

Santa Ana River Mouth Monitoring Project January- June 2024 Report



Orange County Coastkeeper (Coastkeeper) is 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) is a state funded project that utilizes Coastkeeper staff and volunteers 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 six months of the 2024 SAR Project covered in this report (January 2024 through June 2024) was run 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 wildlife in the Santa Ana River Mouth including the endangered and threatened species that reside within it.

EXECUTIVE SUMMARY

Monitoring of the area 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 2024, 934 surveys at the Santa Ana River Mouth were completed by 10 trained volunteers and 3 staff members. In the surveys collected, 14,000 people and 1,469 dogs were observed. Of the dogs, 921 were off-leash and 548 were on-leash. Dogs off-leash accounted for 63% of the dogs observed. There are current regulations in the City of Newport Beach jurisdiction of this area that prohibits dogs from being off leash on the beach at any time, and they are not allowed on the beach between 10:00AM to 4:30PM to protect the sensitive wildlife area and lessen impacts to visitor traffic. Meanwhile, all public access is prohibited in the Orange County Flood Control jurisdiction inside the river mouth. 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 179 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 OC Parks. 4 citations were observed to be issued, though it is possible not all issued citations were recorded by surveyors. 97 visitors were 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

CASP= California State Parks, **CNB=** City of Newport Beach, **N CA Land Co=** North California State Lands Commission, **OC Flood=** Orange County Flood Control, **S CA Land Co=** South California State Lands Commission
Law Enforcement: Sheriff, Police, Lifeguard, Park Ranger, and CNB: Animal Control. **Public Officials:** OC Public Works, OC Parks, CA State Parks. **“Other” LEO:** Unidentified law enforcement or Public Official

