**Waterfowl Season 2019-2020**  
**Balance of State Zone**

**Ducks:**  
October 19, 2019-January 31, 2020: 7 ducks in daily bag — 7 Mallards (2 hens), 1 Pintail, 2 Redheads, 2 Canvasback, 3 Scaup (only November 7-January 31)  
Possession: Triple the daily bag limit.

**Geese:**  
October 19, 2019-January 26, 2020: 30 geese in daily bag — 20 white geese or 10 dark geese (small Canada, large Canada, and white-fronted geese)  
Possession: Triple the daily bag limit.

**Early Canada Goose Season:**  
Daily Bag is 10 large Canada geese.

**Late White-fronted and White Goose: Season:** February 8-12, 2020. Daily bag is 20 white and 10 white-fronted geese.

**Changes from 2018-2019 season:**  
Decreased Northern Pintail to 1 per day.  
Extra 5 days added at end of the season through January 31, 2020 (ducks only).  
Junior Hunt set for February 8-9, 2020.

This is a summary of the general regulations for the Balance of State zone. Please see special management zone regulations for any specific area you may be hunting.

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**The Importance of Disking**  
Orlando Rocha, Grizzly Island Wildlife Area

The Suisun Marsh is a brackish water wetland system. During drought years, water salinities can be high and fairly detrimental to moist soil management. There are several management activities that are used in Suisun Marsh to try and produce the most productive habitat possible. One of the first steps often recommended is to have good water control (being able to flood effectively and drain as quickly as possible is a key factor in having productive habitat).

Water salinity is at its worst in the fall when most clubs flood for duck season, but 2019 has been a good water year, so salt loading into the soil has not been as much a problem as previous years. Knowing this, managers should take advantage of improved water salinity through the winter months by circulating ponds at the highest rate possible through the duck season. When duck season is over and the spring time approaches, water salinities improve greatly and provide the best water the Marsh receives during the year. This is the time to complete leach cycles which help to pull soil salts out of the soil. By doing this, landowners will be able to grow high productivity wetland plants like Alkali Bulrush, Fat-Hen, Lamb’s Quarter, Swamp Timothy, Watergrass and Japanese Millet.

Disking can make a large difference in plant growth.

(Disking Continued on page 7)
US Army Corps of Engineers Actual Work Reports Due

As Suisun Marsh temperatures cool and managers start to flood their ponds, we transition from the work season to the start of the waterfowl season. The managed wetlands maintenance work is being completed, and all the work we have done through the spring and the summer is finally coming to an end. Suisun RCD has a multitude of compliance reports that are due by the end of the calendar year. Landowners who have conducted and worked under the Suisun Marsh RGP #3 maintenance permit or LOP Dredging permit are required to report completed and not completed work for the 2019 season. The deadline for Suisun Marsh Landowners to report to their Water Manager is Friday November 15th. The Water Managers prepare these reports for the regulatory agencies to close out the work season. Please contact your Water Manager to discuss what has been completed on your property.

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Preservation Agreement Implementation Fund Update

Work under the 2019 Preservation Act Implementation (PAI) grant program is ongoing, and the program will continue next year. In 2019, Suisun Marsh Landowners completed 30 projects on managed wetland properties with PAI reimbursement of $592,000.

If you have not yet upgraded your water control infrastructure to HDPE pipes and stainless-steel gates, the PAI program remains a good option for cost-sharing. Other qualifying projects (pond bottom grading, ditch cleaning, joint-use levees, etc.) may take more organization and planning to develop and submit a good application. If you have a project in mind, contact your Water Manager during duck season to discuss possible 2020 project applications. Landowners compiling applications during waterfowl season will be considered under the first round of 2020 reviews and approvals.

The Water Managers will assist you to help ensure that your project has the best chance of approval. Early submittals also allow landowners to inform potential contractors (which need to bid on the projects for a viable proposal) to include projects on their schedules. Submitting early PAI applications will allow materials to be ordered in advance and provide the time for the project to be completed in the upcoming work season.
Singing the Tumbleweed Blues
By: John Takekawa, SRCD

Victorville is a southern California city of 120,000 not widely known for its tourist attractions, but lately, it has become the capital of tumbleweeds (Figure 1). Tumbleweeds, long associated with western movie landscapes, also are known as the Prickly Russian Thistle or Russian Thistle (Salsola spp.). Russian Thistle is a saline-tolerant invasive species native to Central Asia, but after introduction to South Dakota in 1873, it is now found in every state.

It grows into a spherical shape and can grow up to 3 feet tall and 6 feet in diameter (Figure 2), spreading its seed by breaking free at the base in the late summer and tumbling with the wind. Its seeds are not persistent and typically survive for less than two years unless they germinate.

Russian Thistles readily hybridize, and the most common types are S. tragus, S. australis, and their hybrid, S. ryanii. The plant has many-branched stems and prickly spines when mature with a taproot over 6 feet deep. It has begun to show up in areas of Suisun Marsh with infestations reported in Montezuma Wetlands and Mein’s Landing (#631). It grows well in arid regions on disturbed sites and was grown for hay production during the Dustbowl of the 1930s.

