



June 10, 2021

Lewis Bair, Manager RD 108

Ted Trimble, Manager Western Canal Water Dist.

Willie Whittlesey, Manager Yuba Water Agency

*Via email

RE: Voluntary Agreements Impacts on Rice

O 108 Glenn-Colusa Irrigation Dist.

Sean Early, Manager Richvale Irrigation Dist.

Thad Bettner, Manager

Eugene Massa, Manager Biggs-West Gridley Water Dist.

Andy Fecko, Manager Placer County Water Agency

Dear Sacramento Valley Voluntary Agreement Negotiators:

The California Rice Commission is providing the following documents to inform discussions on the voluntary agreement process to update the Bay-Delta Water Quality Control Plan.

The attached statement, unanimously adopted by the CRC board on June 9, 2021, supports the voluntary agreement process and the currently proposed 35,000 idled rice acres during dry, below-normal and above-normal years. The statement also strongly opposes any additional idling of rice acres due to significant impacts on the rice industry, the environment and support infrastructure.

Two white papers quantifying the impacts on the rice industry and the environment from the voluntary agreements are included. The first, authored by Dr. Joe Outlaw at Texas A&M University, analyzes the economic impact of the proposed 35,000 acres of idled ricelands noting \$115 million in direct impact to rice and allied industries and nearly 500 lost jobs. For every additional 10,000 acres idled, the economic loss is an additional \$33 million. The second paper, by Dr. Mark Petrie, looks at the impact of the proposed idled acres on waterbirds and other wildlife dependent on ricelands. This analysis notes that the current agreement will reduce duck populations by 175,000. For every 10,000 acres of increased idling, 50,000 ducks will be lost.

Thank you for your work on this important agreement and your efforts to ensure that rice, our rural communities and the environment do not suffer any additional and unacceptable impacts.

Sincerely,

Tim Johnson President & CEO

Enclosures

CC: David Guy
Bryce Lundberg
Sean Doherty
Josh Sheppard
Tom Butler
Nicole Van Vleck
Don Bransford

Statement on the Voluntary Agreements California Rice Commission

The California Rice Commission, representing the state's 2,500 rice growers and 40 mills and marketing organizations, supports the voluntary agreement process as the best mechanism to update the Bay-Delta Water Quality Control Plan and empower ridgetop to river mouth water management in the Sacramento River Basin for multiple benefits for the next several decades.

The Commission further supports the 35,000 idled acres during dry, below normal and abovenormal years in the Sacramento River Basin to support the goals of the voluntary agreements as currently described in the framework agreement among the parties. The Commission underscores, however, that the idling envisioned by voluntary agreements has a significant impact on California's rice industry, the species supported by working ricelands and our allied industries.

We call upon the parties to the voluntary agreements to recognize and acknowledge this impact upon the rice industry and we <u>strongly oppose</u> and discourage any additional idled rice acres as part of the agreement. Every additional acre of idled riceland results in the unacceptable loss of jobs throughout the region and significantly reduces economic activity in our rural communities. The impact on waterfowl, shorebirds and other species directly supported by working ricelands and winter flooded rice fields is counter to the environmental objectives of the voluntary agreements. Additional idling redirects impacts to the Sacramento River Basin and raises significant economic and environmental concerns throughout the region.

Economic Impact of Phased Reductions in Rice Acreage Due to Water Availability

Joe L. Outlaw Brian K. Herbst J. Marc Raulston George M. Knapek

Agricultural and Food Policy Center (AFPC)
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Economic Impact of Phased Reductions in Rice Acreage Due to Water Availability

The persistent drought in California has led to calls for water rationing on many sectors of the state's economy including agriculture. A reduction in water availability to agriculture will have serious economic repercussions for all irrigated agriculture but especially for rice producers. California currently ranks number two in rice production in the United States.

A reduction in the water available to California rice producers will result in fewer rice acres and less production. In addition, there will be a major reduction in economic activity both directly related to less rice production and indirectly related to reduced business activity in other areas of the local economies resulting from reduced rice acreage. This report uses Agricultural and Food Policy Center (AFPC) representative rice farms in California to develop estimates of the reduction in economic activity resulting from fewer rice acres being planted.

