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Secretaría de Medio Ambiente y Recursos Naturales

Av. Ejército Nacional 223 Col. Anáhuac

11320 Ciudad de México

Atención Ciudadana: 5554900900

Re: Response to “Consultas Públicas de Proyectos de Impacto Ambiental Vigentes”

Dear Secretaría de Medio Ambiente y Recursos Naturales:

The Pacific Seabird Group (PSG) thanks you for the opportunity to respond to the request for public opinions outlined in “Consultas Públicas de Proyectos de Impacto Ambiental Vigentes.” We would like to express our deep concerns regarding the proposal to expand a sardine fishery in the Marine Biosphere Reserve located in the Bahía de Los Angeles, Gulf of California, namely Reserva de la Biosfera Zona Marina Bahía de los Ángeles y Canales de Ballenas y Salsipuedes.

PSG is an international, non-profit organization that was founded in 1972 to promote the knowledge, study, and conservation of Pacific seabirds and their habitats. PSG has a membership drawn from the entire Pacific Basin, including Mexico, the United States, Canada, Peru, Chile, Europe, Russia, Japan, Australia, and New Zealand. Among our members are biologists who have research interests in Mexican seabirds (including many Mexican nationals), governmental officials who manage seabird refuges, their habitats, and their populations, as well as many others with an interest in marine and seabird conservation. Many of our members have, for decades, done extensive research in Mexico at all times of the year, both at breeding colonies and at sea.

PSG has a long-term involvement and commitment to conservation in Western Mexico. We have often provided scientific information to Mexican officials regarding the management of marine and seabird resources in Mexico. For example, PSG supported the proposal for a Bioserve that incorporates the Pacific islands of Baja California (2002); opposed the construction of a liquefied natural gas plant 600 meters off Islas Los Coronados (2003); and opposed the development of harbor facilities near Manzanillo that would have degraded a natural coastal lagoon system (2009). PSG has assisted Mexican public officials in making reasoned decisions to manage their natural resources, especially seabirds. And PSG members have also worked closely with Mexican government environmental personnel to collaborate in banding programs, and provide advice and training in topics such as seabird monitoring methods. In 1995 PSG obtained a grant from the US Fish & Wildlife Service and NAFTA to host a workshop in Ensenada that trained 28 Mexican biologists on techniques to control predators that harm seabird colonies.

PSG recognizes the exceptional conservation values of sardine resources in the Gulf of California. Decisions that ignore the value of sardines and other forage fish to seabirds might violate international seabird protection agreements, such as NAFTA, the Migratory Bird Treaty between Mexico and the USA, and the goals of the Commission for Environmental Cooperation.¹ The proposed development also undermines the goals of the marine protected area where it is proposed, which provides “a way to both protect the food supply for seabirds and reduce the risk of seabirds being harmed by fishing equipment.”² Sardine protection in this area also reduces the risk of sardine population crashes, because it is the area of ocean where immature sardines are recruited into the breeding population.

We reviewed the Manifestación de Impacto Ambiental (MIA) for the industrial sardine fishery project and found that impacts to seabirds were not covered adequately. This is an important oversight, since “[e]nsuring sustainable harvesting of fish stocks and minimization of impacts on nontarget species such as seabirds is at the heart of ecosystem fisheries

¹ M.A. Kim, C.S. Harrison, and M.L. Tasker. 2023. Legal and cooperative mechanisms for conserving marine birds. In: L. Young and E. VanderWerf (eds), **Conservation of Marine Birds**, pp. 297-319. Academic Press.

² C.M. Miskelly. 2023. Introduction and historical approaches to seabird conservation. In: L. Young and E. VanderWerf (eds), **Conservation of Marine Birds**, pp. 279-296. Academic Press.

management.”³ Fisheries for forage fish are often distinguished by boom-and-bust cycles, and the ensuing trophic cascades and forage fish collapses during years of low-population years can have catastrophic effects on species dependent on those stocks. Among a legion of examples are the Humboldt and Benguela upwelling regions where massive declines of seabirds have occurred following overfishing because the seabirds are unable to obtain sufficient food to survive or breed.⁴ In addition, avian bycatch and mortality is often associated with purse-seine fisheries⁵, and these impacts are not considered.

PSG would like to express our concerns regarding the following specific issues. These are generally discussed in more detail by other commenters, and we endorse the science that they bring to your attention.

1. The sardine fishery historically has not been managed sustainably, contrary to statements in the MIA and certifications by the Marine Stewardship Council. Since the industrial sardine fishery began in 1969, there have been at least four crashes of sardine stocks. That is a very poor record.
2. The MIA lacks credible information on the capacity of the fishing industry to harvest sardines. Without information of the capacity of individual ships, there is no ability to estimate the capacity of the fleet or total catch. Moreover, other vessels can be substituted for those currently fishing. This allows essentially a “blank check” for tonnage, which can have disastrous effects on the sustainability of the fishery and seabird populations.
3. There is no consideration of the effects of the fishery on the ecosystem. Sardines are a trophic foundation not just for seabirds, but for large fishes and many marine mammals. The fishery proposes to harvest many subadult sardines particularly within the Biosphere Reserve waters. The potential for a devastating trophic cascade is high, and the MIA fails to analyze this problem.

³ R.A. Phillips, J. Fort, and M.P. Dias. 2023. Conservation status and overview of threats to seabirds. In: L. Young and E. VanderWerf (eds), **Conservation of Marine Birds**, pp. 33-56. Academic Press.

⁴ D.C. Duffy and W.R. Siegfried. 1987. Historical variations in food consumption by breeding seabirds of the Humboldt and Benguela upwelling regions. In: J.P. Croxall (ed), **Seabirds: Feeding ecology and role in marine ecosystems**, pp. 327-346. Cambridge University Press.

⁵ W.A. Montevecchi. 2023. Interactions between fisheries and seabirds: Prey modification, discards, and bycatch. In: **Conservation of Marine Birds**, pp. 57-95. Academic Press

4. There is no evaluation of the incidental take of invertebrates, non-target fishes, marine turtles and mammals, or seabirds. When the purse-seine net surrounds the shoal, the bottom of the net is closed so fish cannot escape from the underside of the net. Then the top (surface edge) of the net is slowly pulled towards the boat so the fish can be sucked into the boat's holding tank. During this process fish panic inside the purse seine, releasing fish oil. Birds that enter the net to try to eat sardines get oiled and lose the ability to fly, float, or thermoregulate. The surrounding water becomes oiled causing serious contamination. The consequences of both bycatch and oil contamination on seabirds and other non-target species need to be evaluated in order to adequately assess the ecological impacts of this fishery.
5. The MIA fails to even mention let alone discuss the regulations of the Biosphere Reserve. Fishing is already allowed within two areas of the Reserve, but boats have been recorded fishing in forbidden areas. The regulations also prohibit the dumping of any kind of contaminant anywhere in the Reserve. This industrial fishery routinely dumps fish oil into the ocean so that this regulation is violated each time they fish.

In our opinion, the proposed sardine fishery will have detrimental effects on seabirds. Any one of these issues alone could have a serious impact. Taken together, the cumulative effects could have disastrous consequences for many species, none of which have been adequately considered in the MIA. The MIA needs to consider the potential impacts of this project on the Gulf of California's diverse populations of breeding seabirds, and plan carefully to mitigate these impacts.

PSG will be happy to provide further information or reply to any questions you may have concerning our comments. We can be contacted at chair@pacificseabirdgroup.org and conservation@pacificseabirdgroup.org.

Sincerely,

Lindsay Adrean

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Vice-Chair for Conservation

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