

Appendix N. Compatibility Determination for Research and Monitoring

Compatibility Determination

Use: Research and Monitoring

Refuge Name: Marin Islands National Wildlife Refuge

County: Marin, California

Establishing and Acquisition Authority(ies):

Fish and Wildlife Act 1956

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:

Two provisions of the 1997 Refuge Improvement Act are to “maintain biological integrity, diversity and environmental health” and to conduct “inventory and monitoring.” Research and monitoring are integral parts of National Wildlife Refuge management. Activities at present include monitoring the heron and egret population; researching avian predation on the colony; and vegetation monitoring. Future research and monitoring proposals must benefit the conservation and management of the Refuge resources (i.e., habitat, wildlife and cultural resources). Plans and actions based on research and monitoring provide an informed approach, which analyzes the

management affects on refuge habitats and wildlife. Refuge staff currently conducts scientific monitoring of the heron and egret colonies with Audubon Canyon Ranch (ACR), a natural resources research and education institute from a variety of organizations and individuals. Their research found that any intense or repeated disturbance to heron colonies can cause birds to abandon a colony site permanently (Kelly 2002). ACR conducts this monitoring and research under a Special Use Permit which is renewed annually. Research and monitoring Special Use Permits (SUP) must contribute to the enhancement, protection, preservation, and management of native refuge plant and wildlife populations and their habitats.

Marin Islands receives generally three or four requests per year to conduct scientific research on the Refuge from institutions and individual researchers. Priority would be given to research that contributes to the enhancement, protection, preservation and management of migratory birds, habitat and wildlife on the Refuge. Some research opportunities such as understanding the effects of raven predation on the heron and egret colony are identified in the Draft Marin Islands National Wildlife Refuge Comprehensive Conservation Plan and the Environmental Assessment (CCP/EA), which is herein incorporated by reference. Research proposals would be reviewed by Refuge staff and conservation partners, as appropriate. If the proposal is approved, a SUP would be issued by the refuge manager. No fee will be charged for the SUP.

Research proposals would be assessed based on criteria including, but not limited to:

- Research that will contribute to specific Refuge management challenges, CCP goals, or purposes for which the Refuge was established;
- Research that will not conflict with other ongoing research, monitoring, or management programs;
- Research that can only be accomplished on the Refuge;
- Research that does not cause exceptional disturbance to wildlife or undue habitat degradation;
- Research designed to minimize disturbance to the wildlife and habitat on the Refuge as well as the surrounding human environment;
- The ability of staffing or logistics to monitor research activity in sensitive areas; and
- Duration of proposed research; research would not be allowed to be conducted open-ended and will be reviewed annually.

Generally on-site research would be limited to East Marin Island and the tidal waters of the Refuge. During the heron and egret breeding season, research would be restricted by distance to limit human disturbance of the colony. Research on West Marin Island would be generally restricted or allowed with limitations to periods when

the heron and egret colony is not active. Currently, monitoring of the heron and egret colony is conducted by ACR from February through July. Any additional research requests could be accommodated through the year, as determined appropriate by refuge staff. Research proposals should follow the format provided in Addendum A.

Availability of Resources:

Some staff time would be required to review research requests and manage research activities. However, refuge staff would not be expected to commit weekly staff time to managing this use. Research proposal approvals will also be based upon available staff to ensure compliance with the above criteria. Currently, limited staffing exists to monitor projects and compliance of research projects. Other than staff time, no special equipment, facilities, or improvements are necessary to support this proposed use.

Maintenance costs:

	Annual Costs
Administration (Evaluation of proposals, management of permits, and monitoring of research)	\$5,000
TOTAL:	\$5,000

Anticipated Impacts of the Use:

Use of the Refuge to conduct research monitoring will benefit fish, wildlife, plant populations, and their habitat. Monitoring and research investigations are an important component of adaptive management. Current monitoring evaluates the productivity of the heron and egret colony and habitat restoration activities. New research studies on the Refuge would be expected to compliment the existing data and knowledge base on the colony or the habitat on the Refuge.

