

## **Santa Ana River Mouth Monitoring Project January through June 2025 Report**



The mission of Orange County Coastkeeper (Coastkeeper) is to protect swimmable, drinkable, fishable water and promote watershed resilience throughout our region. We are a nonprofit clean water organization that serves as a proactive steward of our fresh- and saltwater ecosystems. We work collaboratively with diverse groups in the public and private sectors to achieve healthy, accessible, and sustainable water resources for the region. We implement innovative, effective programs in education, advocacy, restoration, research, enforcement, and conservation.

The Santa Ana River Mouth Monitoring Project (SAR Project) enlists volunteers, community groups, and local government to monitor human, dog, and bird activity in the Santa Ana River Mouth area, a 13.2-acre parcel of land that is owned by four agencies: the California State Lands Commission, California State Parks, the County of Orange, and the City of Newport Beach. Due to the fragmented ownership of the area, management of activities and law enforcement have been difficult. The first six months of the 2025 SAR Project covered in this report (January 2025 through June 2025) were conducted as an ongoing project by Orange County Coastkeeper with funding from the California Coastal Conservancy. The goal of the SAR project is to monitor human, dog, and bird use of the area and to provide education and outreach to residents and visitors about the vulnerable species at the Santa Ana River Mouth and actions they can take to protect them while recreating in the area.

### **EXECUTIVE SUMMARY**

Monitoring for this project began on February 9th, 2021. All subsequent surveys followed a standard protocol that is used for all surveys.

Between January and June 2025, 534 surveys at the Santa Ana River Mouth were completed by 11 trained volunteers and 2 staff members. In the surveys collected, 6,475 people and 696 dogs were observed. Of the dogs, 400 were off-leash and 296 were on-leash. Dogs off-leash accounted for 57% of the dogs observed. There are current regulations in the City of Newport Beach (CNB) jurisdiction that prohibits dogs from being off-leash on the beach at any time, and they are not allowed on the beach between 10:00 AM to 4:30 PM to protect the sensitive wildlife area and lessen impacts to visitors. Law Enforcement Officers are considered individuals with the authority to enforce the regulations in or around the Santa Ana River Mouth area, including the multi-use trail on CA State Parks property. Law Enforcement Officers (LEO) were present 217 times throughout all surveys completed in this time period, with the Newport Beach Lifeguard observed most frequently followed by the Orange County Sheriff. Other public officials that were not law enforcement include OC Public Works, California State Parks, and Orange County Parks. No citations were observed to be issued, although it is possible that citations occurred outside of the time spent surveying the site. A total of 117 visitors were observed to be contacted by law enforcement officers and other public entities. A visitor contact does not have to include a citation, but is simply the observance of communication between a beach visitor and any public entity or LEO.

