

Sam and Jennifer Thackeray



State Water Resources Control Board  
1001 I St.  
Sacramento, Ca 95814

Re: Groundwater reduction LCS for Scott River Watershed, pursuant to section 875, subdivision (f) (D) of the regulation

To Deputy Director:

Sam and Jennifer Thackeray (Thackeray Livestock) currently lease approximately 225 acres of irrigated land (permanent pasture and alfalfa) in the Scott River watershed. Land use is primarily limited to commercial beef production.

Associated relevant information associated with leased land include: Parcel No#. 023-140-030 (Siskiyou co), water right #'s : S010302 and S010303, under court decree No. 3066

Historically the property has been irrigated with 40-50 year old wheel lines, handlines, and high volume guns. The system was "moved" twice daily with 10 hour sets. There were 40-50 yr old pumps, (with timers) pumping ground water to supply the water for irrigation. Because of the design of the system, water could not be targeted to only those areas in visible need of irrigation without extreme damage to the infrastructure due to over pressurization of the system.

Proposed water conservation practices for 2022:

Currently, 3 center pivots equipped with LEPA (low energy precision application) nozzles have been installed on approx. 140ac of the property, replacing wheel lines. In addition to the pivots, the main 50hp pump is being replaced with a new high efficiency pump and VFD (variable frequency drive). Also being added to the system are soil moisture meters. This project is being jointly funded by ourselves and by a grant received from California Farmland Conservancy Program, based on its merits. Using the information provided by the moisture meters, the VFD will allow for increased specific irrigation management, rather than a "blanket" application to all acres. The combined use of these measures will not only reduce a significant amount of energy, but is projected to conserve over 40% of water on these acres. (Estimates obtained from Pivot manufacturers, and USDA water conservation estimate SWEEP worksheets and [lepa-lesa-pnw-stroh-revisions.pdf \(oregonstate.edu\)](#) ) The remaining 65 acres, serviced by 3 wheelines and K-Lines, will have their irrigation sets reduced from 10hr sets, to 8-8.5hr sets, 6 days a week. The time on these irrigation sets will be ensured by the use of pump timers.

We feel that these combined measures will meet the requested 30% reduction in water use for 2022.

-No surface water will be used to offset reductions

-The coordinating Entity to ensure implementation of the LCS will be a contractor with the Siskiyou RCD. The RCD contractor will utilize guided on-site visits to view and verify installation of new infrastructure, I.E. Pivots with LEPA nozzles. View and verify use of timers on pump(s) for reduced irrigation hours. View and verify fallowing of hayfield in Sept. and Oct. Any additional verification as needed.

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# **BINDING AGREEMENT**



## SISKIYOU RESOURCE CONSERVATION DISTRICT

P.O. Box 268, Etna, CA 96027

PHONE (530) 467-3975 FAX (530) 467-5617

Email: [sisqrcd@sisqtel.net](mailto:sisqrcd@sisqtel.net)

Website: [www.siskiyougcd.com](http://www.siskiyougcd.com)

### Binding Agreement

#### Contractor Contact Information:

<i>Business:</i>	Siskiyou RCD
<i>Contact Person:</i>	Chris Voigt
<i>Address:</i>	450 Main St. Etna, CA 96027
<i>Phone:</i>	(530) 467-5617
<i>Email:</i>	chris@siskiyougcd.com

#### Landowner Contact Information:

<i>Business:</i>	Sam Thackeray
<i>Contact Person:</i>	Sam Thackeray
<i>Address:</i>	[REDACTED]
<i>Phone:</i>	[REDACTED]
<i>Email:</i>	[REDACTED]

#### Background

Under the 2021 drought emergency regulation instated by the State Water Resources Control Board (SWRCB) that established drought emergency minimum flows in the Scott River, a Local Cooperative Solution (LCS) may be proposed by individuals or groups to submit by petition to the Deputy Director of the SWRCB as an alternative means of reducing water use to meet or preserve drought emergency minimum flows and provide fishery benefits, in lieu of curtailment. This binding agreement between the (Landowner) and Siskiyou Resource Conservation District (SRCD) will monitor the SRWCB approved LCS to achieve 1) a net reduction of water use of 30 percent throughout the irrigation season; and 2) a monthly reduction of at least 30 percent in the July through October 31 period, as compared to 2020.