Wildlife on and surrounding the Refuge may incur disturbance from research and monitoring activities. Audubon Canyon Ranch, a research and education institute, has studied sources of disturbance to heron colonies across five northern counties of San Francisco Bay area since 1990. Their research found that any intense or repeated disturbance to heron colonies can cause birds to abandon a colony site permanently (Kelly 2002). However, it is not yet clear whether these colonies are more strongly affected by human interference or by other sources of disturbance such as avian predation. Studies of different types of disturbance have shown consistently that

heron colonies are less disturbed by approaching boats than by terrestrial intrusions (Rodgers and Smith 1995). Research and monitoring activities have the potential to disturb wildlife on the Refuge, especially the heron and egret colony. Refuge staff will review proposals to ensure that wildlife disturbance is avoided. In addition, if research is expected to take place on East Marin Island, rare plants and newly planted native seedlings may be trampled. Non-native plants may also be introduced through researchers' clothing and footwear. All visitors will be required to engage in phytosanitation practices that would limit transport of non-natives to the Refuge. Addendum B provides specific details on environmental and safety precautions to be taken by visitors.

Expected short-term benefits to conducting research activities at the Refuge would include improvement of habitat and wildlife populations. Monitoring of wildlife and habitat on the Refuge would provide feedback on the effectiveness of activities taking place in the CCP. Long-term effects could include expanding the knowledge base about the habitat and wildlife of the larger San Francisco Bay Area. Moreover, natural resources inventory, monitoring and research are provisions in the Refuge Improvement Act. Overall, proper review and approval of appropriate research proposals should result in limited disturbance to wildlife and habitat, while resulting in maximum benefit to refuge management and scientific data on the San Francisco Bay Area ecosystem. See Chapter 4 of the CCP/EA for a discussion of problems and opportunities.

Public Review and Comment:

A public review and comment period for the CCP/EA process began September 22, 2004 and ended on November 8, 2004. During the scoping period, research on the Refuge received some comments including the need for studies of the inter-tidal areas and the Canada geese population. This compatibility determination will be available for public review jointly with the draft CCP/EA.

Determination:

Use is Not Compatible

Use is Compatible with the Following Stipulations

Stipulations Necessary to Ensure Compatibility:

Research activities, including boating, must result in limited disturbance of wildlife. The refuge manager and biologist will review proposed research studies and may incorporate procedures and conduct that minimize impact, such as buffer distances from the heron

and egret colony, methods to reduce introduction of non-native vegetation, and limits to number of researchers entering the area. Researchers are required to submit an annual and/or final report; SUPs would be required to be renewed annually. Access to West Marin Island for research will be greatly limited due to the sensitivity of the area. All Refuge rules and regulations must be followed unless otherwise exempted in writing by the Refuge Manager. All information, reports, photos, data, collections, or documented sightings and observations, that are obtained as a result of this permit are the property of the Service and can be accessed by the Service at any time from the Permittee at no cost, unless specific written arrangements are made to the contrary.

Justification:

The proposed use will enhance the goals, objectives and refuge management activities by providing an opportunity to conduct research and monitoring that will conserve wildlife and protect habitat.

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)

NEPA Compliance for Refuge Use Decision:

Categorical Exclusion without Environmental Action Statement

Categorical Exclusion and Environmental Action Statement

Environmental Assessment and Finding of No Significant Impact

Environmental Impact Statement and Record of Decision

Reference Cited:

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

U.S. Fish and Wildlife Service. 2006. Draft Marin Islands National Wildlife Refuge Comprehensive Conservation Plan and Environmental Assessment.

Refuge Determination:

Prepared by:

W. M. A.

Date:

9/11/06

Refuge Manager/
Project Leader
Approval:

G. Mendel Stewart

Date:

9/11/06

Concurrence:

Regional Chief,
National Wildlife
Refuge System:

Margaret J. Kolar

Date:

9/21/06

Appendix O. Compatibility Determination for Wildlife Observation and Photography

Compatibility Determination

Use: Wildlife Observation and Photography

Refuge Name: Marin Islands National Wildlife Refuge

County: Marin, California

Establishing and Acquisition Authority(ies):

Fish and Wildlife Act 1956, Migratory Bird Conservation Act

This Refuge is a combined fee title, cooperative agreement and donation acquisition.