GRAPHS

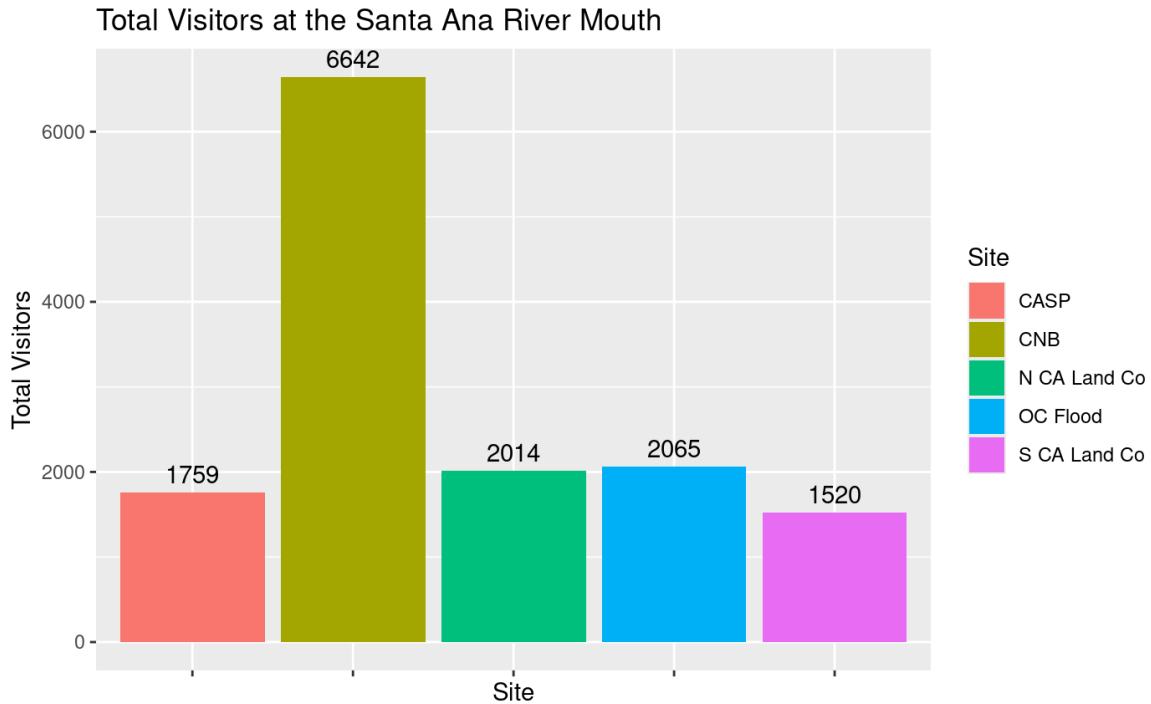


Figure 1. Visitors Based on Location

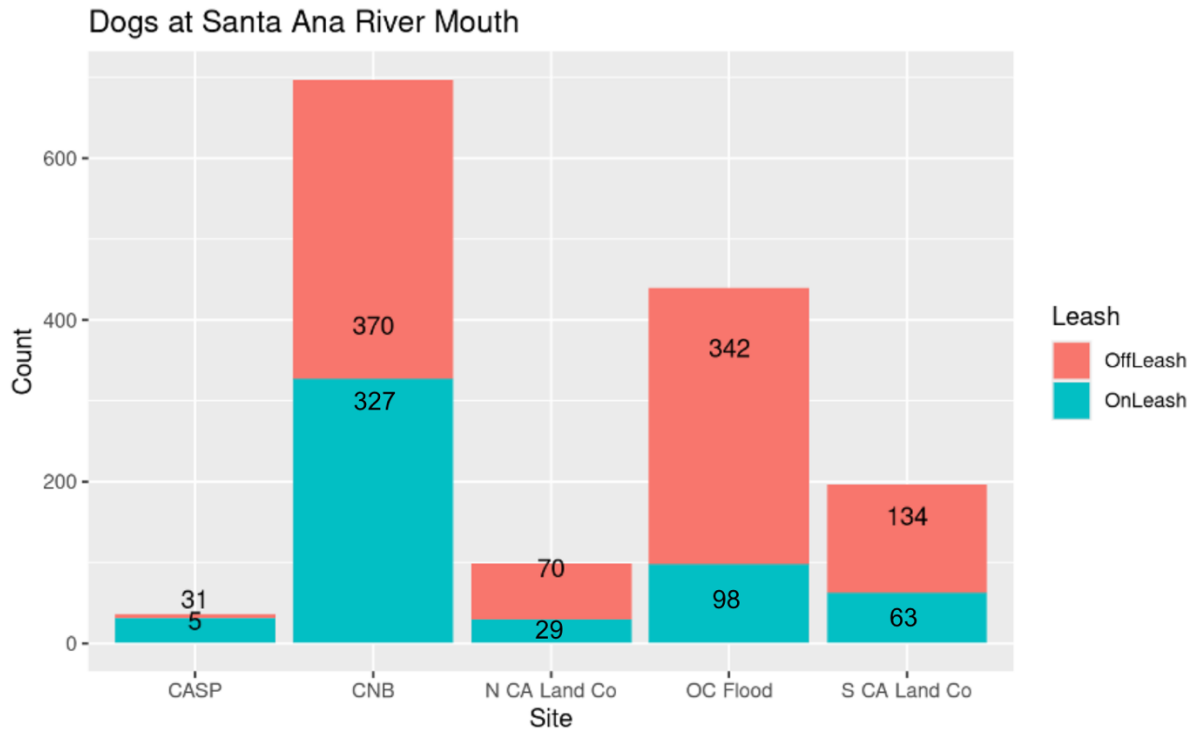


Figure 2. Dogs Based on Location

A total of 1,469 dogs were recorded at the Santa Ana River Mouth; 548 (37%) were on leash and 921 (63%) were off leash.

