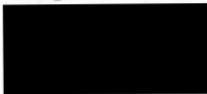




Patterson Creek Ranch
Greg and Dona Farnam



4/14/2024

California State Water Resources Control Board
1001 I Street
Sacramento, CA 95814

Re: Patterson Creek Ranch LCS Application

Mr. Weinberg,

Pursuant to Title 23, Division 3, Chapter 2, Article 23.5, section 875(f)(4)(D), Greg and Dona Farnam apply to be a part of a Local Cooperative Solution (LCS) for the Scott River Watershed through a 30% reduction in ground water irrigation use. This 30% reduction will be met by a change in crop production between 2020 and 2024. A reasonable estimation of irrigation requirements for each crop, acreage, and corresponding year are detailed in attachment 2. Crop water requirements are based on SWRCB emergency regulations. The greatest savings in this proposed plan comes from the elimination of late-season (July – Sept) corn silage production and replaced with a significantly less water using perennial grass.

Reasonable assurance for compliance of the proposed 30% reduction can be demonstrated by verification of existing crop type in April and August of the 2023 irrigation season by the Coordinating Entity. Though not necessary for compliance determination of this plan and subject to available funding, a water application and soil moisture monitoring program will be established for future water use efficiency determination. Through the use of soil moisture resistance blocks in each field and chronological record keeping, better irrigation decisions will yield greater water savings and profitability in the future.

The Coordinating Entity for the LCS agreement will be Siskiyou Resource Conservation District (SRCD) or the Scott Valley Water Trust. The coordinating entity will inspect Patterson Creek Ranch during irrigation season in 2024. Unless a deviation from the approved LCS plan exists,

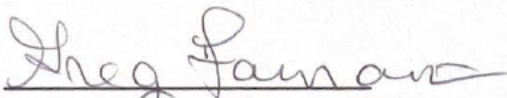




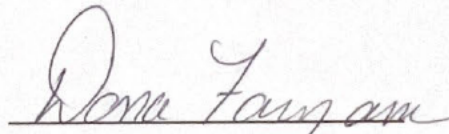
no inspection report to the SWRCB will be made. Upon notice of an agreement violation, the Owners of Patterson Creek Ranch and the SWRCB will be notified within 5 business days.

Further application details can be found in included attachments. If further information is required, please do not hesitate to contact jointly, by mail/email, Dona Farnam [REDACTED] and Warren Farnam [REDACTED]. For a successful 30% reduction plan, any alteration to the application must be informed and approved by both the Applicant and the Coordinating Entity.

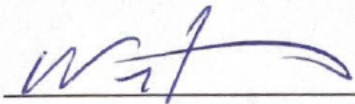
Sincerely,


Greg Farnam

Owner/Applicant- Patterson Creek Ranch


Dona Farnam

Owner/Applicant- Patterson Creek Ranch



Warren Farnam

FRS Owner/LCS Preparer

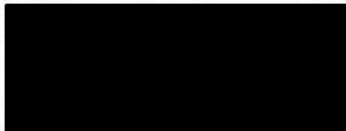
Enc:

Attachment 1 – Map of Patterson Creek Ranch

Attachment 2 – 30% Reduction Table

Attachment 3 – Additional Application Information

v1.6





ATTACHMENT 3

ADDITIONAL APPLICATION INFORMATION – PATTERSON CREEK RANCH

IRRIGATION INFORMATION

- Fields co-located on the following APNs:
 - [REDACTED]
 - [REDACTED]
 - [REDACTED]
 - [REDACTED]
- Irrigation groundwater source located NE corner of F1, parcel: [REDACTED]
- Groundwater source is an overlying right.
- Groundwater source produces approximately 625 gpm.
- Irrigation season is typically April – October.
- No surface water irrigation will be used on any of the identified fields in this plan.
- Precipitation and ET is not included in crop irrigation calculations.
- Irrigation monitoring information can be submitted to SRCD upon request.

