

Appendix II

Compatibility Determination

Title: Sport Fishing

Use Category: Fishing **Use Type:** non-commercial

Refuge Name: Marin Islands National Wildlife Refuge

Establishing and Acquisition Authority(ies):

Fish and Wildlife Act 1956, Migratory Bird Conservation Act

Refuge Purpose(s):

“... for the development, advancement, management, conservation, and protection of fish and wildlife resources ...” 16 U.S.C. § 742f(a)(4) “... 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).

National Wildlife Refuge System Mission:

“The mission of the 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” (National Wildlife Refuge System Administration Act of 1966, as amended [16 USC 668dd-668ee]).

Description of Use:

Sport fishing by boat is an existing use of the waters surrounding the Marin Islands. Fishing is one of the six priority uses that, when compatible, fulfill the goals and mission of the National Wildlife Refuge System and National Wildlife Refuge System Improvement Act of 1997. Recreational fishing will be permitted consistent with State regulations. According to local marina staff an estimated

10 to 15 people fish the area regularly. Anglers use the Loch Lomond marina or other facilities located throughout the bay to launch their boats or kayaks into the bay waters. No facilities on the Refuge are required to allow this use.

The use will be permitted by boat only. Angling would be permitted by motorized, wind or human-powered boats. Because facilities are already available in the area, no facilities or structures will be provided on the Refuge to support fishing. Fishing brochures will be provided at the local marinas specifying restrictions and the sensitive nature of the islands and restrictions. The proposed use would be year round in accordance with State and Federal regulations.

The use is proposed because the tidelands surrounding the islands are designated navigable waters that are already used by anglers, but sport fishing was never formally established as a use by the Refuge.

Game fish species allowed for legal take in the San Francisco Bay Area include species listed in the California Ocean Recreation Fishing Regulations (e.g., surfperch, sturgeon, and striped bass). These fish species occur in the tidal waters of the Refuge. The Refuge will not regulate fishing quotas and defers to quotas set by the California Department of Fish and Wildlife. Anglers are required to have a State fishing license, but would not need to obtain a refuge fishing permit or pay a user fee.

Availability of Resources:

The estimated annual maintenance costs for Sport Fishing on the Refuge are \$5,000. Annual maintenance costs would consist of: administration, \$1,000; law enforcement, \$2,000; boat maintenance and fuel, \$1,000, and fishing and wildlife brochures, \$1,000.

Anticipated Impacts of the Use:

Fishing on the Refuge owned tidelands would affect fish species and may cause some disturbance related effects to wildlife. The Refuge was established to provide wintering habitat for migratory birds and nesting habitat for waterbirds. Vegetation and nesting habitat are limited to East and West Marin Islands which have supported heron and egret colonies. At Refuge establishment, the heron and egret colony on West Marin was one of the most notable features of

the Refuge. The Audubon Canyon Ranch has monitored the number of nesting herons and egrets on the Refuge since 1979, and the annual reproductive success of great egrets and great blue herons since 1993. While the number of active heron and egret nests on the Refuge has fluctuated over the years, since 2016, no herons or egrets nested on West Marin Island (Kelly, J.P., and Fischer, B 2018).

In the tidal and sub-tidal environments, several waterfowl and waterbird species are present during breeding, migratory, or wintering periods. Migratory birds would not be directly affected by fishing and indirect effects from disturbance are minor. Anglers could disturb waterfowl and waterbird species in the tidal and sub-tidal environments. The Service owned tidelands that would be opened to fishing under this alternative are several hundred feet away from East and West Marin Islands where herons and egrets may be found. Waterfowl and waterbirds in the Refuge owned tidelands that are disturbed by anglers would be able to relocate to other areas within the San Rafael Bay.

Several sensitive fish species occur within the vicinity of the San Rafael Bay including the Sacramento splittail minnow (*Pogonichthys macrolepidotus*), the delta smelt (*Hypomesus transpacificus*), green sturgeon (*Acipenser medirostris*), winter-run and Central Valley spring-run chinook salmon (*Oncorhynchus tshawytscha*), as well as the Central California Coast and Central Valley steelhead (*Oncorhynchus mykiss*).

The Sacramento splittail minnow is primarily a freshwater fish that is largely confined to the Sacramento San Joaquin Delta, Suisun Bay, Suisun Marsh, and the Napa and Petaluma rivers (USFWS 2010a). The San Rafael Bay is likely just outside of this species' range. The delta smelt are restricted to the San Francisco Bay and Sacramento-San Joaquin Delta and found only from the San Pablo Bay upstream through the Delta (USFWS 2010b). As such this species is unlikely to be found in the San Rafael Bay which is south of the San Pablo Bay.

The green sturgeon (*Acipenser medirostris*) can also be found within the San Pablo Bay. In 2006, the Southern distinct segment population of the green sturgeon was listed as threatened under the Federal ESA (NOAA 2006). In 2009, the National Marine Fisheries Service published a final rule designating critical habitat for the Southern distinct population segment. The San Francisco Bay is among the locations designated as critical habitat for this species (NOAA 2009). The green sturgeon is not listed under the California ESA. Although much less abundant than white sturgeon, the green sturgeon may occasionally be caught by anglers fishing for white sturgeon. The CDFW 2018 fishing regulations state that: (1) green sturgeon may not be taken or possessed in California; (2) green sturgeon may not be removed from the water and shall be

released immediately; and (3) green sturgeon taken and released incidentally to white sturgeon fishing shall be reported on a Sturgeon Fishing Report Card issued by the department, in accordance with procedures defined in CCR Sections 1.74 and 5.79 (CDFW 2018).

