Battle Creek Alliance
Defiance Canyon Raptor Rescue

Rock Creek Rd.
Manton, CA 96059
(530) 474-5803
www.thebattlecreekalliance.org

Protecting Water, Forests and Wildlife

Oct. 20th, 2023

Shasta County Board of Supervisors
1450 Court St.
Redding, CA 96001

Opposition to the proposed gun range in Millville Plains; addition to our letter of May 11th, 2023

This project has the potential to make significant adverse changes to the existing environment, yet the Planning Commission has recommended approving it without any kind of EIR. Local residents have voiced many concerns, but have been dismissed due to an amazingly deficient biological survey from Wildland Resource Managers (WRM), which is owned by Steven Kerns, who is a member of the Planning Commission. The lack of an EIR while relying on a Planning Commission member to perform the biological survey which will benefit a member of the Shasta County Board of Supervisors can only be viewed as an incestuous and corrupt example of cronyism.

This shooting range will negatively impact the rural environment locally for residents, not just people, but all other living beings there. It will add to impacts already occurring locally and in the larger county area: e.g. habitat loss, polluted air quality, degradation/loss of species of flora and fauna, and additional traffic and damage to roads that the county will have to pay to repair.

“Significant effect on the environment” is defined by the CEQA guidelines as “a substantial, adverse change in any of the physical conditions within the area affected by the project including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic and aesthetic significance.” (CEQA Guidelines, § 15382.)

The core purpose and principle of CEQA is to protect our shared environment from harm due to the additive effects from multiple projects, generally called "cumulative effects or impacts". These protections are to be based on best scientific knowledge and gathered and analyzed by an EIR .

Courts have upheld CEQA's principles: "Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time. (*Communities for a Better Environment v. California Resources Agency*, 103 Cal.App.4th at 119-120.)" and

"A cumulative impact analysis which understates information concerning the severity and significance of cumulative impacts impedes meaningful public discussion and skews the decisionmaker's perspective concerning the environmental consequences of the project, the necessity for mitigation measures, and the appropriateness of project approval." (*Joy Road Area Forest & Watershed Assn. v. California Dept. of Forestry & Fire Prot.* (2006) 142 Cal.App.4th 656, 667.) and

The Supreme Court has called an EIR the "heart" of CEQA, likening it to an "environmental alarm bell" that provides the essential service of alerting the public and decision-makers to ecological changes before they occur. (*Laurel Heights Improvement Ass'n v. Regents of University of California (1988)*, 47 Cal.3d at 392.) and

"The EIR's function is to ensure that government officials who decide to build or approve a project do so with a full understanding of the environmental consequences, and, equally important, that the public is assured those consequences have been taken into account." (*Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova* (2007) 40 Cal.4th 412, 449-50)

All of these laws, rules, and concepts cannot be upheld without an adequate EIR performed by an unbiased source.

Significant deficiencies in WRM letter of July 20th, 2023

The WRM letter states on page 14 that it conducted a field survey for raptors for only 6 hours one day in early May. This does not conform to any survey protocols used by professionals. CDFW has an extensive list for individual species at: https://wildlife.ca.gov/Conservation/Survey-Protocols

For more general protocols and guidelines the Bird Survey Guidelines site states:

"Clearly a single visit is unlikely to provide a robust level of information.

As standard it is recommended that six bird survey visits be undertaken as part of a survey for breeding birds.

Six visits is considered sufficiently robust to identify the majority of bird species using lowland deciduous woodland in the breeding season and establish a good understanding of the numbers and distribution of species present. Lowland deciduous woodland is one of the most complex habitats to survey, due to the range of bird species it can support, and the dense vegetation leading to a heavy reliance on vocal encounters. Six visits is

therefore considered to be a proportionate survey effort for all terrestrial and freshwater habitats.
Generally, surveys of the breeding bird community should start between half an hour before sunrise and half an hour after sunrise. Surveys should typically be concluded by around mid-morning (10–11 am, with some regional variation) as activity levels (and hence detectability) of many species will have tailed off.
Therefore, as a general framework, breeding bird survey visits should be spread evenly between late March and early July in order to ensure that the surveys cover resident breeders which start breeding early, as well as migrant breeders which arrive later."
https://birdsurveyguidelines.org/methods/survey-method/

An example of the deficient and dismissive attitude of the WRM letter is shown on pages 3-4 in the few paragraphs regarding Western meadowlarks (*Sturnella neglecta*). The letter states that their population is increasing, which is incorrect. The link WRM provides as "Cornell 2023" includes the following information, which WRM ignored/neglected:

"Although Western Meadowlarks are numerous, their breeding populations declined approximately 0.9% per year between 1966 and 2019, resulting in a cumulative decline of about 37%, according to the North American Breeding Bird Survey. ...

