

Draft Compatibility Determination

Title

Draft Compatibility Determination for Photography, video, filming, or audio recording, Farallon Islands National Wildlife Refuge.

Refuge Use Category

Wildlife Observation and Photography

Refuge Use Type(s)

Photography, video, filming, or audio recording

Refuge

Farallon Islands National Wildlife Refuge

Refuge Purpose(s) and Establishing and Acquisition Authority(ies)

“...as a preserve and breeding ground for native birds.” (Executive Order 1043).

“...for the development, advancement, management, conservation, and protection of fish and wildlife resources...” ((16 U.S.C. 742f(a)(4)) and “...for the benefit of the United States Fish and Wildlife Service, in performing its activities and services. Such acceptance may be subject to the terms of any restrictive or affirmative covenant, or condition of servitude...” (16 U.S.C 742f(b)(1), Fish and Wildlife Act of 1956).

“...suitable for (1) incidental fish and wildlife-oriented recreational development, (2) the protection of natural resources, and (3) the conservation of endangered species or threatened species...” (16 U.S.C. 460k-l, Refuge Recreation Act).

“...for use as an inviolate sanctuary, or for any other management purpose, for migratory birds.” (16 USC 715d, Migratory Bird Conservation Act of 1918).

National Wildlife Refuge System Mission

The mission of the National Wildlife Refuge System, otherwise known as Refuge System, is to administer a national network of lands and waters for the conservation, management, and where appropriate, restoration of the fish, wildlife, and plant resources and their habitats within the United States for the benefit of present and future generations of Americans (Pub. L. 105-57; 111 Stat. 1252).

Description of Use

Is this an existing use?

Yes.

This compatibility determination reviews and replaces the 2009 compatibility determination for Media Access. This use is being reevaluated at least every 10 years per policy.

What is the use?

The use is an activity conducted by an individual or organization involving photography, videography, filming, or other recording of sight or sound for news, public information, educational, or commercial purposes.

The uses have the potential to raise awareness of Refuge resources by promoting interpretation, environmental education, and wildlife observation and photography which are four of the six priority wildlife dependent public uses of the NWRS and are to be encouraged when compatible with the purposes of the Refuge. These uses are identified and discussed in detail in the Farallon National Wildlife Refuge Final Comprehensive Conservation Plan (CCP) (USFWS 2009) which are incorporated by reference.

Is the use a priority public use?

Yes

Where would the use be conducted?

The use may take place by foot, from blinds, or by landing or taking-off of drones¹ (unmanned aerial systems; UAS) on about 120 acres of the Southeast Farallon Island and West End (or, Maintop) Island (Figure 1). Nearly all permitted access will be for Southeast Farallon Island, the only inhabited island of the Refuge. Because of the complexity wildlife disturbance necessary accessing West End Island, visitation to West End Island will be limited to situations where recording cannot be obtained on Southeast Farallon Island.

The South Farallon Islands are mostly exposed granite rock islands 27 miles offshore of San Francisco, California. Several species of seabirds and pinnipeds breed or haul out on the islands. A variety of other wildlife and plants also occur, including an endemic salamander and endemic cricket. Areas used for obtaining recordings, modes of access and equipment used would be approved on a case-by-case basis under a special use permit (SUP) with terms and conditions. Recording activities and

¹ [https://doimsp.sharepoint.com/sites/fws_uasgroup/SitePages/Frequently-Asked-Questions.aspx#are-drones-\(uas\)-authorized-for-use-on-refuges](https://doimsp.sharepoint.com/sites/fws_uasgroup/SitePages/Frequently-Asked-Questions.aspx#are-drones-(uas)-authorized-for-use-on-refuges)

access on Refuge lands may be restricted (e.g., seasonal, location) to avoid impacts to sensitive wildlife or resources where disturbance could be detrimental.

When would the use be conducted?

The use would generally be permitted seven days a week but would need to be closely coordinated with the Refuge due to the remote nature and sensitivity of its location. Helicopter landings would only be permitted from September 1 to March 15, subject to change depending on the seasonal status of sensitive wildlife.

How would the use be conducted?