To control this invasive plant, preemergent herbicide may be applied in late winter to early spring, while post-emergent systemics may be effective for plants prior to flowering. Both 2,4-D and dicamba are selective herbicides that may be effective, while the plant may have resistance to chemicals such as glyphosate.

Hand pulling is effective for small areas, but mowing is not very effective and may spread the infestation. Similarly, fire is not effective, but tillage may be effective if repeated until the seed bank is depleted. Plants may be readily outcompeted, so rapidly establishing other preferred plants will be beneficial in controlling its spread.

Figure 1. Tumbleweeds in Victorville, CA in April 2018.

Figure 2. A live Russian thistle (Salsola tragus).

Figure 3. Russian Thistle lining the banks of a managed wetland ditch.
Western Pond Turtle Research in Suisun Marsh
By Melissa Riley, CDFW

Since 2017, researchers from UC Davis and the Department of Fish and Wildlife have been monitoring Western Pond Turtles (*Actinemys marmorata*) in Suisun Marsh. Western Pond Turtles are a species of special concern in California and are one of the only remaining native turtles in the state. Populations of Western Pond Turtles are declining in parts of their range due to habitat loss and competition from non-native turtles but seem to be thriving in Suisun. Monthly trapping occurs from March to September each year, and so far nearly 400 individuals have been marked. Hoopnet traps baited with sardines are used to capture turtles at several sites including the Hill Slough Wildlife Area, Rush Ranch, and Grizzly Island Wildlife Area.

Another objective of the Western Pond Turtle project is to learn about habitat use and how that will change with tidal restoration. Western Pond Turtles rely on both terrestrial and aquatic environments, so it is especially important to understand how they use both types of habitat. This part of the project is focused at Hill Slough, where 580 acres of managed marsh will be converted to tidal. Seven turtles at Hill Slough have been equipped with GPS/GSM transmitters (similar to those used on waterfowl, see photo).

These transmitters collect turtle location information every two hours and upload the data through cell phone towers. Most of the turtles with transmitters have stayed within a kilometer of their initial trapping location. However, a few turtles have moved to other areas. One female moved to an upland field for nearly two months in order to nest, and a male turtle moved into the tidal slough and travelled up McCoy Creek before returning to the pond where he was initially trapped (see map). The goal of tracking the turtles is to learn where they bask, nest, and overwinter before the restoration project and to see how they change their behaviors afterwards.

The impacts of tidal restoration on Western Pond Turtles are unknown, but information from this trapping and tracking project will help answer questions about how the turtles will respond. In addition, this project will inform the future management and conservation of Western Pond Turtles in Suisun Marsh and ensure that populations continue to thrive in the future.
Twenty years of SRCD Ownership at Lower Joice Island
By: John Takekawa and Steve Chappell, SRCD

Established as a duck club in the 1890s, the 1311-acre Lower Joice Island is located on the southwest side of Suisun Marsh adjacent to Grizzly Bay between the mouths of Montezuma and Suisun Sloughs. It has had a long history of waterfowl hunting centered around a 10-bedroom clubhouse that was re-built in 1906 (Fig. 1). The club has had many distinguished members through the years such as Ernest Folgers, Dean Witter, Edward Gillette, Jr., Reuben Hills, Jim Bancroft, and Wynne Herron who established a tradition of proper etiquette and decorum for the club (Fig. 3).

Through contributions from the former landowners led by Mr. James Bancroft and funds from four grants, the property was donated to SRCD on July 1, 2000. During the dedication of the Dean Witter-Harvey Sorensen Marshlands in 2000, Mr. Bancroft stated “The goal of this project is to preserve Lower Joice Island (LJI) in perpetuity as a prime waterfowl heritage area and to enhance its productivity for the benefit of all marsh wildlife, whether migratory or permanent.”

The property comprises of 6.6 miles of exterior levees, 9 exterior and 5 interior water control structures, and a 239-acre conservation area (part of the mitigation for tidal wetlands within the Suisun Marsh Plan) that is only accessible by boat. Thus, conducting regular maintenance and completing improvements while ensuring security at a remote location has been logistically and financially challenging. This has been done without having any expenses covered by SRCD operations through contributions to endowments managed by the Suisun Conservation Fund.

This year, SRCD is observing the 20th anniversary of owning Lower Joice Island, celebrating the work that has been accomplished in keeping this historic property functioning smoothly. While SRCD has been successful in its ownership role, operational costs are becoming unsustainable over the long run with available funding, and the SRCD Board of Directors are beginning to review alternatives for the best management options over the next 20 years. Initial goals for the property included supporting hunting traditions (Fig. 4), conducting scientific research, fostering education, testing management techniques, and training staff while improving the facilities and habitats.

Fig. 1. Lower Joice Island in the 1950s and 1960s (credit: D. Covello).

Fig. 2. Hunting traditions on Lower Joice Island (credit: D. Covello).