...Management of grassland habitat may directly influence breeding populations through alteration of vegetation structure and composition. Specific effects vary spatially and temporally depending upon climate and soils (Askins et al. 2007a). Meadowlarks are associated with intermediate height and density of grasses and forbs (Madden et al. 2000). Thus management activities (or lack thereof) resulting in vegetation being tall and dense or short and sparse will have a negative influence on populations (Fritcher et al. 2004a, Koper and Schmiegelow 2006b)."
https://www.allaboutbirds.org/guide/Western_Meadowlark/lifehistory

Another example of the deficient, erroneous, and dismissive attitude of the WRM letter is on page 14 where it states " a sparrow hawk was seen perched on a fence post in the northwest corner of the property". We have heard people with little knowledge of raptors call both American kestrels (*Falco sparverius*) and Cooper's hawks (*Accipiter cooperii)* "sparrow hawks" in this area, but due to the location and behavior, presumably the bird was a kestrel.

The WRM letter doesn't speak of them and the impacts which are occurring. "The American Kestrel is the continent's most common and widespread falcon, but populations declined by an estimated 1.41% per year for a cumulative decline of about 53% between 1966 and 2019, according to the North American Breeding Bird Survey. Partners in Flight estimates the global breeding population at 9.2 million and rates them 10 out of 20 on the Continental Concern Score, indicating a species of relatively low conservation concern. Nevertheless, if current trends continue, American Kestrels will lose another 50% of their population by 2075. Current declines stem from continued clearing of land and felling of

the standing dead trees these birds depend on for their nest sites. The American Kestrel is also losing prey sources and nesting cavities to so-called “clean” farming practices, which remove hedgerows, trees, and brush. An additional threat is exposure to pesticides and other pollutants, which can reduce clutch sizes and hatching success. For kestrels in North America, the larger problem with pesticides is that they destroy the insects, spiders, and other prey on which the birds depend.
https://www.allaboutbirds.org/guide/American_Kestrel/lifehistory

The North American Breeding Bird Survey (Pardieck et al. 2020) detected... significant declines in California's Foothills and Central Valley regions." https://birdsoftheworld-org.proxy.birdsoftheworld.org/bow/species/amekes/cur/demography

Many species are not listed as "threatened" but that doesn't mean they aren't facing increasing problems due to human influences, contrary to WRM's claims.

The Millville Plains area provides breeding, nesting/denning, and foraging habitat which is not horribly fragmented by human development and presence. It is home to many species who are overlooked or dismissed by the WRM survey. The following map (Figure 1) contains just some of the species this writer has personally observed or rescued and cared for in recent years.