Because the Refuge is closed to the public as well as due to the sensitivity of natural and cultural resources on site, a special use permit (SUP) would be required. The use would occur on an offshore island requiring transport by boat or helicopter. Access by boat may require assistance from Refuge personnel with ship to shore transport. Approximately 1-3 requests (1-3 individuals per visit) per calendar year are expected for this use. Visits could occur as day-use or multi-day visits.

The regulation governing filming and still photography is found at [Public Law 118-234](#).

Requests will be evaluated using the following criteria:

- 1) Will the request conflict with other visitors or any management operations?
- 2) Will the request be intrusive in any way or cause undue disturbance to refuge resources?
- 3) Depending upon the scale of the request, does the Refuge have available resources to support it?

Why is this use being proposed or reevaluated?

Photography, video, filming, or audio recording is an ongoing use on the Refuge that was determined to be compatible in the 2009 Media access CD issued with the 2009 CCP. In accordance with Service Policy 603 FW 2.11 H we are reevaluating the use.

Availability of Resources

The following areas show the annual cost required to administer and manage the use. Costs are primarily administration, monitoring, and facilities. These are standard operating costs and are not typically attributed to costs for a specific use. There are no construction costs associated with this use.

The use is dependent upon adequate funding and resources. The listed employee position levels are examples and subject to change. SUPs would not be issued unless

sufficient staff is available for oversight without impacting other ongoing Refuge management.

Administrative- \$3,000 (calculated as 0.02 full time employee GS-12, Step 5 (2023 locality pay area of San Jose-San Francisco-Oakland) + 30% for benefits)

Monitoring- \$2,600 (calculated as 0.02 full time employee GS-11, Step 5 (2023 locality pay area of San Jose-San Francisco-Oakland) + 30% benefits)

Facilities- \$500 (vehicle use to and from boat dock or air station)

Anticipated Impacts of the Use

Potential impacts of a proposed use on the refuge's purpose(s) and the Refuge System mission

The Refuge is closed to public use to protect seabird and pinniped populations and their habitats from human disturbance. Visitor disturbance has been shown to reduce hatching success, cause population declines and preclude nesting in certain locations by some seabird species (Carney and Sydeman 1999). Past human use on Southeast Farallon Island severely decreased seabird and marine mammal populations, extirpating some species (Ainley and Boekelhide 1990). Breeding populations have taken decades, or in the case of northern elephant seals and northern fur seals, over a century to recover, and many species are still much lower than they were historically. Yet, allowing photography, video, filming, or audio recording for commercial and newsgathering can increase visibility of the refuge's purpose and the overall mission of the Refuge System.

The effects and impacts of the proposed use to refuge resources, whether adverse or beneficial, are those that are reasonably foreseeable and have a reasonably close causal relationship to the proposed use. This CD includes the written analyses of the environmental consequences on a resource only when the impacts on that resource could be more than negligible and therefore considered an "affected resource." Threatened and endangered species, geology and soils, air quality, water quality, wilderness, visitor use and experience, cultural resources, refuge management and operations, and socioeconomics will not be more than negligibly impacted by the action and have been dismissed from further analyses.

Short-term impacts

In general, recording activity could have short-term impacts to wildlife. Once considered "non-consumptive," it is now recognized that wildlife observation and wildlife photography can negatively affect wildlife by altering wildlife behavior,

reproduction, distribution, and habitat (Purdy et al. 1987, Knight and Cole 1995). Purdy et al. (1987) and Pomerantz et al. (1988) described six categories of impacts to wildlife because of visitor activities. They are: 1) direct mortality; 2) indirect mortality; 3) lowered productivity; 4) reduced use of refuge; 5) reduced use of preferred habitat on the refuge; and 6) aberrant behavior/stress.

While wildlife observers frequently stop to view species, wildlife photographers are more likely to approach wildlife (Klein 1993). Even slow approach by wildlife photographers tends to have behavioral consequences to wildlife species (Klein 1993). Other impacts include the potential for photographers to remain close to wildlife for extended periods of time in an attempt to habituate the wildlife subject to their presence (Dobb 1998), and the tendency of casual photographers, with low-power lenses to get much closer to their subjects than other activities would require (Morton 1995), including wandering off trails. This usually results in increased disturbance to wildlife and habitat, including trampling of plants. Because professional photographers tend to have high power lenses and video equipment, they are likely to have fewer disturbance effects to wildlife and habitat. Drones have also been increasingly used for filming, but higher altitudes (e.g., 50 meters) can limit response by wildlife (Weimerskirch et al. 2017). Certain wildlife species may also be more sensitive to drones (e.g., cormorants) than others (e.g., penguins) (Weimerskirch et al. 2017).

