

County of Santa Cruz

Health Services Agency - Environmental Health

Fish and Wildlife Advisory Commission

(831) 454-2022 TDD/TTY - Call 711 http://www.scceh.org



AGENDA September 5, 2024, 6:30 PM

Agenda	Start	End	Description
Item#	Time	Time	
1	6:30	6:40	Call to Order
2			Roll Call
3			Approval of Consent Items:
			1. July Meeting Minutes
			2. Update Reports from 2023-24 Grant Projects
			3. Update Report from 2022-23 CalTrout Grant
4			Public Comment for Items Not on The Agenda
5	6:40	7:10	Presentation on Tobacco Waste Initiative and Discussion
6	7:10	7:30	Presentation on French Broom Removal Work
7	7:30	7:50	Consider Sending Revised Significant Tree Ordinance Letter to
			the Board
8	7:50	8:00	Approve Public Grants Program Request for Proposals
9	8:00	8:30	Staff Reports
			Commissioner Reports and Announcements
10		8:30	Adjourn

Public Comment

None

Items of Interest:

<u>CDFW News | Wildlife Conservation Board Awards \$44 Million in Grants to 23 Habitat Conservation and Restoration Projects (ca.gov)</u>

The County of Santa Cruz does not discriminate on the basis of disability, and no person shall, by reason of a disability, be denied the benefits of its services, programs, or activities. This online meeting is available to anyone with a telephone. If you are a person with a disability and require special assistance in order to participate in the meeting, please contact Sean Abbey at (831) 454-2386 or TDD number (454-2123) at least 72 hours in advance of the meeting in order to make arrangements. Persons with disabilities may request a copy of the agenda in an alternative format. As a courtesy to those affected, please attend the meeting smoke and scent free.

Commissioner and Public Participation Information

Commissioners meet in person at the **Solarium Conference Room, 1060 Emeline Avenue**. Members of the public can join in person but are encouraged to join virtually using the link below.

PLEASE NOTE: The meeting room is on the second floor, above the Water Quality Lab entrance. The door must remain locked after hours, but staff will be able to provide access to all attendees as they arrive.

Microsoft Teams meeting

Join on your computer, mobile app or room device

Click here to join the meeting Meeting ID: 234 299 390 755

Passcode: qNGg9M

Download Teams | Join on the web

Click the "Click here to join the meeting" link above. If you are asked to join Teams with an application, click on "No thanks" and open in the browser. You should not need to download the application to join the meeting.

Please join the meeting a few minutes BEFORE 6:30 pm so that we can start at 6:30 pm. Staff will open the video conference at 6:25 pm. Cameras are optional for members of the public.

If you have questions, please contact Sean Abbey at sean.abbey@santacruzcountyca.gov.

Meeting Roles and Rules:

Jon Jankovitz, Chair, will lead the meeting. Chair Jankovitz will announce each agenda item, identify who will be leading an item and introduce discussion and public comment periods.

Sean Abbey, staff, will assist with roll call, note taking, and tracking who wants to speak. Please allow time for staff to make notes about any decisions. Sean will monitor email during the meeting.

There will be a public comment period for each item and the Chair will invite the public to participate at the appropriate time.



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Health Services Agency - Environmental Health

Fish and Wildlife Advisory Commission

(831) 454-2022 TDD/TTY - Call 711 http://www.scceh.org



Meeting Minutes
July 11, 2024

- **1. CALL TO ORDER** 7:04 pm
- 2. ROLL CALL

Distric t	Commissioner	Status	Commissioner	Status
1	Chris Berry	Р	Samuel Adelson	Р
II	Warren Barry	R	David Somerton	Р
III	Liz Alter	Р	Jon Jankovitz	Р
IV	Brooke Sampson	E	Daniela Suarez	Р
V	Jenni Gomez	Р	Jen Michelsen	Р

P = Present R = Remote E = Excused A = Absent

3. APPROVAL OF MINUTES:

- Motion to Approve Minutes for May 2 and May 22 meeting: Somerton,
 Second: Berry,
- o All Ayes (roll call): Minutes approved
- 4. **PUBLIC COMMENTS:** None
- with the DA office provided the following updates. There are currently two cases that have funds being directed to FWAC grants of around \$10,000 each. There are two additional cases that may have charges directed to FWAC. One is near Big Basin involving grading a road into the state park. Another involved large amounts of soil being used to fill a marsh near Buena Vista. In both instances, there is potential that the responsible parties may not have sufficient assets to provide monetary restitution that could be sent to FWAC grants. These cases may result in the land being foreclosed upon and, in the Big Basin case, being transferred to a public property owner. There have been relatively few cases of this variety in recent years due to an increase in the number of cases being directed to diversion, which does not litigate the case and instead requires a fine to be paid, like a traffic violation.

These types of fines generally do not get direct to the FWAC grants. Commissioners asked the following questions.

- o Com Barry: Are other counties experiencing this same issue with diversion?
 - Browne: I have spoken with other DA's in the area and this does seem to be an issue statewide.
- Com Barry: Do you meet with judges and try to encourage them to not divert these kinds of cases?
 - Browne: Yes, I do meet with judges, but outside of the cases mentioned there have not been many cases to begin with.
- Com Barry: In the case of hauled soil being used to fill in the marsh, why did you not charge with conspiracy? The owner and the contractor would have been conspiring.
 - Browne: The other parties were not known at the time of filing and the intent was to stop the dumping as soon as possible, which it was.
 - Cpt Schindler: Conspiracy can be a difficult case to make in my experience, even when the case seems clear.
- Com Berry: What constitutes a worthy case? I am aware of several stream alterations that I could direct to your office.
 - Browne: I consider all cases worthy of considering. Please take photos and video of the alterations and send them to me.

o Public Comment:

- Jean Brocklebank: Glad that the commission is asking these questions. Finds it distressing that the dams are being accepted and not prosecuted. Recommend the FWAC ask the Board to request a new state law that prevents diversions for these cases.
- <u>Becky Steinbruner</u>: Asks who the expert is that is advising on repairing the marsh and what is being suggested.
 - (1) <u>Browne</u>: I do not have the contractors name available, but they came recommend by several other agencies. Currently, the priority is to remove the soil onsite.
- 6. DISCUSS POSSIBLE CHANGES TO SIGNIFICANT TREE ORDINANCE LETTER: Com Jankovitz provided a background on the STO effort and then commissioners discussed how to incorporate the changes proposed by Cal-Fire at the previous meeting. Commissioners determined that the proposed exemptions from Cal-Fire would likely only be available outside the coastal zone, keeping the ordinance largely

unchanged inside the Coastal Zone. The commissioners proposed creation of a sub-committee to re-write the letter from 2019.

Public Comments

- Becky Steinbruner: Concerned about language in the ordinance to cut down significant trees to install solar or create vistas.
- Jean Brocklebank: Encourages commissioners to focus on limiting the allowance to remove trees.
- Motion to create a sub-committee with Com Berry, Gomez, Michelsen, and Somerton: Berry, Second: Gomez,
- o All Ayes (roll call): Sub-committee created
- 7. RECEIVE REPORT ON THE PRESENCE OF ARUNDO IN THE COUNTY: Commissioners received a report from Alyssa Abbey, who documented the presence of Arundo donax, a highly invasive plant in riparian areas, within Santa Cruz County. FWAC staff recommends commissioners contact organizations that may be familiar with the removal techniques and encourage them to apply in future FWAC grant cycles for funding to remove the documented Arundo. These could include Coastal Watershed Council, Santa Cruz County Native Plant Society, and Santa Cruz County Weed Management Area. Commissioner Gomez to create a map showing impacted areas and land owners to bring to a future meeting.