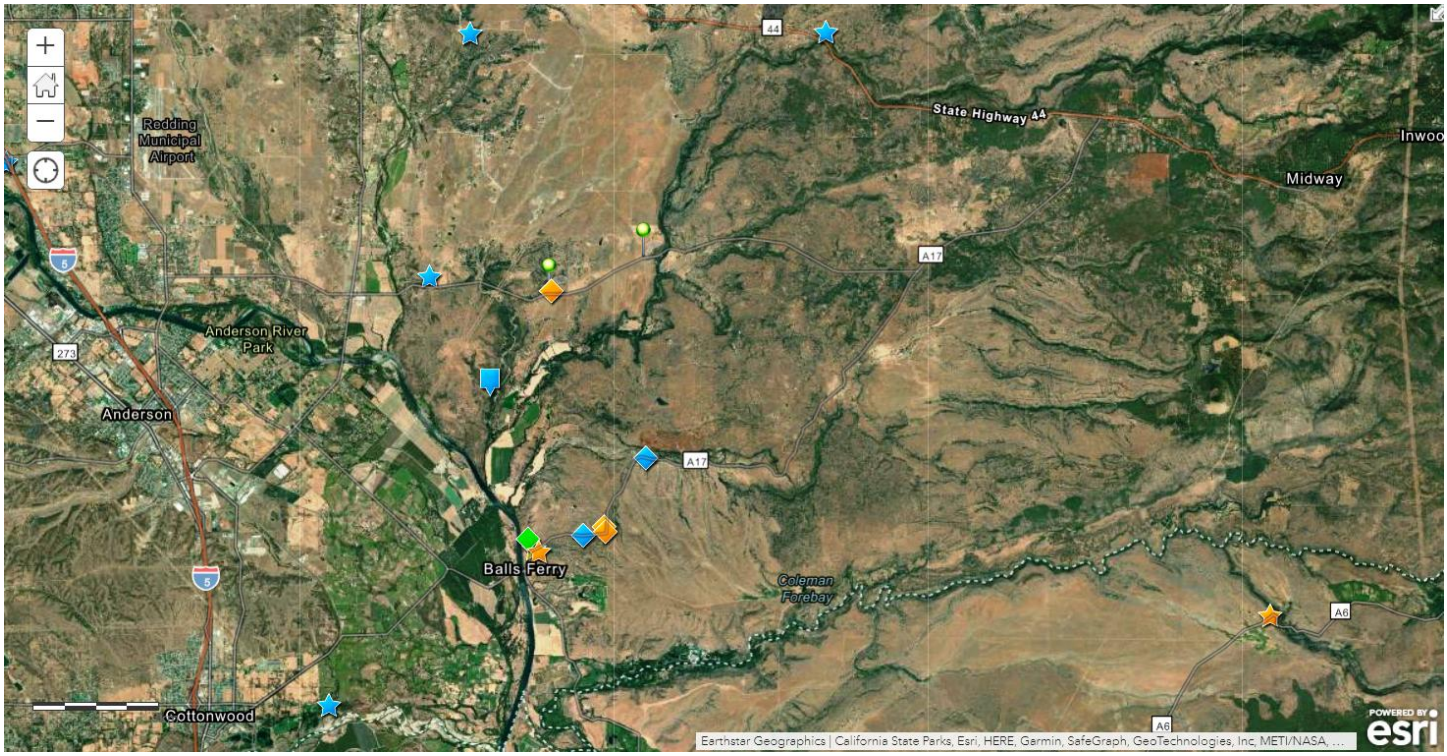

Fig. 1. Blue stars: injured bald eagles
Gold stars: injured golden eagles
Blue diamonds: observed healthy bald eagles. Blue box: known eagle nest on ranchland
Gold diamonds: observed healthy golden eagles
Green diamond: osprey nest
Green stickpins: corridor on Dersch west of Leopard Dr. and Bear Creek with low powerline where numerous red-tails, red-shoulders, kestrels, great horned owls, screech owls and more have been seen perching, flying, hunting--really high activity area

The brief section of the WRM letter which ostensibly addresses bald (*Haliaeetus leucocephalus*) and golden (*Aquila chrysaetos*) eagles on pages 14-17 is mostly copied and pasted information which addresses no concerns. Missing from the letter is any significant understanding or description of eagles or other birds and the threats and problems they are facing. The Cornell University Birds of the World site has extensive information and references detailing all aspects of bird life histories. Here are a few paragraphs that spell out cumulative impacts to eagles from habitat loss and other occurrences, which this project will contribute to.

"Habitat alteration has important, often negative effects on the Golden Eagle. Climate change is associated with change in eagle habitat. One way climate change acts on habitat is by contributing to an increase in the number and size of wildfires (623, 624, 625), which often lead to the subsequent invasion of exotic plant species (626). Urbanization and human population growth also alter eagle habitat. These processes have rendered many historical eagle use areas unsuitable. In one study, abandoned territories in San Diego County, California, had more dwellings within 2 km and higher human populations within 5 km than territories that continued to be occupied (634). In addition, widespread agricultural development and urban sprawl in the western United States is known to reduce jackrabbit populations and makes areas less suitable for nesting and wintering eagles (473, 347, 234). Often are injured or killed by collisions with cars, fences, wires, and wind turbines (422). Of these, collisions with vehicles may be the most common...