Data and Methods

AFPC has been funded by Congress for more than 30 years to provide feedback on the impacts of proposed policy changes on their system of representative farms located in major production regions of the United States. Currently, AFPC has developed and maintains data to simulate 94 representative crop farms, dairies, and livestock operations. The locations of these farms have primarily resulted from discussions with staffers for the U.S. House and Senate Agriculture Committees. Information necessary to simulate the economic activity on these representative farms is developed from panels of producers using a consensus-building interview process. The data collected from the panel farms are analyzed using a whole farm simulation model developed by AFPC. The producer panels are provided pro-forma financial statements for their representative farm and are asked to verify the accuracy of simulated results for the past year and the reasonableness of a five-year projection. Each panel must approve the model's ability to reasonably reflect the economic activity on their representative farm prior to using the farm for policy analysis.

California rice producers were first included in the representative farm database in 1991 when the first two representative farms were developed, working with moderate-sized and large-sized farms in and around Yuba City. Later, the California representative rice farm set was expanded to include two groups of farmers from Colusa and Butte Counties. Characteristics for each of the operations in terms of location, size, crop mix, assets, and average receipts are summarized in Appendix A.

The economic impact of the rice industry on the State of California was developed using IMPLAN version 5. IMPLAN is an input/output model that traces the economic contributions of an industry's production costs and receipts on 546 other industries in the state's economy. By summing the contributions of the rice industry to all other U.S. industries, one can estimate the

impacts of the rice industry on the state's economy. IMPLAN uses data from the latest (2019) Survey of Manufacturers to develop the necessary multipliers for the 546 industries at the state level. For this study, we coupled the state multipliers in IMPLAN with the estimated 2020 economic activity for the California rice industry. The estimate was derived calculating weighted average gross receipts per acre for the four California representative farms for 2018 and 2019 and multiplying by the 2020 planted acres to develop an estimate of gross receipts for rice in California. This number was then reduced for each of the phased reductions in rice acres. Note, the average receipts from 2018 and 2019 were used to represent normal years prior to the COVID-19 pandemic.

Definitions for IMPLAN Economic Contribution Categories

<u>Output</u> is a measure of the value of goods and services produced in the State as a result of the increased demand created by expenditures by rice farms. Output is measured by purchases of all intermediate production inputs and value added.

<u>Value Added</u> is the same as Gross Domestic Product (GDP) which is a measure of the state's added economic activity due to rice farming. The extra economic activity measured by Value Added helps to sustain overall community activity and main street spending for local communities. Value Added is composed of wages and salaries paid to workers employed by businesses stimulated by rice farming and milling expenditures, plus profits to business owners supporting the rice industry and businesses supplying products to rice employees, returns to investors as rents and dividends, and the indirect tax payments associated with industrial production.

<u>Number of Jobs</u> is the number of all wage and salary employees as well as self-employed jobs resulting from total expenditures by rice farmers and mills. The number of jobs does not accumulate, because it is an annual measure.

Results and Further Considerations

The net economic contribution of rice farming on the California state economy is summarized in Table 1. The total output effect of the rice industry on the California economy at full production is \$1.7 billion annually under the base year (2020). The total number of jobs supported by rice farmers was 6,669.

The impact of 35,000 fewer acres planted due to water availability would see a decline of \$115.1 million in economic activity in the California economy as well as a loss of 451 jobs. Table 1 provides subsequent estimates as well as losses relative to 2020 for acreage reductions up to 105,000 acres in 10,000-acre increments beyond the 35,000 acres mentioned previously. At the extreme, the impact of losing 105,000 acres of rice on the state's economy would be a loss of \$345 million and 1,354 jobs annually.

Table 1. Economic Contributions of California Rice Production for 2020 and Phased Reductions in Planted Acres.

