Menne Ranch Hay, Inc.

This request is being submitted pursuant to Section 875, subdivision (f)(d) of the regulation.
(OL-Overlying) (ADJ-Adjudicated) All groundwater
Owner of the property with the names, Lower Ranch (OL) (ADJ), River Ranch (OL), Home Ranch (OL) and Across River (OL). The property with the name Doc's (OL) is leased by Menne Ranch Hay, Inc.

California Department of Fish and Wildlife (CDFW) will be the coordinating entity. I will work with CDFW to insure I maintain a 30% reduction in water use from the 2020 season. CDFW will be notified before any, in season adjustments to my plan for the 2022 season.

I am opposed to the LCS 30% reduction, but I find it to be my best available option.

In the fall of 2020, after irrigation season, I started upgrading all of my systems. There was over $1,200,000 spent in upgrades. I will provide maps with field locations and irrigation systems to the coordinating entity. Improvements made to facilitate a 30% reduction in water use from the end of season 2020 to 2022 include the following:

- **Pivots -** I have retired 22 forty-plus year-old wheel lines and replaced them with 11 pivots with I-Wob, Low PSI, Low elevation sprinkler systems.
  All of my older pivots have 20 PSI regulators, some are high flow, and some are standard flow. I tested all my systems before 2020 using the bucket and stopwatch method to find the current GPM. I found that any pivot system where the input PSI exceeded the rated regulator by more than 20 pounds, also gained in GPM. The gain in GPM was attributed to worn nozzles and regulators. Using the same method, I found that old nozzles and regulators also gained in GPM used.
  I replaced worn out nozzles and regulators on 2 pivots. Installed 17 Nelson flow control valves to control input PSI and flow to each pivot, and installed 2 new sets of I-Wob, Low PSI, Low elevation sprinkler systems to replace old and worn systems. The new pivot systems can be verified by the coordinating entity on any inspection and only need to be verified once per irrigation season.
- **Pumps** - Installed 15 VFD drives on pump motors, to control motor speed and lower the PSI. This can be verified by the coordinating entity on any inspection during the irrigation season.
- **Soil Moisture Senor –** Installed 4G data-logger soil moisture sensors systems on all fields, to help use water more efficiently.
- **Crops** - Added more grain (Tri-Mix) in 2022 than I had in 2020. In 2022 I reduced my alfalfa seed order by 2,000 lbs., this is 50% more grain than was planted in 2020 This takes an additional 105 acres out of a much-needed alfalfa rotation. Maps of all my included lands will be provided to the coordinating entity. All this can be verified by the coordinating entity on any inspection during the irrigation season.
- **Big Guns, Hand Lines, and Wheel Lines -** Reduced or eliminated the watering of corners with inefficient big guns, hand lines and wheel lines.
  To find water use in wheel lines, guns and hand lines I used a nozzle chart that showed size and PSI = GPM. I feel my old wheel lines, hand lines were quite worn-out. Most, if not all of them used more water than I'm reporting due to leaks. Since the fall of 2020, I have since retired 22 forty plus year old wheel lines and replaced them with 11 pivots.

This can be verified by the coordinating entity on any inspection during the irrigation season.

- **2022 Fall Forbearance -** For the time period of July 1st – October 31st, I will maintain a 30% reduction of water use. To achieve this reduction, I have planted 50% more grain than in 2020. The irrigation of grain crops is shut off prior to July 1st. By planting more grain, not irrigating for a 4th cutting and implementing my stated 30% overall reduction for the season, my reduction will be above 30% during this time. This can be verified by the coordinating entity on any inspection during the irrigation season.

To meet the 2022 water use reduction of 30% I will be using the above-mentioned equipment upgrades and crop changes. The supplied spreadsheets show the systems and fields where irrigation has stopped or will have reduced water use. My plan demonstrates a 30% reduction across the entire irrigation season.

I anticipate flexibility for this plan that will give me the ability to make irrigation decisions throughout the contract.

Tom Menne
[redacted]

BINDING AGREEMENT

Common Interest/Confidential/Privileged/Work Product

State of California – Natural Resources Agency
DEPARTMENT OF FISH AND WILDLIFE
Northern Region
601 Locust Street
Redding, CA 96001
www.wildlife.ca.gov

GAVIN NEWSOM, Governor
CHARLTON H. BONHAM, Director

March 24, 2022

Tom Menne, Landowner and Manager
Menne Ranch Hay, Inc.
[redacted]

SUBJECT: Groundwater Use Reduction and Binding Agreement for Local Cooperative Solution

Dear Tom Menne,

On August 17, 2021, the State Water Board adopted an emergency regulation establishing drought emergency minimum flows in the Scott River and Shasta River watersheds. (Cal. Code Regs., tit. 23, §§ 875–875.9.). Under the regulation, local cooperative solutions (LCS) by individuals or groups may be proposed by petition to the Deputy Director as an alternative means of reducing water use to meet or preserve drought emergency minimum flows, or to provide other fishery benefits in lieu of curtailment.