It's estimated that more than 70% of recorded Golden Eagle deaths are attributable to human impact, either intentional or inadvertent. Most recorded deaths are from collisions with vehicles, wind turbines, and other structures or from electrocution at power poles (newer designs have been developed that, if used, can greatly reduce this risk). Urbanization, agricultural development, and changes in wildfire regimes have compromised nesting and hunting grounds in southern California and in the sagebrush steppes of the inner western U.S. ..

... a larger-scale study in Idaho suggested that when military training was occurring, birds were less frequently seen attempting to capture prey, and, in years when prey levels were low, flew at higher altitudes during training than when training did not occur (701)." [A 150-space gun range is easily comparable to disturbance from military training.]

"Other adverse impacts have included habitat modification from road, housing, and other developments; agriculture; timber harvest; pesticides and contaminants, including lead poisoning; off-road vehicles and other human disturbances; electrocution and collision at power lines; and shooting." CDFW https://wildlife.ca.gov/Conservation/Birds/Bald-Eagle

"The bald eagle is usually quite sensitive to human activity while nesting, and is found most commonly in areas with minimal human disturbance. It chooses sites more than 1.2 km (0.75 mi) from low-density human disturbance and more than 1.8 km (1.1 mi) from medium- to high-density human disturbance.[43] Wildlife Species: *Haliaeetus leucocephalus*". USDA Forest Service"

"Of 1,428 individuals from across the range necropsied by National Wildlife Health Center from 1963 to 1984, 329 (23%) eagles died from trauma, primarily impact with wires and vehicles; 309 (22%)

died from gunshot; 158 (11%) died from poisoning; 130 (9%) died from electrocution; 68 (5%) died from trapping; 110 (8%) from emaciation; and 31 (2%) from disease; cause of death was undetermined in 293 (20%) of cases.[171] In this study, 68% of mortality was human-caused.[171] Wood, P. B., D. A. Buehler, and M. A. Byrd. (1990). "Raptor status report – Bald Eagle". pp. 13–21 in *Proceedings of the southeast raptor management symposium and workshop*. (Giron Pendleton, B., Ed.) National Wildlife Federation Washington, D.C."

We have to wonder why WRM's biological survey would ignore so many important problems and concerns that this project can easily contribute to. The survey is completely inadequate, legally or ethically. It is particularly troubling that wildlife biologists would produce such a deficient, uninformed document, and that it has been accepted and approved by the Planning Commission. WRM's letter not only dismisses local residents' concerns. It also is the antithesis of the majority of well-understood processes and problems contained in scientific knowledge.

Figures 2 and 3 are CDFW maps of eagle nesting territories between 2000 and 2016. Clearly, Shasta County is important to eagles. As far as we know, the maps have not been updated since 2016. They are from the CDFW site:
https://wildlife.ca.gov/Conservation/Birds/Bald-Eagle