INCORPERATED WATER CONSERVATION PRACTICES PAST 10 YEARS

- Fields F1 and F3 have switched to low-pressure pivots vs wheel lines.
- Fields F4, F5, and F6 wheel lines have been converted to self-adjusting low flow nozzles.
- Fields F1, F2, and F3 have incorporated moisture monitoring via installation of resistance blocks.
- GW turbine converted to variable frequency drive operation to support low pressure operation.
- Participated in UC Davis Extension water efficiency studies.
- Field F2 was switched to a low-pressure pivot in winter 2022 and the wheel line removed. Irrigated acres remained the same.

GLOSSARY

Ac-acre
AF- acre feet
Alf-alfalfa
APN- assessor parcel number
GPM-gallons per minute





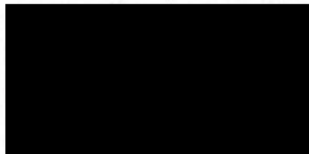
GW-groundwater

WATER MEASUREMENT ACTIVITIES

Water measurement activities will utilize volumetric pressure calculations and time individually on all four pivots. Installation is set to occur during 2024 irrigation season. A volumetric flow meter will be installed on mainline to capture wheelline irrigation volumes prior to 2025 irrigation season.

REFERENCE INFORMATION

- SWRCB Emergency Regulations





Patterson Creek Ranch

2020 vs 2023 GW Reduction Plan

2020											
Field	GPS Location	Soil Type	Irrigation type	Field Ac	Crop	in/ac	2nd Crop (change July-Sept)	in/ac	Total Inches	Total AF/ac	Total GW AF/field
F1		Diyou loam, drained	Pivot Low Pressure	42	Triticale	14	Corn	48	62	5.2	217.0
F2		Atter Stoner gravelly sandy loam	Wheel-line-Low Pressure	9.5	Alfalfa	33	no season change		33	2.8	26.1
F3		Atter Stoner gravelly sandy loam	Pivot-Low Pressure	19	Orch. grass	30	no season change		30	2.5	47.5
F4		Atter Stoner gravelly sandy loam	Wheel-line-Low Pressure	3.9	Orch. grass	30	no season change		30	2.5	9.8
F5		Atter Stoner gravelly sandy loam	Wheel-line-Low Pressure	8	Wheat	14	Sanfoin	16	30	2.5	20.0
F6		Atter Stoner gravelly sandy loam	Wheel-line-LP/Handline	11.3	Triticale	14	Grass mix	16	30	2.5	28.3
TOTALS				93.7							348.6

2023											
Field	GPS Location	Soil Type	Irrigation type	Field Ac	Crop	in/ac	2nd Crop (change July-Sept)	in/ac	Total Inches	Total AF/ac	Total GW AF/field
F1		Diyou loam, drained	Pivot-Low Pressure	42	Grass mix	30	no season change		30	2.5	105.0
F2		Atter Stoner gravelly sandy loam	Pivot-Low Pressure	9.5	Alf/grass	33	no season change		33	2.8	26.1
F3		Atter Stoner gravelly sandy loam	Pivot-Low Pressure	19	Orch. grass	30	no season change		30	2.5	47.5
F4		Atter Stoner gravelly sandy loam	Wheel-line-Low Pressure	3.9	Orch. grass	30	no season change		30	2.5	9.8
F5		Atter Stoner gravelly sandy loam	Wheel-line-Low Pressure	8	Sanfoin/Grass	30	no season change		30	2.5	20.0
F6		Atter Stoner gravelly sandy loam	Wheel-line-LP/Handline	11.3	Grass mix	30	no season change		30	2.5	28.3
TOTALS				93.7							236.6

v1.5

Reduction 2020 vs 2024

Total AF estimated reduction by incorporating 2024 crop changes **32.1%**



Application Form for 2024 Local Cooperative Solution for Overlying or Adjudicated Groundwater Rights in Scott River and Shasta River Watersheds

Please complete this form if you plan to implement a groundwater local cooperative solution (LCS) for the 2024 irrigation season under the Scott River and Shasta River watersheds [emergency regulation](#). A separate application should be submitted for each type of groundwater LCS proposal. **The form and attachments are due by April 15, 2024.**