For overlying or adjudicated groundwater diversions for irrigated agriculture described in section 875.5(f)(4)(D)(i) – (ii) [Scott River], the State Water Resources Control Board (SWB) Deputy Director may approve a groundwater basin-wide, groundwater sub-basin-wide, or any number of individual local cooperative solutions totaling at least 400 irrigated acres. For the Scott River the proposal needs to provide at least: 1) a net reduction of 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 percent in the July 1 through October 31 period, as compared to the prior year or to 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.

On February 25, 2022, you proposed an LCS authorized by 23 CCR §§ 875(f)(4)(D) of the regulation for the 2022 irrigation season. It includes a conservation plan, narrative, and field maps incorporated by reference. The proposal uses the year 2020 as the baseline; it includes detailed spreadsheets and a narrative that describes enhanced irrigation pivot efficiencies, groundwater pump upgrades, installed soil moisture sensors, rotated crops, reduced wheel line, big gun and hand line irrigation, and a 2022 fall irrigation forbearance plan. The specific conservation practices within the narrative offer concise and proper monitoring elements enabling CDFW to assume the role of a coordinating entity to implement a binding agreement.

Attached to this cover letter is a groundwater use reduction and binding agreement for your LCS. You have worked closely with CDFW and SWB staff to develop this binding agreement that will enable us to be your coordinating entity. I have already signed it. If you agree with its content and terms, please sign and retain one copy, include one copy with your petition to the SWB, and return one copy to the email included in the contact information above.

CDFW is grateful for your commitment to enter a groundwater use reduction and binding agreement for a local cooperative solution. We think this will be one of several tools we can use to tackle the challenges of this ongoing drought to protect native salmon, protect tribal cultural resources; and support local and commercial economies. If you have any questions regarding this letter, please contact Environmental Program Manager Joe Croteau at klamathwatershed@wildlife.ca.gov.

Sincerely,

DocuSigned by:
Tina Bartlett
1D82ADE7303A474...

Tina Bartlett, Regional Manager
Northern Region

Ec's on Page 3

ec:

Menne Ranch Hay, Inc.
Tom Menne, Landowner and Manager
tom@tmenne.com

State Water Resources Control Board
Erik Ekdahl, Deputy Director
Division of Water Rights
Erik.Ekdahl@waterboards.ca.gov

California Department of Water Resources
Craig Altare, Section Chief Sustainability Plan Review SGMO
craig.altare@water.ca.gov

National Marine Fisheries Service
Alecia Van Atta, Assistant Regional Administrator
alecia.vanatta@noaa.gov

California Department of Fish and Wildlife
Tina Bartlett, Regional Manager
Joe Croteau, Environmental Program Manager
klamathwatershed@wildlife.ca.gov

State of California – Natural Resources Agency
DEPARTMENT OF FISH AND WILDLIFE
Northern Region
601 Locust Street
Redding, CA 96001
www.wildlife.ca.gov

GAVIN NEWSOM, Governor
CHARLTON H. BONHAM, Director

GROUNDWATER USE REDUCTION AND BINDING AGREEMENT FOR LOCAL COOPERATIVE SOLUTION

BACKGROUND

Under the 2021 drought emergency regulation establishing drought emergency minimum flows in the Scott River and Shasta River watersheds,[1] local cooperative solutions (LCS) by individuals or groups may be proposed by petition to the Deputy Director as an alternative means of reducing water use to meet or preserve drought emergency minimum flows, or to provide other fishery benefits (such as cold-water refugia, localized fish passage, or redd protection), in lieu of curtailment.

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 section 875.5(f)(4)(D)(i) – (ii) [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 irrigated 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 the 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 similar qualified entity. "

   (ii) For the Scott River: "The proposal provides at least: 1) a net reduction of water use of 30 percent throughout the irrigation season (April 1 – October 31), as compared to the prior irrigation

[1] California Code of Regulations, title 23, sections 875–875.9.

season; and 2) a monthly reduction of at least 30 percent in the July 1 through October 31 period, as compared to the prior year or to 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

On February 25, 2022, the Tom Menne DBA Menne Ranch Hay, Inc. (Landowner) proposed an LCS authorized by 23 CCR §§ 875(f)(4)(D) of the regulation for the 2022 irrigation season. It includes a final conservation plan, narrative, and spray/field maps incorporated by reference. The proposal uses the year 2020 as the baseline; it includes detailed spreadsheets and a narrative that describes enhanced irrigation pivot efficiencies, groundwater pump upgrades, installed soil moisture sensors, rotated crops, reduced wheel line, big gun and hand line irrigation, and a 2022 fall irrigation forbearance plan. The specific conservation practices within the narrative offer concise and appropriate monitoring elements enabling the California Department of Fish and Wildlife to assume the role of a coordinating entity to implement a binding agreement described in "i" above. The mathematically calculated conservation plan accounts for a net reduction of at least 30% to meet the requirement described in item "ii" above.

