Suisun Resource Conservation District

Land of the West Wind

October 2024 Volume 24 Issue IV

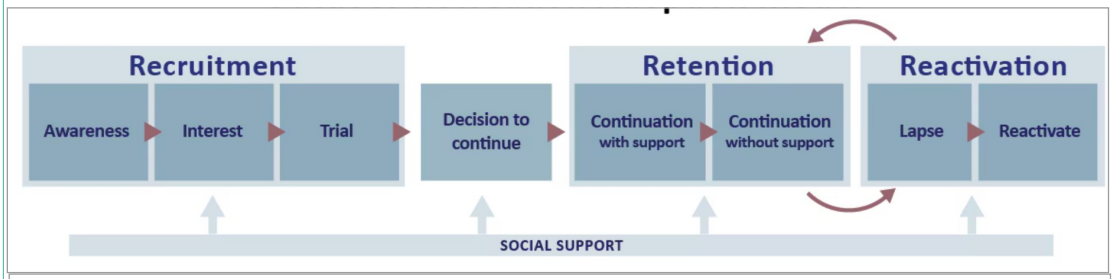
R3: Recruitment, Retention and Reactivation

—Free Hunting Days—

As a way to promote more hunting opportunities, California Department of Fish and Wildlife (CDFW) has adopted Free Hunting Days where public members can try different sporting activities without investing in yearlong licenses. The "Free Hunt Days" is part of a national movement among the conservation community that is focused on increasing participation in hunting, angling, target shooting, trapping and other outdoor recreations. It is intended to introduce new people to the outdoor lifestyle. For the 2024-25 season, the 2 free hunt days are on **Saturday, November 23, 2024** and **Saturday April 12, 2025**. To participate in the Free Hunting Days, participants are still expected meet certain requirements like proof of completion of a hunter education course, possession of a valid Free Hunt Days Registration and any required tags, report cards, federal entitlements, and entry permits. For example, to hunt waterfowl on the Free Hunting Days, the participants must still possess the Free Hunt Day Registration, Federal Duck Stamp, HIP validation (no fee) and any required entry permits. For information, please see this link: https://wildlife.ca.gov/Licensing/Hunting/Free-Hunting-Days.

The national movement that created and adopted the Free Hunting Days is part of CDFW's program called the Recruitment, Retention and Reactivation (R3) of hunters and anglers. All states have some type of program involving R3 and each strive to accomplish goals listed out in their National Hunting and Shooting Sports Action Plan. The goals listed is to improve marketing and outreach activities, create new electronic resources and increase the visibility of conservation projects while connecting project funding directly to hunting and fishing dollars.

To reach this objective, R3 programs depend heavily on the Outdoor Recreation Adoption Model (ORAM). ORAM is based on more than 50 years of research documenting why and how certain activities or ideas are adopted by people and cultures. The ORAM illustrates, in a linear fashion, the steps an individual moves through as they through as they learn about, try and then adopt a new activity or behavior and can be used to understand the difference recruitment, retention and reactivation.



The Outdoor Recreation Adoption Model (ORAM) and how each section is influenced by a social support network that encourages an individual's participation.

[*R3,* Cont. on Pg. 6]

Land of the West Wind

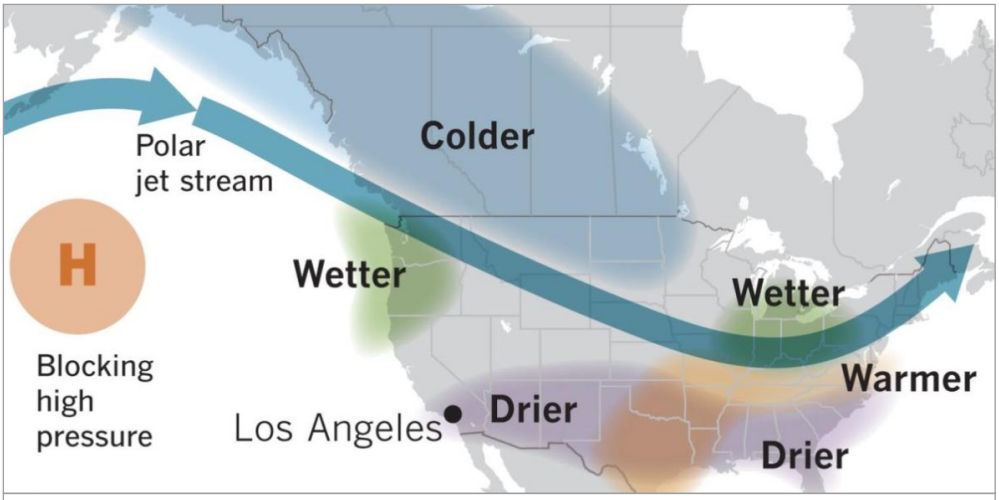
Quarterly Newsletter
Suisun Resource Conservation District
2544 Grizzly Island Road
Suisun, CA 94585

