November 4th, 2021

MARIN CONSERVATION LEAGUE
Protecting Marin Since 1934

California Coastal Commission
45 Fremont Street
San Francisco, CA 94105

Email: Farallonislands@coastal.ca.gov

SUBJECT: Consistency Determination (#CD-0006-21) - US Fish and Wildlife Service, South Farallon Islands Invasive House Mice Eradication Project, Farallon Islands National Wildlife Refuge

Dear Commissioners:

The Marin Conservation League (MCL) recommends that the California Coastal Commission concur that the US Fish and Wildlife Service's (Service) project to eliminate nonnative house mice from the Farallon Islands is fully consistent with the California Coastal Management Act.

MCL is a well-established conservation organization in Marin County with an 87-year history of environmental advocacy. The Farallon Islands, the largest seabird rookery in the contiguous US, is immediately off our Marin shore.

In coming to the decision to support the Service's restoration plan for the Farallones, MCL considered the plan at two meetings of our Land Use and Transportation Committee. At one meeting, Zach Warnow of Point Blue Conservation Science and Roger Harris of the Oceanic Society described the project. At a second committee meeting, Richard Charter of The Ocean Foundation and Loretta Mayer of SenesTech presented criticisms of the Service's plan along with a proposal for mouse contraception rather than lethal take. We also heard from some of our 700 members and seriously considered their input.

The full MCL board heard an initial introduction to the Service's plan followed by discussion at two subsequent board meetings. MCL reviewed the environmental documentation and commentary both for and against the plan, before voting in its favor.

MCL's decision in favor of the Service's plan is based on the understanding that:

- This *one-time-use* (two closely spaced applications) project is vastly different from the chronic use of rodenticides on the mainland, and it will have long-term benefits, restoring the island to a more natural state.
- Although adverse impacts cannot be avoided completely, these will be *short-term to individuals*, rather than having lasting effects at a population level.
- The *exhaustive scientific studies and environmental documentation* researched and analyzed the alternatives thoroughly before drawing a conclusion on a preferred alternative. As numerous

previous island restorations around the world have demonstrated, there is only one way to eradicate the mice successfully.

In this time of global warming and other anthropogenic stressors to the natural environment, MCL looks forward to the opportunity to restore the Farallones to a more nearly pristine state. Previous efforts by the Service and Point Blue Conservation Science have successfully removed feral cats and European hares from the Farallones, which had been introduced by the early lighthouse keepers. The removal of these mammals was followed by the exponential increase of tufted puffins and the return of the previously extirpated rhinoceros auklet.

Similarly, under the protection of the Marine Mammal Protection Act and other international statutes, gray, humpback, and blue whales are returning in large numbers to the Gulf of the Farallones, and the previously extirpated northern elephant seal and the northern fur seal are again pupping at the islands.

But the non-native mice on the Farallones, introduced by humans, still impact the natal home of over a quarter of the seabirds in California. The mice may predate on the endemic Farallon camel cricket and on the eggs and adults of the endemic Farallon arboreal salamander as well as compete with it for invertebrate food. The mice feed on native vegetation, promoting non-native plants, and may attack the nestlings of native seabirds.

Most concerning is the dynamic of mice attracting migratory burrowing owls, which then settle on the Farallones to prey on the mice. The owls subsequently feed on ashy and Leach's storm-petrels when the mice population seasonally crashes. Some half of the world's population of ashy storm-petrel nests on the Farallones. Although the petition to list this rare species as endangered was denied, the rational for denial included the assumption that a mouse eradication program was to be implemented on the Farallones. As population modeling by Point Blue Conservation Science indicates, the ashy storm-petrel is on downward curve toward extinction. MCL urges action now, before this native seabird becomes endangered.

After comprehensively considering 49 different chemical, mechanical, and biological removal methods, the Service concluded that only application of Brodifacoum 25D Conservation would achieve the goal of eradicating the invasive rodents. While MCL is opposed to the commercial and private chronic use of rodenticide on the mainland, we recognize that this one-time and controlled use for conservation purposes (using a formulation specially approved by the Environmental Protection Agency (EPA) for such island conservation purposes) is acceptable in this instance and in keeping with MCL's integrated pest management (IPM) policy.

A contraceptive approach to eradication is unavailable, unproven, and infeasible. Contraception might work as a method of *control* (e.g., to reduce rat populations in a food warehouse), but not *eradication*, which is what is required on the Farallones. Infertility is temporary and would be reversed over time. Further:

- A contraception chemical has only been tested and approved for rats, not house mice.

- The chemical for rats is delivered in their drinking water, which rats regularly use. Mice get most of their dietary water from the food they eat and would not eat a potential contraceptive bait regularly and consistently enough for it to be effective.
- If a potentially technically suitable product could be developed for mice, the timeline for it to be tested and approved for field use on the Farallones is unacceptably long.
- The chemical would have to be delivered in bait stations, which were rejected in the Service's Final Environmental Impact Statement (FEIS); many areas are not accessible without risking human safety.
- The disturbance that would occur from the frequent visits to service the *many thousands* of bait stations that would be necessary is unacceptable in a bird rookery.

In short, contraception has not been used on islands, even with rat infestations, because it does not work.

MCL is mindful that the one-time use of rodenticide would cause suffering to mice and possibly to a limited number of gulls and other non-target species, though the numbers are expected to be low. The application will be followed by an approximately 2-year monitoring of the islands, where spot treatments may be made if any mice are found to persist in isolated pockets.

We also understand that this human-introduced population of non-native rodent is without effective natural population controls. Consequently, when green vegetation seasonally dries up on the Farallones, the mice are subject to mass starvation and cannibalism and so suffer on an annual basis. In addition, mice have been known to feed on the living flesh of seabirds on the nest. Having evolved without mice, these seabirds' natural response to threat is to freeze on the nest rather than flee or combat the mice. See this video: https://www.youtube.com/watch?v=mTvcGU0FdMA.

If there were a feasible non-lethal means of removing the introduced mice, surely the many highly trained scientists who have worked on this project for decades and have dedicated their lives to the restoration of the Farallones would have embraced it. They have no interest in promoting rodenticide use for its own sake. And, in fact, they have been among the state leaders in opposition to the chronic use of pesticide on the mainland.

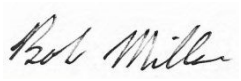
MCL is pleased to join other leading organizations involved in marine conservation in support of the Service's plan. These include Point Blue Conservation Science, Audubon (Marin, Golden Gate, California, and National), The Nature Conservancy, American Bird Conservancy, Island Conservation, BirdLife International, and many other recognized groups at the local, state, and national level. Internationally esteemed seabird scientists and conservationists such as David Ainley and Peter Pyle support the plan.

MCL recognizes the Service has prepared one of the most thorough and scientifically rigorous EIS documents on record, representing years of research, 322 pages, supported by a 577-page appendix, and responding to 553 public comments. The methodically vetted plan draws on long-term studies starting in 1968, with planning for the invasive mouse eradication dating back to 2004.

Under the administration of the Service and the stewardship of its science partner, Point Blue Conservation Science, the Farallones are distinguished as being the biologically most extensively studied and monitored islands in the world. Now is the time to remove the last remaining introduced mammal to further restore these islands known as "California's Galapagos."

Thank you for considering our input.

Sincerely,



Robert Miller
President

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Chair, Land Use and Transportation Committee

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