Text](https://www.waterboards.ca.gov/drought/scott_shasta_rivers/docs/2024/scott-shasta-reg-2024.pdf): https://www.waterboards.ca.gov/drought/scott_shasta_rivers/docs/2024/scott-shasta-reg-2024.pdf

Local Cooperative Solutions (LCSs)

- Section 875(f) of emergency regulation covers LCSs that provide for alternative means of reducing water use or provide other fishery benefits
- **Section 875(f)(D): groundwater local cooperative solutions**

Regulation Text:

https://www.waterboards.ca.gov/drought/scott_shasta_rivers/docs/2024/scott-shasta-reg-2024.pdf

Groundwater LCS Summary



- Available to overlying or adjudicated groundwater diversions for irrigated agriculture
- Must be implemented during entirety of irrigation season, including prior to approval unless applicant withdraws proposal
 - Scott: April 1 – October 31
 - Shasta: March 1 – November 1
- Requires Deputy Director approval
- Deputy Director may rescind approval or issue curtailment order if monitoring or other information indicates parties are not meeting obligations under LCS or not providing benefits outlined in local cooperative solution, or objection filed
- Violations of approved LCS subject to enforcement as violation of regulation
- Proposals generally posted at least one week prior to decision
- Proposals due by April 15th

Changes Relative to 2022 Groundwater LCS Program

- Two new options of groundwater LCSs
- Applied Water Base rates for percent reduction LCS added
- Metering requirement
- April 15 application deadline
- 24-hour compliance inspection notification
- Coordinating Entity not required
- Groundwater recharge
- Application form



Groundwater Well Metering

- Metering required for groundwater well extractions
- Instantaneous flow measurements are not being required
- Record daily, and report monthly (to Coordinating Entity and/or State Water Board)
- May be waived **with appropriate substantiation** upon Deputy Director approval:
 - Some wells that irrigate less than 30 acres
 - Submitting a reasonable time schedule and plan to install meters and begin data reporting – must demonstrate efforts to timely comply
 - Board determines metering in a particular instance is not feasible
- **State Water Board is working to provide funding and a contractor to assist with meter purchase, installation, and data collection**

Groundwater Well Metering

- Collect and record groundwater pumping information for one full irrigation season
- If a meter is not installed and operating as of April 1st (Scott River), the LCS will likely be conditioned to require metering for the full 2025 irrigation season
- Water use recording and reporting starts no later than:
 - Date of installation for meters installed for the emergency regulation
 - Start of irrigation season for those with existing meters in place

- Parties that receive Board funding for meters will be required to collect information for five years from date of installation

Metering: Tracking and Recording Water Use

- Totalizer may be used that attaches to well
 - Keeps running total of how much water is extracted
 - Simplest way to measure groundwater extraction volumes
 - Provides accuracy within 10%
- Required to record daily measurements and report monthly
- Tracking sheet available (see next slide)
- Photos of daily meter readings

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			

Best Management Practices Groundwater LCS

- Use of low-energy precision application (LEPA) system on all irrigated acreage
- Use of soil moisture sensors to inform irrigation timing, with records maintained and available, if requested
- No irrigation of corners after June 15th
- No use of end guns
- In certain dry years, additional requirement (see next slide)

Best Management Practices Groundwater LCS

- Dry Year Commitments – Cease irrigation on 90% of irrigated acreage by August 31 with maximum of following applied rates for remaining 10 percent:
 - 2 inches of water/acre for alfalfa and grain
 - 4 inches of water/acre for pasture or new alfalfa plantings
- Triggers for dry year commitments:
 - Scott: Snowpack of 80% or less of the DWR's first May (or April if May not available) snow water equivalent average
 - Shasta: "Dry" or "Very Dry" water year determination based on March 2021 Montague Water Conservation District water operation plan, Table 2

Best Management Practices

Groundwater LCS: Supporting Information

- Application form
- Evidence of LEPA and soil moisture sensors
- Site Maps

Graduated Groundwater Cessation Schedule LCS

- Option 1: Cease irrigation on
 - 15% of acreage by July 15
 - 50% of acreage by August 15
 - 90% of acreage by August 31
 - Maximum of 8 inches of water applied on remaining 10% of irrigated acres for rest of irrigation season
- Option 2: Cease irrigation on
 - 20% of acreage by July 20
 - 50% of acreage by August 20
 - 95% of acreage by September 5
 - Maximum of 6 inches of water applied on remaining 5% of irrigated acres for remainder of irrigation season

Graduated Groundwater Cessation Schedule LCS: Supporting Information

- Application form
- Narrative must demonstrate that proposal differs from standard practices
- Maps that outline which fields will be fallowed or have reduced irrigation

Percent Reduction Groundwater LCS

- Scott:
 - 30% reduction in groundwater pumping throughout the irrigation season (April 1 – October 31), and
 - Monthly reduction of 30% for July - October
- Shasta:
 - 15% reduction in groundwater pumping throughout the irrigation season (March 1 – November 1), and
 - Monthly reduction of 15% for June - September

Percent Reduction Groundwater LCS: Baseline

- Relevant water use reduction must be based on a comparison to a baseline irrigation season (2020, 2021, 2022, or 2023)
- EXCEPT – if water use is higher than:
 - 33 inches per year for alfalfa
 - 14 inches per year for grain, or
 - 30 inches per year for pasture]

Then these values need to be used as the baseline UNLESS additional evidence is provided that supports the need for a higher rate

Percent Reduction Groundwater LCS: Supporting Information

- Application form
- Spreadsheet
- Maps

Groundwater Recharge Associated with LCS

- Provides for enhanced use of valid surface water rights, as compared to previous years, for potential groundwater recharge benefits
- Proposal must include support for an anticipated improvement in groundwater elevations and/or instream benefits
- May require monitoring for evaluation of benefits to groundwater elevation and/or instream conditions

Coordinating Entities (*optional*)

- Possesses expertise and ability to evaluate and require performance of commitments made in LCS
- Evaluates LCS proposals and performs inspections
 - Has primary responsibility to verify LCS implementation
 - Must collect data and perform inspections, by itself or in coordination with Board staff, sufficient to ensure LCS implementation
- Representatives performing inspections must lack financial or close personal interest in outcome of LCS
- If using a coordinating entity, diverter and entity enter into a binding agreement for services
- Provides information to Board monthly and upon request
- Refer to Section 875(f)(1)(G) and 875(f)(4)(D)(i) of emergency regulation

Coordinating Entities: Contact Information

If you want to work with a Coordinating Entity, you can contact:

- California Department of Fish and Wildlife
 - Crystal Robinson (916.535.0984; crystal.robinson@wildlife.ca.gov)
- Siskiyou RCD
 - Evan Senf (530.643.1585; evan@siskiyougcd.com)
- Shasta Valley RCD
 - Rod Dowse (530.598.1253; rdowse@svrcd.org)

State Water Board Staff Contact Information

- Scott-Shasta Team
 - Phone: (916) 327-3113
 - Email: Scottshastadrought@waterboards.ca.gov
- Kevin DeLano
 - Phone: (916) 319-0631
 - Email: kevin.delano@waterboards.ca.gov
- Shahab Araghinejad
 - Phone: (916) 319-0975
 - Email: shahab.araghinejad@waterboards.ca.gov

For More Information

Visit Scott-Shasta Emergency Regulation webpage:

https://www.waterboards.ca.gov/drought/scott_shasta_rivers/

- Check out the Local Cooperative Solutions section
 - Application Form
 - Today's PowerPoint Presentation
 - Additional Resources

To Stay Informed

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https://www.waterboards.ca.gov/resources/email_subscriptions/