			PHASED REDUCTIONS							
		2020	-35,000	-45,000	-55,000	-65,000	-75,000	-85,000	-95,000	-105,000
CA Acres		517,000	482,000	472,000	462,000	452,000	442,000	432,000	422,000	412,000
Est. Value	of Production	\$ 897,839,379	\$ 837,057,216	\$ 819,690,884	\$ 802,324,552	\$ 784,958,220	\$ 767,591,887	\$ 750,225,555	\$ 732,859,223	\$ 715,492,890
Multipliers										
Direct	1.00	897,839,379	837,057,216	819,690,884	802,324,551	784,958,219	767,591,887	750,225,555	732,859,222	715,492,890
Indirect	0.48	427,064,743	398,153,203	389,892,763	381,632,324	373,371,884	365,111,444	356,851,004	348,590,564	340,330,124
Induced	0.42	375,463,761	350,045,518	342,783,163	335,520,808	328,258,453	320,996,097	313,733,742	306,471,387	299,209,032
Total	1.89	1,700,367,883	1,585,255,937	1,552,366,810	1,519,477,683	1,486,588,555	1,453,699,428	1,420,810,301	1,387,921,173	1,355,032,046
Jobs										
Direct	2.00	1,794	1,672	1,638	1,603	1,568	1,533	1,499	1,464	1,429
Indirect	3.16	2,838	2,646	2,591	2,536	2,481	2,426	2,372	2,317	2,262
Induced	2.27	2,037	1,899	1,860	1,821	1,781	1,742	1,702	1,663	1,624
Total	7.43	6,669	6,218	6,089	5,960	5,831	5,702	5,573	5,444	5,315
Losses Relative to 2020										
Total Economic Output		\$ 115,111,946	\$ 148,001,073	\$ 180,890,200	\$ 213,779,328	\$ 246,668,455	\$ 279,557,582	\$ 312,446,710	\$ 345,335,837	
Total Jobs		451	580	709	838	967	1,096	1,225	1,354	

While there will be reduced economic activity due to fewer acres farmed, there will also be a substantial decline in economic activity resulting from less rice being milled in California. In a 2010 report on the rice industry, Richardson and Outlaw found that the value added from California rice millers in the Sacramento Valley contributed about \$2.1 billion to the state's economy.

Experiences from other rice producing areas indicates that when local rice infrastructure is idled due to water supply interruptions, some never return. Texas lost rice mills during the 1990s and 2000s when several canal systems went out of business, and the affected acres never returned to rice production. More recently a two-year interruption in the supply of irrigation water from the Lower Colorado River had a significant detrimental impact on the rice infrastructure of Texas' major rice producing area near Houston.

And finally, rice farms and farms in general are only profitable when prices are good and farmers are able to fully utilize all of their resources. When a rice farmer idles acres due to reduced water availability, they are no longer fully utilizing all of their tractors and combines which means they are not efficiently utilizing all of their business assets.

References

Richardson, J. W. and J. L. Outlaw. *Economic Contributions of the US Rice Industry to the US Economy*, Agricultural and Food Policy Center, Texas A&M University, AFPC Research Report 10-3, August 2010.

Appendix A

2020 Characteristics of California Rice Farms

CAR1200	CAR1200 is a 1,200-acre moderate-sized rice farm in the Sacramento Valley of				
	California (Sutter and Yuba Counties) that plants 1,200 acres of rice annually.				
	This farm generated 98 percent of 2020 gross receipts from rice sales.				

CAR3000 This is a 3,000-acre rice farm located in the Sacramento Valley of California (Sutter and Yuba Counties) that is large-sized for the region. CAR3000 plants 3,000 acres of rice annually. In 2020, all receipts were generated from rice sales.

CABR1000 The Sacramento Valley (Butte County) is home to CABR1000, a 1,000-acre rice farm. CABR1000 harvests 1,000 acres of rice annually, generating 98 percent of 2020 farm receipts from rice sales.

CACR800 is an 800-acre rice farm located in the Sacramento Valley of California (Colusa County). This farm harvests 800 acres of rice each year. During 2020, 98 percent of farm receipts were realized from rice sales.

Appendix Table A1. Characteristics of Panel Farms Producing Rice in California.

	CAR1200	CAR3000	CABR1000	CACR800
County	Sutter	Sutter	Butte	Colusa
Total Cropland	1,200.00	3,000.00	1,000.00	800.00
Acres Owned	275.00	900.00	400.00	240.00
Acres Leased	925.00	2,100.00	600.00	560.00
Assets (\$1000)				
Total	3,948.00	14,445.00	6,168.00	4,513.00
Real Estate	2,662.00	11,159.00	4,274.00	4,197.00
Machinery	871.00	3,016.00	1,664.00	316.00
Other & Livestock	415.00	270.00	231.00	0.00
Debt/Asset Ratios				
Total	0.13	0.19	0.19	0.20
Intermediate	0.07	0.22	0.23	0.05
Long Run	0.17	0.17	0.18	0.18
2020 Gross Receipts (\$1,	000)*			
Total	1,753.10	4,870.70	1,558.90	1,238.10
Rice	1,722.30	4,835.00	1,533.50	1,218.40
	0.98	0.99	0.98	0.98
Other	30.70	35.70	25.40	19.70
	0.02	0.01	0.02	0.02
2020 Planted Acres**				
Total	1,200.00	3,000.00	1,000.00	800.00
Rice	1,200.00	3,000.00	1,000.00	800.00
	1.00	1.00	1.00	1.00

^{*}Receipts for 2020 are included to indicate the relative importance of each enterprise to the farm. Percents indicate the percentage of the total receipts accounted for by the livestock categories and the crops.

