

Fawaz Farming



February 21, 2022

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

Re: 2022 Cooperative Solution – Fawaz Farming and coordinating growers

To the State Water Board:

As authorized by 23 CCR §§ 875-875.9, Fawaz Farming provides this letter to further describe its proposed local cooperative solution (LCS) for the 2022 irrigation season.

There are also several operations below the acreage threshold that are coordinating with Fawaz Farming in submitting this LCS. Each coordinating operation will be included as a separate sheet of the water budget workbook. Fawaz Farming does not have management authority or take any responsibility for coordinating growers but is merely assisting them with this LCS.

Brandon Fawaz started Fawaz Farming after graduating high school in 1998. Fawaz Farming irrigates 1114 acres primarily in production of alfalfa hay, grass hay, cereal grain hay, and other small rotational crops. The irrigation infrastructure consists of 12 wells, 17 pumps, 16 pivots, various wheel lines, hand lines, and squirt guns / cannons.

Prior to 2021, all center pivots were equipped with High Pressure, Mid Elevation, Spray Application sprinkler packages or iWob packages by Senninger Irrigation. Commonly on the farm, these nozzle packages are referred to as Nelson Rotators or iWobs. Pivots move automatically in accordance with parameters set for each pivot.

Historically wheel lines have been moved in established crops, either once per day, commonly referred to as “24-hour sets” or twice per day, referred to as “12-hour sets.” In actuality the sets are approximately 23 hours or 11 hours, respectively, as it takes time to manually move the wheel lines.

Unlike some areas of California, the fields are not all rectangular, square, or circular. This results in the need for different types of irrigation to provide complete coverage and overlap between systems. Considering labor, a major challenge when managing irrigation systems on a farm, some of these areas that are considered for fallowing.

Fields are labeled using the Siskiyou County of Agriculture’s Restricted Materials Spray Permit. This is the most common form of mapping farmers in Scott Valley are familiar with on their farms. The acreages identified were determined by the county, not the farmer.

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Irrigation season usually starts within the first 10 days of April. Irrigation for a three cutting alfalfa system typically ends mid-August. Grass fields typically require water a little later in the year, with irrigation ending around the end of the first week of September. Irrigation for a four cutting alfalfa system generally aligns more with grass, ending around September 10th. When a rotational crop such as cereal grains are grown for forage, irrigation usually ends by June 15th, and for grain, around July 10-15th. Depending upon workload, conditions, and labor, sometimes alfalfa is planted in the fall. This requires some irrigation later in the year, usually into October, and in the case of 2020, a couple light applications the first week of November.

Fawaz Farming is a first-generation farm. I literally turned my high school FFA project into the job / farm I have today. This has forced me to operate on a tight budget and do some practices different than others. While not common for all growers, Fawaz Farming has a long history of growing a second season crop such as corn, teff, Sudan, and sudex. Sudan and sudex have primarily been grown not for their forage value, but for their soil fumigation properties and to add organic matter to the soils.

MOST IRRIGATION UPGRADE / EFFICIENCY GAIN HAS BEEN DONE WITHOUT ANY FINANCIAL ASSISTANCE.


Conservation Efforts taken place since 2020:

Since 2020, many conservation efforts have taken place. These exact practices are identified in the water budget workbook, will be displayed in final maps, and are described below.

Items 1-12 are eligible and permanent efficiencies contributing to the overall reduction, and can be checked once by the coordinating entity during each irrigation season on an inspection.

1. All pivots currently controlled or owned with more than 4 towers have been converted to Low Energy Precision Application / LEPA packages. This conversion has drastically increased irrigation efficiency with estimates from various irrigation companies exceeding 25%! From in the 2021 season to the present, over \$50,000 has been self-funded for just converting pivots to LEPA.
2. Wheel Lines have been replaced by pivots with LEPA
3. Wheel Lines were replaced in mid 2020 with pivot with iWob
4. Wheel Line nozzles size has been reduced
5. Overall irrigation system pressure has been drastically reduced
6. Wheel Line set times have been altered
7. Soil Moisture sensors have been installed or will continue to be installed when Verizon LTE parts are available
8. Squirt Guns / Cannons on field corners have been eliminated
9. Inside towers of LEPA pivots typically do not have hose drops. Rotators have been removed and will have iWobs installed. According to Senninger, this is about a 10-15% gain in efficiency.

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10. Pivot flow rates reduced – in addition to installing LEPA, with not as much water being needed as there is more efficient use, our pivots have been re-nozzled so that less water flows through them.
 11. Variable Frequency Drives (VFD) have been installed so that only the water needed is pumped
 12. Flow Control valves have been installed on pivots so that pressure / water to the pivot can be limited while then providing only enough water for the other demands on the irrigation system

Items 13-16 are additional eligible and temporary water reduction efficiencies contributing to this local cooperative solution. These can be verified on an inspection conducted by the coordinating entity during the irrigation season.

13. Forbearance of Edges – Many field edges used to be irrigated with solid set hand line. This is now abandoned or only used prior to first cutting.
14. Fallowing – Some ground will not be farmed in 2022
15. Reduced Cuttings – Some fields will only be cut twice and most likely none will be cut four times
16. Reduction of Second Crop – The majority of the eligible ground for a second crop, such as Sudan, will not be planted or irrigated late

With the exception of some small reimbursements from Pacific Power WattsSmart, all the above upgrades have been financially borne by Fawaz Farming. This has been a significant hardship. Specifically, this past fall, we were faced with a choice between a broken tractor that needed to be replaced as it was a 1982 model, or irrigation upgrades purchased. The tractor was not replaced; upgrades are happening.