Main Office: (707) 425-9302
Water Manager Office: (707) 426-2431
E-mail: srcd@suisunrcd.org
Website: www.suisunrcd.org

SRCD's board meetings are the second Wednesday of each month at 2PM at the Solano County Supervisors Chambers: 675 Texas Street Fairfield, CA 94533

SRCD represents private landowners of the Suisun Marsh at the Federal, State, and local levels. It's historic goal has been to achieve a water supply of adequate quality so that preferred wetland habitat values will be retained through appropriate management practices. With cooperation from landowners and various agencies, SRCD develops new programs aimed at protecting and improving the Suisun Marsh for future generations.

The Weather Ahead



The image above illustrates La Niña movement across the Pacific Ocean and the difference area that will be influences by La Niña's weather patterns.

What an exciting time to be part of Suisun Marsh's hunting community. Landowners, club members and water managers alike have been on their toes, trying to keep up with California's extreme weather occurrences. The 3-year long drought from 2019 to 2022 included California's driest three years on record followed by the state's record wet winter from 2022-23 has left many of the state's climate scientists intrigued. In fact, many meteorologists and climate scientists agree that extreme weather events along the West Coast and particularly in Southern California are influenced by the drier component of the El Niño Southern Oscillation system known as La Niña. For a brief explanation, La Niña is part of the El Niño Southern Oscillation system or ENSO for short, which is the main driver of climate and weather patterns across the globe. La Niña can influence warmer global temperatures and has been linked to California's extraordinarily wet winter in 2022-23.

This year, it is predicted that as La Niña strengthens in the tropical Pacific, the climate pattern along California could bring drought conditions in Southern California in the months ahead. Forecasters are warning the southern west coast of a drier winter, especially given the number of wildfires already seen this year. It is less known how dry the northern west coast will be, but it could potentially see a wetter outcome than its southern neighbors.

However, in general, a La Niña year means a drier winter across the southern United States, and for California, that could lead to another year of drought. A meteorologist at the National Oceanic and Atmospheric Administration (NOAA) explained that "drought episodes do wane and redevelop, and a lot of that is associated with La Niña". It is likely that La Niña conditions will increase throughout the fall and persist through the winter, signaling a return to dryness for California in certain areas. There is 77% chance that 2024 will beat 2023 as the planet's warmest year on record, and 2025 year may be in the top 5 warmest years.

Furthermore, scientists at the Climate Prediction Center are expecting La Niña to begin to exert its influence this November. However, the strength of La Niña's influence is yet to be determined. It is important to note that the forecast also points to the continued dryness in California and below-normal precipitation.

— Water Quality Trade Offs —

Fresh Water Stimulates Invasive Plants

SRCD's water biologist, Jeff Taylor, standing on top of a fish screen for size comparison to a growing mat of the invasive Alligator Weed, *Alternanthera philoxeroides.*

The Suisun Marsh has been enjoying two consecutive years of above average rainfall leading to an increased use of the Department of Water Resource's Suisun Marsh Salinity Control Gates and resulting in some of the lowest, and longest durations of low salinity water. Long standing district employees and landowners alike have a difficult time recalling when water conditions have been this good for this long into the summer leading up to waterfowl season. This has increased the number of clubs holding water later into the summer months promoting the growth of beneficial waterfowl resources such as sago pondweed and wigeongrass which has been beneficial to duckling production and habitats across the Marsh.