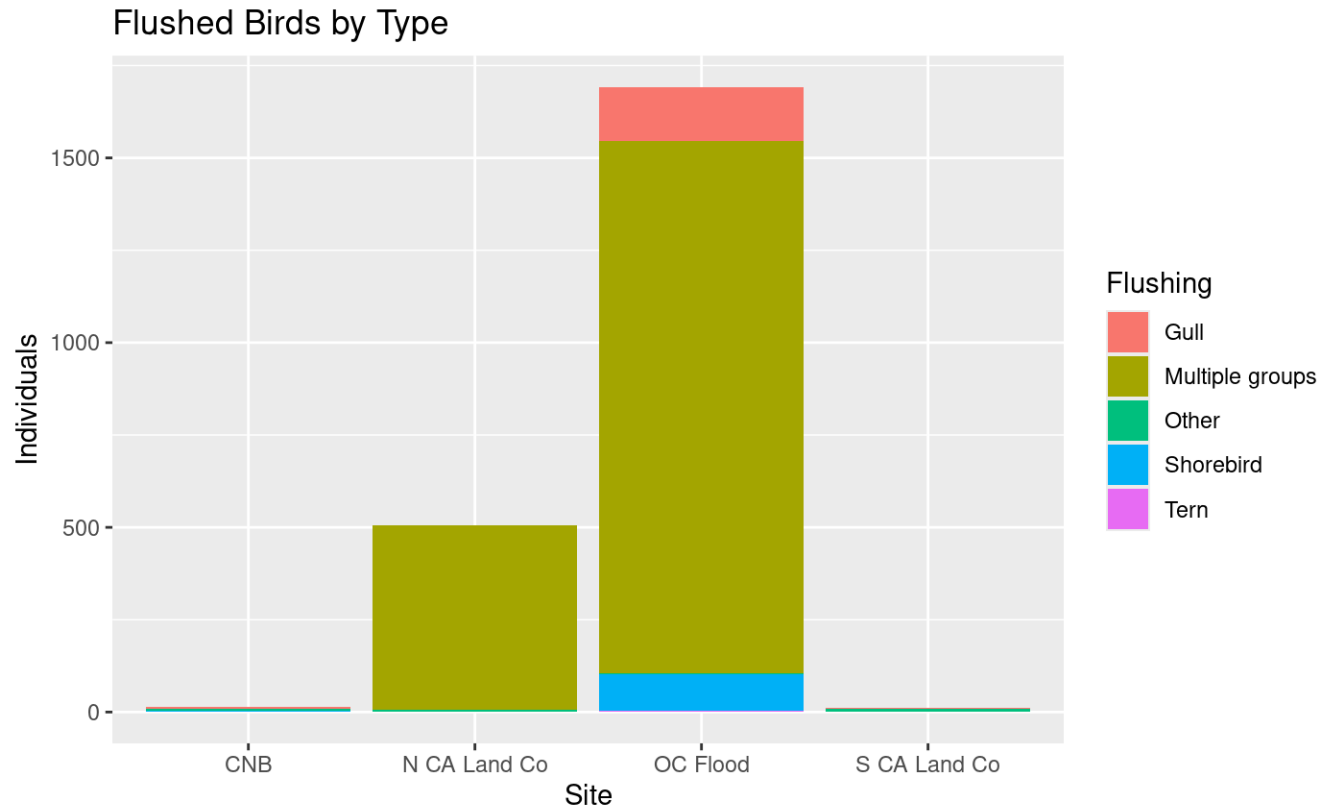


Figure 3. Bird Disturbances by Location

Bird disturbances, also known as flushing events, are defined by when birds on the beach are approached by humans and/or dogs causing them to depart the area. A total of 69 flushing events affecting 2,224 individual birds occurred in OC Flood and South California Lands Commission jurisdiction. 87% of birds flushed included a mix of terns, gulls, and shorebirds, 5% of birds flushed were shorebirds, 7% of birds flushed were gulls, 1% consisted of other bird species, and <1% of birds flushed were terns.