Refuge Purpose(s):

Establishment purpose: "... 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, [USC 668dd-668ee])

Description of Use:

The general public would be permitted to view and photograph wildlife by boat from the open waters of Marin Islands National Wildlife Refuge. The proposed use would be allowed throughout the year on open waters surrounding West and East Marin Island. The public may not land their watercraft on either island, including the boat dock on East Marin Island. They must abide by local and state boating regulations.

The public would need to provide their own watercraft to view the wildlife from the waters. Public access and a boat launch are available at Loch Lomond Marina. Brochures would be made available at the marina to inform observers about Refuge wildlife, habitat, and the laws that protect them. A fee may be assessed by the marina for parking vehicles and launching. No fee would be collected by the Refuge for this use.

The Refuge is proposing this use to promote wildlife-dependent recreation. Compatible wildlife-dependent recreation is one of the six priority uses that, when compatible, fulfill the goals and mission of the National Wildlife Refuge System and meet the provisions of the National Wildlife Refuge Improvement Act. Providing the public with an opportunity for wildlife-dependent recreation may lessen unauthorized visits to the islands and increase awareness of the Refuge.

Availability of Resources:

No special equipment, facilities, or improvements are necessary to support this use. Occasional monitoring by law enforcement would be necessary to ensure wildlife observers are complying with Refuge regulations. Law enforcement costs for this use are included in the Sport Fishing compatibility determination (see Appendix P, Sport Fishing CD).

Anticipated Impacts of the Use:

This use is intended to garner and maintain public support for preservation and protection of the wildlife and plant species on the Refuge. Wildlife on and surrounding the Refuge may incur disturbance from boaters viewing them. Audubon Canyon Ranch, a research and education institute, has studied sources of disturbance to heron colonies across five northern counties of San Francisco Bay area since 1990. Their research found that any intense or repeated disturbance to heron colonies can cause birds to abandon a colony site permanently (Kelly 2002). However, it is not yet clear whether these colonies are more strongly affected by human interference or by other sources of disturbance such as avian predation. Studies of different types of disturbance have shown consistently that heron colonies are less disturbed by approaching boats than by terrestrial intrusions (Rodgers and Smith 1995). Wildlife observation from the water may result in disturbance to the colony. However, the colony is located in a densely vegetated group of coast live oak and buckeye woodland 85 feet above sea level. Given the vegetation, it is not likely that boaters will disturb the nests or birds.

Signage will be posted at both islands to limit disturbance to wildlife and unauthorized access. Signage will inform boaters viewing wildlife from the water of the potential impacts disturbance can have to the nesting colony in order to reduce or limit disturbances to wildlife. Indirect cumulative impacts would likely include boat and automobile traffic in the Loch Lomond Marina and the larger city of San Rafael area. However, traffic is not likely to change as this use is not new and the number of participants is not expected to change from present numbers.

Public Scoping and Comment:

A public review and comment period for the CCP/EA process began September 22, 2004 and ended on November 8, 2004. During the scoping meeting, wildlife observation received some interest. This compatibility determination will be available for public review jointly with the draft CCP/EA.

The following methods were used to solicit public review and comment:

- Posted notice at refuge headquarters
- Public notice in newspaper with wide local distribution
- Notice in Federal Register
- Letter to adjacent landowners
- Letter to other interested persons
- Public meeting(s)
- World Wide Web

Determination:

Use is Not Compatible

Use is Compatible with the Following Stipulations

Stipulations Necessary to Ensure Compatibility:

The colony will continue to be monitored. Declines in the colony's population that are greater than the population's growth rate will result in review and potential modification of all uses on the Refuge. Signage will be placed on both islands prohibiting access.

Justification:

Conducted with aforementioned stipulations the proposed use will likely enhance the ability of the Refuge to fulfill the Refuge System mission and the purpose of the Refuge by providing the opportunity for wildlife recreation to the public. The Refuge would remain a sanctuary for migratory birds while helping to increase public awareness. The proposed use supports refuge goals, objectives and refuge management activities (refer to Draft CCP Chapter 5, Management Direction).

