



**Grant Report for the Alameda County Fish and Game Commission:
*Resolving Negative Human-Wildlife Interactions in
Alameda County - 2024***
1/7/25

Summary

International Bird Rescue was awarded a \$8,000 grant in 2024 from the Alameda County Fish and Game Commission. The goal of this project is to address known, ongoing Human-Wildlife Conflicts (negative human-wildlife interactions) in Alameda County. The grant's purpose was to offset nutrition, medicine, rehabilitation, and veterinary medical supply costs for birds admitted from within Alameda County to our San Francisco Bay-Delta Wildlife Center in Fairfield.

Our application was submitted in January 2024 and upon the recommendation of the Commission, the Board of Supervisors approved our request for funding. We received the \$8,000 grant via check on 4/16/24.

As described in our original application, and in alignment with Fish and Game Code Section 13103(b), **all Commission funds were to be used to pay for expenses necessary to provide temporary emergency treatment and care of injured or orphaned wildlife**, including a portion of both a) critical medicine, surgical and rehabilitation supplies, and nutrition, and b) clean, temperature-controlled water to maintain consistent rehabilitation environments for the wild patients in our care.

We are pleased to share this report with you.

Project Overview

With Alameda County support, we addressed known, on-going Human-Wildlife Conflicts (negative human-wildlife interactions) in Alameda County, and addressed numerous elements of California's Fish and Wildlife Code (especially in section 13103), as described in our original application.

Our San Francisco Bay-Delta Wildlife Center functions as a "referral hospital," treating the most challenging cases that are beyond the capacity or skills of other regional wildlife centers and clinics, and releasing them back into the wild once they are successfully rehabilitated.

Unlike traditional veterinary clinics, our patients come to us with no funding, no insurance, and no one responsible for paying the bill. Birds injured by human impact (as the majority of our cases are) require capable hands and large volumes of food and vitamins in order to be rehabilitated successfully and returned to the environment. Only with philanthropic support from concerned citizens, foundations, corporations, and municipal agencies are we able to meet the demand for our services.

In our last, complete fiscal year (FY24: 10/1/23-9/30/24), we admitted 3,076 wild, native, aquatic birds for care (1,871 in Northern California, and 1,205 in Southern California), representing a 20% increase from the prior year, serving 86 unique species. The average length of care for all patients during this reporting period was 19.67 days.

County-specific Details

During our FY24 (10/1/23-9/30/24), **we rescued and rehabilitated 231 wild, native birds from Alameda County**. This is a 65% increase over the prior year, but still close to our 3-year average of 250. The **average length of care** for patients rescued from Alameda County during this most recent one-year reporting period was 10 days.

Patients were transferred to us for treatment from the general public and from our Alameda County referring partners: East Bay Regional Parks, Alameda Animal Control, Berkeley Animal Control, Montclair Veterinary Hospital, Oakland Animal Control, Ohlone Wildlife Center in Fremont, Oakland Zoo, and Sulphur Creek Nature Center in Hayward. (In the past we have received patients from the Rotary Nature Center and Wildlife Refuge at Lake Merritt, but they are temporarily closed due to a fire in late 2023.)

Rescued animals in FY24 represent **23 different species**:

- 79 – Herons – Black-crowned Night-Heron
- 44 – Ducks – Mallard, Bufflehead, Lesser Scaup
- 34 – Gulls – Western, California, Glaucous-winged, Ring-billed
- 33 – Egrets – Snowy, Great
- 18 – Geese – Canada, Lesser Snow
- 11 – Brown Pelican
- 3 – Double-crested Cormorant
- 2 – Grebes – Pied-billed, Western
- 1 – each: American Coot, Common Murre, Dunlin, Killdeer, Red-throated Loon, Sora, Wilson's Snipe

Rescue locations included Oakland, Alameda, Albany, Berkeley, Castro Valley, Dublin, Emeryville, Fremont, Hayward, Livermore, Pleasanton, Piedmont, San Leandro, San Lorenzo, and Union City. The most **common causes of injury** include orphaned, fishing hook and line entanglements, starvation from loss of habitat, and birds that suffer blunt force traumas (from human cruelty, hit by vehicles, or from unknown/indeterminate sources).