## MAP AND PROJECT BOUNDARIES

### SAR Project Survey Boundaries

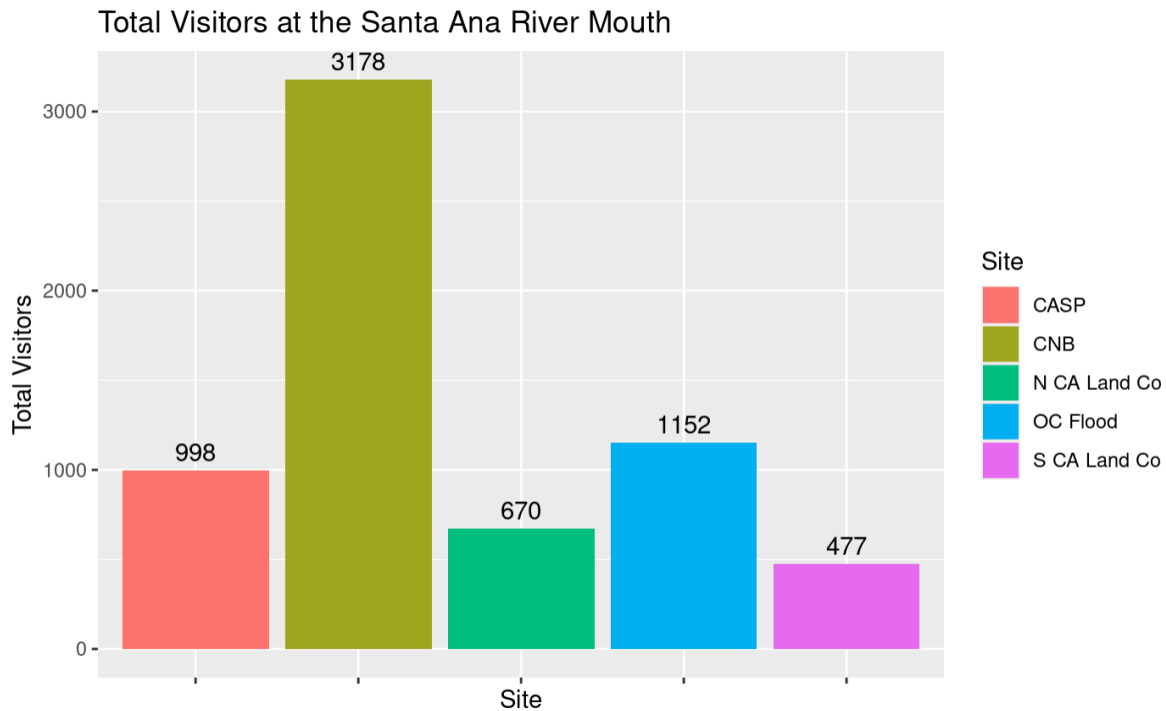


Map of Santa Ana River Mouth with property names overlaid to correlate with data sheets. California State Lands Commission property was split into North and South portions, divided by the location of the river mouth during surveys, to better analyze land use in the area

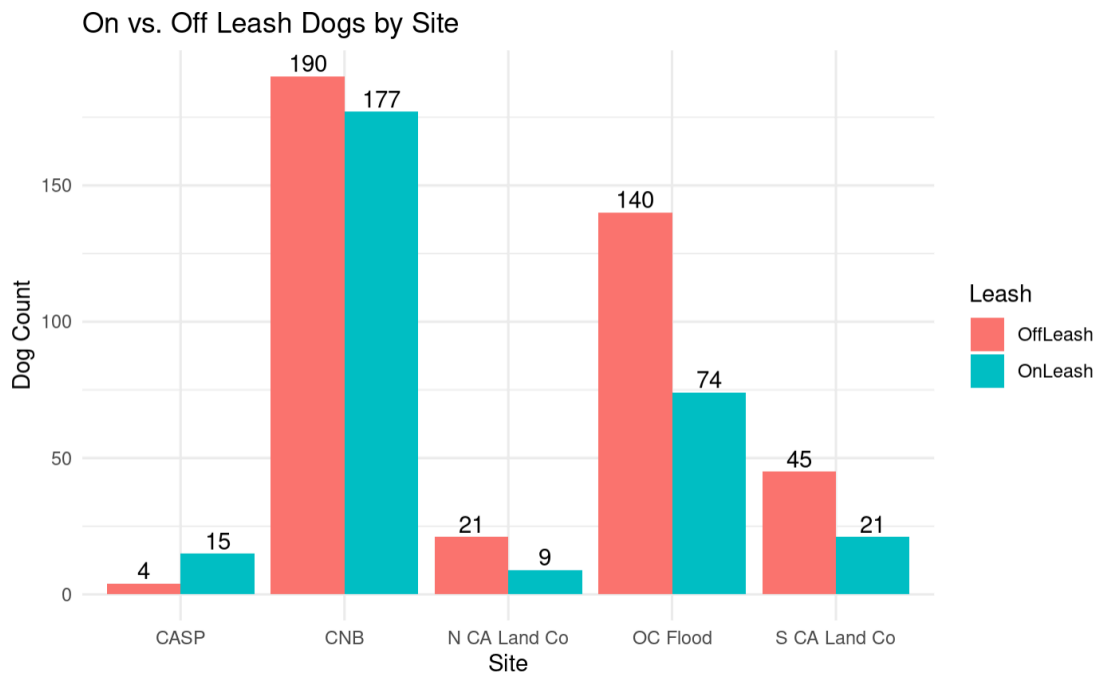
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## GRAPHS