Like most good things, there always seems to be the opposite opposing force that can cause headaches and other issues. With freshwater years and long hydroperiod water management comes the rise of freshwater floating invasive plants. This year, club managers and landowners have noticed an increase in floating invasive vegetation such as Water Primrose, Water Hyacinth, Alligator Weed which are exotic, and also Mosquito Fern (Azolla spp.) which is a native. These aquatic plants are generally bigger problems in Delta or the Central Valley where water conditions are fresh.

The typical brackish conditions of Suisun Marsh tend to keep invasive aquatic plants from establishing communities that can cause ditch blockages. However, with the consecutive years of freshness, the need to address these floating mats may become necessary. The typical problems that arise from these invasive aquatic plants are that they can prevent boats from navigating through the pond and impede flood up and water circulation. The floating mats can have serious ramifications if left unattended for too long. Large heavy vegetation will end up close to drainage structures and can cause blockage, restricting water flow and circulation across the ponds. They can reduce the ability to navigate ditches within the managed wetlands as well as navigable waterways of the Marsh. Large mats of invasives may foul propellers or plug up water pumps and cause damage.

Although floating vegetation may be a pain to deal with, there are some easy solutions. The most straightforward way to eliminate a floating mat of vegetation is to take away the one thing it absolutely needs — water. Draining an area will kill off any floating mats of vegetation with enough hot, dry days. This can be difficult in deep ditches or shared draining infrastructures with multiple properties. Physical removal of the large mats can be effective if the problem is addressed early enough. Chemical treatment of invasives may be considered with an approved aquatic herbicide. Increased salinity during the next drought will likely reduce or eliminate many of these problem plants.

Like most maintenance needs in the Marsh, the sooner a problem is addressed, the easier it can be to fix it. Proactive early management will is a key step towards effective control.

Alligator Weed
Alternanthera philoxeroides

Mosquito Fern
Azolla spp.

Water Hyacinth

Waterfowl Population Dynamics

State & Federal Results

By M. Guzman

The 2024 winning entry for the California Duck Stamp Art Contest. The mountain range in the background is the Sutter Buttes, and the artist is Cynthie Fisher of Hamilton, Montana.

Waterfowl hunting regulations are set at two levels: the U.S. Fish and Wildlife Service (USFWS) sets science-based frameworks based on waterfowl populations and other data with guidance from councils established in each flyway including our Pacific Flyway. Then, the California Fish & Game Commission sets regulations that fit within those frameworks.

Overall trends of the waterfowl populations are gathered by the USFWS who also annually reports on the continental population status of waterfowl. Their 2024 report was released in late summer. **Chart A** illustrated the results from this survey in 2023 and 2024. The survey recorded 34 million total breeding ducks in 2024 which was a 5% increase from 2023. The continental Mallard population was still below their long term average (LTA) by 16%, but there was an 8% increase in the overall population trend from last year. Gadwall, on the other hand, had an 11% decrease in population estimates from 2023 but an overall 11% increase from the long-term average.

Understanding trends in waterfowl populations, including local banding numbers and breeding success, can lead to insights about annual population conditions and objectives that clubs may consider to support local numbers. There isn't much that one individual can do to affect continental waterfowl population dynamics, but collectively, private clubs across Suisun Marsh can consider ways on how to support local waterfowl populations, bringing awareness of each species situation to their hunting communities.

Species	2024	2023	% change from LTA
Mallard	6.61	6.13	-16%
Gadwall	2.28	2.56	11%
America Wigeon	2.92	1.89	12%
Green- Winged Teal	3.01	2.50	38%
Blue- Winged Teal	4.60	5.25	-10%
Northern Shoveler	2.65	2.86	0%
Northern Pintail	1.98	2.22	-49%
Redhead	0.78	0.93	6%
Canvasback	0.57	0.62	-4%
Scaup	4.07	3.52	-17%
total ducks	33.988	32.305	-4%

Chart A lists the results from 2024 Waterfowl Population Status, published by the U.S. Fish and Wildlife Service. LTA means long term average.