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### Recitals

1. Section 875(f)(4)(D) of the drought emergency regulation provides a specific type of LCS that was determined to be sufficient for approval by the Deputy Director;
2. For overlying or adjudicated groundwater diversions for irrigated agriculture described in sections 875.5(f)(4)(D)(i)-(iii) [Scott River], the Deputy Director may approve a groundwater-basin-wide, groundwater sub-basin-wide, or any number of individual local cooperative solutions totaling at least 400 acres where:
  - i. The proposal is based on a binding agreement. "Such binding agreement may be made with a coordinating entity with the expertise and ability to evaluate and require performance of the agreement, for example with the California Department of Fish and Wildlife (CDFW), the National Marine Fisheries Service, the Scott Valley and Shasta Valley Watermaster District, a non-profit organization with expertise and experience in water-saving transactions or similarly qualified entity."
  - ii. For the Scott River: "The proposal provides at least: 1) a net reduction in water use of 30 percent throughout the irrigation season (April 1-October 31), as compared to the prior irrigation season; and 2) a monthly reduction of at least 30% in the July 1 through October 31 period, as compared to the prior year or 2020. Such reduction may be demonstrated by evidence that provides a reasonable assurance that the change in farming practice or other action results in at least the relevant proportionate reduction. Such evidence may include but is not limited to: pumping reports; actions that will be taken to reduce water use; estimation of water saved from conservation measures or changes in irrigation or planting decisions; and electric bills."

**Proposed Local Cooperative Solution:** *(Specific action plan to be completed by landowner, see attached LCS application form)*



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### **Binding Agreement Terms**

The Landowner is required to adhere to the LCS, as approved by SWRCB. The Landowner has requested that SRCD serve as the coordinating entity. As such, both parties agree to the following:

- For the duration of this binding agreement where SRCD is the coordinating entity, the Landowner shall give SRCD the right to reasonably access the included parcels for the limited purpose of verifying execution of the LCS. Any individual not directly employed or contracted by SRCD shall provide pre-notification to, and shall obtain approval by the Landowner before accessing the property,
- SRCD will strive to notify the Landowner a day in advance of visiting the parcels and shall provide the Landowner or designee the ability to participate in monitoring activities,
- It is anticipated that SRCD representatives will visit the property approximately twice per month to monitor the approved LCS, unless inadequacies are discovered, in which case additional field visits will occur until inadequacies are rectified. A monitoring inspection may include verification of any or all of the actions described in the conservation plan and may include inspection checklist/notes/reports and photo verification,
- SRCD will submit the information regarding the verification materials and actions described in this agreement, and conservation plan incorporated by reference, to the State Water Board upon request, for the purposes of verifying compliance with the LCS,
- This binding agreement is not intended to preclude, harm, or otherwise interfere with the landowner's ability to secure any funding to mitigate the financial impacts imposed by the emergency regulation or proposed conservation practices. SRCD supports the use of funding programs to ameliorate the costs of implementing the conservation practices described in the proposed conservation plan: planning and cooperation under a voluntary LCS should not undermine the ability to receive such funding,
- This binding agreement may be terminated by either party at any time. Both parties agree to take reasonable measures to resolve any concerns related to the performance of the LCS, negative interpersonal interaction, or any unforeseen circumstance prior to invoking termination,
- As the irrigation season unfolds, there may be reason to change the terms of the LCS or this binding agreement with respect to its implementation and verification. Any such changes to the LCS or service agreement will need to be agreed upon by the Landowner



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and SRWCB. If a Landowner requests SRCD assistance with an updated LCS, the SRCD and Landowner will enter into a new Binding Agreement and,

### Payment

In consideration for the services to be performed by SRCD, the Landowner agrees to pay SRCD at the rate of \$75.00 per hour for initial consultation and \$75.00 per hour for all services rendered after signing of the binding agreement.

### Expenses

The Landowner will reimburse SRCD for expenses that are attributable directly to work performed under this Agreement. Any expenses incurred will be approved by the Landowner beforehand. SRCD will submit an itemized statement of Contractor's expenses attached with invoicing.

### Terms of Payment

Upon completion of SRCD services under this binding agreement, the SRCD will submit an invoice. The Landowner will pay SRCD the compensation described within 30 days of receiving SRCD's invoice.