Public Comments:

- Jean Brocklebank: Will be on the lookout for Arundo in Corcoran Lagoon
- <u>Becky Steinbruner</u>: Recommends alerting the Fire Safe inspectors to look for Arundo and possibly report. Recommend CCC and Community Foundations as possible resources for removal work.
- **8. APPROVE 2024–25 MEETING SCHEDULE:** Commissioners discussed the meeting schedule and timing of meetings.
 - Motion to Approve Schedule, with Removal of January Meeting: Michelsen,
 Second: Berry,
 - o All Ayes (roll call): Meeting schedule approved
 - o Motion to Change Start Time to 6:30 from 7:00: Alter, Second: Adelson
 - o All Ayes (roll call): Meeting time change approved

9. STAFF AND COMMISSIONER REPORTS AND ANNOUNCEMENTS:

- Staff Reports:
 - Description of agendized vs correspondence

- (1) Correspondence is simpler, but requires no action be taken by the BOS. This is simply a letter that is presented to the BOS similar to a public comment
- (2)Agendized items are much more complicated and require either a Supervisor or Environmental Health to sponsor the item. This creates an item on the BOS agenda that must be voted on by the Supervisors.
- Staff gave an update about commissioner stipends.
- iNaturalist update: 52 Observations, 28 research grade, favorite observation: Grappletail (Dragon Fly).

Commissioner Reports:

- Com Jankovitz: Update on the Cotoni Coast Correspondence. Sup. Cummings office reached out to the BLM rep who said the letter was unfounded on the merit of the letter. Said there was an issue with a list that was not updated on the website, but that the lists were updated with input from CDFW and is updated regularly with input.
- <u>Com Berry:</u> Asks how the FWAC could be more impactful. Suggests a future agenda item on commissioner actions.
- Com Berry: SRF 2025 is going to be in Santa Cruz again in April

10. ADJOURN. Motion to Adjourn: Gomez, Second: Berry All Aye: meeting adjourned at 9:00 pm.

From: <u>Native Animal Rescue</u>

To: <u>Sean Abbey</u>

Subject: Report from Native Animal Rescue

Date: Wednesday, August 14, 2024 10:21:45 AM

****CAUTION: This is an EXTERNAL email. Exercise caution. DO NOT open attachments or click links from unknown senders or unexpected email.****

To: County of Santa Cruz Fish and Wildlife Advisory Commission

From: Native Animal Rescue

Native Animal Rescue appreciates the ongoing support from the Fish and Wildlife Advisory Commission. Our top 3 areas where we used the \$3,000 awarded this year were 1. Food, 2. Medication & Vet Services, and 3. Operational Supplies.

Providing food for wildlife used the majority of funds (\$2,140) Our busiest season is spring and summer when baby birds and mammals require Seed, mealworms, and specific formulas for baby mammals. Seabirds come in throughout the year and require fish. Hawks and owls require meat, usually frozen mice and rats.

We are fortunate to have a vet, Hillary Stern, offer her services. We cover the costs of medications, vaccines and medical supplies. We purchase large amounts of Pedialyte and Ensure which most animals get upon arrival before they can eat anything. We allocated \$470 for medical and yet services.

We allocated \$390 for operational supplies. Many things are a necessity to run an optimal facility. We purchase bleach, laundry and dish soap, cleanser, Paper towels and tissue. Because our volunteers rescue wildlife in the community, We use many cardboard transport boxes each year. These boxes are also used when seabirds are transferred to the International Bird Rescue in Fairfield.

During 2023 we took in 2,791 animals. To date for 2024 we have taken in 2,259. Thank you for helping with our mission of wildlife rescue, rehabilitation, and release.

Native Animal Rescue

Report on Emergency Funds for the Pelican Crisis

August 1, 2024

Native Animal Rescue would like to express great appreciation to the Santa Cruz Fish and Wildlife Advisory Commission for providing emergency funding of \$2,210 to help with the costs of caring for the starving pelicans during the recent crisis.

On April 18th, NAR received our first starving pelican, by April 26th, we had received 25, and by May 12th, we had received 200. In a typical year, NAR receives less than 30 pelicans. During this crisis, we received up to 23 in a single day. From May 13th through July 3rd, we continued to receive starving pelicans but at a much slower rate (43 during this time). Fortunately, the crisis seems to be over, and we haven't received a pelican since July 3rd.

During the crisis, NAR's staff and volunteers worked in overdrive to rescue and care for as many of the starving pelicans as possible. Our volunteers would be sent out to rescue one pelican and end up rescuing an additional 2 or 3 that they found on the beach, especially on the Boardwalk beach and Cowell's beach. The pelicans were easy to rescue because they were so weak from starvation.

At NAR, the pelicans would be examined, and any hooks and lines removed. They would be dried, warmed up, hydrated, given Ivermectin to kill parasites, and those with injuries were put on antibiotics. They were then "tubefed" Ensure every few hours to build up their strength and get their digestive systems working again. Once they were eating fish, they were ready to be transported to International Bird Rescue (IBR) in Fairfield, CA, where they would be cared for until they were strong enough to be released.

To transport a large number of pelicans to IBR, we needed to rent a large U-Haul van a couple of times, and one of our volunteers used her horse-trailer a few times, transporting up to 33 pelicans in one trip.

The emergency funds were used for the following expenses:

U-Haul Van Rental (2 trips) \$ 440.

Gas to Transport Pelicans (5 trips) \$ 440.

Sardines Fed to Pelicans (280 lbs.) \$ 980.

Ensure Given First 24 Hours \$ 350.

Total Funds Requested \$2,210.

With great appreciation,

Eve Egan,

Executive Director



Final Reports to Santa Cruz County Fish and Wildlife Advisory Commission for Two Grant Awards:

- Resolving Negative Santa Cruz County Human-Wildlife Conflicts
- 2024 Santa Cruz County Pelican Crisis

July 30, 2024

Original Funding Requests and Project Description

International Bird Rescue was awarded and received two grants in 2024 from the Santa Cruz County Fish and Wildlife Advisory Commission: a \$1,519 grant in January 2024 (to address known, ongoing human-wildlife conflicts in Santa Cruz County), and a \$6350 emergency grant in June 2024 (to address an acute starvation event effecting California Brown Pelicans). Both grants' purposes were to offset a small portion of the necessary costs of essential clinic and medical supplies, medicine, and food for birds admitted from Santa Cruz County to our San Francisco Bay-Delta Wildlife Center. As the following narrative and financial report demonstrates, grant funds were expended for this purpose.

Program Results

In April 2024, van-loads of California Brown Pelicans began to arrive daily from other regional wildlife centers, including from our long-time, trusted partners at Native Animal Rescue. Most were starving, weak, and severely anemic. Total 2024 pelican intakes are over 400 as of 7/30/24, making this the largest influx of Brown Pelicans seen at our centers since 2012. One pelican "crashed" onto the field of a San Francisco Giants game (clearly not from Santa Cruz County)!

Since April 2024, in just four months, we have rescued 148 California Brown Pelicans from Santa Cruz County, far above historical averages and nearly double the estimate in our emergency grant application (Our historical average is 300 patients *annually* from Santa Cruz County – only LA County refers more patients to us.)