Program Methodology

We were able to efficiently and effectively rescue and rehabilitate so many wild birds because of our well-established response protocols, developed through years of direct, hands-on experience:

- 1. Rescue:** Volunteers, citizens, and other rescue agencies transport injured and abandoned birds to our Wildlife Centers.
- 2. Triage:** Birds first undergo a triage assessment by our professional veterinary staff where vital signs are taken, the bird's weight and measurements are recorded, and blood work is often done. A medical treatment plan and a nutrition plan are created specific to each bird.
- 3. Medical Intervention:** Typically initiated after the first 24-48 hours in care, so that the initial trauma of capture can abate (remaining mindful that these are wild animals), and we can be assured that the animal has the strength to endure the stress of a medical procedure such as washing or surgery.
- 4. Recovery:** Treated birds move to a recovery area, just as a patient would be at a human hospital.

Here, their progress is closely monitored until they are ready to move to a rehabilitation area.

5. Rehabilitation: Birds heal their wounds and gain strength in our predator-proof aviary enclosures.

6. Release: When birds have healed and matured to be capable of survival on their own, they are released back into the wild at species-appropriate locations.

Other Organizational Activity:

Please see the attached **Impact Report: Recent Crises and Responses** for images and details about how we are dealing with the ongoing deadly threat facing wild birds: *Highly Pathogenic Avian Influenza*, and also the *2024 Brown Pelican Crisis* with notable media which includes:

KPIX5-TV SF: <https://www.youtube.com/watch?v=6mIHkISgv5M>

ABC7-TV SF: <https://abc7news.com/post/bay-area-animal-groups-stepping-up-to-help-after-surge-in-starving-brown-pelicans/14809909/>

NBC-TV: <https://www.nbcbayarea.com/news/california/state-brown-pelicans-problem/3538253/>

USA Today: <https://www.usatoday.com/story/news/nation/2024/05/16/california-brown-pelicans-starving-rehab/73712168007/>

KQED Radio: <https://www.kqed.org/science/1992933/california-has-a-theory-on-why-brown-pelicans-are-starving-and-dying>



Wearing personal protective equipment (PPE) to protect against Highly Pathogenic Avian Influenza, Bird Rescue staff examine a Brown Pelican patient in a special quarantine area.



Wildlife Rehabilitation Technician Emily Werdal (left) and Wildlife Center Manager Kylie Clatterbuck tube-feed a Black-necked Stilt rescued from the Tulare Lake Avian Botulism Event.



One 2024 Brown Pelican "crashed" onto the field in the 5th inning of a San Francisco Giants Major League Baseball game.

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Impact Report: Recent Crises and Responses

1. Highly Pathogenic Avian Influenza (HPAI)

International Bird Rescue is in our third consecutive year of responding to **Highly Pathogenic Avian Influenza (HPAI)** Eurasian strain H5N1 2.3.4.4.b. What was hoped to be a temporary or seasonal event is now a permanent, deadly threat facing North America's wild birds.

This strain had been spreading around the globe for over a decade, but is different from other avian influenza strains that have long plagued the poultry industry. It can be carried from place to place on human shoes and clothing, even on vehicle tires. Crowded conditions at breeding areas and other areas where wild birds congregate are spots where they are at high risk of this disease spreading and causing mass mortality. The first detection of the strain in California was in July 2022. This HPAI virus strain is not (yet) considered to be a high risk to humans, but it is *highly-contagious* among birds, *nearly always fatal*, and is mutating to infect other animals.

HPAI requires us to quarantine and assess every arriving patient, adding significant time and cost to our operations.