### Term of Agreement

This agreement will become effective when signed by both parties and will terminate on:

- November 1, 2022, or
- The date a party terminates the binding agreement.
- Monitoring information will be collected by the SRCD and shared with State Water Board as a field report in accordance with their reporting schedule or upon request
- SRCD is not authorized to and will not distribute data or other information regarding work done under this contract to any third party without previous written approval by the Landowner
- Landowner agrees that water saved under the LCS will not be transferred to parcels not included under the LCS, and Landowner will not knowingly or intentionally otherwise take actions outside of the LCS that diminish, in any material way, the overall thirty percent reduction established by the actions described in the LSC



**SISKIYOU RESOURCE CONSERVATION DISTRICT**

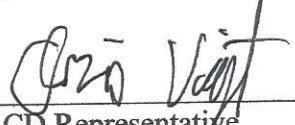
**P.O. Box 268, Etna, CA 96027**

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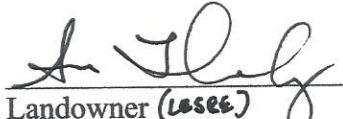
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**Website: [www.siskiyoucd.com](http://www.siskiyoucd.com)**

**Signatures**

  
SRCD Representative

6/3/2022  
Date

  
Landowner (LSEE)

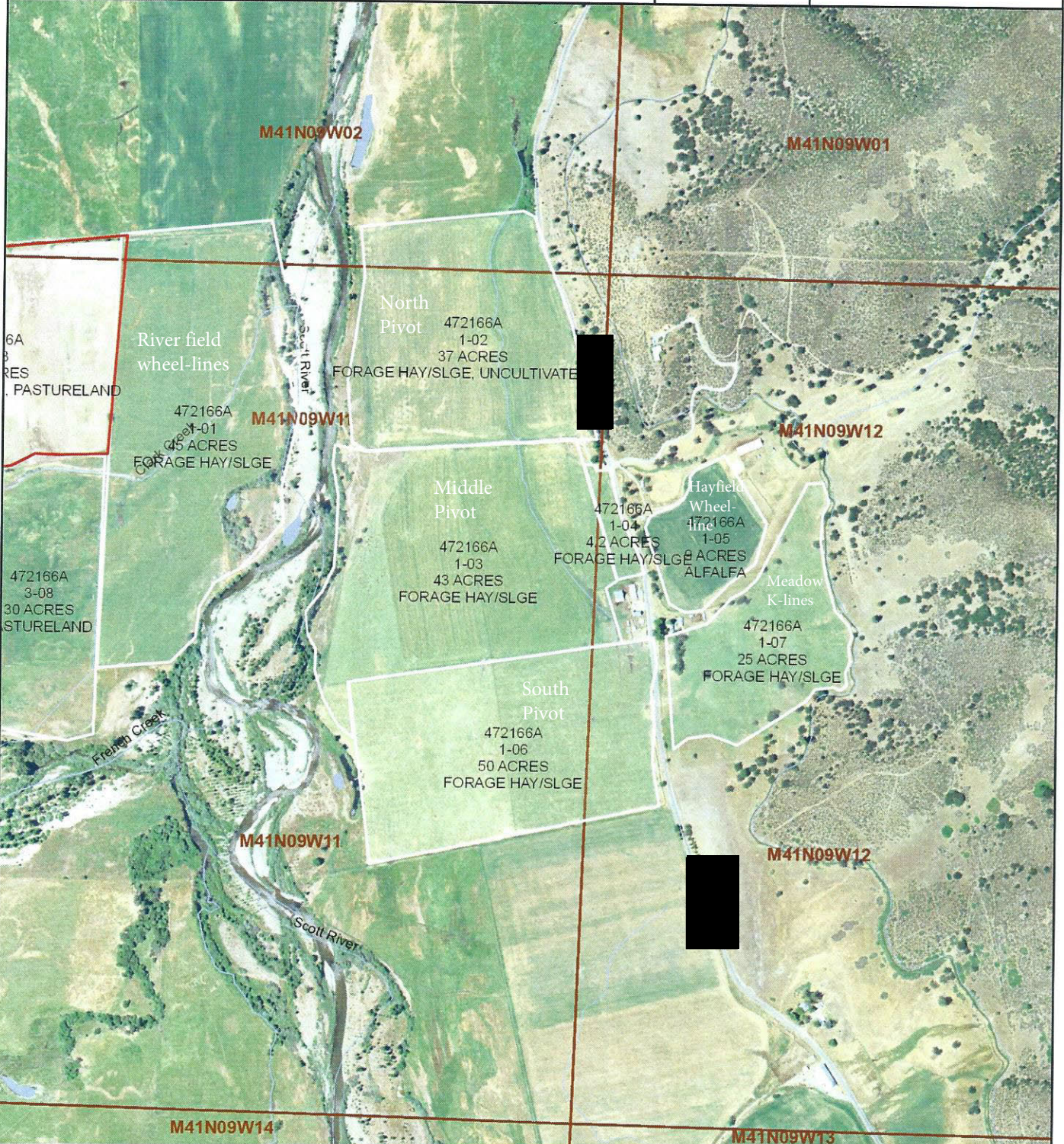
03 JUNE 2022  
Date



## **SUPPORTING INFORMATION**



<b>Siskiyou County</b>	Permit Number: 472166A
MAP 1 HOME RANCH	Created On: 3/11/2019
██████████ Houses, river, creek, ponds	Operator: THACKERAY LIVESTOCK



Included Sites:	1-01, 1-02, 1-03, 1-04, 1-05, 1-06, 1-07	
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	2021 Baseline assumptions - Monthly estimated use in acre	2022 Estimated usage in acre feet								Notes	
		April	May	June	July	August	Sept	Oct			
South Pivot	# feet: 1	0	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	New pivot system
Middle Pivot	1	0	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	
North Pivot	1	0	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	
Wheel line Hayfield - Alfalfa	1	11	9.9	9.9	9.9	9.9	9.9	9.9	0	0	shut off after 3rd cutting
Meadow - K lines	11	36.14	30.72	30.72	30.72	30.72	30.72	30.72	30.72	30.72	85% usage
Wheel lines (2) - River field	2	46	41.4	41.4	41.4	34.5	34.5	34.5	34.5	34.5	90%, then 85% usage