It seems clear to me, as a farmer, we have to look at the weather and environmental conditions to evaluate how to move forward. Unless we have a “Miracle March,” it is unlikely all the sacrificing experienced by farmers in Scott Valley, will be able to provide river conditions desired by some. This current reduction is not a sustainable way for me to run my farm and raise my family. I employ around 10-11 people. I cannot support them year-end year-out if these conditions continue. I am exhausting all the efficiency gains I can make. Soon, the sacrifices will make me unable to continue. I fully support a plan of action that can make the valley better for all whom love it, without severely hurting me and my family. My kids are 6 and 11. I am 42. I am too old to go back to school and learn something new. I am too invested in just purchasing our farm to walk away. I have now completed 12 mortgage payments out of 240.

This plan is offered in good-faith regarding the local control solution for the 2022 irrigation season. All rights, claims, and defenses with regard to the matters described herein are hereby expressly reserved. Moreover, this plan is offered voluntarily by Fawaz Farming. Previously in 2021, I was one of three irrigators that curtailed our water use early, July 31, 2021, in exchange for compensation. No part of this plan or its water budget shall be construed to limit the availability of our participation of any future potential programs. I have in the past and will in the future negotiate and be available for the betterment of Scott Valley. This is my home.

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Many of the growers in Scott Valley, including myself, were told it would be appreciated to have our agreements presented to the water board in the month of February. I have worked diligently to abide by that timeline. As a farmer, I needed to see what the weather, markets, and commodity prices were lining up like in order to make the best decision of how to manage my farm. Seeds I plant today will control my options all the way through until next year. These are not simple decisions.

Regarding a coordinating entity, I am open to options. I would be completely available to working with Joe Croteau of CDFW. I believe Joe is somewhat familiar with my operation from being around it in 2021 with the curtailment. While I understand whoever is my partnering person will need to have access to my farm to look at irrigation practices, I must point out that I will need to be involved with knowing when, even if very brief notice, of their arrival. We spray pesticides that have restricted entry intervals (REIs). This is the time from after application when both the EPA and the pesticide manufacturer have agreed is needed for safe entry. I would not want someone to walk out into one of my fields an hour after I sprayed when a REI for 48 hours is in effect.

Regarding tracking / monitoring pivot applications, I am working on trying to make a more seamless option viable. Currently I start most pivots remotely from a smart phone or computer. Some pumps are started remotely and some manually at the panel. While my last resort, which would work, would be to keep a calendar log of when I turn pivots off and on and their set amount, it will be tedious. My pivot control telemetry software / app can track details of the pivot. I am working with the software designer to see if a longer term of that data can be available and then be exported to Excel. This would make pivot monitoring much easier and fool proof.

I feel the need to point out the level of calculations I prepared should not be used to harm another farmer. I tend to outline many things in my farm on Excel spreadsheets. I believe this exercise was best done that way as well. However, I do still work with other farmers that do not even own a computer. Many do not have smart phones. Many don't text. Therefore, I am willing to work with some other growers to have their water plans on my spreadsheet.

My contact information is provided above. Please feel free to contact me by phone, email, or text regarding any questions you might have in moving forward with this plan.

Regards,

Brandon Fawaz

Brandon Fawaz
Owner, Fawaz Farming

BINDING AGREEMENT



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 22, 2022

Brandon Fawaz, Landowner and Manager
Fawaz Farming



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

Dear Brandon Fawaz,

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 individual cooperative solutions, the Deputy Director may approve a petition where a water user agrees to voluntarily cease diversions or where the California Department of Fish and Wildlife (CDFW) makes a recommendation for an exemption to curtailment based on an assessment that the benefits of the actions to anadromous fish in a specific time are equal to or greater than the protections provided by their contribution to flow under 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,

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Brandon Fawaz
Fawaz Farming
March 22, 2022
Page 2 of 3


estimation of water saved from conservation measures or changes in irrigation or planting decisions and electric bills.

On February 21, 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 parcel/spray/field maps incorporated by reference. The proposal uses the year 2020 as the baseline; it includes detailed spreadsheets and a narrative that describes permanent enhanced irrigation efficiencies, reduced irrigation wheel line set timing, an irrigation forbearance plan for field edges, fallowing fields, reduced cuttings, and halting the majority of a second crop planting in 2022. 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 an 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 below.

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 Senior Environmental Scientist Carmen Tull at klamathwatershed@wildlife.ca.gov.

Sincerely,

DocuSigned by:

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Tina Bartlett, Regional Manager
Northern Region

Ec's on Page 3

Brandon Fawaz
Fawaz Farming
March 22, 2022
Page 3 of 3

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Fawaz Farming

Brandon Fawaz, Landowner and Manager


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
and 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
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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 21, 2022, Brandon Fawaz DBA Fawaz Farming (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 permanent enhanced irrigation efficiencies, reduced irrigation wheel line set timing, an irrigation forbearance plan for field edges, fallowing fields, reduced cuttings, and halting the majority of a second crop planting in 2022. The specific conservation practices within the narrative offer concise and appropriate monitoring elements enabling CDFW 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 approximately 34.6 % to meet the requirement described in item “ii” above.

The included lands in the proposal equal 1,114 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 a separate binding agreement with additional parties for State Water Resources Control Board (State Water Board) approval. Any additional parties joining the proposed 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 parties’ 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.
- The written irrigation log described under the wheel line conservation practice, and any photos, logs, checklists, and other documentation 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 change 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	Fawaz Farming Brandon Fawaz 

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: *B Fawaz* Date Signed: 03/24/22

Authorized Coordinating Entity Signature:

Sign Here: *Jina Bartlett* Date Signed: 3/22/2022
DocuSigned by: Jina Bartlett
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SUPPORTING INFORMATION