We have added protocols to protect our current clinic patients and to reduce the likelihood of infected birds entering our facilities, including:

- Outdoor screening of new patients
- Staff wearing Personal Protective Equipment (PPE) when screening incoming patients for HPAI symptoms
- Laboratory testing as needed
- Reorganizing interior spaces to minimize cross-contamination

As a result of our extraordinary efforts, we have been 100% successfully to-date in keeping HPAI out of our clinics.

To learn more about our extraordinary efforts to keep our patients and our personnel safe, read our Blog entries:

[Not All Heroes Wear Capes – Suiting Up To Protect From Bird Flu](#)

[Mallard Ducklings Present Unique Bird Flu Challenges](#)



Wearing personal protective equipment (PPE) to protect against Highly Pathogenic Avian Influenza, Bird Rescue staff examine a Brown Pelican patient in a special quarantine area.



BirdRescue.org



2. California Pelican Crises: 2024 and 2022

In May 2022 and again in April 2024, van-loads of California Brown Pelicans arrived daily from other regional wildlife centers in the Counties of Los Angeles, Monterey, Santa Cruz, Contra Costa, Alameda, Marin, Santa Barbara, and Solano. Most patients were starving, weak, severely anemic, could not maintain their body temperature, and the vast majority were severely emaciated (i.e., *half* their normal body weight). 2024 intakes totaled 413 patients, and 2022 intakes totaled 390 patients, making these the largest influxes of Brown Pelicans seen at our Centers since 2012.

In both 2024 and 2022, we saw symptoms of starvation which point to a food issue. We continue to work with researchers at US Fish and Wildlife Service and California Department of Fish and Wildlife to determine root causes. Whatever the ultimate cause, the birds were failing to find enough to eat and taking extra risks when foraging, resulting in significant fishing hook, line, and net entanglements. One 2024 pelican “crashed” onto the field of a San Francisco Giants Major League Baseball game.



Testing confirmed that the 2024 patients were suffering from *neither* HPAI *nor* Domoic Acid. Notable patient statistics include:

- 69 with fractures
- 100 with fishing gear injuries
- 68 with wounds of unknown origin
- 15 oil-contaminated
- 1 gunshot
- 80 surgical procedures (14 of which were pouch lacerations) on 65 different patients

Brown Pelicans have been impacted by large-scale perils in the past and they were added to the endangered species list in 1970 due to exposure to DDT that caused their breeding numbers to plummet. It wasn't until 2009 that they were removed from the list. Since 2009, we have attached special blue leg bands to all released Brown Pelicans to help citizen-scientists track them in the wild as part of our *Blue Banded Pelican Program*.

Blood values and other factors are considered before patients are released back to the wild. All released birds are banded with Federal metal bands for the Federal Bird Banding Lab, as well as blue bands for our *Blue Banded Pelican* citizen science research program. We encourage the public to report all banded bird sightings on our website, which we share with the Federal Bird Banding Lab.

Thanks to our extraordinary efforts, 243 patients have already been released back to the wild at species-appropriate locations, while 41 patients are still rehabilitating (favorable prognoses are expected). Multiple (79) resightings have been confirmed, including patient 3H9 in Newport, OR.

Patient data from our specialized RaptorMed software (which we use to track medical information specific to each individual patient) shows that the average length of stay for 2024 patients to-date (since 41 are still undergoing rehabilitation as of 8/8/24) is 36 days (and climbing): a nearly 3x increase from historical averages, due to the severity of the crisis and due to HPAI (Highly Pathogenic Avian

Influenza), which requires us to quarantine and test/monitor every arriving patient, adding significant time and cost to our operations.