^{**}Acreages for 2020 are included to indicate the relative importance of each enterprise to the farm. Total planted acreage may exceed total cropland available due to double cropping. Percents indicate the percentage of total planted acreage accounted for by the crop.

Impacts on Waterbirds and other Wildlife Populations from Phased Reductions in Rice Acreage Due to Water Availability

Mark Petrie, Ph.D.

Ducks Unlimited, Inc.

Western Regional Office

Paul Buttner

California Rice Commission

Impacts on Waterbirds and other Wildlife Populations from Phased Reductions in Rice Acreage Due to Water Availability

Introduction

Although the Central Valley of California has lost over 90% of its historic wetlands, it continues to support the highest density of wintering waterfowl in the world as well as many other wetland dependent species. It does so because of rice. Some of the Central Valley's original wetlands were eventually used to grow rice, and it is a fortunate coincidence that rice and wetlands provide many of the same wildlife benefits. The cost of replacing the wetland functions now provided by rice with newly restored wetlands is estimated at over 3 billion dollars. Moreover, rice farmers bare all the annual costs of managing these wetland surrogates at great cost savings to the public.

Rice is Critical Waterbird Habitat

Each year over five million ducks and two million geese call the Central Valley their home. Most of the management focus in the Central Valley is on ducks as goose populations have reached record levels. In contrast, some duck species like Northern Pintails have significantly declined. Harvested rice fields that are flooded in the winter season for straw decomposition ("winterflooded rice") provide an estimated 52% of all duck food in the Central Valley. Private and publicly managed wetlands provide almost all the rest.

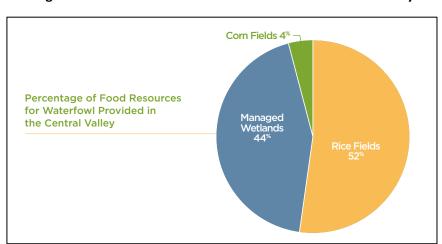


Figure 1: Waterfowl Food Resources in the Sacramento Valley

Rice Water Cuts = Wildlife Population Cuts

Waterfowl Population Impacts

Because reductions in water availability result in fewer acres of planted rice it is important to understand the effects of this reduction on duck food supplies and habitat. In recent years the amount of planted rice in the Central Valley has averaged about 540,000 acres per year. Approximately 63% of this rice, or about 340,000 acres, is currently winter-flooded. Thus, for every 1,000-acre decline in planted rice there is a corresponding reduction in winter-flooded rice of about 630 acres. If we scale-up this decline in planted rice to 100,000 acres, for example, we can predict a 63,000-acre reduction in winter-flooded rice. This 63,000 acres represents nearly 20% of normal levels of winter-flooded rice in recent years not impacted by drought. Since we know that winter-flooded rice provides about half of all duck foods in the Central Valley, then the loss of these 63,000 acres of winter-flooded rice represent a 10% loss in total duck food supplies. In terms of duck numbers, this 100,000-acre decline in planted rice equates to over 500,000 fewer ducks in the Valley or about 50,000 fewer ducks for every 10,000 acres lost. This relationship is captured in Figure 2.

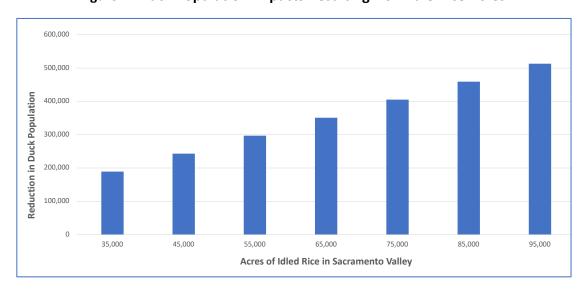


Figure 2: Duck Population Impacts Resulting from Idle Rice Acres

Finally, water supply effects on ducks are not confined to just the Central Valley. The majority of the ducks that winter in the Central Valley pass through the Klamath Basin each fall. Historically, most of these birds have relied on the Tule Lake and Lower Klamath National Wildlife Refuge which are, by far, the most important waterfowl habitats in the Klamath Basin. Unfortunately, both of these refuges have been experiencing severe water shortages in recent years. This accelerates waterfowl migration into the Central Valley as most birds are forced to overfly the Klamath Basin. This results in even more reliance by waterfowl on the food sources in the Sacramento Valley to accommodate this early influx of birds.