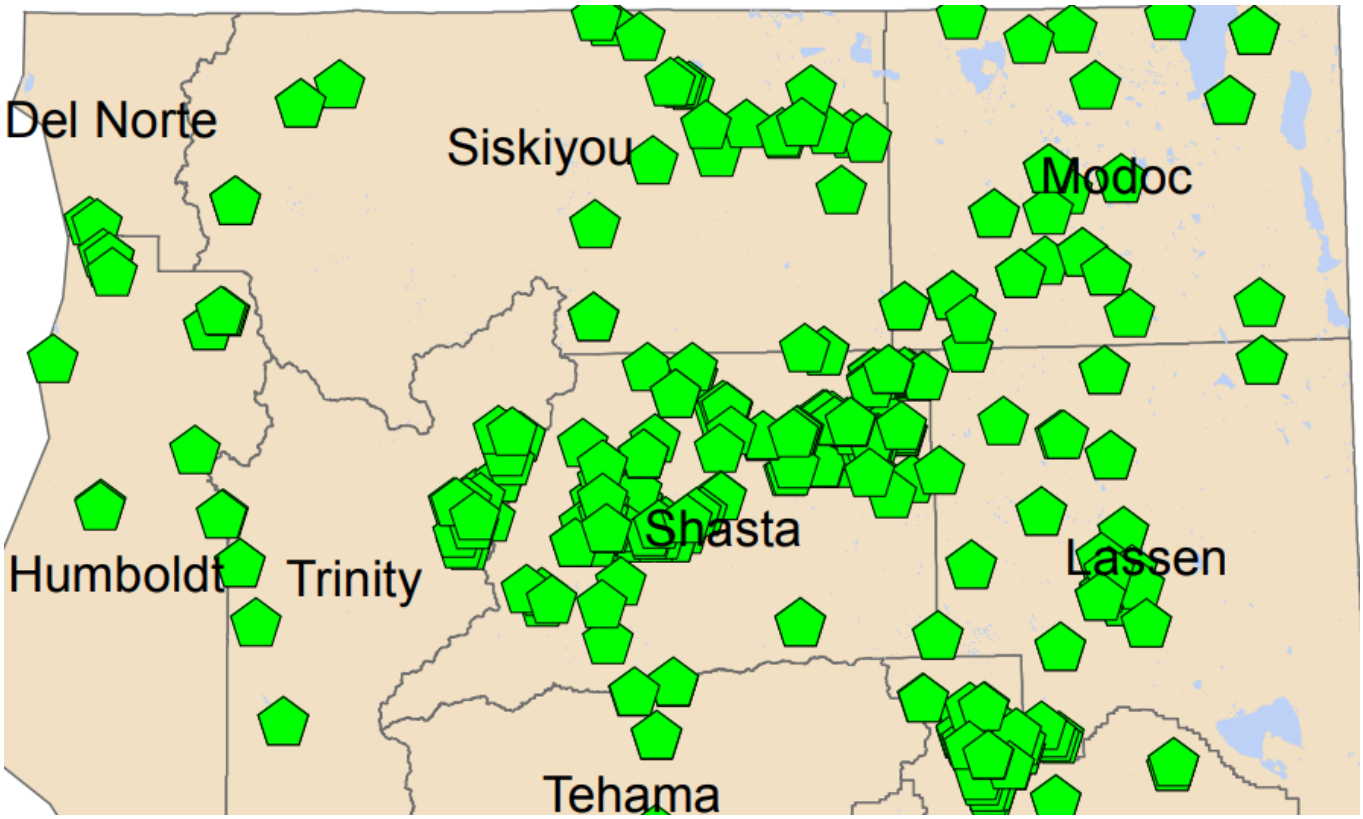

Fig. 2 Shasta and surrounding counties contain most of California's bald eagle population, yet the WRM survey provides almost no details about them and the threats to them, or why habitat such as the Millville Plains area is so important to wildlife.