How to Submit: To submit your application and associated required materials (see Section 2) you can:

- Use the online form
- Email: DWR-ScottShastaDrought@waterboards.ca.gov
- Mail:
State Water Resources Control Board
Division of Water Rights - Instream Flows Unit 1
1001 I Street - 14th Floor
Sacramento, CA 95814

Section 1: Applicant Information

Name	Greg and Dona Farnam
Name of Farm, Ranch, or Business	Patterson Creek Ranch
Phone Number	[REDACTED]
Email Address	[REDACTED]

By typing or signing your name below and submitting this form to the State Water Resources Control Board (State Water Board) you hereby certify that the submitted information is true and correct to the best of your knowledge.

Name: Date:

Section 2: Application Checklist

Below is a list of items to include with your application form:

- Application Form (paper or email submittal accepted).
- If working with a Coordinating Entity (Section 4 of application), submit a signed Binding Agreement (paper or email submittal accepted).
- Supporting Information (electronic submittal only). Submit the applicable information based on selected groundwater LCS.
 - Best Management Practices Groundwater LCS (see Section 7 of application)
 - Description of how you will implement of all required components.
 - Map(s) with each well and field labeled.
 - Graduated Groundwater Cessation Schedule LCS (see Section 8 of application)
 - Description of how you will reduce irrigation compared to standard practices on the property (e.g., practice in a similar unregulated year).
 - Map(s) designating the area where diversions will cease by the required dates and well location(s).
 - Percent Reduction Groundwater LCS (see Section 9 of application)
 - Description of verifiable water reduction actions that will be implemented.
 - Spreadsheet with monthly pumping volumes for baseline year and current year. Use one row per irrigation method per field.
 - Map(s) with each well and field labeled.
- A description of metering (Section 6 of application) in place for groundwater well extractions and an agreement to record such extractions daily and report monthly to your Coordinating Entity and/or State Water Board.
- Groundwater Well Information (see Section 5 of application) (paper or email submittal accepted).
- List of Fields, Assessor's Parcel Numbers (APNs), and Water Rights (see Section 10 of application) (paper or email submittal).

Section 3: Requirements for All Groundwater LCS Proposals

- **Deadline:** Proposals must be submitted to the State Water Board by April 15, 2024.
- **Implementation:** Proposals must be implemented during the entirety of the irrigation season (including prior to approval), unless the applicant withdraws the application.
- **Metering:** Proposals must include a description of metering that will be used to measure groundwater well extractions and information on how extractions will be recorded daily and reported monthly to the Deputy Director or Coordinating Entity, as applicable. Please note the Coordinating Entity is required to provide this data to the State Water Board.
 - Funding for Meters: The State Water Board has funding and technical support available for some amount of metering and those interested in such assistance should promptly contact State Water Board staff using the "Contact Information" at the end of this application.
 - Time Schedule for Metering: If a meter is not currently installed and may not be installed prior to the start of the irrigation season, the applicant must provide information that substantiates the applicant's efforts and actions taken to get a meter installed, and a timeline for meter installation.
 - Waivers: Proposals may include information requesting waiver of the metering provisions in the following instances:
 - Groundwater wells that irrigate less than 30 acres. Information supporting the request to waive metering provisions must be provided, including distance of the groundwater well to surface water. The State Water Board may require other information in lieu of monitoring.
 - Metering is not feasible. Substantiation for the infeasibility of installing a meter must be provided.

Section 4: Coordinating Entity

Select only one (1) box below. Please note that a Coordinating Entity is not required. If a Coordinating Entity is not selected, parties will work directly with the State Water Board to provide metering data and ensure performance of the groundwater local cooperative solution. For more information on Coordinating Entity provisions, refer to Section 875(f)(1)(G) in the [emergency regulation](#).