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)

NEPA Compliance for Refuge Use Decision:

- Categorical Exclusion without Environmental Action Statement
 Categorical Exclusion and Environmental Action Statement
 Environmental Assessment and Finding of No Significant Impact
 Environmental Impact Statement and Record of Decision

Reference Cited:

Kelly, John P. 2002. Disturbance Patterns in Heronries, A Safe Place to Nest. The Ardeid. 2002. Cypress Grove, Research Center, Audubon Canyon Ranch.
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. 2006. Draft Marin Islands National Wildlife Refuge Comprehensive Conservation Plan and Environmental Assessment.

Refuge Determination:

Prepared by:  Date: 9/11/06

Refuge Manager/

Project Leader
Approval:

G. Mendel Stewart Date: 9/11/06

Concurrence:

Regional Chief,
National Wildlife
Refuge System:

Margaret J. Colan Date: 9/21/06

Appendix P. Environmental Education and Interpretive Staff-Led Tours

Compatibility Determination

Use: Environmental Education and Interpretive Staff-Led Tours

Refuge Name: Marin Islands National Wildlife Refuge

County: Marin, California

Establishing and Acquisition Authority(ies):

Fish and Wildlife Act 1956

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:

During the scoping period, the public expressed interest in developing outreach and education activities for the public, including youth groups and schools. Currently, environmental education is limited to guided plant restoration trips to East Marin Island led by a local non-profit organization. This program is expected to continue at a frequency no greater than once per month and is incorporated into the Comprehensive Conservation Plan.

Environmental education and interpretation activities would be expanded to include staff-led tours at a frequency of not more than six times per year, as staffing allows.

Tour participants would be required to sign a liability waiver to participate in the tour. These participants will have an opportunity to learn about the cultural history and biological resources of the Refuge, and may participate in some stewardship activities such as non-native vegetation removal and native vegetation planting.

The proposed use would be conducted on East Marin Island. Use of a boat is required to access the island. Participants must provide their own transportation (boat) to East Marin Island. Staff will provide tours by reservation on specified dates and meet tour participants at East Marin Island. Tour requests by non-commercial organizations, commercial companies, and individuals will be honored. Staff-led tours will access East Marin Island by a boat dock, stairway, and trail leading to the center of the island. Participants must be in good physical condition because the trail onto the island is uneven and inclined at different points. Refuge staff will provide proper boating etiquette to participants prior to the tour that minimizes disturbance to wildlife in the area and on the Refuge.

Tour participants may launch their boats from Loch Lomond Marina, which is the closest launch point to the Refuge. Parking is available at the marina and may require a fee by the marina management. Tour sizes will be limited to a minimum of five persons and a maximum of 15 persons. A minimum of one staff person will be needed to conduct tours. Refuge management will provide water, Ivy X and Technu to persons to protect them from poison oak. Staff-led tours will be conducted on a designated trail and would be enhanced with brochures and an interpretive panel. No restroom facilities are available on East Marin Island, but fee restrooms are available at Loch Lomond Marina.

Staff-led tours are proposed to promote environmental education and interpretation, two of the priority (when compatible with Refuge System mission and Refuge purposes) general public uses of the National Wildlife Refuge System. Providing public tours may improve local community awareness of habitat and wildlife conservation. This activity may also lessen unauthorized visits to the islands as well as increase awareness and support for the National Wildlife Refuge System.

Other than staff-led tours, once per month native plant restoration work parties will be led by a non-profit group. Individuals will access the waters and East Marin Island by kayak and will conduct stewardship activities that may include non-native plant removal and native vegetation planting. The group leader should promote the purposes and mission of the Refuge System and also review Refuge safety and environmental precautions. These work parties will require that the participants provide for their own safety briefing, emergency supplies and provisions.

Availability of Resources:

Costs to administer this proposed use are primarily in the form of staff time. Adequate staff and funds are available to provide this public use. An Outdoor Recreation Planner will be needed to develop the tour program, brochures and interpretive panel. Tours would be conducted generally six times per year, weather permitting (refer to Draft CCP Chapter 6, Funding and Personnel).