South field K-lines	7	23.00	0	0	0	0	0	0	0	0	
Corner K-lines	4	13.14	6.57	6.57	6.57	6.57	6.57	6.57	6.57	6.57	50% usage
Middle Wheel line	1	23	0	0	0	0	0	0	0	0	
North Wheel line	1	23	0	0	0	0	0	0	0	0	
<b>Total</b>		175.29	129.69	129.69	129.69	122.79	122.79	112.89	112.89		
<b>total annual 2021 (7 mo)</b>	<b>1227</b>		45.59	45.59	45.59	52.49	52.49	62.39	62.39		
	Monthly reduction		26%	26%	26%	30%	30%	36%	36%		
	Monthly savings										

**2022 total**  
**860.45**  
366.55

usage estimates (non-binding baseline)

	acre feet
Wheel lines estimated monthly use	23
1 K-line estimated monthly use	3.29
Center Pivot with LESA	13.7
Hayfield wheel line (only 17 sprinklers - shorter line)	11

SUMMARY	
2021 estimated usage - acre feet	1227
2022 estimated usage	860.45
Annual Reduction	366.55
<b>Total annual water savings (%)</b>	<b>30%</b>

\* estimates are based on 7gpm nozzles (wheel-lines) at 20 hours/day

**Wheel line usage calcs**

Wheel lines (35 sprinklers / wheel line) 1 acre foot = 325,850.9 gallons  
 7gpm nozzles x 60 min = 420 gal/hr  
 420 gal/hr x 20 hrs (normal irrigation day) = 8400 gal/day  
 8400 gal/day x 35 sprinklers per line = 294,000 gallons per day per wheel line  
 294,000 gal x 26 days (average monthly use) = 7,644,000 gallons  
 7,644,000 gal / 325,850.9 gal (acre feet) = **23.4 acre feet expected wheel line use per month**

**K-Line usage calcs**

10 sprinklers with 3.5 gal/minute nozzles  
 3.5 gal/minute x 60 minutes x 20 hours (average daily use) = 4200 gallons/day  
 4200 gallons/day x 25 days (avg monthly use for k-lines) = 105,000 gallons/month  
 105,000 gal/month x 10 sprinklers/k-line = 1,050,000 gallons  
 1,050,000 gal / 325,850.9 gal (per acre feet) = **3.2 acre feet expected K-line use per month**

**Pivot usage calcs**

pivots were implemented in spring 2022 so usage estimates are based off of research and pivot manufacturers  
 Using the SWEEP water savings calculator  
 Water savings from wheel lines to center pivots = 22.44%  
 Adding a LEPA system estimates further water savings of 18%  
 Total pivot water savings from wheel lines = 40.44%  
 Wheel line estimated usage of 23.4 acre feet x (1-40.44%) = **13.7 acre feet expected Pivot usage per month**