**Figure 1. Visitors Based on Location**

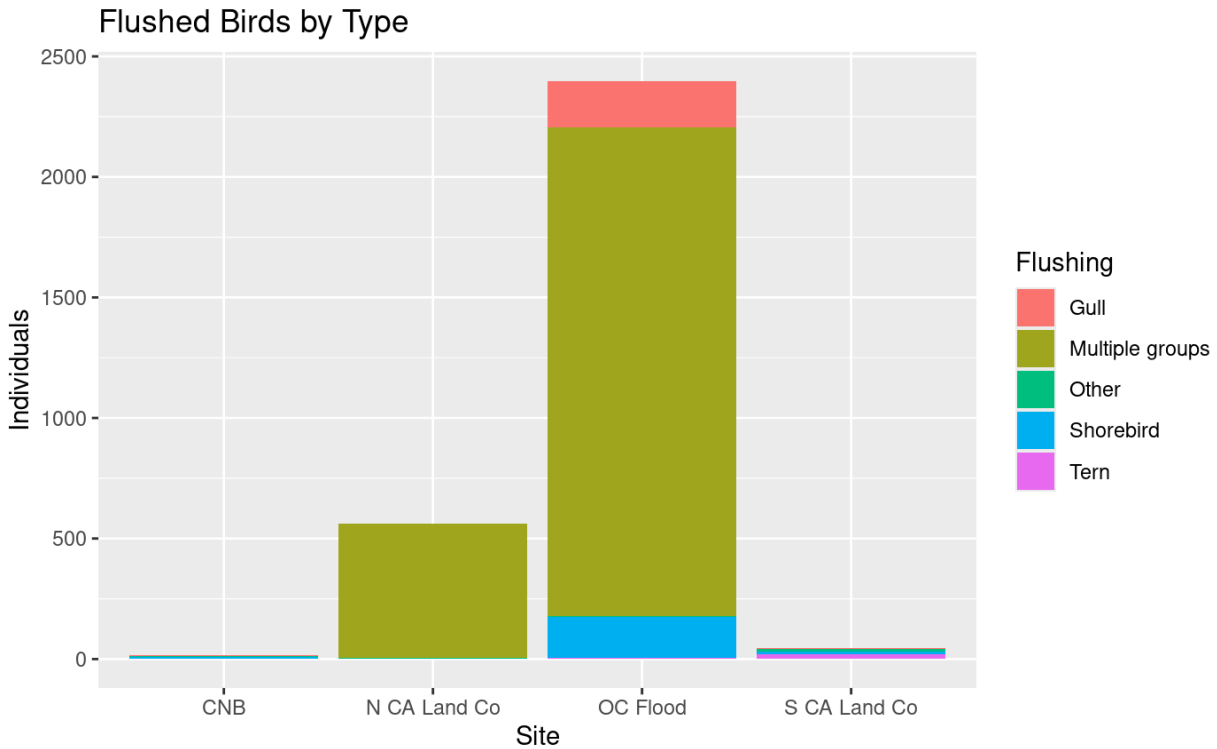


**Figure 2. Dogs Based on Location**

A total of 696 dogs were observed at the Santa Ana River Mouth; 296 (43%) were on leash and 400 (57%) were off leash.