Notable media includes:

KPIX5-TV SF: <https://www.youtube.com/watch?v=6mlHkISgv5M>

ABC7-TV SF: <https://abc7news.com/post/bay-area-animal-groups-stepping-up-to-help-after-surge-in-starving-brown-pelicans/14809909/>

NBC-TV: <https://www.nbcbayarea.com/news/california/state-brown-pelicans-problem/3538253/>

USA Today: <https://www.usatoday.com/story/news/nation/2024/05/16/california-brown-pelicans-starving-rehab/73712168007/>

KQED Radio: <https://www.kqed.org/science/1992933/california-has-a-theory-on-why-brown-pelicans-are-starving-and-dying>



L: Carriers filled with emaciated Brown Pelicans arrived week after week at our Wildlife Centers.

R: Wildlife Center Manager Kylie Clatterbuck begins intake on a rescued Brown Pelican. When rescuers ran out of large pet-carriers, they were forced to resort to shipping boxes.



L: Bird Rescue Wildlife Rehabilitation Technician Claire Koykka works with volunteer Daphna Wohl to examine one of the 400+ Brown Pelicans in care during the crisis.

R: Although most pelicans were starving and sick, many arrived with wing fractures and fish hook-inflicted wounds. Dr. Rebecca Duerr worked tirelessly to aid these injuries.

3. Oilapalooza Conference in Bakersfield, CA in October 2024

Five members of team at International Bird Rescue attended [Oilapalooza](#), the Oiled Wildlife Care Network's (OWCN) biennial 2-day spill response conference, in Bakersfield, CA, taking part in a valuable opportunity to both teach and learn.

Our team participated in two panels. Dr. Rebecca Duerr, Director of Research and Veterinary Science, discussed protocols for managing Highly Pathogenic Avian Influenza AKA bird flu, sharing critical insights to help protect both birds and responders.



L to R: Finn Watson, Wildlife Rehabilitation Technician; Kelly Beffa, San Francisco Bay-Delta Wildlife Center Manager; Dr. Rebecca Duerr, Director of Research and Veterinary Science; Lisbeth Montenegro, Wildlife Rehabilitation Technician; and Jennifer Martines, Wildlife Rehabilitation Technician.

Additionally, Lisbeth Montenegro, Wildlife Rehabilitation Technician, moderated a panel focused on Diversity, Equity, Inclusion, and Accessibility (DEIA) in wildlife rehabilitation. Jennifer Martines, Wildlife Rehabilitation Technician, contributed as a panelist, highlighting the importance of inclusive practices in our field.

"DEIA conversations are important to creating an environment where people feel respected and accepted despite their different lived experiences." Lisbeth said. "It was great to see the audience ask questions that focused on how to make positive changes."

Oilapalooza is designed to provide OWCN network attendees with opportunities to meet and share experiences with other members, learn about new technologies, enhance individual wildlife response skillsets, and apply those skills during the Full Deployment Drill on Day 2.

Bird Rescue is one of the founding members of OWCN, an organization that was established in partnership with the California Department of Fish and Wildlife – Office of Spill Prevention and Response (OSPR). The network was formed as a reaction to the devastating [1989 Exxon Valdez oil spill](#) in Prince William Sound, Alaska and the [1990 American Trader spill](#) in Huntington Beach, CA.

4. Victim of Human Cruelty, Blue the Pelican Provided Life-Saving Treatment, and Released

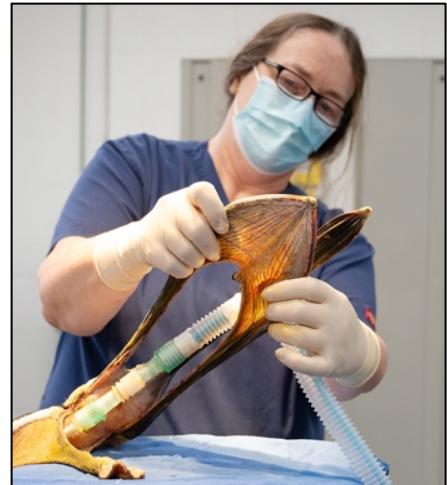
On Sunday March 10, 2024, a crew member on the sport fishing boat *Truline* identified a California Brown Pelican in distress. Acting quickly, they captured the bird and delivered it to our LA Wildlife Center. The bird was unable to feed itself due to a massively slashed pouch, and was nicknamed "Blue" for its temporary ID band. Blue's injuries included straight cuts parallel to the jaw, running all the way back to the neck, and cutting into the feathered skin of the neck itself on both sides. The wounds were scabbed and about 4-7 days old. At the scabbed feathered skin wound margins, both sides showed linear cuts reminiscent of a knife, machete, or other sharp object.