Within the legal framework, clubs can decide to set their own more restrictive objectives on their properties regarding harvesting birds to reflect population dynamics occurring in California or Suisun Marsh. For example, some clubs may practice a 4-bird Mallard bag limit or support drakes only harvests. Selecting a 4- or 6-Mallard limit as a harvesting objective may be used by a club as mindful practice to reduce harvest of declining local breeding waterfowl populations. Considering local harvest objectives brings acknowledgment that certain species in certain years need extra support from local communities.

[*Waterfowl Population Dynamics,* Cont. on Pg. 5]

[*Waterfowl Population Dynamics* , Cont. from Pg. 5]

For example, California's top breeding waterfowl species are Mallard, Gadwall, and Cinnamon Teal (**Chart B**). The populations of Mallard and Gadwall have dramatically declined in recent years. In fact, the 2024 statewide Mallard estimate is the second lowest estimate since 1992. The drop in species populations like Mallards brings concerns over future bag limit restrictions.

Once restrictive federal limits arise, hunters — public and private alike — may have to wait multiple years before the restrictions are lifted. An example can be found with the Northern Pintail, where highly protective regulations limiting harvest to a single bird established in 1985 have only recently been proposed for change to 3 drakes in the 2025-2026 season. Many experienced hunters have witnessed the species decline and rise in their lifetime. Private clubs can stimulate discussions among their communities and practice mindful harvesting to support declining populations and reducing the risk of highly protective federal limits. This may be true for the Gadwall, as the species has dramatically declined in the last year and has a 39% decline in the long-term data of the species. Chart B shows Suisun Marsh's Gadwall population estimates and its comparisons with 2023 estimate and California's overall trend.

The California Department of Fish and Wildlife (CDFW) is constantly updating and using newer methods and equations to set hunting regulations that are best for managing state waterfowl populations. Among these efforts, CDFW annually releases the results of their "Breeding Population Survey." This survey helps to inform conservation and management agencies about trends in California populations. The results from CDFW's annual breeding population survey specific to the state in 2023 and 2024 are listed in **Chart C**.

Federal surveys are readily available online in annual population status reports (https://www.fws.gov/library/collections/waterfowl-population-status-reports), and state survey results are available at: https://wildlife.ca.gov/News/Archive/cdfw-completes-2024-waterfowl-breeding-population-survey.

	California		Suisun Marsh	
	2023	2024	2023	2024
	Decreased		Increased	
	202,108	177,828	10,163	10,630
	Decreased		Decreased	
	88,251	54,011	4,152	2,968
	Increased		Increased	
	33,477	46,097	976	1,650

Chart B shows California's top breeding species (Mallard– top, Gadwall– middle, Cinnamon Teal– bottom) in 2023 and 2024.

Species	2024	2023	% Change from LTA
Mallard	177,828	202,108	-12%
Gadwall	54,011	88,251	-39%
America Wigeon	1,573	5,097	-69%
Green-Winged Teal	2,493	1,811	-79%
Cinnamon Teal	46,097	33,477	38%
Northern Shoveler	47,015	107,490	-56%
Northern Pintail	18,349	6,056	203%
Redhead	7,981	9,852	-19%
Canvasback	0	4,145	-100%
Scaup	0	489	-100%
Canada Geese	34,242	60,353	-43%
Mute Swans	6,912	4,045	71%

Chart C illustrates the results from the Breeding Waterfowl Population Survey. Mute swans have only been record since 2004, all other species since 1992.

Grizzly Island Wildlife Updates

→ The 2024-25 waterfowl season will be the first year of the wildlife area's remodeled check station. After 3 months of upgrades and repairs, the building includes metal coverings, windows, and an entire new interior. The upgrades are intended to help implement a new computerized check in system to the public hunters.

→ Pond 14, a small wetland unit and near the closed zone has completed its first year of reverse cycle for water management. Now, in the fall season, the wetland will be dried to combat encroaching *Phragmites* patches and reflooded at the end of spring to support nesting hens and increased brood habitat in the summer months.