Individual animals may be disturbed by human contact to varying degrees. Human activities on trails can result in direct effects on wildlife through harassment, a form of disturbance that can cause physiological effects, behavioral modifications, or death (Smith and Hunt 1995). Many studies have shown that birds can be impacted from human activities on trails when they are disturbed and flushed from feeding, resting, or nesting areas. Flushing, especially repetitive flushing, can strongly affect habitat use patterns of many bird species. Flushing from an area can cause birds to expend more energy, be deterred from using desirable habitat, affect resting or feeding patterns, and increase exposure to predation or cause birds to abandon sites with repeated disturbance (Smith and Hunt 1995, Carney and Sydeman 1999). Migratory birds were observed to be more sensitive than resident species to disturbance (Klein 1989). Depending on the species (especially migrants vs. residents), some birds may habituate to some types of recreation disturbance and either are not disturbed or will immediately return after the initial disturbance (Hockin et al. 1992; Burger et al. 1995; Knight and Temple 1995; Madsen 1995; Fox and Madsen 1997). Nonetheless, we expect indirect impacts from this use, alterations to wildlife habitat such as availability of food, shelter, and living space (Cole and Landres 1995) from recording activities to be limited because it is short term in nature.

Specific to the Refuge, visits during the seabird breeding season (March 15 to September 1) have the most potential for causing impacts because this is the time period when the largest numbers of seabirds are present on the island. Seabird nesting occurs nearly everywhere of Southeast Farallon Island during the breeding

season; therefore human transit anywhere on the island has the potential to flush birds from their nests. Flushing disturbance causes the greatest impacts to colonial nesting species such as common murre and Brandt's cormorants. When flushed from their nests, murre and cormorants leave eggs and chicks exposed to predators (mainly gulls). For the murre and even cormorants, storm-petrels and some other species, a single flushing event typically results in abandonment of the nest. For this reason, entering murre and cormorant nesting areas is prohibited during the breeding season. When disturbed, gull chicks may run into another gull's territory where they are attacked and sometimes killed. For most other seabird species (G. McChesney, personal observations), repeated flushing can lead to abandonment of the nest, or if it occurs year after year, abandonment of the entire colony (Carney and Sydeman 1999).

The island is mostly exposed granite rock. Nevertheless, there may be some localized impacts to vegetation from trampling by foot from this use. Humans and equipment can also be vectors for invasive plants by moving seeds or other propagules from one area to another. Refuge staff will monitor and evaluate the effects of these potential impacts to discern if adverse effects to wildlife or habitats result from the uses. Soil deep enough for burrowing seabirds (rhinoceros and Cassin's auklets) to construct burrows is limited. Human foot traffic in any of these areas can crush nesting burrows. During the breeding season, this can lead to the death of an individual bird or the loss of its reproductive effort for the year. Even during the non-breeding season, crushing a burrow can result in extra energy expenditure for the bird to dig a new burrow, since auklets re-use burrows from year to year.

Walking too close to groups of seals or sea lions that are hauled up on the shoreline can cause them to be flushed or stampede into the water. This results in extra energy expenditure and can cause injury. Pups can be separated from their mothers. As noted above, the proposed use does not include unrestricted access or allow activities outside of appropriate times of the year when the use may disturb wildlife and their habitat. Service staff or a partner approved by the Refuge may actively supervise each permittee or allow permittees to shadow Service staff or the Refuge partner during conservation activities taking place on the Refuge, as the Service determines necessary to minimize disturbance. By restricting recording in this way, permittees are not likely to disturb wildlife or interfere with refuge management activities.