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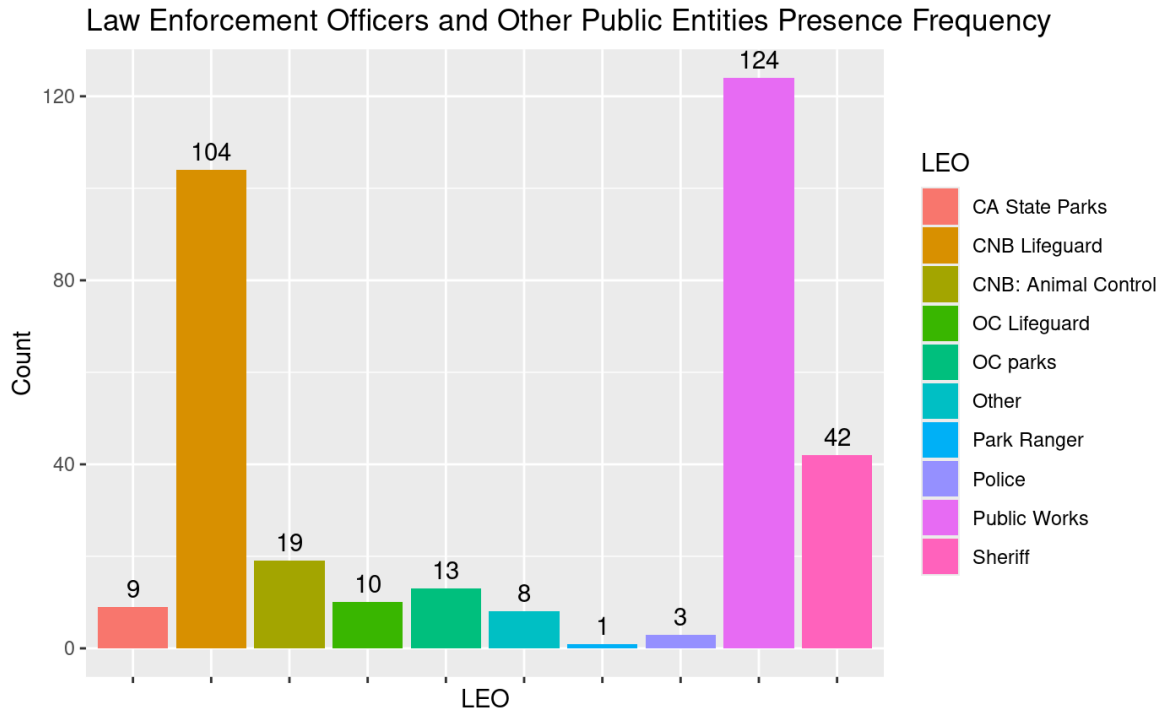


Figure 4. Law Enforcement Officers (LEO) and Other Public Entities Frequency
 A total of 179 law enforcement officers and 154 public officials were present during observational surveys. We observed 97 visitor contacts made by various law enforcement officers.