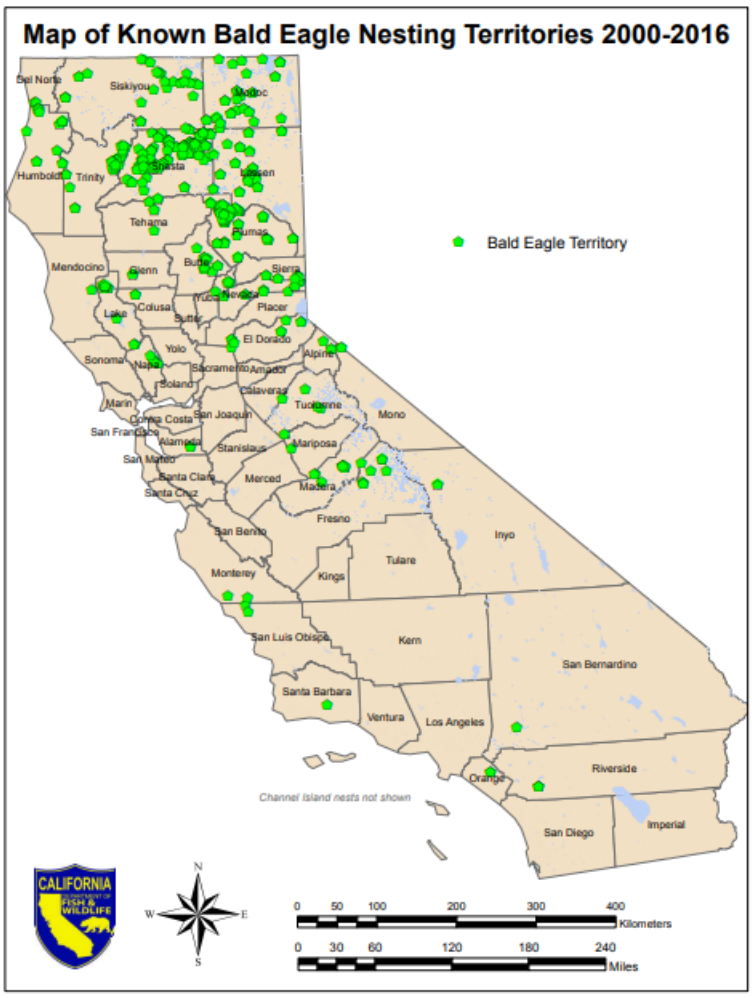

Fig. 3. CDFW's map of statewide bald eagle occupancy.

CDFW also has a table of bald eagle breeding territory data covering 1990-2016. (Figure 4.)

This table shows the number of territories increasing from 1990 to 2016, but the number of young generally only increased until 2004 and then began to decline. By 2016 the number of young produced by 375 territories was less than the number produced by 107 territories in 1990. That is a significant decline which apparently has not been studied, nor has it been mentioned in the WRM survey which only dismisses what various people and groups have brought up: e.g. "Nests have been asserted to be in the immediate proximity of the property without corroborating empirical data. WRM staff have looked for such nests using industry standard survey techniques and did not locate any."

As detailed above (page 2-3), WRM did not use "industry standard survey techniques" for the number of visits, the timing, or any area other than the project property. Even in that very limited time and space, they saw a bald eagle fly over, and saw several other hawk species. That suggests a high level of raptor activity in the area. The lack of a robust and defensible EIR guarantees that no "corroborating empirical data" will be found.

Bald Eagle Breeding Territory Data for California, 1990-2016

Year	No. of Known Territories	No. of Territories Surveyed	No. of Territories Occupied	No. of Young Produced
1990	107	102	94	95
1991	111	105	90	92
1992	120	110	99	82
1993	127	116	102	103
1994	142	129	116	120
1995	146	129	105	89
1996	160	144	124	128
1997	171	160	142	140
1998	180	168	148	125
1999	188	180	151	138
2000	202	159	128	120
2001	211	147	128	116
2002	230	174	149	135
2003	252	199	175	150
2004	260	150	136	141
2005	265	117	111	96
2006	280	146	134	105
2007	296	164	147	69
2008	304	118	111	52
2009	310	121	105	48
2010	323	118	105	58
2011	337	121	112	103
2012	352	164	137	124
2013	355	97	89	85
2014	357	87	77	75
2015	366	99	90	87
2016	375	113	106	80

Fig.4. CDFW table of bald eagle breeding data from 1990-2016.

Eagles have been more widely studied than most bird species in this area, yet there are many research gaps still. There is even less information and study about most other species.

Figure 5 is our map of locations where injured eagles have been reported to us. Online, this map is interactive. Clicking on the individual stars makes a pop up box appear that gives whatever information we had about the individual eagle, including State Wildlife Lab results. https://arcg.is/04q4vC This map is evidence of the eagle activity in the area, and evidence of the many significant effects that are already happening to them. Figure 6 is an example of the pop up box regarding a golden eagle found near Millville Plains.