Generally, between one and three recording requests are received by the refuge manager per year. Approximately half do not meet the criteria listed above and are denied. Therefore, it is estimated that no more than 1-3 recording visits would occur during any calendar year. Based on our experience in accommodating a similar intensity of visits over the past 20 years, we anticipate that most of the impacts to wildlife and habitat described above will be limited. Except in cases where recording cannot be obtained otherwise, recording visitors would remain on paths or in observation blinds where disturbance to wildlife and habitats can be minimized. They

would be escorted by staff familiar with sensitive areas who are trained to read behaviors that signal when an animal becomes nervous or disturbed (seabirds and marine mammals generally exhibit certain subtle behaviors before they flush). In cases where recording cannot be obtained from paths or blinds, locations will be chosen carefully and recording personnel will be escorted to best minimize wildlife or habitat disturbance.

An exception would be the gulls nesting or roosting immediately adjacent to the island's paths. They will be moved or flushed by the recording visits when walking pathways, but these flushing short-term events are not expected to result in predation or abandonment of nests. Likewise, pinnipeds (primarily California sea lions) hauled-out near the boat landing(s) may be temporarily disturbed by the transfer of visitors to the refuge.

Long-term impacts

Due to the limited number of individuals and trips per year, we do not anticipate any long-term impacts from the use such as changes to wildlife use patterns on the Refuge.

Public Review and Comment

The draft compatibility determination will be available for public review and comment for 14 days. A hard copy of this document will be posted at the Refuge Headquarters, 1 Marshlands Road, Fremont, California 94555. It will be made available electronically on the refuge website <https://www.fws.gov/refuge/farallon-islands>. Concerns expressed during the public comment period will be addressed in the final compatibility determination.

Determination

Is the use compatible?

Choose an item.

Stipulations Necessary to Ensure Compatibility

1. Recording activities and access on Refuge lands will be restricted (e.g., areas with threatened and endangered wildlife or sensitive habitats) to avoid impacts to sensitive wildlife or resources where disturbance could be detrimental.
2. All visitors must comply with NWRS-related regulations, including Prohibited Acts listed in 50 C.F.R § 27, and Public Entry Regulations in 50 C.F.R. § 26.
3. Permittee(s), designated representatives and associates shall comply with terms and conditions within the SUP as provided by the Refuge Manager or his/her designee. The SUP will provide terms and conditions to eliminate or

reduce impacts to Refuge resources.

4. Permittee(s) will contact the Refuge Manager and/or his/her designee prior to commencement of work, preferably at least two (2) weeks in advance to identify conflicts and sensitive areas/wildlife.
5. If a drone (UAS) is approved to land or take off from the Refuge, then the permittee shall follow all FAA regulations (Small UAS Rule; Part 107) and remain in visual and operational control of the aircraft at all times. In addition, the permittee use of a drone must not take, disturb, harass or chase wildlife as defined within the Endangered Species, Migratory Bird Treaty, and Airborne Hunting Acts, and the Code of Federal Regulations. If the drone is to be flown over the marine waters surrounding the Refuge, a permit must be obtained from the Greater Farallones National Marine Sanctuary (<https://farallones.noaa.gov/>).
6. The Refuge Manager or designee may supervise permittee activities and can suspend, modify, or terminate any recording should unacceptable, unforeseen, or unexpected impacts or issues arise.

Justification

The National Wildlife Refuge System Improvement Act of 1997 identifies interpretation, environmental education and wildlife photography as priority public uses for national wildlife refuges, along with hunting, fishing, and wildlife observation. As expressed priority uses of the Refuge System, these uses take precedence over other potential public uses in Refuge planning and management. The Service strives to provide priority public uses when compatible with the purpose of the Refuge and the mission of the NWRS.

Because of the wildlife sensitivity, the Refuge is closed to the public. Allowing select photography, video, filming, or audio recording activities to occur will enhance the Refuge's ability to provide interpretation to facilitate the public's understanding of the Service as well as the role of the Refuge and its biological resources. The Refuge is home to natural resources unique to the marine island environment; photography, video, filming, or audio recording of this environment can result in increased publicity and advocacy for Service conservation and restoration programs.

After assessing the potential impacts it was determined that photography, video, filming, or audio recording within Farallon Islands National Wildlife Refuge as described herein, will not materially interfere with or detract from the purposes for which the Refuge was established or the mission of the Refuge System. In the Service's opinion, allowing recording with associated stipulations will not conflict with the national policy to maintain the biological diversity, integrity, and environmental health of the Refuge.