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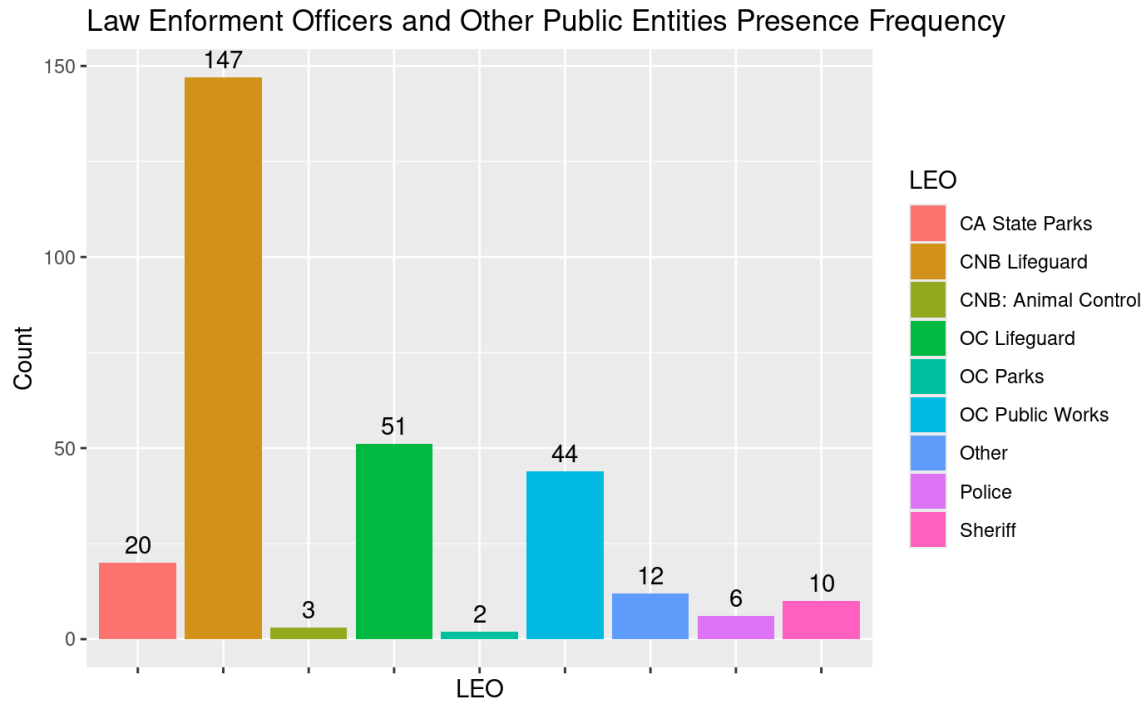


**Figure 3. Bird Disturbances by Location**

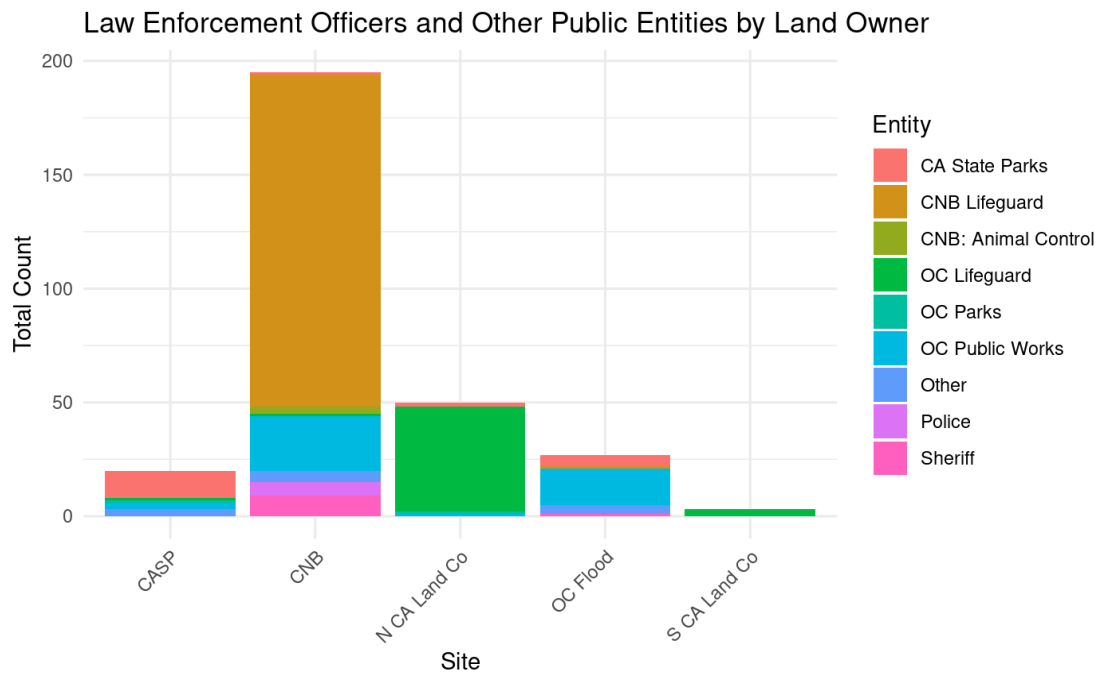
Bird disturbances, also known as Flushing events, are defined by when birds are present on the beach and are approached by humans and/or dogs causing them to depart the area. A total of 47 flushing events occurred, affecting 1,129 individual birds. The majority of birds flushed were observed in OC Flood (66%), followed by N CA Land Co (26%).