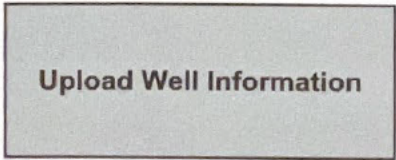
- | | |
|--|--|
| <input type="checkbox"/> California Department of Fish & Wildlife
Contact: Crystal Robinson
(530) 340-0767
crystal.robinson@wildlife.ca.gov | <input type="checkbox"/> Shasta Valley Resource Conservation District
Contact: Rod Dowse
(530) 598-1253
rdowse@svrccd.org |
| <input checked="" type="checkbox"/> Siskiyou Resource Conservation District
Contact: Evan Senf
(530) 643-1585
evan@siskiyourcd.com | <input checked="" type="checkbox"/> Scott River Water Trust
Contact: Chris Voigt
(916) 396-0131
chrisb.voigt@gmail.com |
| <input type="checkbox"/> I select not to work with a coordinating entity. | |

Section 5: Groundwater Well Information

Complete the table below or upload an attachment for groundwater wells that are part of the proposed groundwater LCS.

Well Name	Well Coordinates ¹
40	[REDACTED]
15	[REDACTED]

For assistance in finding well coordinates, you can use Google Maps (www.google.com/maps).



Section 6: Metering Information

Please describe the metering for all groundwater wells covered by this groundwater LCS. Fill in the box below, upload an attachment, or email a document or spreadsheet with this information.

- a. Describe how you will record daily extractions and report monthly pumping volumes. Include a description of all water uses associated with each groundwater well that is part of this groundwater LCS.

For example, "the ranch manager will log meter readings at Well 1 and Well 2 and take a picture of the meters each week. They will note what the water is being used for - Well 1 will irrigate 50 acres of grain on fields A and B, 100 acres of pasture on fields E, G, and Z, and Well 2 will irrigate 75 acres of alfalfa on field Y. The manager will send the logs and photos to the Water Board around the first of each month."

- b. For groundwater wells that are NOT currently metered, please describe the time schedule and plan to install meters and efforts to obtain a meter before the initiation of groundwater diversions covered by this groundwater LCS. If you want to file for a waiver to the metering requirement please use the box below and include information on why metering of your well(s) should be waived. Be sure to include total irrigated acres, distance of the well(s) from surface water, description of why metering is infeasible, if applicable, and any additional information that supports your waiver request.

Water measurement activities will utilize volumetric pressure calculations and time individually on all four pivots. Installation is set to occur during 2024 irrigation season. A volumetric flow meter will be installed on mainline to capture wheelline irrigation volumes prior to 2025 irrigation season.

[Upload Attachment](#)

Select the type of groundwater LCS you are applying for and complete the corresponding sections of the application.

- Best Management Practices Groundwater LCS - Complete sections 7 and 10
- Graduated Groundwater Cessation Schedule LCS - Complete sections 8 and 10
- Percent Reduction Groundwater LCS - Complete sections 9 and 10

Section 7: Best Management Practices Groundwater LCS

1. Provide the total amount of all irrigated acreage (with units) covered under your proposal for a Best Management Practices Groundwater LCS:
2. Upload an attachment, write in the box, and/or email a description of the irrigation system that will be used under this proposal, specifying details of your low-energy precision application system, soil moisture sensors, and any corners that will be irrigated. (Refer to Section 875(f)(4)(D)(vii) of the [emergency regulation](#).)

3. Provide a map(s) of each field with labels for well(s), type of best management practice, and field crop type. Upload as an attachment or email.