Our Director of Research and Veterinary Science Dr. Rebecca Duerr rushed Blue into surgery. More than 400 stitches were required to repair Blue's pouch. Although the initial surgery was successful, a second surgery (requiring more than 100 additional stitches) was required a few weeks later to complete the repair.

Blue received her permanent Blue Band 2E8 (as part of our ongoing citizen science *Blue Banded Pelican Program*) and was released back to the wild ([as shown in this video](#)) on April 25, 2024. Media covering our response to this human cruelty event included [FOX11LA](#), [NBC4LA-TV](#), [KFI640AM Radio](#), [CBS-KCAL-TV](#), and the [Sacramento Bee](#), among others.



Dr. Rebecca Duerr, Director of Research and Veterinary Science, discusses protocols for managing bird flu at Oilapalooza.



Dr. Rebecca Duerr examines "Blue" the California Brown Pelican patient. The tube in the pelican's mouth area carries oxygen and anesthesia during the surgery.

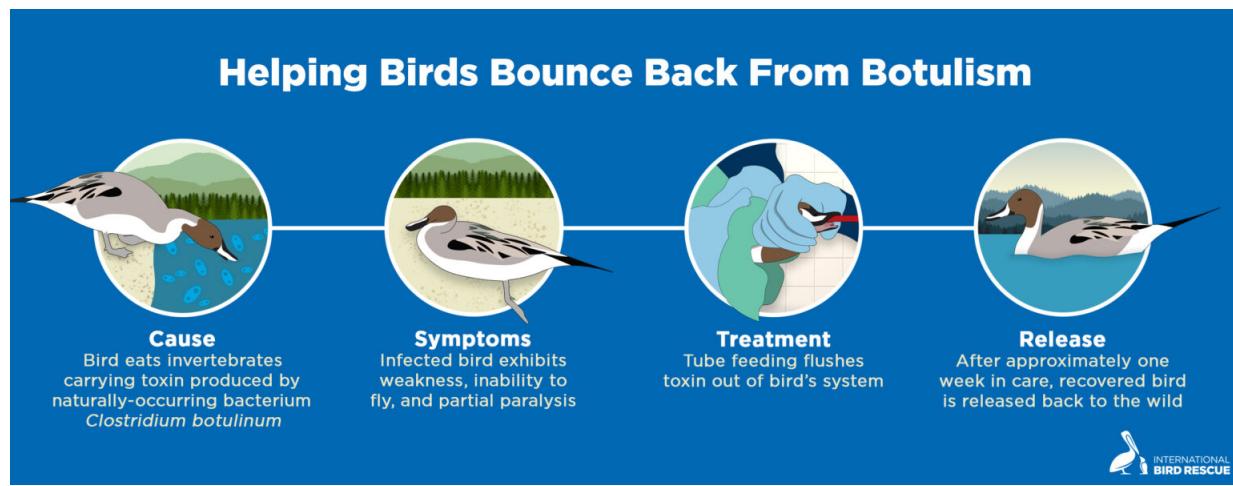
5. Providing Expert Support at Tulare Lake Avian Botulism Event

In summer and fall of 2023, a serious avian botulism outbreak affecting waterbirds unfolded in California's Central Valley. Most years, Tulare Lake is a dormant body of water. Because of the extraordinary winter runoff from the Sierra into the Central Valley, the lake grew to the size of Lake Tahoe, swallowing up working farms. Although this made an attractive stop for millions of migrating birds, the warm, stagnant water and ample decaying organic matter were perfect conditions for the naturally-occurring bacterium *Clostridium botulinum*.