Patient data pulled from our RaptorMed software (which we use to track medical information specific to each patient) shows the following for these patients:

Patients were rescued from Santa Cruz, Aptos, Capitola, Corralitos, and Watsonville.

Of the 148 patients rescued from Santa Cruz County, 91 have already been successfully rehabilitated and released back to the wild in species-appropriate locations, while 25 are still undergoing rehabilitation (although favorable prognoses are expected).

The average length of stay for these patients to-date (since 25 are still undergoing rehabilitation) is 40 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 now requires us to quarantine and test/monitor every arriving patient, adding significant time and cost to our operations.

The good news is that, to date, our screening protocols are working and we have successfully kept HPAI out of our clinic and kept HPAI from infecting any of our current patients.

The crisis reminds us that birds in a changing world face new and challenging obstacles. In this incident, we see 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.

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*.

Notable media includes:

KPIX5-TV SF: https://www.youtube.com/watch?v=6mIHklSgv5M (mentions Santa Cruz!)

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.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

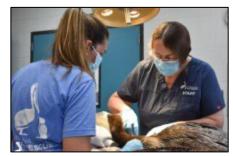




L: Carriers filled with emaciated Brown Pelicans arrived week after week at our San Francisco Bay-Delta Wildlife Center.

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.

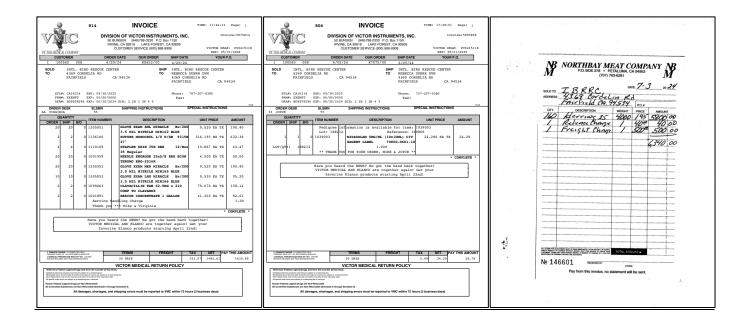
R: Although most pelicans were starving and sick, many arrived with wing fractures and fish hookinflicted wounds. Dr. Rebecca Duerr worked tirelessly to aid these injuries.

All photos: International Bird Rescue

Financial Report:

Santa Cruz County Fish and Wildlife Advisory Commission Grant funds were to be used to pay for material costs of animal nutrition/food, medicine and medical supplies, and clinic and rehabilitation supplies for birds admitted from within Santa Cruz County to our San Francisco Bay-Delta Wildlife Center. No funds were used for personnel or capital expenses. Grants supported the following receipts and invoices (below):

Category	Vendor	Date	Amount	Grant Supported
7642 Medicine/Medical				
Supplies	Victor Medical Company	04/29/2024	\$1,635.68	\$1,519.00
		TOTALS	\$1,635.68	\$1,519.00
\$6,350 Grant: 2024 Santa (Cruz County Pelican Crisis			
\$6,350 Grant: 2024 Santa (Cruz County Pelican Crisis Vendor	Date	Amount	Grant Supported
		Date	Amount	Grant Supported
Category		Date 06/05/2024	Amount \$26.78	Grant Supported
Category 7642 Medicine/Medical	Vendor			



Contact:

International Bird Rescue 4369 Cordelia Rd. Fairfield, CA 94534 Phil Kohlmetz, Grants Coordinator

E: grants@birdrescue.org

P: 707-207-0380 x100 or 707-704-0350

Grant Report to the County of Santa Cruz Fish and Wildlife Advisory Commission Coastal Watershed Council 2024

During the grant period from January to June 2024, the Coastal Watershed Council (CWC) engaged 783 students and 307 volunteers to learn more about the San Lorenzo River ecosystem and take action to support healthy, biodiverse riparian habitat. During this time, CWC volunteers removed 2,512 square feet of highly invasive species from the lower San Lorenzo River, predominantly ice plant (Carpobrotus edulis). In addition, CWC organized a Family River Health Day on June 22, 2024. Despite extensive outreach through bilingual flyers, digital communications, and local tabling events, attendance was low, with only three participants. Despite the low turnout, this event resulted in the removal of 122 square feet of ice plant (Carpobrotus edulis). Based on this experience, CWC will adjust future family outreach strategies, such as scheduling events during the school year and offering incentives to boost participation. The outreach materials created for this event have served as resources for engaging the community on invasive species beyond the Family River Health Day, including their distribution at the recent Asian American and Pacific Islander Cultural Festival. Overall, the grant has enabled CWC to make significant strides in habitat restoration and educational outreach, contributing positively to the health of the San Lorenzo River ecosystem and community education around highly invasive species.





Jodi McGraw Consulting

www.jodimcgrawconsulting.com PO Box 221 • Freedom, CA 95019 phone/fax: (831) 768-6988 jodi@jodimcgrawconsulting.com

August 14, 2024

Fish and Wildlife Advisory Commission 701 Ocean Street, Soom 312 Santa Cruz, CA 95060

Re: Santa Cruz Cypress Broom Removal Project: 2024 Grant Report

Dear Fish and Wildlife Advisory Commissioners:

Thank you for your generous support of the project to remove invasive French broom to promote recovery of the federally threatened and State endangered Santa Cruz cypress (*Hesperocyparis abramsiana*). Between February and May 2024, our team completed following tasks within the Bracken Brae stand in Boulder Creek, CA:

- 1. Mapped the French broom and developed a treatment plan (Figure 1);
- 2. Held five work days (March 16, March 28, April 19, May 2, and May 10) to remove broom from the 3-acre treatment area (Figure 1); and
- 3. Hauled the biomass to a pile adjacent to the road, from where it was chipped and removed from the site to restore habitat and reduce fuels.

Figure 2 provides before and after images of the treatment area which Figure 3 shows treatments images.

The successful project was a community effort and was made possible by the following:

- **Fish and Wildlife Commission**, which funded the equipment, materials, and a portion of JMc's staff time and also contributed volunteers on the initial work day;
- California Department of Fish and Wildlife, which donated staff time during the five work days;
- California Native Plant Society Habitat Restoration Team, which conducted outreach and helped organize the volunteers who contributed more than 150 hours of service over the five work days.
- The Resource Conservation District of Santa Cruz County, which funded the biomass removal through a grant from the California Coastal Conservancy, as well as contributed staff time to assist with the treatment;
- UC Santa Cruz Environmental Studies Interns sponsored by JMc, who contributed 48 hours of time;
- Andy Opler, the landowner who provided access to the site and guidance regarding the treatment; and
- **Jodi McGraw Consulting,** which matched the staff time funded by the FWAC with additional staff time at more than a 2:1 ratio (two donated hours for every one funded hour).

We are continuing to work with the landowner and conservation agencies and organizations to identify methods to follow up and expand this treatment and to continue to promote recovery of Santa Cruz cypress at this and other sites.