67% of birds flushed included a mix of terns, gulls, and shorebirds, 16% of birds flushed were gulls, 10% of birds flushed were shorebirds, 7% of birds flushed were other bird species, and less than 1% consisted of terns.



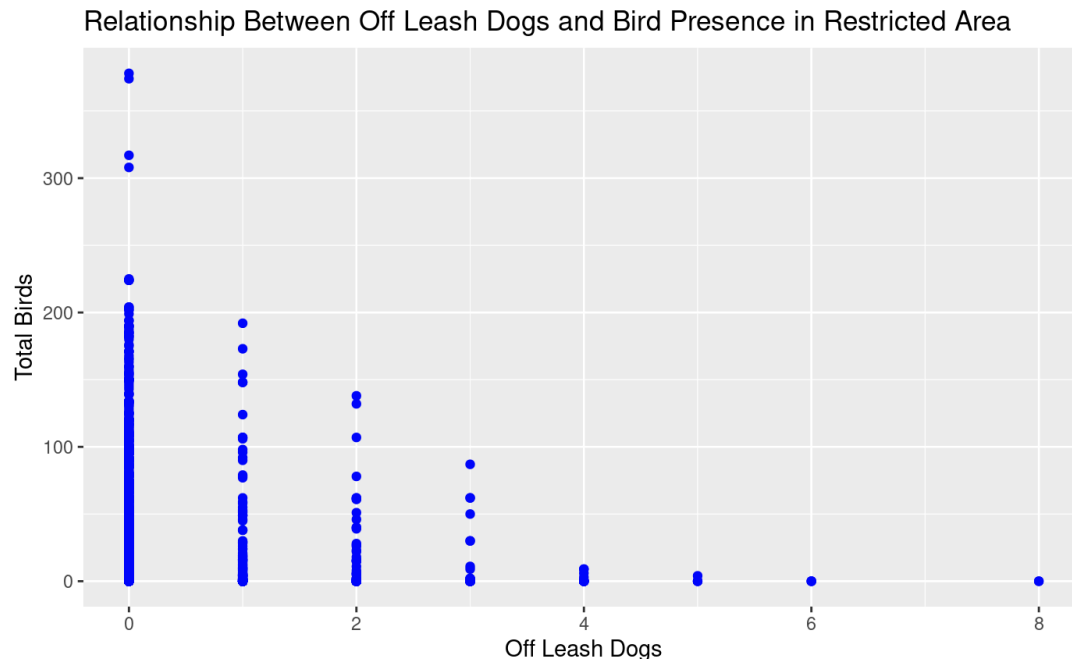


**Figure 4. Law Enforcement Officers (LEO) and Other Public Entities Frequency**  
 A total of 217 law enforcement officers and 78 public officials were present during observational surveys. There were a total of 117 visitor contacts made by various law enforcement officers.



**Figure 5. Law Enforcement Officers and Other Public Entities by Location**  
 This figure illustrates where LEOs and representatives of public entities were located at the time of observation, which does not imply that is the jurisdiction that they are enforcing.

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**Figure 6. Correlation Analysis of Off-Leash Dog Presence and Bird Presence in the Sensitive Wildlife Area**

We ran a correlation analysis to understand the association between off-leash dog presence and bird presence in the sensitive wildlife area. Increased off-leash dog presence had a significant association with lower bird presence, with not ( $p\text{-value} < 7.36\text{e-}06$ ,  $\rho = -0.19$ ). This finding highlights the potential impact of off-leash dogs on wildlife in protected areas and supports the need for continued monitoring in this area.

## DISCUSSION

Visitors at the Santa Ana River Mouth were most observed within the CNB boundaries followed by the OC Flood boundaries (Figure 1). This is reflected with most dogs also being observed in CNB and OC flood with a majority (57%) of all the dogs observed at both sites being off leash (Figure 2). Even though it is unlawful for visitors to enter the OC Flood control boundary, they would trespass the jetties with their dogs and disturb the habitat. It is hypothesized that high human and off-leash dog traffic to these areas may result in fewer bird observations, as seen in the correlation graph (Figure 6).

According to our data, the OC Flood area had the highest bird observations, since it is away from central beach access, however, these birds face disturbances by visitors nonetheless. Although most birds observed were in the OC Flood jurisdiction, the OC Flood boundaries also experienced a significantly larger amount of bird disruptions than the others, as most flushing events took place within this jurisdiction (Figure 3).