The included lands in the proposal equal 1,541.5 acres and exceeds the minimum 400 acres required under the emergency regulation. This agreement is being entered into with the understanding that additional acres may be added under separate binding agreements with additional landowners for State Water Resources Control Board (State Water Board) approval. Any additional landowners joining the Menne Ranch Hay, Inc. LCS will only be done with the Landowner's consent, and with the understanding it will not harm or hinder operations. The Landowner will not be held liable for any violations of additional landowners' respective LCS.

TERMS OF BINDING AGREEMENT

The Landowner is required to adhere to the proposed conservation plan, as submitted to CDFW and approved by the State Water Board. The Landowner has requested that CDFW serve as the coordinating entity. The Landowner and CDFW agree to the following:

- For the duration of this binding agreement where CDFW is the coordinating entity, the Landowner shall give CDFW and CDFW agents the right to reasonably access the included parcels for the limited purpose of verifying execution of the conservation plan. Any individual not directly employed or contracted by CDFW shall provide pre-notification to, and shall obtain approval by, the Landowner.

- CDFW will strive to notify the Landowner a day in advance of visiting the parcels and shall provide the Landowner or a designee the ability to participate in the monitoring inspection.

- It is anticipated that CDFW representatives will visit the property approximately twice per month. A monitoring inspection may include verification of any or all the actions described in the conservation plan and may include inspection checklist/notes/report and photo verification.

- If any photos, logs, checklists, or other documentation need to be submitted for this conservation strategy incorporated by reference will be transmitted by the Landowner via email to the Klamath Watershed Program at klamathwatershed@wildlife.ca.gov. This information for each month shall be transmitted within the first 7 calendar days of each calendar month.

- CDFW 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. CDFW supports 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 with 30 days' notice. The Coordinating Entity will only terminate the agreement if the Landowner is not cooperating with the terms of this binding agreement (e.g., is not providing access, is not reporting, etc.). Both parties agree to take reasonable measures to resolve any concerns related to performance of the conservation plan, negative human interaction, or any other unforeseen circumstance prior to invoking termination.

- It is recognized that as the irrigation season unfolds, there may be reason to modify the terms of the conservation plan or this agreement regarding its implementation and verification. Any such changes to the conservation plan or binding agreement will need to offer continued compliance with the drought emergency regulations and shall be agreed upon by both parties as well as the State Water Board.

Contact Information	
California Department of Fish and Wildlife Carmen Tull klamathwatershed@wildlife.ca.gov 916.203.1947	Menne Ranch Hay Inc. Tom Menne [redacted]

This binding agreement is valid while the current drought emergency regulation is in place. By signature, both parties agree and memorialize CDFW as the coordinating entity for this binding agreement. The Landowner shall include one signed copy with its petition to the SWB, return one signed copy to CDFW; and retain a signed copy of this binding agreement and the conservation plan readily handy at its residence in the event any questions arise for either party during implementation or monitoring.

Authorized Landowner Signature:

Sign Here: Tom Menne Date Signed: 3-24-22

Authorized Coordinating Entity Signature:

Sign Here: Docusigned by Tina Bartlett Date Signed: 3/24/2022

SUPPORTING INFORMATION

Field	Crop	Type	Location	PSI	Heads	GPM	GPH per Set	Sets	Sets per Year	Annual Water Use	Water Source
L-1	Alfalfa	Wheel Line	NW Corner	70	13	155.35	107,191.50	3	39	4,180,468.50	Overlying Well
L-1	Alfalfa	Hand Line	Top Left	70	9	107.55	74,209.50	0	13	964,723.50	Overlying Well
L-1	Alfalfa	Hand Line	Top Right	70	21	250.95	173,155.50	0	13	2,251,021.50	Overlying Well
L-1	Alfalfa	Wheel Line	Small Field	70	20	239	164,910.00	5	63	10,389,330.00	Overlying Well
L-1	Alfalfa	Hand Lines	Small Field	70	11	131.45	90,700.50	0	13	1,179,106.50	Overlying Well
L-1	Alfalfa	Wheel Line	SE Corner	70	12	143.4	98,946.00	4	44	4,353,624.00	Overlying Well
L-1	Alfalfa	Big Gun	SE Corner	70	0	210	144,900.00	3	33	4,781,700.00	Overlying Well
L-1	Alfalfa	Big Gun	SW Corner	70	0	210	144,900.00	5	55	7,969,500.00	Overlying Well
L-1	Alfalfa	Pivot	Center	65	0	412.5***	3,264,525.00	15	15	48,967,875.00	Overlying Well
L-3/3	Alfalfa	Hand Line	SE Corner	70	31	354.95	244,915.50	0	13	3,183,901.50	Adjudicated Well
L-3/3	Alfalfa	Pivot	Center	35	0	700	6,132,000.00	0	15	91,980,000.00	Adjudicated Well
L-4	Alfalfa	Big Gun	SW Corner	70	21	210	144,900.00	3	33	4,781,700.00	Adjudicated Well
L-4	Alfalfa	Big Gun	SW Corner	70	21	210	144,900.00	3	33	4,781,700.00	Adjudicated Well
L-4	Alfalfa	Big Gun	SW Corner	70	21	210	144,900.00	3	33	4,781,700.00	Adjudicated Well
L-4	Alfalfa	Pivot	Center	38		400	3,240,000.00	0	15	48,600,000.00	Adjudicated Well
L-5	Alfalfa	Big Gun	NW Corner	75	0	210	144,900.00	4	40	5,796,000.00	Adjudicated Well
L-5	Alfalfa	Big Gun	NW Corner	75	0	210	144,900.00	4	40	5,796,000.00	Adjudicated Well
L-5	Alfalfa	Big Gun	NW Corner	75	0	210	144,900.00	4	40	5,796,000.00	Adjudicated Well
L-5	Alfalfa	Big Gun	NW Corner	75	0	210	144,900.00	4	40	5,796,000.00	Adjudicated Well
L-5	Alfalfa	Big Gun	NE Corner	75	0	210	144,900.00	3	30	4,347,000.00	Adjudicated Well
L-5	Alfalfa	Wheel Line	Center	75	38	435.1	300,219.00	5	55	16,512,045.00	Adjudicated Well
L-6	Alfalfa	Wheel Line	SW Corner	75	20	229	158,010.00	9	99	15,642,990.00	Overlying Well
L-6	Alfalfa	Wheel Line	SW Corner	75	10	114.5	79,005.00	9	99	7,821,495.00	Overlying Well
L-6	Alfalfa	Big Gun	Center for L-7	75	0	250	172,500.00	1	11	1,897,500.00	Overlying Well
L-6	Alfalfa	Pivot	Center	45	0	450	1,982,880.00		15	29,743,200.00	Overlying Well
										342,294,580.50	

Field	Crop	Type	Location	PSI	Heads	GPM	GPH per Set	Sets	Sets per Year	Annual Water Use	Water Source
R-2	Alfalfa	Wheel Line	Right	65	37	423.65	292,318.50	11	99	28,939,531.50	Overlying Well
R-2	Alfalfa	Wheel Line	Bottom	65	37	423.65	292,318.50	11	99	28,939,531.50	Overlying Well
R-2	Alfalfa	Hand Line	Top Right	65	18	206.1	142,209.00	0	11	1,564,299.00	Overlying Well
R-3	Alfalfa	Wheel Line	Top	65	42	480.9	331,821.00	12	132	43,800,372.00	Overlying Well
R-3	Alfalfa	Wheel Line	Bottom	65	42	480.9	331,821.00	12	132	43,800,372.00	Overlying Well
R-3	Alfalfa	Gun	Small Field	65	21	240.45	165,910.50	4	36	5,972,778.00	Overlying Well
R-3	Alfalfa	Hand Line	Small Field	65	4	45.8	31,602.00	0	11	347,622.00	Overlying Well
R-4	Alfalfa	Wheel Line	Left	60	28	294	202,860.00	12	108	21,908,880.00	Overlying Well
R-4	Alfalfa	Wheel Line	Right	60	28	294	202,860.00	12	108	21,908,880.00	Overlying Well
R-4	Alfalfa	Wheel Line	Dicth Line	60	16	168	115,920.00	6	54	6,259,680.00	Overlying Well
R-5	Alfalfa	Wheel Line	Top	60	27	283.5	195,615.00	9	135	26,408,025.00	Overlying Well
R-5	Alfalfa	Wheel Line	Middle	60	32	336	231,840.00	7	105	24,343,200.00	Overlying Well
R-5	Alfalfa	Wheel Line	Bottom	60	22	231	159,390.00	5	75	11,954,250.00	Overlying Well
R-5	Alfalfa	Gun	Left side center	80		240	165,600.00	0	15	2,484,000.00	Overlying Well
R-7	Alfalfa	Wheel Line	Top Right	70	25	286.25	197,512.50	5	60	11,850,750.00	Overlying Well
R-7	Alfalfa	Wheel Line	Top Right	70	13	148.85	102,706.50	8	96	9,859,824.00	Overlying Well
R-7	Alfalfa	Hand Line	Middle Right	70	10	114.5	79,005.00	0	11	869,055.00	Overlying Well
R-7	Alfalfa	Wheel Line	Bottom	70	26	297.7	205,413.00	10	110	22,595,430.00	Overlying Well
R-7	Alfalfa	Hand Line	Middle Right	70	22	251.9	173,811.00	0	11	1,911,921.00	Overlying Well
R-7/L-7	Alfalfa	Pivot	Center	60		760	6,019,200.00	0	11	66,211,200.00	Overlying Well
R-8	Alfalfa	Wheel Line	Top Left	70	8	91.6	63,204.00	3	33	2,085,732.00	Overlying Well
R-8	Alfalfa	Hand Line	Top Right	70	13	148.85	102,706.50	0	11	1,129,771.50	Overlying Well
R-8	Alfalfa	Pivot	Center	46		775	6,254,250.00		15	93,813,750.00	Overlying Well
R-9	Alfalfa	Wheel Line	Top Right	75	11	125.95	86,905.50	11	110	9,559,605.00	Overlying Well
R-9	Alfalfa	Wheel Line	Top Left	75	8	91.6	63,204.00	10	110	6,952,440.00	Overlying Well
R-9	Alfalfa	Pivot	Center	35		280	1,047,228.00		15	15,708,420.00	Overlying Well
R-9 Plant	Grain	Wheel Line	Center	75	14	160.3	110,607.00	7	35	3,871,245.00	Overlying Well
R-10	Alfalfa	Wheel Line	Lower Right	75	13	148.85	102,706.50	8	88	9,038,172.00	Overlying Well
R-10	Alfalfa	Gun	Lower Right	75		250	172,500.00		11	1,897,500.00	Overlying Well
R-10	Alfalfa	Pivot	Center	39		760	6,019,200.00		14	84,268,800.00	Overlying Well
R-11	Alfalfa	Wheel Line	Top	75	13	148.85	102,706.50	8	88	9,038,172.00	Overlying Well
R-11	Alfalfa	Wheel Line	Bottom	75	33	377.85	260,716.50	12	132	34,414,578.00	Overlying Well
											Overlying Well
R-12	Alfalfa	Wheel Line	Only One	75	25	286.25	197,512.50	17	187	36,934,837.50	Overlying Well
											Overlying Well
										690,642,624.00	