Fig. 3. Hunting etiquette at Lower Joice Island. Note use of pintail and canvasback decoys, although canvasbacks are rarely seen there now.
Summer Banding in Suisun Marsh
Jeff Kohl, Brock Riggs, and Jacob Chappell, USGS Western Ecological Research Center

Bird bands have been used to affix and carry messages for humans since ancient times. Birds banded in North America as a means of scientific study started in the early 1900s, and one of the first birds to have a metal band put on its leg was a duck. The first Mallard was banded in 1909, and duck banding has been an integral part of waterfowl research and management ever since. Waterfowl hunting provides a unique opportunity to recover bands, and this information allows researchers to estimate mortality rate, determine the source and distribution of harvest, as well as estimate overall populations of waterfowl species. This information is critical to successful waterfowl management across North America, but it also applies to locally specific bird movements.

USGS has been banding ducks in Suisun Marsh since the spring of 2015, and more than 4,341 ducks had been banded by early September.

A few take-aways:
• 484 of 4,341 (11%) bands deployed have been recovered
• Birds banded in Suisun Marsh are recovered across all western states and into Canada.
• Mallards are the top breeding waterfowl species banded in Suisun Marsh.

The better water year in 2018-2019 meant that there was more summer water in the marsh which seemed to benefit recruitment. USGS banded close to double the amount of juvenile mallards in 2019 than in 2018.

What can Duck Clubs do?
Increased summer water that persists into mid to late July can improve annual juvenile mallard production.
• Suisun waterfowl hunters will benefit most from the increase of production as well as other California hunters
• Suisun is unique in that it offers wintering habitats as well as breeding habitats
• Managers need to balance maximizing local duck production and providing quality habitats for winter migrants

My Experience Summer Banding in Suisun Marsh
Brock Riggs, USGS Summer Banding Technician

This past summer was an unbelievable experience for me, getting the opportunity to spend five days a week in the Suisun Marsh. I learned the different units of Grizzly Island Wildlife Area and had the opportunity to meet landowners both on and off Grizzly Island. Interacting with those who want to help the conservation of waterfowl was invaluable experience that I will carry with me forever. It is uplifting, knowing that there are so many who want to help in any way they can. This summer, our team banded over 1,500 birds on and around Grizzly Island. This wouldn’t have been possible without the help of everyone on the USGS banding crew: Jeff Kohl, Desmond Mackell, Mike Casazza and Steve Chappell at SRCD. I’m grateful for the opportunity to be a part of the banding this summer, and for the support I received from so many, allowing me to gain this experience. I expect the lessons I learned to stay with me throughout the rest of my education and my career.
One common plant of the managed wetlands that is very salt tolerant and prevalent is Common Pickleweed. Pickleweed is valuable for several wildlife species and has an especially important role late in the season as waterfowl habitat. It can be a very robust plant that provides a dense “woody” structure for invertebrates which are an important food source high in protein for waterfowl as they prepare for their northward migration. While there is a benefit of having Pickleweed in your ponds, if left unmanaged, it can become less and less productive. Salt Grass is another plant that left unchecked can create large mats that will act like a barrier, out-competing desirable plants.

One of the basic principles of wildlife management is that a mosaic of habitat types is necessary to provide the best habitat. A highly productive pond will have a mix of early succession plants; this is accomplished easily by selective discing within your pond. Discing sets succession back and allows the ground to be opened back up for new growth. In the picture (below) taken at California Waterfowl’s property (Grizzly Ranch #520) earlier this year, the results of discing last fall shows a drastic change from Pickleweed dominant to a mix of Swamp Timothy, Sea Purslane, Alkali Bulrush, Rabbitsfoot, Pickleweed, and other plants. Discing opens up the ground and allows these highly productive plants to reestablish. There is a large seed bank present at all times in the soil, but plants have specific requirements in order to grow. Plants like Brass Button, Sea Purslane, Alkali Bulrush, Fat-Hen, Lamb’s Quarter, Swamp Timothy, Watergrass and Japanese Millet will not grow unless they have access to open ground. This is why it is recommended that a club disc some portion of their club every year. Doing this in a rotational pattern will keep you from discing the same area and keep early succession plants producing excellent waterfowl food. For more information or help identifying what areas to disc, please contact your Water Manager at 707-426-2431.

Results of discing at Grizzly Ranch. Left side of photo: plants dominated by pickleweed combined with alkali bulrush. Right side of photo — area disced in 2012 has a wider diversity plants with more waterfowl seed plants including sea purslane, swamp timothy, bulrush, rabbitsfoot grass, and pickleweed.
The Suisun Resource Conservation District will conduct gate monitoring for the fall run of Chinook Salmon starting on November 1, 2019 through January 25, 2019. During this restriction period, intake gates along the designated sloughs (indicated in pink on adjacent map) may only be opened to 25% capacity. SRCD staff will be inspecting all intake diversions along these areas at various times during the winter months. Below is a conversion table for varying sizes of intake gates.

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<th>Diameter of Pipe</th>
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<td>12 inches</td>
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<td>36 inches</td>
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<td>48 inches</td>
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Should an intake be found out of compliance, SRCD is required to report to the appropriate agencies and the landowner will be contacted and asked to reduce their intake immediately.