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Law enforcement officers (LEO) were most often seen within the CNB boundary (Figure 5); however the results are an indication of where LEO's were present and not which jurisdiction they were enforcing. In the last reporting period, we learned that the Sheriff would often be parked on either CNB or N CA Land Co and enforce only the river mouth regulations. On several occasions, we observed the Sheriff leave their vehicle to talk to visitors trespassing the OC Flood Channel. The same behavior was observed again for this reporting period. The Newport Beach Lifeguard was the most frequently seen LEO followed by the OC Lifeguard (Figure 4). However, the Sheriff conducted 26% of the 117 visitor contacts observed.

CNB is the only jurisdiction that can enforce the dog rules on the Newport Beach side of the river mouth. On June 10, 2025, Research Assistant Courtney Rickard attended the Newport Beach City Council meeting to discuss the success that an electronic, mobile police sign stating "No Dog Beach" had on decreasing off leash dog presence from June through October in 2024 compared to when there was no sign deployed during those same months in 2023. On June 19, 2025 we saw that the "No Dog Beach" sign was posted at the same spot as 2024, but with an additional message alternating the message "Posted Dog Regs. Strictly Enforced" (Figure 11). We appreciate this effort by the City of Newport Beach to enforce the existing laws regarding dogs in the area. With our observations at the river mouth, we can hypothesize that posted signage and enforcement presence is a great way to raise awareness and reduce recurrent off-leash dog violations and threats to wildlife.



**Figure 7. No dogs allowed sign at SAR entrance posted July 2025**

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In the correlation analysis, we can conclude that higher off-leash dog presence was associated with lower amounts of birds present inside the sensitive wildlife area of the river mouth (Figure 6). This graph mainly focused on activities within the river mouth since it is illegal for people and dogs to trespass this area. Nonetheless, most of the flushing events and off-leash dog observations occurred in the restricted area (OC Flood) (Figure 3). When there is a greater number of dogs that are off leash, this poses a potential threat to the birds that inhabit this area. The birds that inhabit the river mouth are constantly in survival mode, remaining alert of their surroundings at every moment. Considering some of the birds in this area include endangered and threatened birds like the Western Snowy Plover and California Least Tern, caution must be exercised by visitors to prevent threats to these protected species. It is important for dog-owners to keep their dogs on a leash when they choose to visit this area in order to avoid scaring birds out of their habitat, causing them to abandon the processes they need to survive.

## Outreach Table

During this project, Orange County Coastkeeper was able to conduct an outreach table for beach visitors. Visitors were given pamphlets detailing information about the Santa Ana River Mouth and the seabirds that rely on this space: the California Least Terns and Western Snowy Plovers. A new sandwich board was created to help visitors understand their impacts on beach wildlife and basic guidelines for responsible recreation at this site. Additional information about the laws regarding dogs in the area and free biodegradable dog waste bags were provided to visitors as well. Overall, OC Coastkeeper has engaged with 152 visitors during observational surveys and outreach events in 2025.



Figure 8. Outreach Table

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**Figure 9. Informational banner used at outreach events highlighting the endangered and threatened species of birds and the City of Newport Beach dog rules.**

## Outreach Events

In addition to our regular outreach table, we conducted two separate outreach events (with about 30 volunteers each) during the January through June 2025 reporting period to better promote this project. While both events featured a beach clean up, the second event had a “beginner’s birding” aspect where members of the public were invited to learn and practice basic seabird identification skills at the river mouth. With growing public interest, we expect to see even more engagement for future events.