Shorebird and Wading Bird Habitat Impacts

The Central Valley hosts over 375,000 shorebirds annually and the ricelands of the Sacramento Valley play a key role in providing habitat for many of those shorebirds. Birds breeding in rice fields and/or relying on flooded rice fields for food may be forced to look elsewhere if habitat in the Sacramento Valley is limited.

Rice production is important breeding habitat for Blacknecked Stilts, Black Terns, and American Avocets. For
example, Sacramento Valley rice fields host about 74%
of the Black-necked Stilts breeding in the Central
Valley, and about 46% of breeding pairs of Black Terns
in all of California. These flooded fields in summer also
provide food resources for other locally-breeding
waterbirds such as herons, egrets, and American Bitterns.

In 2003, action was taken to designate the ricelands and wetlands of the Sacramento Valley as a Shorebird Site of International Significance within the Western Hemisphere Shorebird Reserve Network (WHSRN.org), forever shining the spotlight on this region as being essential for shorebirds at the hemispheric level.

Giant Garter Snake Habitat Impacts

The Sacramento Valley rice industry is home to a very interesting federally-listed species called the Giant Garter Snake (*Thamnophis gigas*). It is currently listed as *Threatened* under the Endangered Species Act. This species is now so reliant upon rice cultivation—called a "conservation-reliant species", meaning that it requires perpetual management by humans to persist. The essential perpetual management is basically the continued operations of rice cultivation inclusive of both the rice fields themselves and the network of irrigation canals required to successfully grow rice. Adequate supplies of water moving through these systems are an essential ingredient for the giant garter snakes, and many other wetland-dependent



species of wildlife.

Historically, giant garter snakes were spread throughout the Central Valley's rich mosaic of wetlands. However, with the loss of over 90% of those wetland habitats, the species has been completely extirpated from this historic range in the southern Central Valley and now are largely found in and around California rice fields of the Sacramento Valley. A recent March 2019 scientific

journal article, published in Global Ecology and Conservation, cites the critical role rice plays for this species:

"Given the dominance of rice agriculture in the Sacramento Valley, it is difficult to imagine any contemporary land use compatible with giant garter snake ecology that would approach the overall value of rice agriculture to giant garter snakes."

While the technical modeling tools to estimate the exact giant garter snake population impacts from reducing rice cultivation acreage for the purpose diverting water resources from the Sacramento Valley have not yet been developed, it has been scientifically documented that giant garter snake mortality is the lowest for snakes with the most rice cultivation in and around their home ranges. Therefore, it is safe to say that fewer cultivated rice acres caused by

cutting water deliveries currently used to support normal levels of rice cultivation would certainly result in giant garter snake population decreases.

<u>References</u>

Central Valley Joint Venture. 2020. Central Valley Joint Venture 2020 Implementation Plan. Sacramento, CA: U.S. Fish and Wildlife Service. Available from: www.centralvalleyjointventure.org

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February 16, 2017



The Honorable Jerry Brown State Capitol, Suite 1173 Sacramento, CA 95814

Re: Concerns with SWRCB Flow Proposals

Dear Governor Brown:



The undersigned counties throughout the Sacramento Valley are very concerned with the recent scientific basis report (Phase II) prepared by the State Water Resources Control Board as part of its Water Quality Control Plan update. We support a healthy Delta, but the approach proposed by the State Water Board will redirect impacts upstream into the Sacramento Valley and will likely fail to achieve its goal of protecting Delta water quality.



The State Water Board proposal calls for a 35-75 percent unimpaired flow into the Delta. The result would redirect significant amounts of water away from the Sacramento Valley into the Delta. The simplistic approach would go beyond what is needed for environmental needs and would result in a substantial amount of water being put out to the ocean without any benefit. This in turn would be devastating to both the economy and the environment in the counties we represent, adversely affecting the availability of critical water for cities and rural communities, farms, wildlife refuges for birds and many other species, salmon and other fisheries and recreation.



More specifically, the "unimpaired flow" approach will have two significant effects in our region:



1) Evacuate critical water in storage and prevent the diversion of water throughout our region, which will significantly affect precious water supplies for all these purposes. This is particularly true in dry years like we have seen this decade, where water available in storage is critical to helping Californians get through these challenging times. In other words, we will go backward under the State Water Board approach—not forward—in our efforts to better prepare for the next drought in California.



