Groundwater Local Cooperative Solutions



Etna, CA | February 25, 2025

Presentation Overview

- Background on Emergency Regulation
- LCS Program for 2025 Emergency Regulation
 - Overview/Changes
 - Metering
 - Three Groundwater LCS Options:
 - Best Management Practices (BMPs)
 - Graduated Cessation Schedule
 - Percent Reduction
 - Coordinating Entities
 - Groundwater Recharge
- Questions/Discussion

Background on Emergency Regulation

- Effective January 27, 2025, through January 26, 2026
- 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
- 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
 - Available to overlying or adjudicated groundwater diversions for irrigated agriculture

Regulation Text: https://www.waterboards.ca.gov/drought/scott_shasta_rivers/docs/2025/2025-scott-shasta-emergency-regadopted-searchable.pdf

Groundwater LCS Summary



- Must implement for whole irrigation season, including prior to approval (unless applicant withdraws)
 - Scott: April 1 October 31
 - Shasta: March 1 November 1
- Require Deputy Director approval
- Deputy Director may cancel groundwater LCS if:
 - Parties not following LCS
 - LCS doesn't provide stated benefits
 - Information from objections, monitoring, etc.
- LCS enforced like regulation
- Proposals generally posted at least one week prior to decision
- Proposals due by April 15th

Changes Relative to 2024 Groundwater LCS Program

- LCS proposals can be for more than one irrigation season
- Metering may be at well or place of use (e.g., pivots)
- 24-hour compliance inspection notification and data collection
- Pumping records frequency weekly



Metering

- Metering required for all groundwater LCS extractions (wells) or applications (e.g., pivots) with limited exceptions approved by the Deputy Director based on appropriate substantiation for:
 - Wells that irrigate less than 30 acres (must provide relevant information such as well's distance to surface water); or
 - Instances where the Board determines metering is not feasible in a particular instance
- Meters should be installed <u>at start of irrigation season</u> or will likely include a condition requiring metering for remainder of 2025 irrigation season and full 2026 season

Metering – Recording & Reporting

- Record groundwater use <u>weekly</u> and report <u>monthly</u> (to Coordinating Entity and/or State Water Board) for the full irrigation season
 - Each meter should have an identifying name included in the application description and in monthly reports, with meter identification included when submitting photos, records, or telemetered data
 - Monthly reporting involves submission of at least weekly meter readings
 - Pumping logs are accepted, but photos may be requested
- Totalizer may be used
 - Keeps running total of how much water is extracted or applied
 - Simplest way to measure groundwater extraction volumes
 - Provides accuracy within 10%

Metering – Funding Available

State Water Board has funding and is working with a contractor to assist with meter purchase, installation, and data collection

- Board funding requires commitment for 5 years of groundwater use reporting
- Application available online and hard copy

Metering: Example Table from Application

Well ID	Well Coordinates	Field APNs	Meter ID
Example: Well #1	(40.57686, -122.3657)	547-988-0975; 547-989-0976;	Meter 1 Meter 3

2025 Groundwater LCS Options

- Same three options as 2024:
 - Best Management Practices (BMPs)
 - Graduated Cessation Schedule
 - Percent Reduction
- Application form available and similar to 2024

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 the driest years, additional requirements apply
- Application Elements:
 - Evidence of LEPA and soil moisture sensors
 - Map of each field labelled with well(s), meter(s), field crop type.

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 (can be previously fallowed fields)
- 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 (can be previously fallowed fields)

Graduated Groundwater Cessation Schedule LCS

Application Elements:

- Narrative that demonstrates proposal differs from standard practices
- Description or table that outlines the number of acres and which fields will cease irrigation by each of the cut-off dates
- Maps that identify which well(s), meter(s), and field(s) are associated with each cessation date

Percent Reduction Groundwater LCS

• Scott:

- 30% reduction in groundwater pumping throughout the irrigation season (April 1 – October 31), and
- Monthly reduction of at least 30% for July 1 October 31

Shasta:

- 15% reduction in groundwater pumping throughout the irrigation season (March 1 – November 1), and
- Monthly reduction of at least 15% for June 1 September 30

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 on your property

Percent Reduction Groundwater LCS: Supporting Information

Application Information:

- Spreadsheet with monthly pumping volumes for the selected baseline year and for 2025. Use one row per irrigation method per field
 - Example on the website
- Maps with each field labelled, well location(s), and meter location(s)
- Information supporting alternative baseline flows, if applicable

	Baseline year											
Field ID	2020 Irrigated Acres	2020 Irrigation Method	2020 Crop Type	Calculation Factors	April 2020 Acre Feet Applied	May 2020 Acre Feet Applied	June 2020 Acre Feet Applied	July 2020 Acre Feet Applied	August 2020 Acre Feet Applied	September 2020 Acre Feet Applied	October 2020 Acre Feet Applied	2020 Total Acre Feet
				4 crops of alfalfa were raised. Pivot was run on								
1-01	80	Pivot	Alfalfa	1.5 inches per	40	50	50	80	60	40	0	320
		Pivot		Pasture was irrigated all season. 1.5								
1-03	40	Section	Pasture	inches per pass.	30	30	40	50	50	40	15	255
	l	Flood - Some flood water		3 valves with 4" opening were opened for 24								
2	5	overlaps	Pasture	hour sets. Each	26.5	26.5	26.5	26.5	26.5	21.2	10.6	164.3
	l	Wheel Line		52 sprinklers 3/16 nozzles, 50 psi, 11 hour sets,								
3	10	Section	Alfalfa	approx. 8 sets	12.3	12.3	18.5	18.5	18.5	12.3	0.0	92.3

Provide updated information for 2025 in the same format

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)

- Possess expertise and ability to evaluate and oversee performance of commitments made in LCS
- Evaluate 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
- Representative 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@siskiyourcd.com)
- Scott River Water Trust
 - Chris Voigt (916.396.0131; chrisb.voigt@gmail.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
- Rachel Wright
 - Phone: (916) 322-8420
 - Email: rachel.wright@waterboards.ca.gov
- Bob Solecki
 - Phone: (916) 319-0276
 - Email: robert.solecki@waterboards.ca.gov

For More Information

Visit the 2025 Local Cooperative Solutions website: https://www.waterboards.ca.gov/drought/scott_s hasta_rivers/lcs2025.html

The files on this website pertain to the 2025 Scott-Shasta Emergency Regulation, which went into effect on January 27, 2025.

The 2025 Emergency Regulations for the Scott River and Shasta River watersheds provide for local cooperative solutions, or LCSs, in lieu of curtailments. LCSs provide water rights holders with an opportunity to propose alternatives to curtailments under the Drought Emergency Regulation. The State Water Board will list approved or pending LCSs here. Additional information related to LCSs is available:

- Background on Local Cooperative Solutions
- Application and Guidance
- List of Local Cooperative Solutions (by watershed)
- Contacts

For More Information

Visit Scott-Shasta Emergency Regulation webpage:

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

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