→ After last year's record wet year, the upland 14 fields were left undisturbed to facilitate increasing the seed bank and provide more habit for nesting hens. It has now been disced a third time to help native plant establishment.

→ Island Slough, a Type B hunting area, has upgraded pumps and gates to meet water delivery needs.

→ Pond 17, a wetland west of the closed zone and popular spot for public hunters has completed a large amount of swale work and discing maintenance.

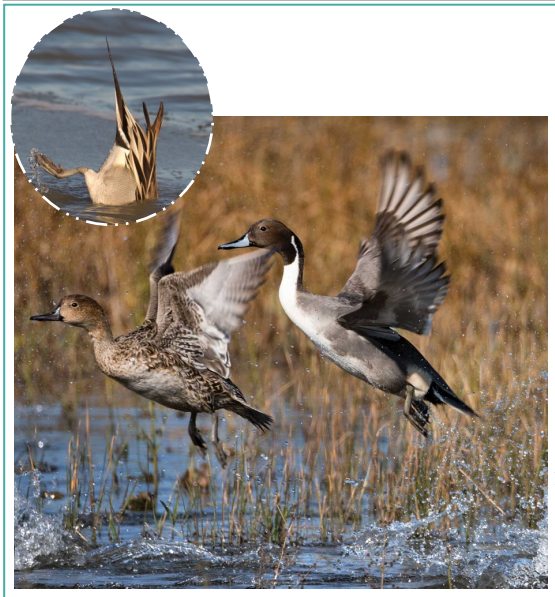
→ The PG&E powerlines across the Hill Slough Wildlife Area near the entrance of Grizzly Island Road will be removed this fall.

[*R3,* Cont. from Pg. 1]

By understanding the ORAM and the processes critical to an individual's adoption of an outdoor activity, R3 program managers and organizations can build strategies that effectively engage individuals in outdoor recreation like the concept of Free Hunting Days in California. Since R3 began in 2019, California has offered 2 years with Free Hunting Days and 2024-25 hunting season is the third. It is important to note that the R3 movement is lead by CDFW's program managers, but it is made up of multiple different government agencies, non-governmental organizations, clubs, media, industry, education and members of the public.

It will take the effort of many entities - state and federal fish and wildlife agencies, industry professionals and non-government organizations working together to build a pathway that successfully recruits, retains and reactivates participants in hunting and the shooting sports. However, the R3 community welcomes anyone from the public that is interested in learning about the effective strategies to engage individuals in outdoor recreations. If someone is interested, please visit NationalR3Plan.com to join the professional R3 community and part of the movement. The different outdoor communities' part of R3 pools talents together to create more opportunities, innovative approaches, and strong partnerships with the website providing resources so interested parties can do their part preserving the our outdoor heritage.

Recruit | Retain | Reactivate



—Northern Pintail—
Anas acuta

* Known as the greyhounds of the skies for their large range, slender shape, swift-flying, and graceful look on the water.
* In 1994, the oldest recorded Pintail was harvested in Canada when he was at least 22 years and 3 months old.
* The last nesting hen was recorded on Grizzly Island in the 1990s.
* The longest nonstop flight for the species is 1,800 miles.
* Eggs are pale olive color, incubation is done by only females.
* While feeding by tipping tail-up to reach underwater seeds, the pintail's long neck allows it to reach farther below the surface than other dabbling ducks.
*In the California Breeding Waterfowl survey, the Pintail population estimate changed from 6,056 in 2023 to 18,349 in 2024.

Dirty Business in Suisun Marsh

Dirt is needed for many maintenance projects in Suisun Marsh managed wetlands including projects that involve flood control protection and the maintenance of roads, levees, or blind mounds. The easiest option to obtain dirt for projects is to scrape or grade the surface of pond's bottoms, interior ditches, or upland fields. Landowners routinely use these types of maintenance activities on their annual Regional General Permit #3 application, but they are intended for small scale projects.

Obtaining dirt from the inside of a club only may be done occasionally to avoid decreasing pond bottom elevations may reduce the wetland's habitat quality. Wetland depth is directly related to vegetation growth and seed accessibility for waterfowl, and pond bottoms that are too deep can reduce vegetation growth, making it difficult to maintain shallow water areas for waterfowl to feed and weakening the levee toe stability. Larger-scale projects require importing dirt with trucks or barges. Many clubs have inquired about information on how to import dirt, and general information and testing requirements are provided on the SRCD website at https://suisunrcd.org/permits/.