We were activated along with other member organizations of the [Oiled Wildlife Care Network \(OWCN\)](#) to assist the [California Department of Fish and Wildlife \(CDFW\)](#) in this rescue and rehabilitation effort. Hundreds of ducks, grebes, stilts, and ibis came into care. With expert supportive care matched to the severity of symptoms, birds with botulism usually recover very quickly and usually are ready for release within two weeks. We are able to deploy to emergency events like this because public support helps us continually train staff and volunteers, year-round.



Wildlife Rehabilitation Technician Emily Werdal (left) and Wildlife Center Manager Kylie Clatterbuck tube-feed a Black-necked Stilt rescued from the Tulare Lake Avian Botulism Event.



6. Long Beach Harbor Seabird Rescue

In May 2021, a major nesting site for both near-threatened Elegant Terns and Least Terns at Bolsa Chica Ecological Reserve in Southern California was disturbed by human impact (a crashed drone), as reported by the LA Times and the [Press Enterprise](#). Thousands of terns abandoned an estimated 2,000 eggs. There is evidence that the Bolsa Chica Elegant Terns fled to other nesting sites, including two barges located in busy Long Beach Harbor, approximately 500 feet offshore and not accessible by land.



Nesting Elegant Terns on barge located in Long Beach Harbor.

Beginning July 7, 2021, young terns were spotted falling off of the barges, and dead tern chicks were washing ashore. Our partners at Los Cerritos Wetlands Stewards and El Dorado Nature Center were first on the scene and immediately contacted us. With our expertise and the hands-on knowledge that comes from working with waterbirds on a daily basis, we immediately activated our response teams. Just a year earlier in 2020, we published an important scientific paper on a rescue-and-rehabilitation effort that led to a notable success: the post-release survival and breeding of a group of Caspian Terns.

As the crisis unfolded, it became clear that *thousands* of young birds were at risk. The chicks, still without flight feathers and unable to get back up onto the barge, would have drowned without rescue. Our staff were on the water each day for weeks, performing search and collection, and transporting chicks to our Los Angeles Wildlife Center for care. We worked closely with the California Department of Fish and Wildlife and Port of Long Beach, and determined practical and immediate solutions to prevent the problem from continuing.



Some of the young Elegant Terns in care at our Los Angeles Wildlife Center.

At our Los Angeles Wildlife Center, each young bird was evaluated, dried, and warmed to stabilize its condition. Tern chicks require hand feeding, and can easily habituate and become accustomed to human interaction. This is unsafe for wild animals, so we took extra precautions to cover our faces and bodies during feeding so these birds would remain wild.

Our clinic staff are always attentive to the individualized needs of particular species. Knowing that Elegant Terns have sensitive feet and need a softer natural substrate to prevent foot injuries, staffers were busy each day collecting sand to line the bottom of the birds' enclosures.

Once fully fledged, the rescued chicks left the barges along with the rest of their colony. They have been spotted as far north as San Francisco, and as far south as San Diego.

Two key outcomes of our crisis response effort were:

- The rescue of 3,108 near-threatened Elegant Terns (exceeding our early estimate by nearly seven-fold).
- The successful return of 3,003 Elegant Tern chicks back to the wild: a release rate of 96.6%!

The total number of birds affected, as well as the time frame of the crisis, far exceeded our initial expectations, using more human and financial resources than originally anticipated.

Another challenge was that 638 of the near-threatened Elegant Tern chicks required rescue more than once. We adapted by designing and installing special “haul-outs:” small custom-built platforms that floated at water-level so that baby birds who fell off of the nesting barges could safely get out of the water until we could rescue them.

All photos: International Bird Rescue

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Marked with special pink ink, one of the young Elegant Terns in care is ready for release.



Getting a final exam just before release, “Little Mike” was one of the smallest chicks to come into care.