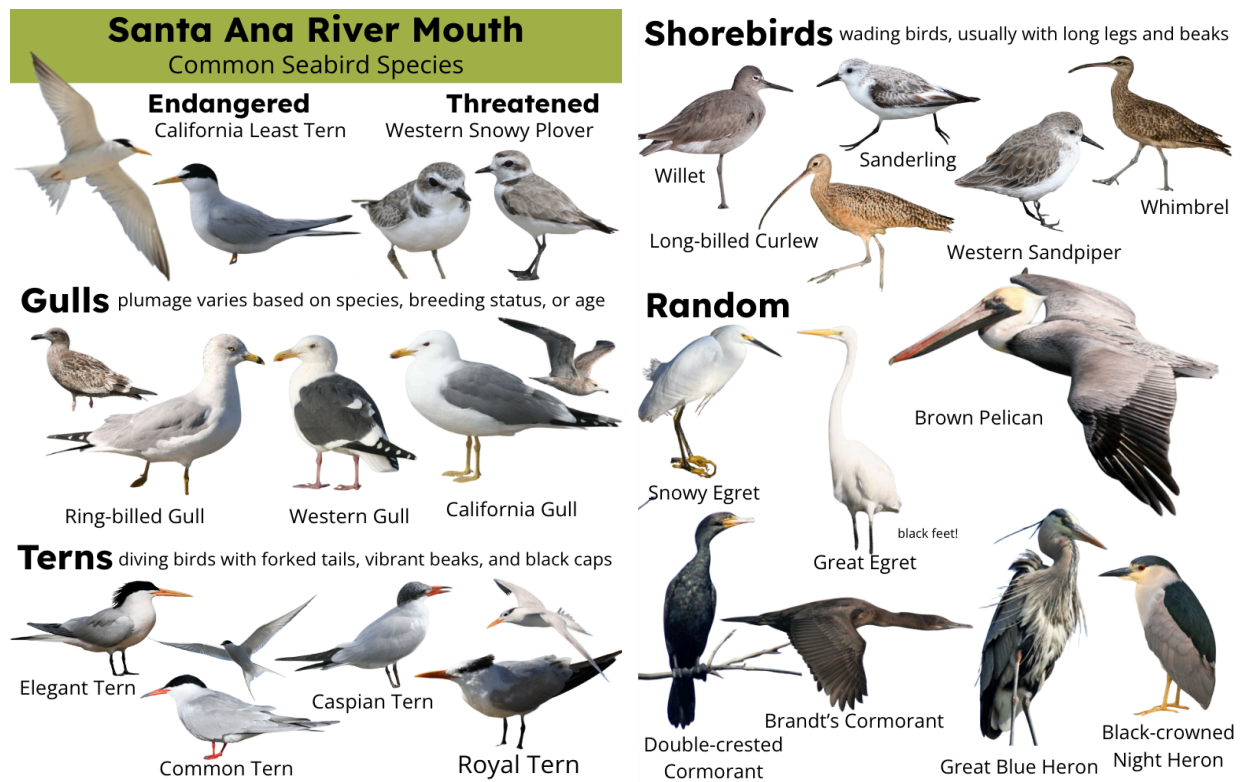
## Volunteer Training

Training started with three educational presentations of the overall project/procedures, wildlife identification information, and Law Enforcement Officer identification information. Trainees were also provided materials relating to the project including past reports, a map of the area, and a project training guide. Volunteers then met with Project Manager Courtney Rickard at the Santa Ana River Mouth to go over the standard operating protocol and the property map in person. Volunteers were trained to understand the land manager boundaries, monitor human recreation use, and were given updated bird ID guides to identify the different bird species.

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**Figure 10. Seabird Identification Guide**

## Other Updates

The project faced several significant events affecting the area during the reporting period, and staff members have exercised different options as a response. Due to the dredging project continuing for about a week in late February, there were fences and heavy machinery covering the OC Flood portion of the beach which interfered with some monitoring. Surveyors were still able to set up for outreach and surveys during this time in the CNB jurisdiction and could use binoculars to view all of the jurisdictions. If the machinery limited our visibility in the flood, we simply walked up to PCH and could monitor the other side with that perspective.

The domoic acid poisoning event in 2025 showed some effects in our project site. While surveyors came across several beached sea lions, we recorded any signs of poisoning in brown pelicans, as they are a seabird species commonly found at the river mouth. On both April 21st and May 1st, surveyors found a brown pelican in the CNB boundaries and contacted the Wetlands and Wildlife Care Center to recover them.

## Next Steps

With funding from the California Coastal Conservancy and the Rose Foundation, we are thrilled to continue onto our next steps with this project. This includes additional volunteer recruitment

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from the local community, continuation of the outreach table, various outreach events to spread awareness of this project, and gathering surveys with new updates. We plan on creating more materials for incoming volunteers as well as more interactive forms of outreach in order to connect with the public. The existing state funding for the project will be exhausted at the end of 2025, so we are actively seeking funding to continue this important work in 2026.

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