Sincerely,

Jodi McGraw, Principal Ecologist

e-cc: CDFW, CNPS Restoration Team, RCD of Santa Cruz, Andy Opler

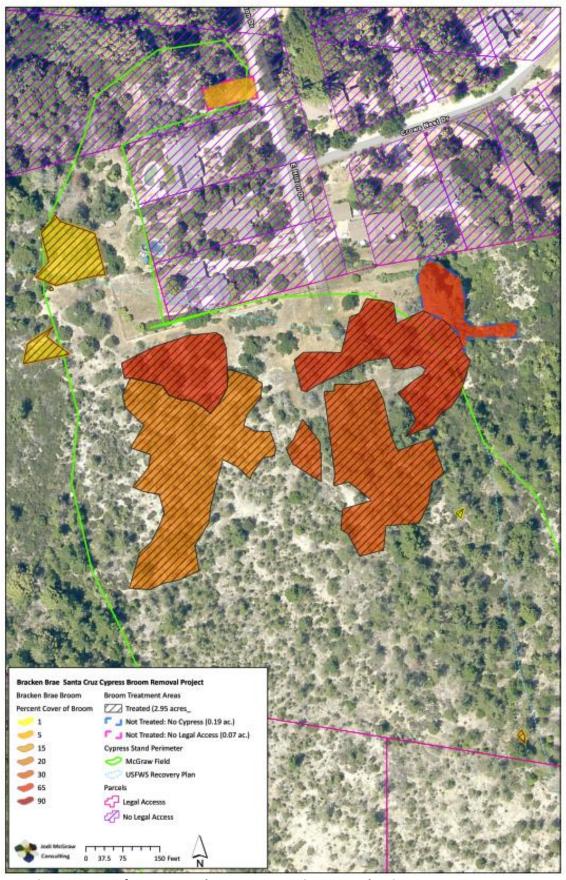


Figure 1: Map of Areas Treated to Remove Invasive Broom showing pre-treatment cover

After Treatment

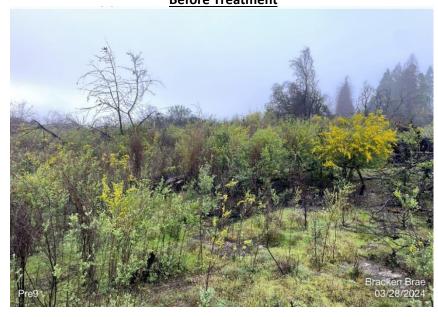








Figure 2: Before (left) and After (right) Images of Treatment Area. Photos by Jodi McGraw Consulting.

Brackert Brae 03/16/2024







Figure 2 (cont.): Before and After Images of Treatment Area. Photos by Jodi McGraw Consulting.

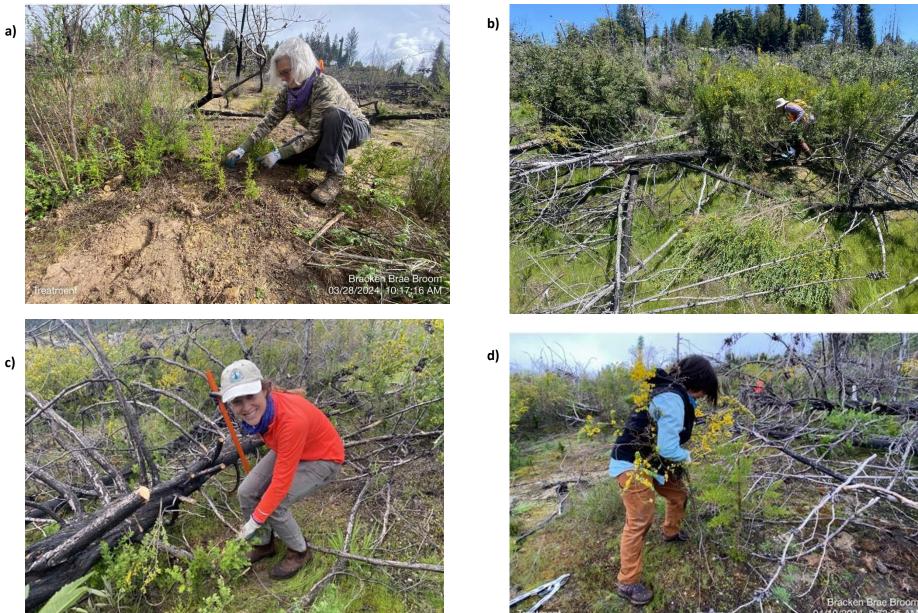


Figure 3: Treatment Images, showing: a) Linda Broadman (CNPS Habitat Restoration Team) pulling broom around cypress seedlings, b) JMc staff pulling a dense stand of broom, c) Angie Richman (RCD) pulling broom, d) Laurel Bard (RCD) pulling broom around cypress juvenile. Photos by Jodi McGraw Consulting.

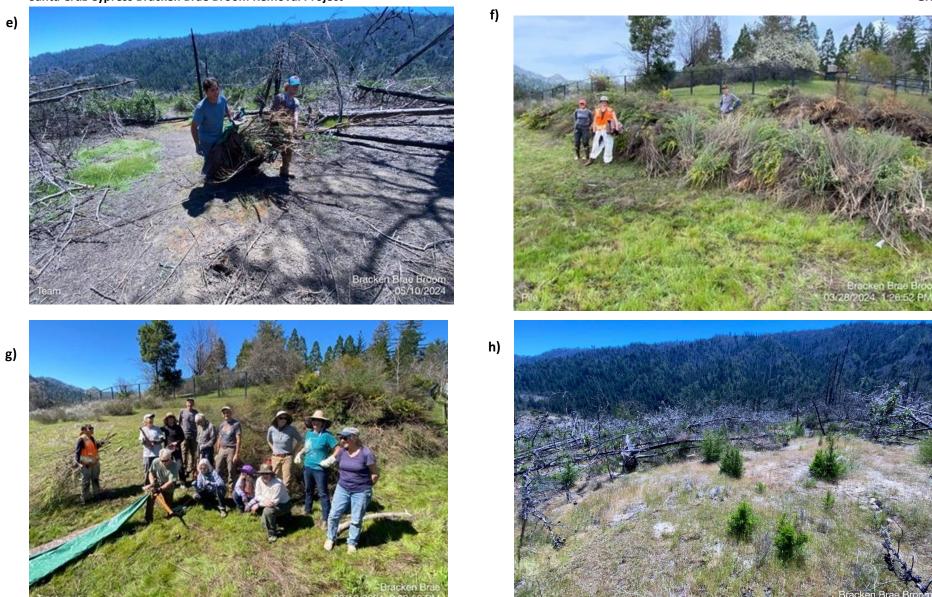


Figure 3: Treatment Images (continued). e) Shun Gross and Jack Dunlop (JMc UCSC Interns) hauling broom to the pile, f) a portion of the biomass piled for ultimate and chipping and off haul by the RCD contractor, g) work crew on the first day which included CDFW, CNPS, JMc, and FWAC Commissioner Jen Michelsen and staff member Sean Abbey, and h) Santa Cruz cypress juveniles in open habitat previously occupied by French broom. Photos by Jodi McGraw Consulting.