Upload Map(s)

4. Certify the following by initialing or checking each box:
 - a. I certify the use of a low-energy precision application (LEPA) system on all irrigated acreage covered under this groundwater LCS.
 - b. I certify to not use end guns for irrigation for the duration of the season.
 - c. I certify to cease irrigation of corners after June 15, 2024.
 - d. I certify to use soil moisture sensors to inform irrigation timing, and maintenance of such records, which I will make available for inspection by the Coordinating Entity, if applicable, and/or the State Water Board.
 - e. I certify that I will further limit irrigation based on water year, in the event of the hydrologic condition noted in i or ii below. If this requirement is triggered, the State Water Board will inform all Best Management Practices Groundwater LCS applicants for the applicable watershed(s). Please note, a yes certification is required for a Groundwater Best Management Practices LCS to be accepted.
 - i. Scott River Watershed: Snow pack of 80% or less of the Department of Water Resources California Data Exchange Center's first May snow water equivalent station average (or the average of the first April measurement if May snow pack measurements are not gathered) in Scott River watershed.
 - ii. Shasta River watershed: A water year determination of dry or very dry in the Shasta River watershed, as determined under Table 2 of the March 2021 Montague Water Conservation District water operation plan.

Section 8: Graduated Groundwater Cessation Schedule LCS

A Graduated Groundwater Cessation Schedule LCS may be approved if the applicant provides evidence that irrigated acreage is reduced compared to standard practice on the property (e.g., practice in a similar unregulated year). If applicable, please take crop rotation and number of alfalfa cuttings into account. Under this groundwater LCS type, the applicant must select one of two potential irrigation schedules, listed below. See section 875(f)(4)(D)(vi) of the [emergency regulation](#).

1. Provide the total amount of irrigated acreage (with units) under your proposal for a Graduated Groundwater Cessation Schedule LCS:
2. Select the irrigation schedule you certify to implement.

Option 1: By the dates below, pumping to irrigate the following percentages of irrigated acres shall cease:

- 15% by July 15,
- 50% by August 15, and
- 90% by August 31, with a maximum of 8 inches of water to be applied to the remaining 10% of irrigated acres during the remainder of the irrigation season. This 10% can be on land previously fallowed.

Option 2: By the dates below, pumping to irrigate the following percentages of irrigated acres shall cease:

- 20% by July 20,
- 50% by August 20, and
- 95% by September 5, with a maximum of 6 inches of water to be applied to the remaining 5% of irrigated acres during the remainder of the irrigation season. This 5% can be on land previously fallowed.

4. Please upload an attachment, write in the box, or email a description that demonstrates that the proposal reduces irrigation as compared to standard practices on the property (e.g., practice in a similar unregulated year). If applicable, please take crop rotation and number of alfalfa cuttings into account.

5. Please upload or email a map(s) that identifies which well(s) and field(s) are associated with each cessation date covered by this groundwater LCS.

Section 9: Percent Reduction Groundwater LCS

The applicable percent reduction in groundwater pumping noted below must be demonstrated for the Percent Reduction Groundwater LCS consistent with section 875(f)(4)(D)(v) of the [emergency regulation](#), and summarized below.

- **Scott River Watershed:** A net groundwater pumping reduction of 30% throughout the irrigation season (April 1 – October 31) and a monthly reduction of 30% between July 1 through October 31.
- **Shasta River Watershed:** A net groundwater pumping reduction of 15% throughout the irrigation season (March 1 – November 1) and a monthly reduction of 15% between June 1 through September 30.
- The relevant water use reduction shall be based on a comparison to a baseline irrigation season (i.e., 2020, 2021, 2022, or 2023).
 - BUT, if the previous year baseline is higher than the following applied water rates:
 - 33 inches per year for alfalfa,
 - 14 inches per year for grain, or
 - 30 inches per year for pasture
 - ❖ Then the above values shall be used as the baseline UNLESS the applicant provides sufficient additional information supporting an alternative baseline.
- Please provide the total amount of irrigated acreage (with units) under your proposal for a Percent Reduction Groundwater LCS.
- If you are proposing a Percent Reduction Groundwater LCS, attach or email the following files to the State Water Board and your Coordinating Entity.
 - a. A description of practices that reduces groundwater pumping and how the State Water Board (or Coordinating Entity, if applicable) can verify those actions.

Upload Attachment

- b. A spreadsheet with monthly pumping volumes for the selected baseline year and current year. Use one row per irrigation method per field.

Upload Baseline Pumping

- c. Map(s) with each field labelled.