Funding will be required to construct and install the interpretive panel which will be developed by the outdoor recreation planner. Regular supplies needed for each trip include water, Ivy X (protectant from poison oak), and Technu (cleanser for post-exposure to poison oak). East Marin Island has a substantial population of native poison oak, especially occurring on the trail up to the main house.

Maintenance costs:

	One-Time Costs	Annual Costs
Administration		\$15,000
Interpretive panel and brochures	\$20,000	
Boat maintenance and fuel		\$1000
Tour supplies (Ivy X, Technu, and water)		\$200
TOTAL:	\$20,000	\$16,200

Anticipated Impacts of the Use:

Wildlife on or near the Refuge may be temporarily disturbed by transport of the tour participants to East Marin Island. Wildlife observation from the water may result in disturbance to the colony. Audubon Canyon Ranch has studied sources of disturbance to heron colonies across five northern counties of San Francisco Bay area since 1990. Their research found that any intense or repeated disturbance to heron colonies can cause birds to abandon a colony site permanently (Kelly 2002). However, it is not yet clear whether these colonies are more strongly affected by human interference or avian predation.

Furthermore, breeding and nesting birds tend to be very sensitive to human disturbance, whether from scientific research, recreation or ecotourism. Studies have shown that scientific research can have major impacts, causing nest abandonment (Anderson and Keith 1980), increase depredation (Tremblay and Ellison 1979), fewer nests near active areas (Burger and Gochfeld 1993), lower productivity (Anderson and

Keith 1980), and increased flight (Erwin 1989). Visitor disturbance has also been shown to reduce hatching success, cause population declines and preclude nesting in certain locations by gulls and terns (Carney and Sydeman 1999). Studies of watercraft effects on avian populations found that disturbances from boats resulted in nest abandonment by and reproduction failure of breeding adults (Burger 1998; Erwin, et al. 1995).

However, other studies of different types of disturbance have shown consistently that heron colonies are less disturbed by approaching boats than by terrestrial intrusions (Rodgers and Smith 1995). Further, habitats that are more densely vegetated may better buffer birds from disturbance than open, sparse habitat. The colony on West Marin Island is located in a densely vegetated group of coast live oak and buckeye woodland 26 meters above sea level. Given this habitat structure, the colony may be buffered by most disturbance from boats.

Existing monthly habitat restoration parties to East Marin Island are led by a guide and have not impacted wildlife on West Marin Island. Experienced refuge staff will avoid disturbing wildlife while boating to the Refuge and will advise tour participants to implement boating practices that minimize wildlife disturbance. Traffic in the area is not expected to substantially increase due to the limited number of 15 people per tour and the estimated six tours allowed per year. It is anticipated that the tours will result in increased public awareness of the mission and purpose of the Refuge and Refuge System, increased public involvement and participation with refuge activities, and increase awareness of wildlife conservation.

Tours on East Marin Island have the potential to introduce non-native species through clothing or footwear. Precautions will be taken by tour leaders to limit any introduction. Specific environmental and safety precautions are included in Addendum A of Appendix M.

Public Review and Comment:

A public scoping and comment period for the CCP/EA process began September 22, 2004 and ended on November 8, 2004. During the scoping period, public access to the Refuge received interest, including the suggestion of guided tours. This compatibility determination will be available for public review jointly with the draft CCP/EA.

Determination:

Use is Not Compatible

Use is Compatible with the Following Stipulations

Stipulations Necessary to Ensure Compatibility:

Tours will be conducted generally six times per year, based on staff availability and weather permitting. The tours will be confined to the open waters and tidelands surrounding the islands and to East Marin Island. Tours on East Marin Island will be conducted on the eastern portion of the island and no tours will be led to the west end of the island because the area is sensitive to erosion. Precautions will be taken to limit any introduction of non-native species by tour participants. Any unusual nesting event on the Refuge will result in changes, cancellation or postponement of reserved tours. Trained staff will take precautions in avoiding wildlife during when touring East Marin Island and will inform tour participants of proper boating practices to minimize wildlife disturbance.

Justification:

The proposed use will enhance the goals, objectives and refuge management activities by providing an opportunity for the public to enjoy a wildlife dependent activity that does not impact endangered fish species or the heron and egret colony on the islands. The use supports existing wildlife dependent public uses.