2024 GRANT REPORT BRANCIFORTE CREEK PIT PILOT PROJECT







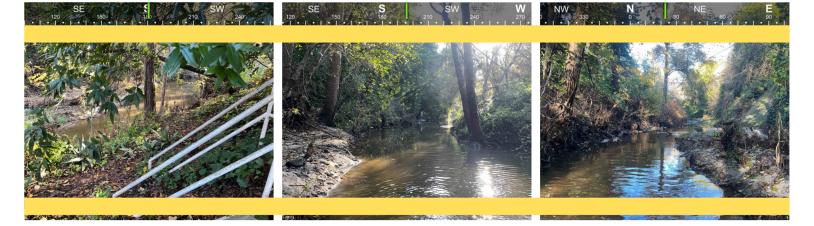
OVERVIEW

With generous support from the Santa Cruz County Fish & Wildlife Advisory Commission (Commission), California Trout (CalTrout) launched a pilot project this spring. Our project goal is to use Passive Integrated Transponder (PIT) tag antennas to record coho salmon and steelhead migrations in Branciforte Creek, and then compare these salmonid migrations to those in other nearby streams. We will achieve the goal via several objectives: expanding the PIT antenna network in the San Lorenzo River Watershed, comparing salmonid habitat use in Branciforte Creek to migrations in the mainstem San Lorenzo River and other streams, detecting salmonids moving between Central Coast streams, garnering support for an extended PIT monitoring project in Branciforte Creek, and sharing project results with others. This 2024 report provides updates on project work completed after the 2023 report was shared with the Commission, and we also included the 2023 report in our Appendix for your convenience. We received grant funds in 2023 following our application during the 2022-23 grant period.

IMPACT

Our pilot project results will be important for two primary reasons – documenting preliminary conditions before fish passage is restored through the Branciforte Flood Control Channel, and documenting salmonids from other systems that stray into natural habitat above this concrete channel. These results will inform adaptive management strategies for resources in the San Lorenzo River watershed to benefit the aquatic ecosystem, people who utilize the local water supply, and native salmonids that are both culturally significant and federally listed. Our grant fund expenditures (Table 2) align with the California Fish & Game Code. Equipment purchased is designated for work under section 13103(i) – "Scientific fish and wildlife research conducted by institutions of higher learning, qualified researchers, or government agencies, if approved by the department." Project reports and blog posts also complement section 13103(a) – "Public education relating to the scientific principles of fish and wildlife conservation, consisting of supervised formal instruction carried out pursuant to a planned curriculum and aids to education such as literature, audio and video recordings, training models, and nature study facilities."





PROGRESS

OBSERVATIONS

To date, our antenna has not detected salmonids in Branciforte Creek. This is expected due to antenna performance issues following installation toward the end of spawning season, and hydrologic models that show only adults can pass through the flood control under certain streamflows. Below is a table of antenna operation dates.

SITE SELECTION

The Bay Area Project Coordinator is managing this project and overcoming challenges as summarized below. In January 2023, CalTrout discussed potential PIT antenna sites in Branciforte Creek with the County of Santa Cruz, City of Santa Cruz, CDFW, NOAA Fisheries West Coast Region, and the NOAA Southwest Fisheries Science Center. After this discussion, we found a willing landowner on one side of Branciforte Creek where we prepared to install a PIT antenna at their property upstream of the confluence with Carbonera Creek. Due to hesitations from the neighboring landowner, we pivoted and continued outreach with support from the County and the Coastal Watershed Council. As a result, in December 2023, we selected a site located 200 meters upstream of the Branciforte Flood Control Channel during a site walk with the landowners who agreed to let us use their property for the antenna (Figure 1).

Figure 1: The Branciforte PIT tag antenna site (orange star) is located upstream of the Flood Control Channel and downstream of the Carbonera Creek confluence (yellow icons). The bounded inset map shows the antenna site relative the broader Santa Cruz area.











EQUIPMENT INSTALLATION

In March 2024, our Project Coordinator installed a PIT antenna at the site after spending months building and testing it. This homemade antenna was designed for fish to swim through it in various flows. It was 18 meters long and comprised of concentric wire loops that spanned the 15-meter-wide stream channel. The antenna wires crossed Branciforte Creek perpendicular to stream flow in a bow-shaped orientation.

EQUIPMENT DESIGN

The top of the antenna floated to adjust with the water level, the bottom was set to the streambed, and the sides were tied to the base of trees on both banks. This arrangement allows the antenna shape to change with changing water depth so fish can pass through the opening between the top and the bottom wires. The methods were pioneered on the Carmel River by the NOAA Southwest Fisheries Science Center before CalTrout applied them in Pescadero Creek (San Mateo Co.).

EQUIPMENT PERFORMANCE

Unfortunately, the wire antennas that we built did not perform well in Branciforte Creek. They only detected PIT tags from up to 2.5 cm away. We discussed diagnostics with Biomark, the manufacturer of the computer board for the antenna which records fish detection data. Finding that long antennas are difficult to operate effectively, our Project Coordinator built a 9-meter-long antenna that also had suboptimal performance.

Table 1: PIT tag antenna operation dates and performance notes are shown for the 2024 water year.

2024 Water Year				
Operation Dates (MM/DD)	Notes			
March: 3/14, 3/16-22	Installation, operated before high flows disconnected cables (no fish detections)			
April: 4/19, 4/24-25	Intermittent operation due to low Amps (no fish detections)			
May: 5/02, 5/10-20, 5/28-31	Intermittent operation due to low Amps, detected test tags (no fish detections)			
June: 6/01-17, 6/28	Shorter antenna installed to change performance*, low Amps (no fish detections)			
July: 7/20-23, 7/29	Intermittent operation due to low Amps, detected test tags (no fish detections)			
August: NA	Antenna inoperable due to low Amps (no fish detections)			

^{*}We installed a shortened antenna in a failed attempt to improve the likelihood of detecting PIT tags since antenna performance decreases above certain lengths.









NEXT STEPS

NEW EQUIPMENT

Due to these performance issues, we are planning to purchase and install a 6-meter-long rigid HDPE PIT antenna from Biomark. Their guidance shows that we can expect the antenna to detect both full and half-duplex PIT tags up to 61 cm away. These tags are currently being implanted into fish in the San Lorenzo River and nearby watersheds by the City of Santa Cruz, NOAA, and CDFW. We expect to detect most PIT-tagged salmonids that swim over our new antenna. Once additional funds are secured, our Project Coordinator plans to install the HDPE antenna this fall and operate it continuously, except for major storms that could damage equipment. In the meantime, CalTrout will continue operating the 9-meter-long flexible wire antenna while working to secure the new one. Using lessons learned from trial and error, we may rebuild and seasonally operate the 18-meter-long flexible wire antenna at the existing project site. We can then detect salmonid swimming directions as both antennas operate at the same time next to one another. Currently, we are exploring opportunities to augment grant funds so that we can purchase and install a more reliable HDPE antenna.

OUTREACH

CalTrout will share results with the Commission and broader community once salmonids are detected by our antenna. We published a blog post on our website about our work titled "Ghost-Hunting for Salmon and Steelhead in Santa Cruz." It was leveraged for social media posts to a broad audience shared between multiple environmental non-profits such as the Coastal Watershed Council, Alameda Creek Alliance, and Water Education Foundation. CalTrout also tabled at the 2024 State of the San Lorenzo River Symposium to raise local awareness of the project and its connections to other conservation efforts in the watershed. Recently, we led a community science tour with local volunteers, the City of Santa Cruz, and the Coastal Watershed Council. CalTrout looks forward to engaging partners and community members as the Branciforte PIT Project progresses.









Table 2: Summary of purchases (prior and planned), grant funds (spend and remaining), and a funding gap for the new for the new HDPE PIT antenna and associated equipment.