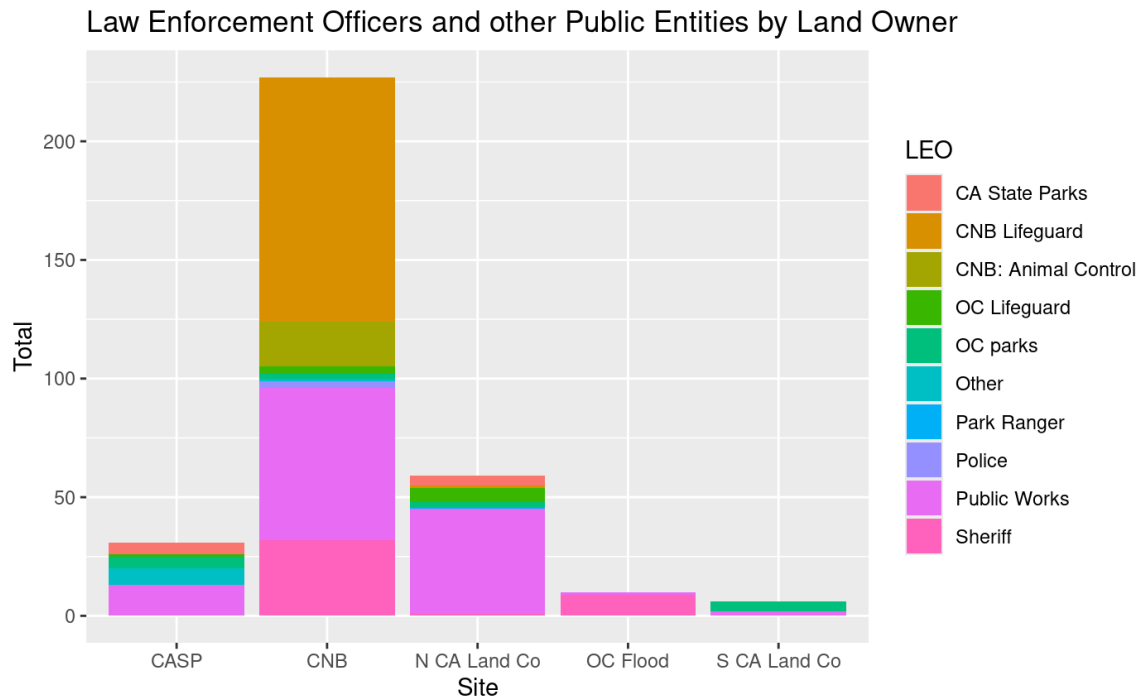


Figure 5. Law Enforcement Officers and Other Public Entities by Location
 This figure illustrates where LEOs and representatives of public entities were located at the time of observation, which does not imply that is the jurisdiction that they are enforcing.

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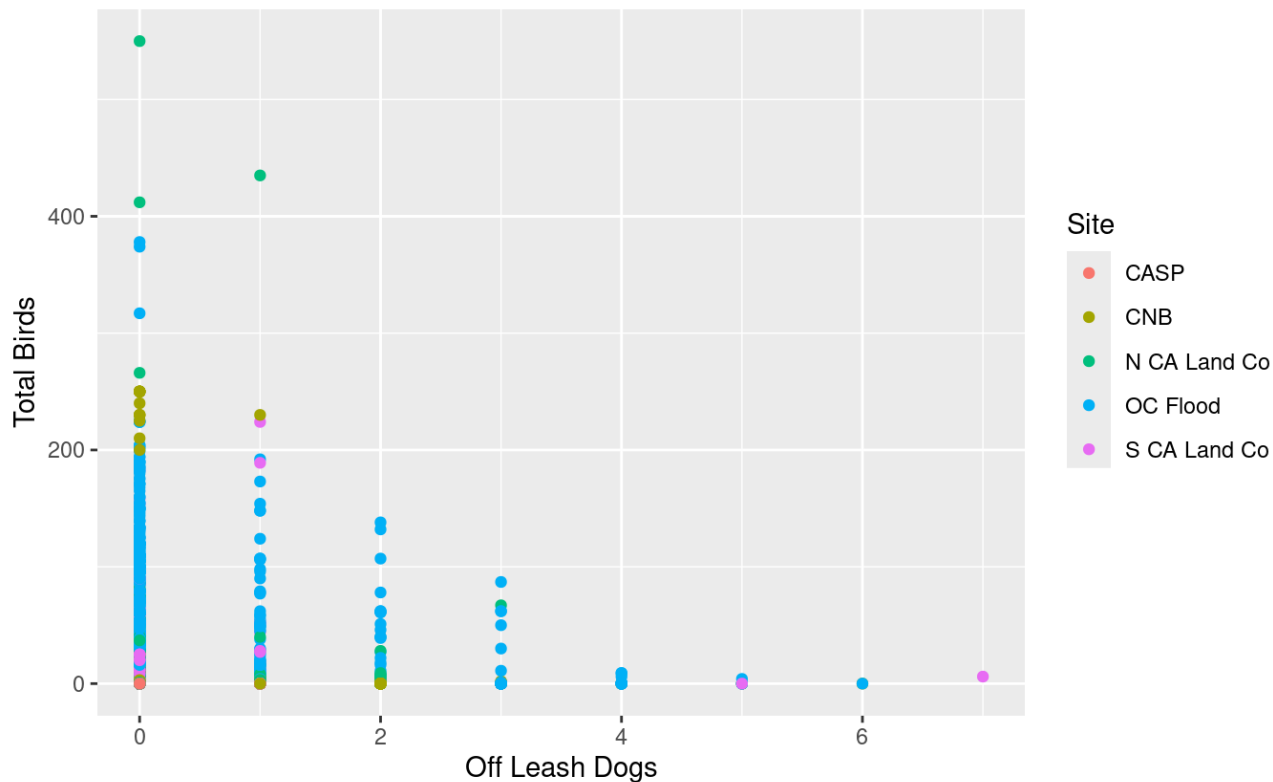


