From: Barry Nerhus < bearing @endemicenvironmental.net >

**Date:** February 24, 2023 at 11:50:33 AM PST

To: "DALTON, KELLY M." < KELLY.DALTON@costamesaca.gov>

Subject: Response to the Fly Field Impacts to Fairview Park

Hey Kelly,

In response to your question of how the fly field directly and indirectly impacts natural resources and wildlife, I have a few responses and observations, over the past 14 years that I have been working at Fairview Park.

The actual fly field itself was graded in an area that contains the largest remaining vernal pool complex in coastal southern California. The grading activity directly impacts the watershed of the vernal pools, a critical component for the vernal pool ecosystem. This vernal pool ecosystem and surrounding grassland harbors the following species that are of great conservation concern that should be considered:

Riverside Fairy Shrimp - Federally-listed under the Endangered Species Act San Diego Fairy Shrimp - Federally-listed under the Endangered Species Act Orcutt's Grass - Federally-listed under the Endangered Species Act San Diego Button Celery - Federally-listed under the Endangered Species Act Mud Nama - Rare Plant with only a few populations remaining in Orange County Little Mousetail - Rare Plant and the only population documented in Orange County Vernal Barley - Rare Plant

Prostrate Navarretia - Rare Plant, may be the largest population in Orange County Small-flowered microseris - Rare Plant

Burrowing Owl - Species of Special Concern and severely declining

White-tailed Kite - California Fully Protected Species and also severely declining

Northern Harrier - Species of Special Concern

California Gnatcatcher - Federally-listed under the Endangered Species Act

There are other important native wildlife and habitats that I can include, but this list I hope gets the point. When you have these many species together, it shows how rare and important the area is to biodiversity and conservation, which is the reason for efforts such as Measure AA, updating the Master Plan, community-based habitat restoration events, community led steering committees, hiring experts to consult and manage the rare species, and also the Fairview Park administrator position to coordinate all of these activities. This is all in the direction of 10,000s of hours of effort and many millions of dollars going to planning, maintaining, restoring and conserving the Park.

The fly field has directly affected the vernal pool watershed. Indirectly, there have been plane crashes observed on a weekly basis by R/C aircraft pilots. It makes sense, especially if you are learning. I believe the Soaring Society states that they train people, which would increase the risk of crashing a plane. I've observed these crashes and people retrieving their planes from vernal pools, the bluff area, and also in the coastal sage scrub. These impacts on a weekly basis pose a

threat to degrading these rare ecosystems. We already know that the bluff is eroding and needs restoration, so this is only an increased impact to the bluff. These impacts only take from the vision of managing the park for the natural resources.

Moreover, the noise that many of the high performance R/C aircraft produce is over the recommended decibel level for nesting birds (60 Db). USFWS biologist, Christine Medak, concurred with me that the noise is over the limit for the federally-listed California gnatcatcher that nests in the coastal sage scrub areas. The noise level is an indirect effect that causes impact to birds. Noise typically can change behavior in bird calls. This could be considered 'take' under the Endangered Species Act, if the California gnatcatcher is harassed by this noise.

One basic study was conducted for R/C Planes impacting avian activity. This was through our ICRE AP Environmental Science Field Study Program. Our students documented the presence and abundance of birds when R/C planes were present and also when they were absent. Birds were counted and categorized by size (since the students didn't know all the species). The study concluded that when R/C Planes were present or absent birds of prey and large birds were present. However, small birds were absent when planes were flying. This can be interpreted that the active fly field is disrupting the behavior of many small birds, which is a direct impact.

In summary, I believe the fly field impacts Fairview Park's natural resources by changing the watershed of the vernal pools, trespassing into sensitive habitat and off trail, creating loud noise above the acceptable limit for the federally-listed California gnatcatcher, and impacting general avian behavior.

As an airplane pilot, I have a passion for aviation and the continued growth of the aviation community (even as a tool for conservation). However, I do not think the recreational activities at the fly field is a part of the mission of managing Fairview Park for the natural resources and recovery of endangered species.

Let me know if you want me to clarify anything.

Thanks!

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