Field	Crop	Type	Location	PSI	Heads	GPM	GPH per Set	Sets	Sets per Year	Annual Water Use	Water Source
H-2	Alfalfa	Pivot	Center	37		930	4,712,880 00	0	15	70,693,200 00	Overlying Well
H-3	Alfalfa	Wheel Line	Only One	65	28	320.6	221,214 00	9	66	14,600,124 00	Overlying Well
H-4	Alfalfa	Wheel Line	Top	65	28	320.6	221,214 00	8	88	19,466,832 00	Overlying Well
H-4	Alfalfa	Wheel Line	Middle	65	24	274.8	189,612 00	8	88	16,685,856 00	Overlying Well
H-4	Alfalfa	Wheel Line	Bottom	65	20	229	158,010 00	3	33	5,214,330 00	Overlying Well
H-5	Tri-Mix	Wheel Line	Left Side	70	21	259.14	178,806.60	8	32	5,721,811 20	Overlying Well
H-5	Tri-Mix	Wheel Line	Right Side	70	25	308.5	212,865 00	9	36	7,663,140 00	Overlying Well
H-5	Tri-Mix	Hand Line	Top	70	20	246.8	170,292 00		4	681,168 00	Overlying Well
										140,726,461 20	

Field	Crop	Type	Location	PSI	Heads	GPM	GPH per Set	Sets	Sets per Year	Annual Water Use	Water Source
A-1	Alfalfa	Pivot	Center	48	0	750	4,091,250.00		15	61,368,750.00	Overlying Well
A-1	Alfalfa	Gun	Lower Right	75	1	250	172,500.00	6	66	11,385,000.00	Overlying Well
A-2	Alfalfa	Gun	Top Left	75	1	250	172,500.00	3	33	5,692,500.00	Overlying Well
A-2	Alfalfa	Pivot	Center	60	0	495***	1,651,320.00	0	15	24,769,800.00	Overlying Well
A-3	Alfalfa	Wheel Line	Near Pump	75	31	381.92	263,524.80	11	110	28,987,728.00	Overlying Well
A-3	Alfalfa	Wheel Line	Left Side	75	14	172.48	119,011.20	2	22	2,618,246.40	Overlying Well
A-3/B	Grain	Gun	Down Center	75	1	250	172,500.00		8	1,380,000.00	Overlying Well
A-4	Alfalfa	Hand Line	Top Center	70	12	137.4	94,806.00	0	13	1,232,478.00	Overlying Well
A-4	Alfalfa	Wheel Line	Top Left	70	18	206.1	142,209.00	6	78	11,092,302.00	Overlying Well
A-4	Alfalfa	Wheel Line	Top Left	70	9	103.05	71,104.50	6	78	5,546,151.00	Overlying Well
A-4	Alfalfa	Hand Line	Top Left	70	9	103.05	71,104.50	0	13	924,358.50	Overlying Well
A-4	Alfalfa	Hand Line	Bottom left	70	17	194.65	134,308.50	0	13	1,746,010.50	Overlying Well
A-4	Alfalfa	Wheel Line	By Bridge	70	11	125.95	86,905.50	7	91	7,908,400.50	Overlying Well
A-4	Alfalfa	Pivot	Center	60	0	550***	3,063,280.00	0	16	49,012,480.00	Overlying Well
										213,664,204.90	