Mandatory Re-Evaluation Date:

 X Mandatory 15-year Re-Evaluation Date (for priority public uses)

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

NEPA Compliance for Refuge Use Decision:

 Categorical Exclusion without Environmental Action Statement

 Categorical Exclusion and Environmental Action Statement

 X Environmental Assessment and Finding of No Significant Impact

 Environmental Impact Statement and Record of Decision

Reference Cited:

Anderson, D.W. and J.O. Keith. 1980. The human influence on seabird nesting success: Conservation implications. *Biological Conservation* 18: 65-80.

Burger, J. 1998. Effects of motorboats and personal watercraft on flight behavior over a colony of common terns. *Condor* 100:528-534.

Burger, J. and M. Gochfeld. 1993. Tourism and short-term behavioral responses of nesting masked, red-footed and blue-footed boobies in the Galapagos. *Environmental Conservation* 20:255-259.

Carney, K.M. and W.J. Sydeman. 1999. A review of human disturbance effects on nesting colonial waterbirds. *Waterbirds* 22:68-79.

Erwin, R.M. 1989. Responses to human intruders by birds nesting in colonies: experimental results and management guidelines. *Colonial Waterbirds* 12:104-108.

Erwin, R.M., J.S Hatfield, and T.J. Wilmers. 1995. The value and vulnerability of small estuarine islands for conserving metapopulations of breeding waterbirds. *Biological Conservation* 71:187-191.

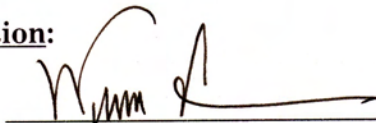
Kelly, John P. 2002. Disturbance Patterns in Heronries, A Safe Place to Nest. The Ardeid. 2002. Cypress Grove, Research Center, Audubon Canyon Ranch.

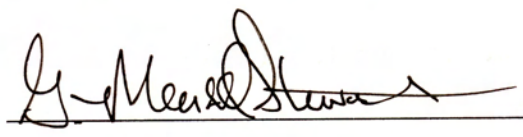
Rodgers, J. Jr. and H. Smith. 1995. Set-back Distances to Protect Nesting Bird Colonies from Human Disturbances in Florida. *Conservation Biology* 9(1): 89-99.

Tremblay, J. and L.N. Ellison. 1979. Effect of human disturbance on breeding of Black-Crowned Night Herons. *Auk* 96:364-369.

U.S. Fish and Wildlife Service. 2006. Draft Marin Islands National Wildlife Refuge Comprehensive Conservation Plan and Environmental Assessment.

Refuge Determination:

Prepared by:  Date: 9/11/06

Refuge Manager/
Project Leader
Approval:  Date: 9/11/06

Concurrence:

Regional Chief,
National Wildlife
Refuge System:

Margaret J. Kelan

Date: 9/21/06

Appendix Q. Compatibility Determination for Sport Fishing

Compatibility Determination

Use: Sport Fishing by Boat on Marin Islands NWR

Refuge Name: Marin Islands National Wildlife Refuge

County: Marin, California

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. Sport 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. No commercial fishing will be permitted within the waters. 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 additional facilities on the Refuge are required to allow this use.

The use will be permitted by boat only, not on the shores, in the waters surrounding the Marin Islands. Access to shoreline fishing is not feasible because of potential

disturbance to wildlife (shorebirds also frequent the shoreline of the islands) and structures on the islands. The proposed use would be year round in accordance with State and Federal regulations.

Angling will be permitted by motorized, wind or human-powered boats. Due to the facilities already available in the area, no additional facilities or structures will be provided on the Refuge. Fishing brochures will be provided at the local marinas specifying restrictions and the sensitive nature of the islands and restrictions.

The use is proposed because the tidelands surrounding the islands are designated navigable waters that are already used by anglers, but was never formally established as a use by the Refuge. In addition, most of the tidelands are leased from the California State Lands Commission who require that all properties remain open unless, under consultation with California Department of Fish and Game, the refuge staff determines the use is incompatible for wildlife protection.