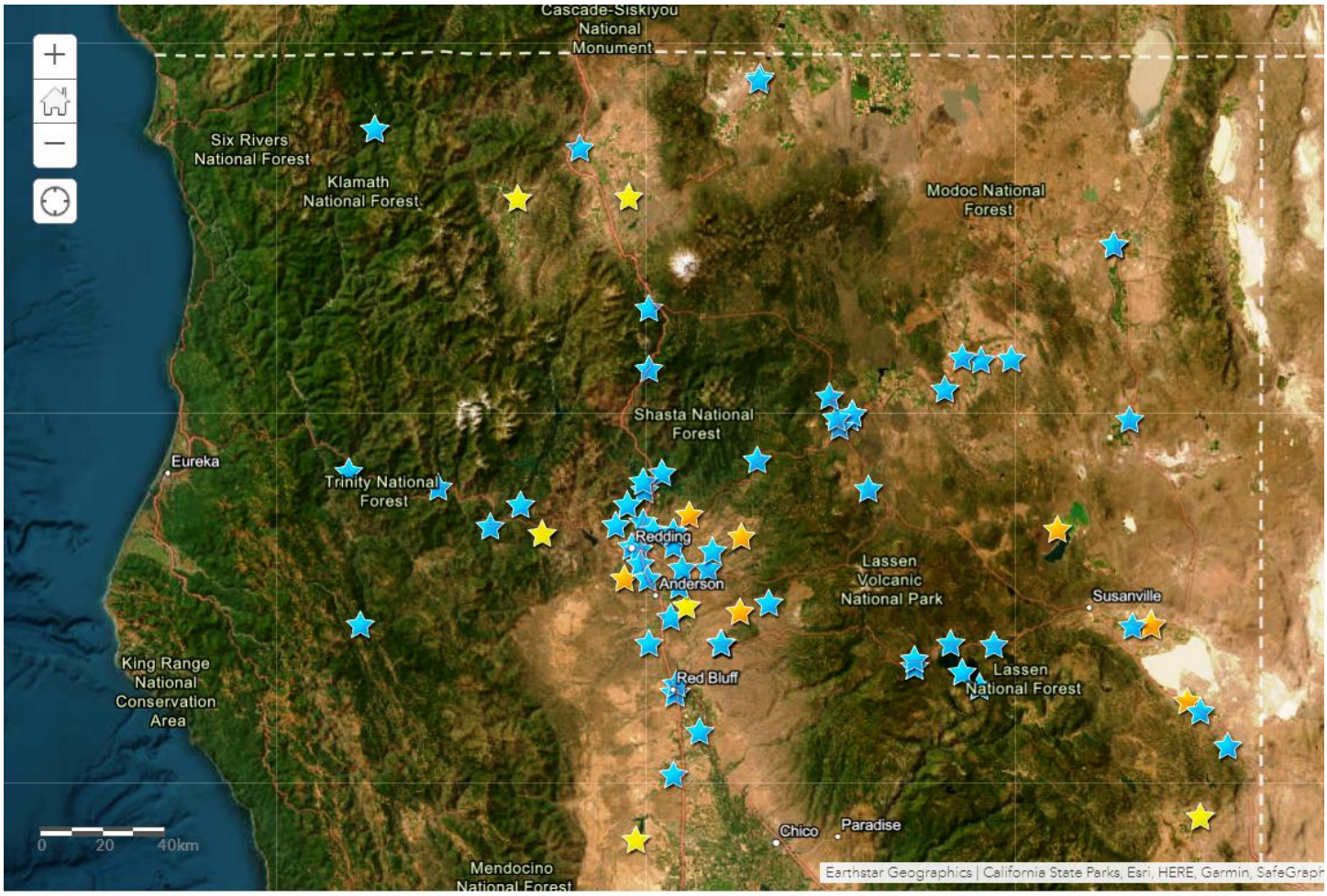

Fig. 5. Our map of injured and rescued bald and golden eagles, 2013-2023. Blue stars represent bald eagles and gold stars represent golden eagles.