Exterior dredging is permitted through the USACE Letter of Permission that allows use of dredged sediment for exterior levee maintenance. In the past 10 years of the dredging program, SRCD has only recorded dredging of 107,530 cubic yards in Suisun Marsh including the California Department of Fish and Wildlife (CDFW) dredging projects. However, the annual regional allocation is 100,000 cubic yards of dredged material.

Additional authorization is required from the Bay Conservation and Development Commission (BCDC) for dredging, and the process of obtaining the permission takes lead time. BCDC authorization usually is issued early in the dredging work window. Landowners may have to scramble to find available contractors who will have limited opportunities to dredge when weather and tides are favorable. Also, the dredged material often must be left to dry on the backslope and crown of levees before handling. Landowners may have to wait several months before the sediment can be spread along the levees which may block levee access in the meantime. Overall, landowners need to plan ahead to have an adequate supply of dirt to complete their desired maintenance projects.

2024 Botulism Mortality in California

This fall, avian botulism has killed more than 100,000 waterbirds in the Klamath Basin. Type C botulism is a paralytic disease that is caused by a toxin produced by the soil bacteria *Clostridium botulinum*. The toxins are produced as bacteria emerge from spores under conditions of high water temperatures and low oxygen levels. The outbreaks often occur after dry years followed by years with good runoff. Waterbirds are infected by consuming decaying organic matter or infected invertebrates. Waterbirds may succumb after eating dead maggots feeding on carcasses of the victims, creating a cycle of death. The best way to prevent the spread of botulism is to remove dead carcasses immediately upon detection. Humans typically are not susceptible to the disease, although it is possible to be infected by eating the meat of infected animals or exposing open wounds to contaminated water.

Waterbirds with botulism may appear weak, lethargic, unable to walk, fly, or hold their head up; however, affected birds may be able to move from the outbreak region to other areas. There have not been reports of outbreaks in Suisun Marsh in recent years, but individuals who encounter birds suspected of dying of avian botulism should notify CDFW (https://wildlife.ca.gov/Conservation/Laboratories/Wildlife-Health/Monitoring/Mortality-Report), wear gloves to handle them, collect carcasses in plastic bags and place them in the trash or bury them a few feet deep, and wash their hands with soapy water afterwards.

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SRCD Newsletter
2544 Grizzly Island Road
Suisun CA 94585

Address Correction Requested

Suisun Resource Conservation District

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2024—2025
Waterfowl Hunting Regulations

The following is a summary of 2024-2025 regulations. The Fish and Game Commission's website has the actual language adopted on April 18, 2024. In California, the Balance of the State Zone's regular season starts on Oct 26th and ends on the last day of January 2025. This zone including Suisun Marsh has a 7-duck daily limit that can include: 7 Mallards (2 hens), 2 Canvasbacks, 2 Redheads, 2 Scaup, 1 Pintail and a goose bag limit of 30 birds (20 White, 10 Dark).

Important Waterfowl Dates:

- Oct 26th: Suisun Marsh Opening Day
- Nov 7th: Scaup season opens
- Nov 23rd: Free Hunting Day
- Dec 1st: Powered spinning-winged decoys opens
- Jan 31st: Suisun Marsh Regular Season Ends
- Feb 1st-2nd: Youth Waterfowl Hunting Days
- Feb 8th-9th: Late Canada Goose Weekend, Vets & Active Military Personnel Waterfowl Hunting Days
- Feb 8th-12th: Late White-fronted Goose and White Geese Period

Upland Game Species Dates:

- Nov-Jan 26th: Quail season (10-bag limit)
- Oct 19th– Feb 2nd: Snipe season
- Nov 9th-Dec 23rd: Mourning/White-winged Dove season (15-bag limit, 10 may be white-winged doves)
- Nov 9th-Dec 22nd: Pheasant season (3 males per day after the first two days of the season)