Grant Budget			
Past purchases	Date	Detail	
\$76.53	8/27/2024	4 A, 6/12V battery charger from Walmart	
\$76.53	8/10/2024	4 A, 6/12V battery charger from Walmart	
\$81.51	4/13/2024	8 AWG cable (100 ft.) from The Home Depot	
\$28.09	4/11/2024	zip ties, electrical tape from The Home Depot	
\$273.37	4/02/2024	Simms waders from Amazon	
\$29.01	3/16/2024	zip ties, ground stakes from The Home Depot	
\$41.67	3/15/2024	10 AWG cable (50 ft.), wing nuts from The Home Depot	
\$5.44	3/15/2024	zip ties from The Home Depot	
\$13.10	3/11/2024	lighter for heat shrink wrap from Safeway	
\$17.48	3/09/2024	4 AWG bridge cables from Amazon	
\$14.36	3/08/2024	water resistant heat shrink wrap from The Home Depot	
\$4.36	3/02/2024	Oil for sliding cables into PEX pipe from The Home Depot	
\$32.33	1/13/2024	LCR multimeter from Amazon	
\$3.13	12/25/2023	work gloves from Walmart	
\$7.65	10/25/2023	pool noodle for floating line from Ace Hardware	
\$7.65	10/22/2023	pool noodle for floating line from Ace Hardware	
\$3.11	9/30/2023	gloves from The Home Depot	
\$31.46	9/28/2023	rope, carabiner clips from Amazon	
\$195.85	9/28/2023	wing nuts, PEX pipes, 10 AWG spool from The Home Depot	
Spent	\$942.63	total expenditure of Commission grant (08/19/2024)	
Remainder	\$3,557.37	total remainder of Commission grant (08/19/2024)	
Planned purchases	Date	Detail	
~\$5,212.80	09/2024	Quote for 20' HDPE antenna from Biomark (price subject to change)	
~\$100	09/2024	Estimate for 9 x 4' x ¾" Gripple Badger anchors from Steel & Fence Supply	
Funding gap	\$1,655.43	outstanding need for additional fundraising	









APPENDIX

2023 GRANT REPORT - SANTA CRUZ FISH & WILDLIFE ADVISORY COMMISSION

(as written when submitted to the Commission in August 2023)

California Trout, Inc. is on track to install our salmonid tracking project site on Branciforte Creek this November using granted funds from the Santa Cruz County Fish & Wildlife Advisory Commission. We have completed landowner outreach along Branciforte Creek, secured site access permission, measured project site features to prepare for equipment installation, prepared for equipment purchase and delivery with our vendor, and discussed the relevance of our project with the NOAA Southwest Fisheries Science Center (SWFSC). To date, we have spent \$26.21 on equipment, and we plan to spend the \$4,443.27 of remaining funds on more cost-effective equipment than that listed in our proposal budget by December 2023.

We plan to coordinate passive integrated transponder (PIT) tag antenna projects that track salmonid migrations in the San Lorenzo River watershed with partners. SWFSC staff recently shared that challenges in maintaining the SWFSC PIT antenna at the Felton Diversion Dam may warrant reconsideration of their work at current and new potential sites. In September, we will coordinate with the County and City of Santa Cruz, the SWFSC, local non-profits, and resource agencies to discuss how remaining grant funds and other leveraged funding sources, can strategically support coordinated fish tracking efforts in the San Lorenzo River watershed following winter storm damages from flooding. As California Trout prepares to track salmonid migrations along Branciforte Creek, we intend for this pilot study to build on salmonid tracking work in the watershed by our institutional partners (objectives 2-3) while informing salmonid management and restoration efforts (objective 6).





County of Santa Cruz

Health Services Agency - Environmental Health



Fish and Wildlife Advisory Commission

(831) 454-2022 TDD/TTY - Call 711 http://www.scceh.org

September X, 2024

RE: Request that the Board of Supervisors consider extending the Significant Tree Ordinance outside the Coastal Zone

Dear Honorable Supervisors,

The Significant Tree Ordinance (STO) is aimed at protecting big trees within the Coastal Zone of Santa Cruz County. These big trees are responsible for providing habitat, stabilizing soils, storing carbon, retarding storm runoff and maintaining the aesthetic character for which Santa Cruz is so widely loved. Unfortunately, this ordinance does not extend outside the Coastal Zone and therefore big trees outside that zone have virtually no regulatory protection.

On July 11, 2019 the Fish and Wildlife Advisory Commission (FWAC) contacted you to suggest that you consider extending this ordinance to the rest of the County outside the Coastal Zone. At that time, Supervisor McPherson expressed concern that doing so may be in conflict with the Forest Practice Rules or other related Cal Fire standards. Fortunately, since that time we've learned that Cal Fire is supportive of extending the Significant Tree Ordinance provided that a revised ordinance includes exceptions for hazard trees similar to those found in the County of San Mateo Significant Tree Ordinance:

(https://www.smcgov.org/planning/regulation-removal-significant-trees)

Additionally, the County of Santa Cruz <u>Sustainability Update</u> also recommends that the Significant Tree Ordinance be reviewed in the context of climate change adaptation. We understand that the focus of this was more responsive to environmental justice concerns than it was on habitat, however big trees in urban environments can also provide valuable habitat and other environmental services.

Admittedly, the County is experiencing a budget crisis and bandwidth for new projects is understandably limited. However, extending the STO beyond the Coastal Zone may be one of the least costly yet most effective things the County can do to ensure protection of the values referenced above and to address climate change locally. Therefore, we strongly encourage you to reconsider

extending the Significant Tree Ordinance beyond the Coastal Zone to the rest of the County.

Thank you for your consideration. If you have any questions or concerns about these comments, please do not hesitate to reach out to the FWAC.

Sincerely,

Jon Jankovitz Fish and Wildlife Advisory Commission Chair

Att: July 11, 2019 FWAC letter to the BOS, January 29, 2020 Supervisor McPherson letter to the FWAC, maps



COUNTY OF SANTA CRUZ

FISH AND WILDLIFE ADVISORY COMMISSION

701 OCEAN STREET, ROOM 312, SANTA CRUZ, CA 95060 (831) 454-3154 FAX: (831) 454-3128

July 11, 2019

County of Santa Cruz Board of Supervisors 701 Ocean Street, 5th Floor Santa Cruz, CA 95060

Re: Extending the Significant Tree Ordinance to all of County of Santa Cruz

Dear Honorable Supervisors,

The Significant Tree Ordinance was enacted to protect large trees in our county, but it currently only applies within the Coastal Zone. The stated purpose of the ordinance is primarily to protect scenic resources. After hearing from members of the public that this application is too limited, we evaluated the ordinance and agree that it should be expanded. We have also found that all of our surrounding counties (San Mateo, Santa Clara, San Benito and Monterey) have county-wide tree ordinances, and Santa Cruz appears to be unique with its more limited scope. Applying this ordinance just to the Coastal Zone seems arbitrary, and leaves much of the County without the benefit of its protections. Therefore, we recommend that the Board of Supervisors instruct the Planning Dept. to modify both the Purpose and Scope of the ordinance.

Our forests provide much more than just scenic beauty. They provide valuable services such as preventing erosion of topsoil, protecting against flood hazards and the risk of landslides, counteracting pollutants in the water and air and relieving the public costs of installing and maintaining storm water drainage systems. Large trees are more fire resistant compared to other vegetation types and they provide a high degree of carbon sequestration.

The preservation of significant trees and forest communities on private and public property is necessary to protect habitat for fish, birds, insects and mammals, a number of which are rare, threatened and endangered species. We recommend that the Scope of the ordinance includes these important ecosystem services.