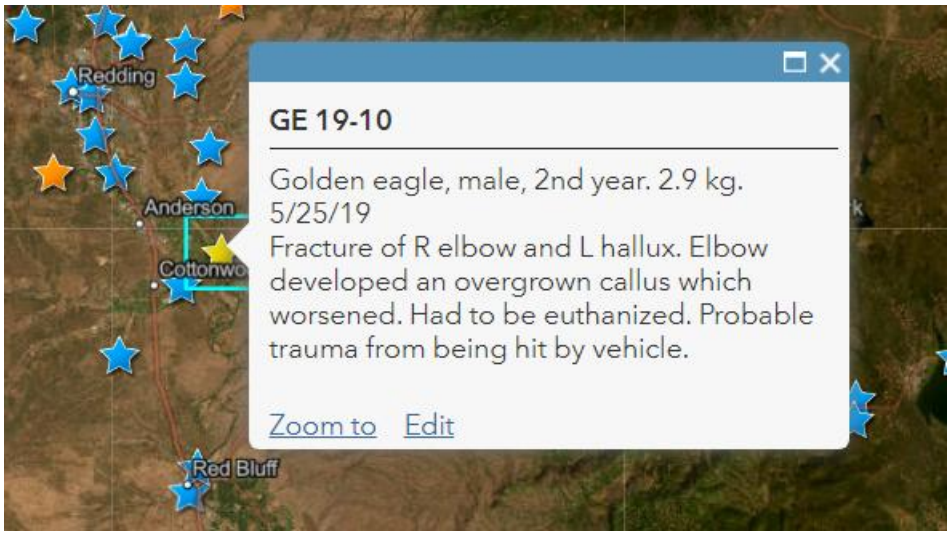

Fig. 6. Example of interactive map pop up box and eagle injuries of golden eagle found near Millville Plains.

Birds of all species provide invaluable services for no cost.

They clean up dead animals, they pollinate plants that we make medicine from and feed us and others, they disperse seeds, they keep insect and rodent populations in balance.

We repay them by destroying their habitat, shooting them, hitting them with cars, poisoning them and their food supplies with weedkiller, rodenticides and lead.

We request that the Board of Supervisors reject this project that will cause further harm and have additive adverse effects to the problems already occurring.

Summary

The Millville Plains area is made up of large tracts of privately owned land. There is very little population data regarding flora and fauna species because of the inaccessibility.

Rezoning the land and approving the gun range will cause adverse change to the existing environment. That action will not uphold state laws.

The residents of the area will suffer damage from the impacts.

The damage will cause irreparable harm to the area and expand to degrade the county's quality of life, quality of environment, and increase adverse effects on wildlife populations.

The Biological Survey suffers from irredeemable, fatal flaws. An unbiased, and scientifically designed and implemented EIR that follows CEQA must be required. It must also be performed by someone who is not connected to the Planning Commission or the Board of Supervisors.

Marily Woodhouse, Director

Defiance Canyon Raptor Rescue and Battle Creek Alliance

Numerical Citations imbedded in text on page 5:

234. Craig, E. H., T. H. Craig, and L. R. Powers (1986). Habitat use by wintering Golden Eagles and Rough-legged Hawks in southeastern Idaho. Raptor Research 20: 69–71.

347. U.S. Department of Interior (1979). Snake River Birds of Prey Special Research Report to the Secretary of the Interior. U.S. Department of Interior, Bureau of Land Management, Boise, ID, USA.

422. U.S. Fish and Wildlife Service (2016a). Bald and Golden Eagles: Population Demographics and Estimation of Sustainable Take in the United States, 2016 Update. U.S. Fish and Wildlife Service, Division of Migratory Bird Management, Washington, DC, USA.

473. Beecham, J. J., and M. N. Kochert (1975). Breeding biology of the Golden Eagle in southwestern Idaho. Wilson Bulletin 87: 506–513.

623. Westerling, A. L., H. G. Hidalgo, D. R. Cayan, and T. W. Swetnam (2006). Warming and earlier spring increase western U.S. forest wildfire activity. Science 313(5789):940–943.

624. Westerling, A. L., M. G. Turner, E. A. H. Smithwick, W. H. Romme, and M. G. Ryan (2011). Continued warming could transform Greater Yellowstone fire regimes by mid-21st century. Proceedings of the National Academy of Sciences of the United States of America 108: 13165–13170. https://doi.org/10.1073/pnas.1110199108

625. Marlon, J. R., P. J. Bartlein, M. K. Walsh, S. P. Harrison, K. J. Brown, M. E. Edwards, P. E. Higuera, M. J. Power, R. S. Anderson, C. Briles, A. Brunelle, C. Carcaillet, M. Daniels, F. S. Hu, M. Lavoie, C. Long, T. Minckley, P. J. Richard, A. C. Scott, D. S. Shafer, W. Tinner, C. E. Umbanhowar Jr., and C. Whitlock (2009). Wildfire responses to abrupt climate change in North America. Proceedings of the National Academy of Sciences 106: 2519–2524.

634. Scott, T. A. (1985). Human impacts on the Golden Eagle population of San Diego County. M.S. thesis, San Diego State University, San Diego, CA, USA.

701. Schueck, L. S., J. M. Marzluff, and K. Steenhof (2001). Influence of military activities on raptor abundance and behavior. Condor 103(3): 606–615