2) Less surface water available will lead to significant additional groundwater pumping throughout the region, which will make our efforts to implement sustainable groundwater management envisioned under the Sustainable Groundwater Management Act (SGMA) more difficult. In our region, the groundwater resources are currently sustainable and we will continue to work hard with other local agencies to assure that our precious groundwater resources remain sustainable into the future. The State Water Board proposal will make our collective efforts to achieve groundwater sustainability more difficult if not impossible.



Governor Brown Concern with SWRCB Flow Proposals Page 2 of 3



In sum, we encourage your administration to abandon the flawed "unimpaired flow" approach. Instead, we recommend that you pursue an integrated approach such as "functional flows," where water is used for a specific environmental purpose that is compatible with important flood protection and other water uses in the region. We believe that this 21st century approach to water management will better serve the Sacramento Valley and more effectively protect Delta water quality. We encourage your administration to embrace an approach that achieves your water quality goals for the Delta without redirecting impacts to the Sacramento Valley.

Sincerely, 14 March 2017 BILL CONNELLY, CHAIR Butte County Board of Supervisors Colusa County Board of Supervisors KEITH CORUM, CHAIRMAN Date Glenn County Board of Supervisors JENNIFER MONTGOMERY, CHAIR Placer County Board of Supervisors February 10, 2017
Date DON NOTTOLI, CHAIR

Sacramento County Board of Supervisors

Date

David A, Kehoe, Chairman
Shasta County Board of Supervisors

Jim White County Board of Supervisors

Dennis Garton, Chairman
Tehama County Board of Supervisors

Part Dennis Garton, Chairman
Tehama County Board of Supervisors

Randy Fletcher, Chair
Yuba County Board of Supervisors

/ldr

cc: Nancy McFadden, Executive Secretary – Governor Brown
Karla Nemeth, Deputy Secretary for Water Policy – CA Natural Resources Agency
Felicia Marcus, Chair – State Water Resources Control Board
Bruce Babbitt, Special Advisor – CA Natural Resources Agency

BLOG



The Next Big Thing – The Rice Footprint

California Rice Commission, December 4, 2023

When we meet with legislators and regulators we talk about the Pacific Flyway, salmon and the hundreds of species of wildlife that use rice. We also focus on the rural communities in the Sacramento Valley that are so closely tied to our industry. Everyone gets it. They understand that our rice fields are so much more than the sushi rice they produce.

What is harder, is when we are asked how much rice we need in California to support all these benefits. That is where the Rice Footprint comes in.

The Rice Footprint, an idea born in our strategic planning, is a comprehensive effort to answer that question – how many acres of rice and where, to continue to provide all the needed habitat for the Pacific Flyway, rearing and food resources for juvenile salmon



and support our rural communities. Further, what types of programs are needed to support rice farmers and mills?

Here are some of the key elements of the work over the next 5 years:

Rice Footprint Report – we are working with UC Davis to develop a report that quantifies the habitat and economic benefits of rice. The first edition of the report will set the framework for how many acres of rice are needed in the state of California, as we look at increasing pressure from drought and increased demand for water resources. Later work will identify geographic habitat needs by species and our local economies.

Voluntary Conservation Easements and Leases – we are pursuing funding for permanent easements offered through groups including Ducks Unlimited and the California Waterfowl Association. We are also working to develop shorter term programs like 10-25 year habitat leases that offer greater flexibility. The idea is that rice on the landscape is critical, and we need voluntary tools for growers to secure those acres.

Conservation Programs – we are working to grow existing and develop new well–funded programs growers can participate in to enhance habitat for waterbirds, salmon, giant garter snakes and many other species closely tied to ricelands.

Habitat Designations – we are exploring the potential of habitat designations for critical species associated with rice.

Grants – in February, we will hire a grant manager to double our annual grant funding to \$10M-\$12M annually.

Ultimately it is our objective to achieve a consensus that it shall be the policy of the State of California that no fewer rice acres than identified in the rice footprint be maintained. Combined with the effort of many water districts and conservation groups under the NCWA Floodplain Forward work, this effort will provide a powerful tool to not only make the case for water designated for rice and associated habitat, but also further connect us with the broader environmental values of the state.

As we start these conversations, the many, many responses from conservation organizations, elected officials and regulators lead us to believe that this will be the next big thing for California rice.