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Field	Crop	Type	Location	PSI	Heads	GPM	GPH per Set	Sets	Sets per Year	Annual Water Use	Water Source
T-1	Tri-Mix	Wheel Line	Left Side	70	34	406.3	280,347.00	17	85	23,829,495.00	Overlying Well
T-1	Tri-Mix	Wheel Line	Right Side	70	34	406.3	280,347.00	14	75	21,026,025.00	Overlying Well
T-1	Tri-Mix	Wheel Line	Left East	70	18	215.1	148,419.00	6	30	4,452,570.00	Overlying Well
T-1	Tri-Mix	Wheel Line	Right East	70	18	215.1	148,419.00	17	86	12,764,034.00	Overlying Well
T-1	Tri-Mix	Hand Line	Hand Lind South	70	13	155.35	107,191.50	0	7	750,340.50	Overlying Well
										62,822,464.50	

Field	Crop	Type	Location	PSI	Heads	GPM	GPH per Set	Sets	Sets per Year	Annual Water Use	Water Source
D-1	Alfalfa	Pivot	Center	65	1	777***	4,984,266.60	1	15	74,763,999.00	Overlying Well
D-1	Alfalfa	Gun	Behind Pivot	65	1	250	172,500.00	9	13	2,242,500.00	Overlying Well
D-1	Alfalfa	Gun	Below Dicth	65	1	250	172,500.00	7	91	15,697,500.00	Overlying Well
D-1	Alfalfa	Wheel Line	Below Dicth	65	19	217.55	150,109.50	8	88	13,209,636.00	Overlying Well
D-2	Alfalfa	Pivot	Center	65		280***	1,169,251.20	1	15	17,538,768.00	Overlying Well
D-2	Alfalfa	Gun	Left Bottom	65	1	250	172,500.00	3	33	5,692,500.00	Overlying Well
D-3	Alfalfa	Gun	Bottom Left	70	1	275	189,750.00	4	44	8,349,000.00	Overlying Well
D-3	Alfalfa	Gun	By Barn	70	1	275	189,750.00	3	33	6,261,750.00	Overlying Well
D-3	Alfalfa	Hand Line	Bottom Left	70	7	88.165	60,833.85	1	11	669,172.35	Overlying Well
D-3	Alfalfa	Pivot	Center	70	0	693***	4,378,374.00	1	15	65,675,610.00	Overlying Well
D-4	Alfalfa	Pivot	Center	60	0	247***	779,625.00		15	11,694,375.00	Overlying Well
Barn pasture	Grass	Gun	Left Side	75	0	250	172,500.00	5	75	12,937,500.00	Overlying Well
D-5	Oat/Alfalfa	Wheel Line	Top	85	12	154.01	106,266.90	5	75	7,970,017.50	Overlying Well
D-5	Oat/Alfalfa	Wheel Line	Bottom	85	14	184.3	127,167.00	5	75	9,537,525.00	Overlying Well
D-5	Oat/Alfalfa	Hand Line	Top	85	22	251.9	173,811.00	1	15	2,607,165.00	Overlying Well
D-5	Oat/Alfalfa	Gun	Top	85	1	287.5	198,375.00	1	15	2,975,625.00	Overlying Well
D-5	Oat/Alfalfa	Pivot	Center	85	0	437***	2,404,374.00	1	16	38,469,984.00	Overlying Well
										296,292,626.85	

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Location	Parcel #'s	Covered Acres	Estimate of Total Water Use
Lower Ranch	014-100-100 014-130-370 014-130-390 014-130-490 014-361-380 014-361-460 014-361-470	338	342,294,580.50
River Ranch	014-130-210 014-130-460 014-130-470 014-380-060	538	690,642,624.00
Home Ranch	014-100-080 014-370-040 014-370-050	133	140,726,461.20
Across River	014-130-560 014-130-550	188	213,664,204.90
85	014-390-230 014-390-240 024-020-170 024-020-180	82	62,822,464.50
Doc's	024-180-370 024-180-430 024-180-440 023-220-440 023-220-450 024-180-460 024-180-450	262.5	296,292,626.85
Total		1541.5	1,746,442,961.95