We recommend extending the Significant Tree Ordinance county-wide. While there is broad agreement that our county has a very high level of biodiversity, the number of forested acres without protections for large trees is substantial. Although there are some protections for trees under Chapters 16.30 (Riparian Corridor and Wetlands Protection), and Chapter 16.32 (Sensitive Habitat Protection), these areas are very limited, and there are no specific protections for large trees. Based on county data, we estimate that 32% (over 92,000 acres) of Santa Cruz County has little or no protections for significant trees. Exhibit 1 shows that the Coastal

Zone, where the current ordinance applies, covers only about 25% of the county. About 42% is under the jurisdiction of other agencies including incorporated areas, state parks and CalFire. Of the remaining county jurisdictional area, the vegetation analysis (Exhibit 2) suggests that roughly 70% includes forested vegetation types. However, significant trees may occur in all vegetation types.

We respectfully offer these changes that can achieve the goals of increasing protection for important resources with a minimal amount of new regulation. We also request that the Fish and Wildlife Advisory Commission is given an opportunity to review changes to the ordinance prior to Board acceptance.

Thank you for your consideration.

Sincerely,

Chris Berry, Chair

Fish and Wildlife Advisory Commission

County of Santa Cruz

701 Ocean Street, Room 312

Santa Cruz, CA 95060



County of Santa Cruz

BOARD OF SUPERVISORS

701 OCEAN STREET, SUITE 500, SANTA CRUZ, CA 95060-4069 (831) 454-2200 • FAX: (831) 454-3262 TDD/TTY - Call 711

JOHN LEOPOLD FIRST DISTRICT ZACH FRIEND SECOND DISTRICT RYAN COONERTY THIRD DISTRICT GREG CAPUT FOURTH DISTRICT BRUCE MCPHERSON FIFTH DISTRICT

January 29, 2020

Fish and Wildlife Advisory Commission Santa Cruz County Government Center 701 Ocean Street, Room 312 Santa Cruz, CA 95060

Dear Chair Berry and Commissioners,

Thank you for your letter dated July 11, 2019, stating your support for extending the Significant Tree Ordinance outside of the Coastal Zone. I appreciate your patience as my office considered the ideas and concerns expressed in your letter.

Since this ordinance expansion would include the San Lorenzo Valley, my staff and I had extensive conversation with members of the County Planning Department, County Counsel and CalFire to hear various perspectives on this proposed ordinance expansion from regulatory and enforcement perspectives.

From these conversations, we understand that large trees can be important landmarks and contribute to neighborhood character. We know trees are also critical to sequestering carbon in support of our Climate Action goals.

However, CalFire is concerned about how an ordinance expansion could conflict with state regulations and authority on forestry management and fire protection. There are also concerns about enforcement and property rights to remove dead and dying trees.

The Planning Department will be reviewing and revising the resource protection ordinances in the next several years and would prefer to consider the expansion of protection for trees through this process.

We encourage the Fish and Wildlife Advisory Commission to continue studying the issue and providing future input into the ordinance revision process.

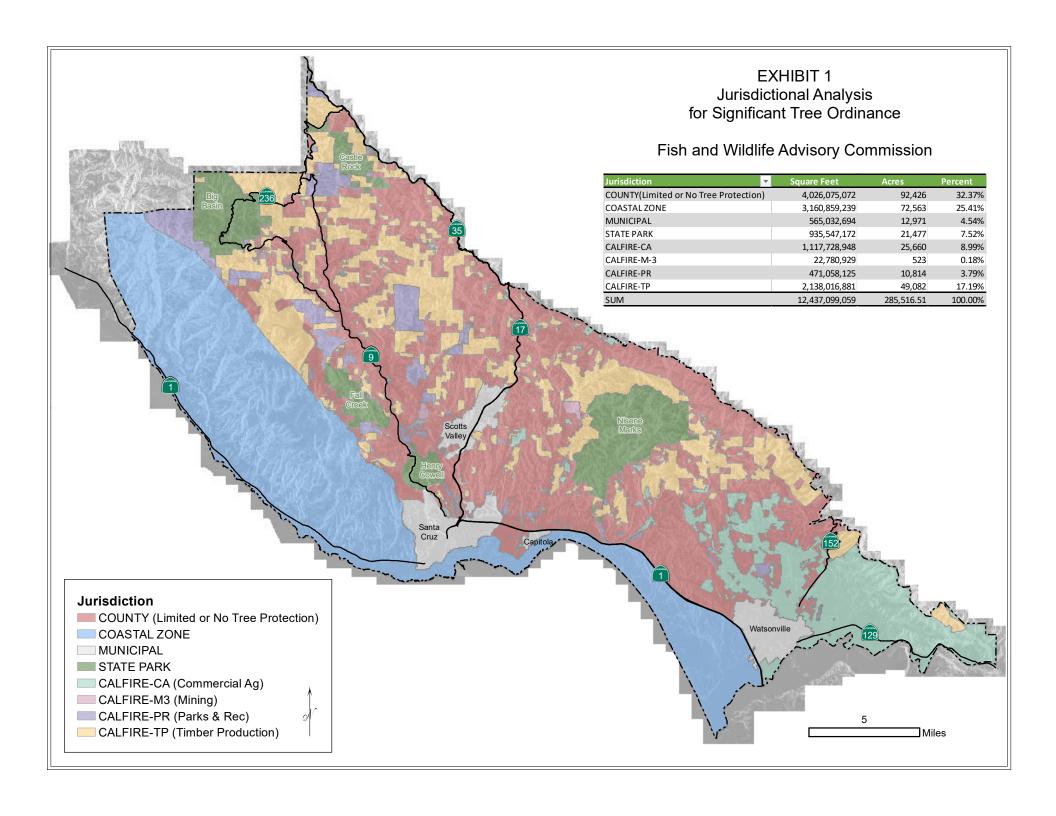
Page 2 January 29, 2020

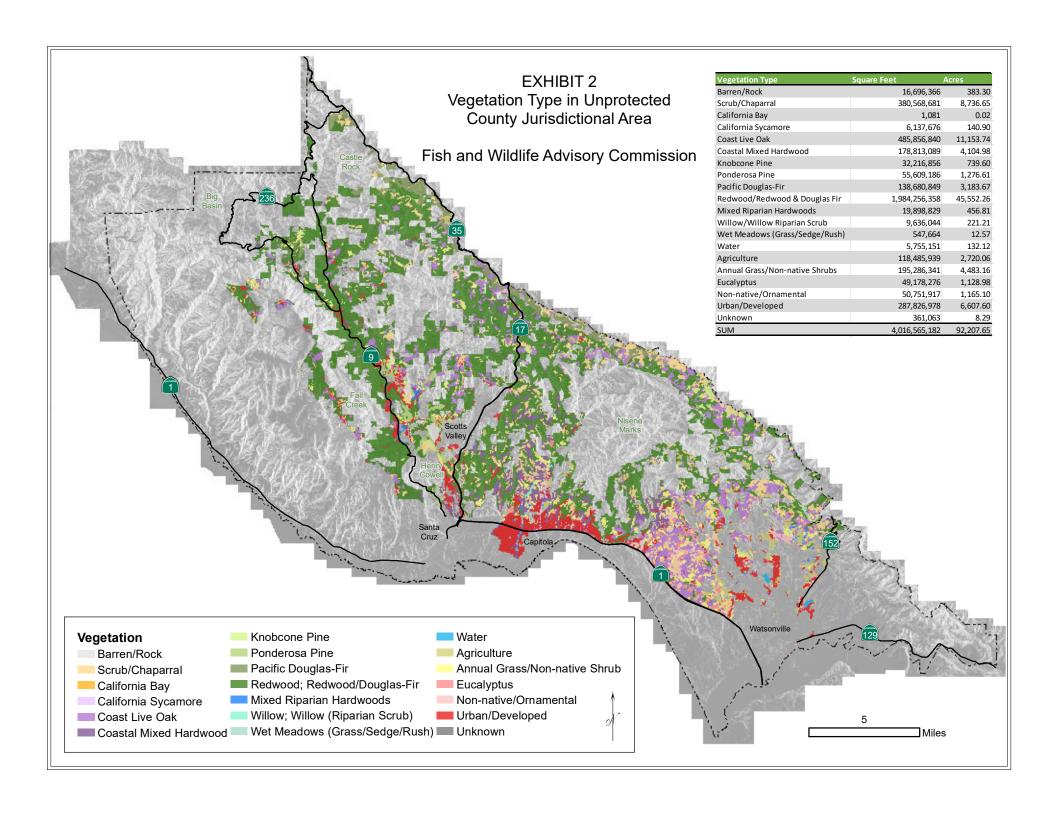
Thank you for sharing your recommendations with the Board of Supervisors and your service to the County of Santa Cruz.