Upload Map(s)

Section 10: List of Fields, APNs, and Water Rights

List the fields associated with this groundwater LCS application, if each property is owned or leased, and the assessor's parcel number (APN) that contains each field. If a field is on multiple parcels, provide the APN that contains the majority of the field. Alternatively, you may also electronically submit a document or spreadsheet with this information. Each field can only have **one (1)** type of groundwater LCS associated with it.

Irrigated Field Name(s) or Number(s)	Is the parcel owned or leased?	Assessor Parcel Number(s)	Water Right(s)	Groundwater LCS Type
see attachments				

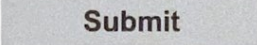
Upload Attachment

Submission of Groundwater LCS Proposal to State Water Board

A groundwater LCS may require the applicant to attach or email additional information, such as descriptions, spreadsheets, maps, or other relevant information. State Water Board staff request descriptions be submitted as Microsoft Word (.docx, .doc) or Adobe PDF (.pdf) files as these file formats are easiest for staff to work with applicants to review and revise, if needed. For the same reasons, staff request that applicants submit spreadsheets as Microsoft Excel files (.xlsx, .xls).

Submitting documents in other formats, such as photographs of narratives or narratives via traditional mail may lengthen the review process. If you need assistance, please contact your Coordinating Entity (see Section 4) or State Water Board staff identified in the Contact Information section below.

To submit your application with all required materials (see Section 2), you can:

- Use the online form 
- Email DWR- ScottShastaDrought@Waterboards.ca.gov
- Mail:
State Water Resources Control Board
Division of Water Rights - Instream Flows Unit
1001 I Street - 14th Floor
Sacramento, CA 95814

Contact Information for State Water Board Staff

- Kevin DeLano
Phone: (916) 319-0631
Email: Kevin.DeLano@waterboards.ca.gov
- Shahab Araghinejad
Phone: (916) 319-0975
Email: shahab.araghinejad@waterboards.ca.gov
- Division of Water Rights – Scott-Shasta Phone Line and Email
Phone: (916) 327-3113
Email: ScottShastaDrought@waterboards.ca.gov

What's Next?

State Water Board staff will review each groundwater LCS application. If staff identify errors, a need for additional information, or changes that need to be made, they will contact the applicant. Once staff determine the application is substantially complete, it will be posted as pending on the State Water Board's [Local Cooperative website](#) for the Scott River and Shasta River watersheds emergency regulation.



Scott River Water Trust

P.O. Box 591 ~ Etna, CA 96027
530-643-2395 scottwatertrust@gmail.com

Month, Day, Year
5/31/24

APPLICATION TO SCOTT RIVER WATER TRUST AS COORDINATING ENTITY for the SCOTT VALLEY GROUNDWATER REDUCTION LOCAL COOPERATIVE SOLUTION

The following request is being submitted pursuant to Section 875.5, , subdivision (a)(1)(A)(ix) [Scott River] of the Scott-Shasta Drought Emergency Regulation of the State Water Resources Control Board (SWB). The purpose of this Local Cooperative Solution (LCS) is to document the applicant's proposed reduction in use of overlying or adjudicated groundwater use by a certain amount over the entire irrigation season.

Applicant's Name: Greg Farnam
Address: [REDACTED]
Phone: [REDACTED] E-mail: [REDACTED]
Owner of property (if different):
Leaseholder of property (if different):
Other Contact Info: Warren Farnam [REDACTED]

Total irrigated acres to be included in this agreement: 93.7

► Attach curtailment plan and map of properties to be included in plan
I agree to pay SRWT for its time to help prepare my water reduction plan at the rate of \$75/hr. When your LCS plan is complete, a Binding Agreement will need to be signed with the SRWT as your designated Coordinating Entity. SRWT will need to verify that the plan's actions are being met.

Greg Farnam
Greg Farnam (Jun 1, 2024 12:34 PDT)
► Applicant signature

6/1/24
Date:

Christopher Voigt
Scott River Water Trust signature

Date: 5/31/2024