Field	Crop	Type	Location	PSI	Heads	GPM	GPH per Set	Sets	Sets per Year	Annual Water Use	Water Source
L-1	Alfalfa	Hand Line	Top Right	50	21	129.99	89,693.10	1	9	807,237.90	Overlying Well
L-1	Alfalfa	Hand Line	Top Left	50	9	55.71	38,439.90	1	9	345,959.10	Overlying Well
L-1	Alfalfa	Wheel Line	Small Field	50	20	123.8	85,422.00	5	45	3,843,990.00	Overlying Well
L-1	Alfalfa	Hand Line	Small Field	50	11	68.09	46,982.10	1	9	422,838.90	Overlying Well
L-1	Alfalfa	Wheel Line	SE Corner	50	12	74.28	51,253.20	4	36	1,845,115.20	Overlying Well
L-1	Alfalfa	Pivot	Center	38	0	375	2,889,000.00	0	17	49,113,000.00	Overlying Well
L-3/3	Alfalfa	Pivot	Center	35	0	700	6,132,000.00	0	16	98,112,000.00	Adjudicated well
L-4	Alfalfa	Pivot	Center	38		400	3,240,000.00	0	16	51,840,000.00	Adjudicated well
L-5	Alfalfa	Wheel Line	NW Corner	50	17	105.23	72,608.70	4	36	2,613,913.20	Adjudicated well
L-5	Alfalfa	Wheel Line	Center	50	38	235.22	162,301.80	5	45	7,303,581.00	Adjudicated well
L-6	Alfalfa	Wheel Line	SW Corner	50	20	123.8	85,422.00	9	90	7,687,980.00	Overlying Well
L-6	Alfalfa	Wheel Line	SW Corner	50	10	61.9	42,711.00	9	90	3,843,990.00	Overlying Well
L-6	Alfalfa	Pivot	Center	45	0	450	1,982,880.00	0	16	31,726,080.00	Overlying Well
										259,505,685.30	

Field	Crop	Type	Location	PSI	Heads	GPM	GPH per Set	Sets	Sets per Year	Annual Water Use	Water Source
R-2	Alfalfa	Pivot	Center	37	0	350	2,417,100 00	0	16	38,673,600.00	Overlying Well
R-3	Tri-Mix	Pivot	Center	37	0	370	2,575,200 00	0	9	23,176,800.00	Overlying Well Overlying Well
R-4	Tri-Mix	Pivot	Center	35	0	370	1,267,200 00		9	11,404,800.00	Overlying Well
R-4	Tri-Mix	Wheel Line	Behind Pivot	50	28	173 04	114,206.40	3	12	1,370,476.80	Overlying Well
R-5	Tri-Mix	Pivot	Center	36	28	173 32	1,447,050 00	0	9	13,023,450.00	Overlying Well
R-7	Alfalfa	Wheel Line	Bottom	50	13	80.47	55,524 30	8	72	3,997,749.60	Overlying Well
R-7	Alfalfa	Gun	Middle Right	50	1	250	172,500 00	1	12	2,070,000.00	Overlying Well
R-7/L-7	Alfalfa	Pivot	Center	55		760	6,019,200 00	0	16	96,307,200.00	Overlying Well
R-8	Tri-Mix	Hand Line	Top right	50	13	80.47	55,524 30	3	4	222,097.20	Overlying Well
R-8	Tri-Mix	Wheel Line	Top Left	50	8	49.52	34,168 80	3	33	1,127,570.40	Overlying Well
R-8	Tri-Mix	Pivot	Center	46	0	775	6,254,250 00	0	9	56,288,250.00	Overlying Well
R-9	Alfalfa	Wheel Line	Top Right	50	11	68.09	46,982.10	11	110	5,168,031.00	Overlying Well
R-9	Alfalfa	Wheel Line	Top Left	50	8	49.52	34,168 80	10	110	3,758,568.00	Overlying Well
R-9	Alfalfa	Pivot	Center	35		280	1,047,228 00	0	16	16,755,648.00	Overlying Well
R-10	Alfalfa	Pivot	Center	39		760	6,019,200 00	0	16	96,307,200.00	Overlying Well
R-11	Alfalfa	Pivot	Center	35	0	250	1,138,500 00	0	15	17,077,500.00	Overlying Well Overlying Well
R-12	Alfalfa	Pivot	Center	34		250	904,500 00	0	15	13,567,500.00	Overlying Well
										400,296,441.00	

Field	Crop	Type	Location	PSI	Heads	GPM	GPH per Set	Sets	Sets per Year	Annual Water Use	Water Source
H-2	Alfalfa	Pivot	Center	37		930	4,712,880.00	0	15	70,693,200.00	Overlying Well
H-3	Alfalfa	Pivot	Center	47	0	300	993,600.00	0	16	15,897,600.00	Overlying Well
H-4	Tri-Mix	Pivot	Center	37	0	350	1,839,600.00	0	9	16,556,400.00	Overlying Well
H-5	Alfalfa	Wheel Line	Right Side	50	11	101.09	69,752.10	4	80	5,580,168.00	Overlying Well
H-5	Alfalfa	Hand Line	Top	50	19	117.61	81,150.90	0	14	1,136,112.60	Overlying Well
H-5	Alfalfa	Pivot	Center	39	0	300	1,800,000.00	0	16	28,800,000.00	Overlying Well
										138,663,480.60	