Figure 6. Correlation Analysis of Off-Leash Dog Presence and Bird Presence by Site

We ran a correlation analysis in order to understand the association between off-leash dog presence and bird presence in 2024 so far. We wanted to see if the presence of off-leash dogs would be associated with fewer birds present in the Santa Ana River Mouth. In the graph, there are more birds when there are less off-leash dogs present and there are less birds when there are more off-leash dogs present. Thus, off-leash dog presence had a significant association with lower bird presence (p-value =0.03).

DISCUSSION

Visitors at the Santa Ana River Mouth were most observed within the CNB boundaries followed by the OC Flood boundary (Figure 1). This is reflected with most dogs also being observed in CNB and OC Flood with a majority (63%) of all dogs observed at the river mouth were off leash (Figure 2). Even though visitors are not allowed in the OC Flood control boundary, they would trespass the jetties along with their dogs and disturb the habitat. It is hypothesized that high human and dog traffic to these areas may result in fewer bird observations, as seen in the correlation graph (Figure 6). Most birds were located in the OC Flood jurisdiction, away from central beach access yet the OC Flood area also experienced the highest amount of bird disruptions as a majority of flushing events took place within this area. (Figure 3) Flushing affected a mix of terns, gulls, and shorebirds. According to our data, the OC Flood area had the highest bird observations, since it is supposedly more isolated from human and dog visitors, however, these birds would face disturbances by visitors nonetheless.

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. Through our observances, we learned that the Sheriff would often be parked on either CNB or North Lands Commission and enforce only the river mouth regulations. On several occasions, the Sheriff would leave their vehicle to talk to visitors trespassing the OC Flood Channel. The Newport Beach Lifeguard was the most frequently seen LEO followed by the Sheriff (Figure 4).

One of our Coastkeeper interns took the opportunity to test several hypotheses about how LEO or outreach contacts may result in more visitors following the rules for an undergraduate research project. This was done by testing for a positive correlation between contacts and dogs being on leash. Though the results were found to be inconclusive, we think this is a very insightful question to answer and we plan for additional data in the future that will lead to more significant results.

In February 2024, there was a meeting between Law Enforcement officials concerning enforcement of the off-leash dog rules and channel trespass rules. The City of Newport Beach is the only jurisdiction that can enforce the dog rules on the Newport Beach side of the river mouth. We observed Newport Beach Animal Control 19 times, and they would enforce the dog rules by warning and ticketing individuals with dogs on the beach outside of the permitted times. On the other hand, we observed the Sheriff 42 times, and they continued to enforce illegal OC Flood channel activities.

In the correlation analysis, we can conclude that higher off-leash dog presence was associated with lower amounts of birds present at the river mouth (Figure 6). Though correlation does not imply causation, the small p-value of 0.03 demonstrates the significant pattern between off-leash dog presence and low bird abundance in this area. When there are more dogs that are off leash, this poses a potential threat to the birds in this area. The birds that inhabit the river mouth are constantly in survival mode and it is important that they are cautious of their surroundings at every moment. This means there is more energy expended for gathering resources and steering clear of predators. Considering some of these birds in this area include endangered and threatened birds like and California Least Tern and Western Snowy Plover, caution must be exercised by visitors to prevent threats to these protected species. It is incredibly 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.