Sincerely,

BRUCE MCPHERSON, Supervisor

Fifth District







County of Santa Cruz

Health Services Agency

Environmental Health

Fish and Wildlife Advisory Commission

(831) 454-3154 TDD/TTY -Call 711 <u>www.scceh.com</u> <u>EnvironmentalHealth@santacruzcounty.us</u>



2024-25 NOTICE OF AVAILABLE GRANT FUNDING

The Santa Cruz County Fish and Wildlife Advisory Commission (FWAC) is soliciting applications for its Public Grants Program. Grants are funded by fines and settlements collected for violations of California Fish and Game laws within Santa Cruz County.

There is a **total of \$20,000** available for this year's grants program. All requested amounts will be considered.

FUNDING PRIORITIES:

- Benefits native fish and wildlife and habitat.
- Education programs for school age children related to fish and wildlife
- Support of California Fish and Game related law enforcement.

SELECTION CRITERIA: The highest consideration will be given to projects which:

- Are highly rated by Commissioner Score Sheet metrics (Appendix 1)
- Complies with <u>Fish and Game Code 13103</u> (Appendix 2)
- Proposals may include funding for labor costs.

SCORING PROCESS: Each proposal will be scored by all commissioners. Commissioner scores will then be averaged, and the proposals will be ranked by the average points scored. Starting with the highest ranked proposals, the commission will decide to fully fund, partially fund or not fund each proposal.

APPLICATION PROCESS:

- 1. Individuals, organizations, and agencies can find application forms on the FWAC webpage: Fish & Wildlife Advisory Commission (sceeh.org).
 - a. Individuals should have an affiliation with an organization to receive funding.
- 2. Additional documentation can be included with the application forms; however, the document length should be kept to 8 pages or less. We encourage concise grant proposals, but budget information is required.
- 3. Proposals must be received by <u>3:00 PM Thursday</u>, <u>October 24, 2024</u>, as an electronic file to <u>FWAC@santacruzcountyca.gov</u>. Hardcopy applications will be accepted, but electronic applications are preferred.
- 4. Grant applications will be reviewed by the FWAC at their November 7, 2024, meeting. The meeting will be at 7pm and applicants are encouraged to attend and summarize their proposal in a short presentation (not to exceed 3 minutes in length).
- 5. Final selection is scheduled for the December 5, 2024, FWAC meeting

Appendix 1: Commissioner Score Sheet

PROPOSAL		TOTAL SCORE	
Annual Work Plar	Goal: Invasive Species Management		3 points
	ry goal is related to invasive species	3 points	Donies
	nents of the proposal related to invasive species	1-2 point	
	ot address invasive species	0 points	
'	•	SCORE 1	
Panafita nativa sn	acias and habitats through a project adjustion a		12 points
	ecies and habitats through a project, education, o s a clear benefit to native species and habitats	8-12 points	12 points
	t, education, or enforcement	8-12 points	
	s some benefit to native species and habitats	4-7 points	
	s limited benefit to native species and habitats	1-3 points	
· · · · · · · · · · · · · · · · · · ·	ot benefit native species or habitats	0 points	
Froposal does no	benefit flative species of flabitats	SCORE 2	
		SCORE 2	
Cost Effectiveness	:		3 points
Proposal is a goo	d value and provides a good cost/benefit ratio	3 points	
Proposal provide	s moderate cost/benefit ratio	1-2 point	
Proposal has a hi	gh cost for the benefits and/or does not have	0 points	
funding for the c	omplete project secured:		
		SCORE 3	
			1
Benefit to the Sar	ta Cruz Community:		2 points
Proposal will ber	efit a Santa Cruz County community or habitat	1-2 point	
Proposal will not	benefit a Santa Cruz County community or	0 points	
habitat			
		SCORE 4	
_	_		_
Expected Project		1	3 points
	ecord of successful projects, or a new applicant	3 points	
•	oundation for success	4.2	
• •	nixed record for success on past projects or a new	1-2 point	
	ot provide evidence for potential success		
• •	d multiple unsuccessful projects or has failed to	0 points	
provide an updat	e on the past year's project		
		SCORE 5	
			1

Appendix 2:

FISH AND GAME CODE: SECTION 13103

Expenditures from the fish and wildlife propagation fund of any county may be made only for the following purposes:

- a) Public education relating to the scientific principles of fish and wildlife conservation, consisting of supervised formal instruction carried out pursuant to a planned curriculum and aids to education such as literature, audio and video recordings, training models, and nature study facilities.
- b) Temporary emergency treatment and care of injured or orphaned wildlife.
- c) Temporary treatment and care of wildlife confiscated by the department as evidence.
- d) Breeding, raising, purchasing, or releasing fish or wildlife which are to be released upon approval of the department pursuant to Sections <u>6400</u> and <u>6401</u> onto land or into waters of local, state, or federal agencies or onto land or into waters open to the public.
- e) Improvement of fish and wildlife habitat, including, but not limited to, construction of fish screens, weirs, and ladders; drainage or other watershed improvements; gravel and rock removal or placement; construction of irrigation and water distribution systems; earthwork and grading; fencing; planting trees and other vegetation management; and removal of barriers to the migration of fish and wildlife.
- f) Construction, maintenance, and operation of public hatchery facilities.
- g) Purchase and maintain materials, supplies, or equipment for either the department's ownership and use or the department's use in the normal performance of the department's responsibilities.
- h) Predator control actions for the benefit of fish or wildlife following certification in writing by the department that the proposed actions will significantly benefit a particular wildlife species.
- i) Scientific fish and wildlife research conducted by institutions of higher learning, qualified researchers, or governmental agencies, if approved by the department.
- j) Reasonable administrative costs, excluding the costs of audits required by Section 13104, for secretarial service, travel, and postage by the county fish and wildlife commission when authorized by the county board of supervisors. For purposes of this subdivision, "reasonable cost" means an amount which does not exceed 3 percent of the average amount received by the fund during the previous three-year period, or three thousand dollars (\$3,000) annually, whichever is greater, excluding any funds carried over from a previous fiscal year.
- k) Contributions to a secret witness program for the purpose of facilitating enforcement of this code and regulations adopted pursuant to this code.
- I) Costs incurred by the district attorney or city attorney in investigating and prosecuting civil and criminal actions for violations of this code, as approved by the department.
- m) Other expenditures, approved by the department, for the purpose of protecting, conserving, propagating, and preserving fish and wildlife.