The Refuge is located within the migratory corridor for the green sturgeon, Chinook salmon, and steelhead. All of these species migrate through the Central and San Pablo Bays on their way up to freshwater spawning habitat in the Sacramento River. Juveniles migrating to the ocean may rear in the vicinity of the Marin Islands NWR. However, the Refuge is located west of the main migratory pathway, therefore it is unlikely that listed anadromous fish would be present in large numbers although some may migrate through the submerged tidelands of the Refuge (USFWS/CDFW 2012).

Recreational fishing would result in minimal public use conflicts. Anglers will only be allowed to fish from a boat. Public access to the Refuge is limited to staff-led tours and native plant restoration work parties led by a non-profit group.

Direct cumulative impacts would likely include increased staffing to patrol and monitor this activity. Non-breeding wildlife may be disturbed by this activity, but not more than the level that is currently occurring. Fishing information will be provided at the local marinas in order to mitigate wildlife disturbance by recreational fishing. Signage will also educate sport fishermen near the Refuge in order to reduce or limit disturbances to wildlife.

Public Review and Comment:

Public review of this compatibility determination is concurrent with the public review of the Environmental Assessment. Public comments will be considered prior to making a final determination.

Determination:

Use is Not Compatible

Use is Compatible with the Following Stipulations

Stipulations Necessary to Ensure Compatibility:

Fishing will be permitted in accordance with CDFW sport fishing regulations on the open waters from a boat only.

Justification:

The National Wildlife Refuge System Improvement Act of 1997 identifies six legitimate and appropriate uses of wildlife refuges: hunting, fishing, wildlife observation and photography, and environmental education and interpretation. Where these uses have been determined compatible, they are to receive enhanced consideration over other uses in planning and management.

Fishing is an appropriate wildlife-dependent recreational activity. Based on the impacts described above, we have determined that fishing will not materially interfere with or detract from the purposes for which the Refuge was established or mission of the National Wildlife Refuge System. The program as described is determined to be compatible and will not conflict with the national policy to maintain the biological diversity, integrity, and environmental health of the Refuge.

Mandatory Re-Evaluation Date:

Mandatory 15-year Re-Evaluation Date (for priority public uses)
 Mandatory 10-year Re-Evaluation Date (for all uses other than priority public uses)

References Cited:

California Department of Fish and Wildlife. (CDFW) 2018. Green sturgeon, webpage accessed 12/18/2018, at: <http://www.eregulations.com/california/fishing/freshwater/sturgeon-regulations/>

Kelly, John P. 2002 Disturbance Patterns in Heronries, A Safe Place to Nest. The Ardeid. 2002. Cypress Grove, Research Center, Audubon Canyon Ranch.

National Oceanic and Atmospheric Administration. (NOAA) 2006. Endangered and Threatened Wildlife and Plants: Threatened Status for Southern Distinct Population Segment of North American Green Sturgeon; Final Rule: Federal Register, 71, p. 17757-17766.

- _____. 2009. Endangered and Threatened Wildlife and Plants: Final Rulemaking to Designate Critical Habitat for the Threatened Southern Distinct Population Segments of North American Green Sturgeon; Final Rule. Federal Register, 74, p. 52300-52348.
- Rodgers, J. Jr. and H. Smith. 1995. Set-back Distances to Protect Nesting Bird Colonies from Human Disturbances in Florida. Conservation Biology 9(1): 89-99.
- U.S. Fish and Wildlife Service and California Department of Fish and Wildlife. 2012. Sears Point Wetland and Watershed Restoration Project Final Environmental Impact Report/Environmental Impact Statement. USFWS/CDFW. Petaluma, CA. 2012.
- U.S. Fish and Wildlife Service. 1996. Sacramento-San Joaquin Delta Native Fishes Recovery Plan. U.S. Fish and Wildlife Service, Portland, Oregon.
- _____. 2006. Final Marin Islands National Wildlife Refuge Comprehensive Conservation Plan and Environmental Assessment.
- _____. 2010a. Endangered and Threatened Wildlife and Plants; 12-month Finding on a Petition to list the Sacramento Splittail as Endangered or Threatened; Federal Register, 81, p. 62070-62095.
- _____. 2010b. Endangered and Threatened Wildlife and Plants; 12-Month Finding on a Petition to Reclassify the Delta Smelt from Threatened to Endangered Throughout Its Range; Federal Register, 75, p. 17667-17680.

Refuge Determination

Refuge Manager/
Project Leader
Approval:

ANNE
MORKILL

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(Signature)

(Date)

Concurrence

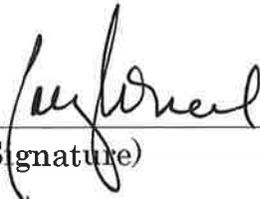
Refuge Supervisor:



(Signature)

8/29/19
(Date)

Regional Chief,
National Wildlife
Refuge System:



(Signature)

8.29.19
(Date)