Volunteer Training

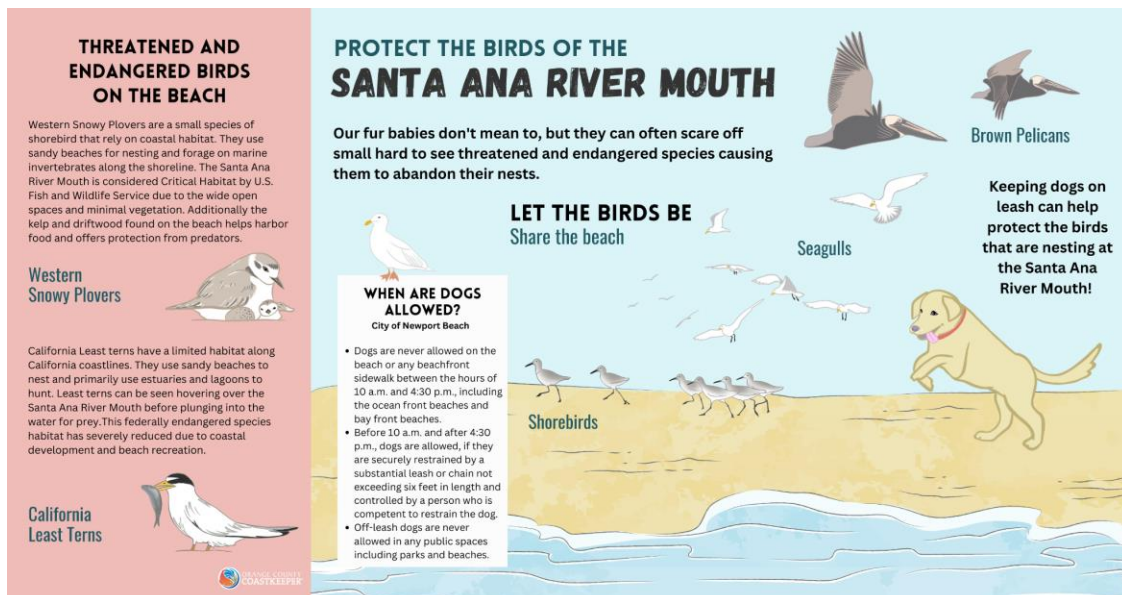
All volunteers undergo a standard training before doing surveys. Training started with three educational slide presentations of the project and wildlife identification information. Trainees were also provided materials relating to the project including past reports and a map of the area. Volunteers then met with Program Assistant Christina Giudice at the Santa Ana River Mouth to go over the monitoring protocol and the property map in person. Volunteers were trained to understand the land manager boundaries, monitor human recreation use, and were given bird ID guides in order to identify the different bird species. In addition, volunteers were instructed

how to fill out the data sheet with specific techniques and were given access to the standard operating protocol for the surveys

Outreach Table



During this project, Orange County Coastkeeper was able to conduct outreach to beach visitors using a table set up in a high foot traffic area. Visitors were given pamphlets detailing information about California Least Terns and Western Snowy Plovers. Additional information about the laws regarding dogs in the area and free biodegradable waste bags were provided to visitors as well. Challenges for our public outreach included volunteer recruitment and retention and a riverbed dredging project which obstructed beach access. Overall, OC Coastkeeper engaged with 277 visitors during observational surveys and outreach events between January and June 2024.



This informational banner used at outreach events highlights the endangered and threatened species of birds and the City of Newport Beach dog rules

Other Updates

The project faced many changes this year and staff members have exercised several different options as a response. Due to the dredging project, there were fences and heavy machinery covering the beach on Mondays through Fridays from 8AM to 5PM from January to mid-February, which interfered with some outreach and visitation. Surveyors tried alternating locations for survey acquisition by walking over to the California State Parks side in order to gain another perspective and using long-range cameras for better view. Regardless, we were still able to set up for outreach and surveys during this time. Additionally, we observed a substantial increase in law enforcement in the river mouth from the Sheriff and Newport Beach Animal Control. For a two-week period in June, there was an electric posted sign that stated the Santa Ana River Mouth was not a dog beach and that these rules would be enforced. We are looking forward to more enforcement from the City of Newport Beach to protect this precious ecosystem.



The “No Dog Beach” sign posted at the entrance of Newport Beach for two weeks in June 2024

Next Steps

With funding from the California Coastal Conservancy, we are thrilled to continue onto our next steps with this project. This includes additional volunteer recruitment from the local community, continuation of the outreach table, and gathering surveys with new updates. We plan on creating more informational presentations for incoming volunteers as well as more interactive forms of outreach in order to connect with the public.