Signature of Determination

Refuge Manager Signature and Date

Signature of Concurrence

Assistant Regional Director Signature and Date

Mandatory Reevaluation Date

2035

Literature Cited/References

- Ainley, D.C. and R.J. Bockelheide. 1990. *Seabirds of the Farallon Islands: Ecology, Dynamics, and Structure of an Upwelling-System Community*. Stanford Univ. Press, Stanford, CA.
- Burger, J., M. Gochfeld and L.J. Niles. 1995. Ecotourism and birds in coastal New Jersey: contrasting responses of birds, tourists, and managers. *Environmental Conservation*, 22(1), pp.56-65.
- Carney, K.M. and W.J. Sydeman. 1999. A review of human disturbance effects on nesting colonial waterbirds. *Waterbirds* 22:68-79.
- Cole, D.N. and P.B. Landres. 1995. *Indirect effects of recreationists and management*. Knight RL and SA Temple, editors, 183-202.
- Dobb, E. 1998. Reality check: the debate behind the lens. *Audubon*: Jan.-Feb.
- Fox, A.D. and J. Madsen. 1997. Behavioural and distributional effects of hunting disturbance on waterbirds in Europe: implications for refuge design. *Journal of Applied Ecology*, pp.1-13.
- Glinski, R.L., 1976. Birdwatching etiquette: the need for a developing philosophy. *American Birds*, 30(3), pp.655-657.
- Hockin, D., Ounsted, M., Gorman, M., Hill, D., Keller, V. and Barker, M.A., 1992. Examination of the effects of disturbance on birds with reference to its importance in ecological assessments. *Journal of Environmental Management*,

- 36(4), pp.253-286.
- Klein, M. 1989. *Effects of high levels of human visitation on foraging waterbirds at J.N. 'Ding' Darling National Wildlife Refuge, Sanibel Florida*. Masters Thesis. Gainesville, Florida: University of Florida.
- Klein, M.L. 1993. Waterbird behavioral responses to human disturbances. *Wildl. Soc. Bull.* 21:31-39.
- Knight, R.L. and D.N. Cole. 1995. *Wildlife responses to recreationists*. Pages 71-79 in R. L. Knight and K. J. Gutzwiller, ed. *Wildlife and Recreationists: Coexistence through management and research*. Island Press, Washington, D.C. 372 pp.
- Knight, R.L. and S.A. Temple. 1995. *Coexistence through Management. Wildlife and recreationists: coexistence through management and research*.
- Madsen, J., 1995. Impacts of disturbance on migratory waterfowl. *Ibis*, 137, pp.S67-S74.
- Morton, J.M. 1995. *Management of human disturbance and its effects on waterfowl*. Pages F59-F86 in W.R. Whitman, T. Strange, L. Widjeskog, R. Whittemore, P. Kehoe, and L. Roberts (eds.). *Waterfowl habitat restoration, enhancement and management in the Atlantic Flyway*. Third Ed. Environmental Manage. Comm., Atlantic Flyway Council Techn. Sect., and Delaware Div. Fish and Wildl., Dover, DE. 1114 pp.
- Pomerantz, G.A., D.J. Decker, G.R. Goff and K.G. Purdy. 1988. Assessing impact of recreation on wildlife: a classification scheme. *Wildlife Society Bulletin* (1973-2006), 16(1), pp.58-62.
- Purdy, K.G., G.R. Goff, D.J. Decker, G. A. Pomerantz, and N. A. Connelly. 1987. *A guide to managing human activity on National Wildlife Refuges*. Office of Information Transfer, U.S. Fish and Wildlife Service, Ft. Collins, CO. 57 pp.
- Smith, L. and J.D. Hunt. 1995. *Nature tourism: impacts and management*. Pp. 203-219 in R.L. Knight and K.J. Gutzwiller, ed. *Wildlife and Recreationists: Coexistence through management and research*. Island Press, Washington, D. C. 372 pp.
- U.S. Fish and Wildlife Service (USFWS). 2009. Farallon National Wildlife Refuge Final Comprehensive Conservation Plan, 2009. U. S. Fish and Wildlife Service, Sacramento, California.

Figure(s)

Figure 1. Map of South Farallon Islands, Farallon Islands National Wildlife Refuge