Field	Crop	Type	Location	PSI	Heads	GPM	GPH per Set	Sets	Sets per Year	Annual Water Use	Water Source
A-1	Alfalfa	Pivot	Center	48	0	750	4,091,250.00		15	61,368,750.00	Overlying Well
A-2	Alfalfa	Pivot	Center		0	350***	1,501,200.00		15	22,518,000.00	Overlying Well
A-3	Tri-Mix	Wheel Line	Near Pump		31	354.95	244,915.50	11	33	8,082,211.50	Overlying Well
A-3	Tri-Mix	Wheel Line	Left Side		14	160.3	110,607.00	2	6	663,642.00	Overlying Well
A-4	Alfalfa	Wheel Line	Top Left	50	18	111.42	76,879.80	6	54	4,151,509.20	Overlying Well
A-4	Alfalfa	Wheel Line	Top Left	50	9	55.71	38,439.90	6	54	2,075,754.60	Overlying Well
A-4	Alfalfa	Wheel Line	By Bridge	50	11	68.09	46,982.10	7	63	2,959,872.30	Overlying Well
A-4	Alfalfa	Pivot	Center	49	0	450***	2,305,333.33	0	16	36,885,333.28	Overlying Well
										138,705,072.88	

Field	Crop	Type	Location	PSI	Heads	GPM	GPH per Set	Sets	Sets per Year	Annual Water Use	Water Source
T-1 North	Tri-Mix	Wheel Line	Left Side North	45	20	123.8	85,422.00	5	20	1,708,440.00	Overlying Well
T-1 North	Tri-Mix	Pivot	Center North	35	0	300	1,990,800.00	1	9	17,917,200.00	Overlying Well
T-1 South	Alfalfa	Pivot	Center South	34	0	350	1,850,100.00	1	16	29,601,600.00	Overlying Well
										49,227,240.00	

Field	Crop	Type	Location	PSI	Heads	GPM	GPH per Set	Sets	Sets per Year	Annual Water Use	Water Source
D-1	Alfalfa	Pivot	Center	31	0	650	4,668,300.00	1	16	74,692,800.00	Overlying Well
D-1	Alfalfa	Gun	Below Dicth	50	1	250	172,500.00	7	42	7,245,000.00	Overlying Well
D-1	Alfalfa	Wheel Line	Below Dicth	50	19	117.61	81,150.90	8	64	5,193,657.60	Overlying Well
D-2	Alfalfa	Pivot	Center	42	0	260	1,082,640.00	1	16	17,322,240.00	Overlying Well
D-3	Alfalfa	Gun	Bottom Left	50	1	250	172,500.00	4	28	4,830,000.00	Overlying Well
D-3	Alfalfa	Hand Line	Bottom Left	50	7	43.33	29,897.70	1	7	209,283.90	Overlying Well
D-3	Alfalfa	Pivot	Center	38	0	630	4,378,374.00	1	16	70,053,984.00	Overlying Well
D-4	Alfalfa	Pivot	Center	44	0	225	708,750.00		15	10,631,250.00	Overlying Well
D-5	Alfalfa	Wheel Line	Top	50	12	74.28	51,253.20	5	35	1,793,862.00	Overlying Well
D-5	Alfalfa	Wheel Line	Bottom	50	14	86.66	59,795.40	5	35	2,092,839.00	Overlying Well
D-5	Alfalfa	Hand Line	Top	50	22	136.18	93,964.20	1	7	657,749.40	Overlying Well
D-5	Alfalfa	Gun	Top	50	1	250	172,500.00	1	7	1,207,500.00	Overlying Well
D-5	Alfalfa	Pivot	Center	31	0	380	2,404,374.00	1	16	38,469,984.00	Overlying Well
Barn Pasture	Grass	Hand Line	Center	50	15	92.85	64,066.50	1	25	1,601,662.50	
										236,001,812.40	

Location	Parcel #'s	Covered Acres	Estimate of Total Water Use
Lower Ranch	014-100-100 014-130-370 014-130-390 014-130-490 014-361-380 014-361-460 014-361-470	338	259,505,685.30
River Ranch	014-130-210 014-130-460 014-130-470 014-380-060	538	400,296,441.00
Home Ranch	014-100-080 014-370-040 014-370-050	133	138,663,480.60
Across River	014-130-560 014-130-550	188	138,705,072.88
85	014-390-230 014-390-240 024-020-170 024-020-180	82	49,227,240.00
Doc's	024-180-370 024-180-430 024-180-440 023-220-440 023-220-450 024-180-460 024-180-450	262.5	236,001,812.40
		1541.5	1,222,399,732.18