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 Game. Anglers are required to have a State fishing license, but would not need to obtain a refuge fishing permit or pay a user fee.

Two sensitive fish species occur within the San Pablo Bay including the Sacramento splittail minnow (*Pogonichthys macrolepidotus*) and the green sturgeon (*Acipenser medirostris*) The splittail has been de-listed and the green sturgeon is not listed. The Refuge also defers to the California Department of Fish and Game on which fish species take is prohibited.

Availability of Resources:

The Refuge’s current staffing level does not provide adequate patrol and monitoring of activities on and surrounding the islands. It is estimated that an increase of Refuge Law Enforcement by at least one day per week from one day per two to three weeks will be needed to fully administer this use. Additional staff time from an outdoor recreation planner would be needed to develop the fishing and wildlife brochures.

Maintenance Costs:

	One-Time Costs	Annual Costs
Administration		\$2,000
Law Enforcement		\$10,000
Boat maintenance and fuel		\$5,000

Fishing and wildlife brochures	\$6,000	
TOTAL:	6,0000	\$17,000

Anticipated Impacts of the Use:

While fishing has been an ongoing activity in the waters surrounding the Refuge, it is not clear whether wildlife on the Refuge are affected by these anglers. Audubon Canyon Ranch has studied the source of disturbance to heron colonies across five northern counties of San Francisco Bay area since 1990. Their research found that any intense or repeated disturbance to heron colonies can cause birds to abandon a colony site permanently (Kelly 2002). However, it is not yet clear whether these colonies are more strongly affected by human interference or by other sources of disturbance. Studies of different types of disturbance have shown consistently that heron colonies are less disturbed by approaching boats than by terrestrial intrusions (Rodgers and Smith 1995). The colony is located in a densely vegetated group of coast live oak and buckeye woodland 26 meters above sea level. Sport fishing is an existing activity in the area and it is not likely that sportfishermen would have direct contact with the heron and egret colony. However, fishermen may come into contact with shorebirds including western gull and black oystercatchers, causing them to flee. Boats are fairly common in the area and birds may be habituated to this type of disturbance. Signage will be posted at both islands to limit disturbance to wildlife and unauthorized access.

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 sportfishermen near the Refuge in order to reduce or limit disturbances to wildlife.

Public Review and Comment:

A public scoping period for the CCP/EA process began September 22, 2004 and ended on November 8, 2004. There were no fishing comments during this scoping period. This compatibility determination will be available for public review jointly with the draft CCP/EA.

Determination:

Use is Not Compatible

Use is Compatible with the Following Stipulations

Stipulations Necessary to Ensure Compatibility:

Fishing will be permitted on the open waters from a boat only. No fishing will be allowed from the shores of East or West Marin Island to protect the shorebirds, habitat, and the egret and heron colony on the Refuge.

Justification:

The proposed use will enhance the goals, objectives and refuge management activities by providing an opportunity for the public to enjoy a wildlife dependent activity that does not impact endangered fish species or the heron colony on the islands. The use supports existing wildlife dependent public uses.

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)

NEPA Compliance for Refuge Use Decision:

- Categorical Exclusion without Environmental Action Statement
- Categorical Exclusion and Environmental Action Statement
- Environmental Assessment and Finding of No Significant Impact
- Environmental Impact Statement and Record of Decision

Reference Cited:

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

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. 2006. Draft Marin Islands National Wildlife Refuge Comprehensive Conservation Plan and Environmental Assessment.

Refuge Determination:

Prepared by:  Date: 9/11/06

Refuge Manager/
Project Leader
Approval:

G. Wendell Stewart Date: 9/11/06

Concurrence:

Regional Chief,
National Wildlife
Refuge System:

Margaret J. Kolar Date: 9/21/06

Appendix R: Wilderness Inventory

Introduction

A wilderness inventory is the process used to determine whether to recommend lands or waters in the National Wildlife Refuge System to Congress for designation as wilderness under the National Wilderness Preservation System (NWPS). The Service is required by policy to conduct a wilderness review for each refuge as part of the CCP process outlined in 602 FW 1 and 3, and according to the National Environmental Policy Act compliance. Lands or waters that meet the minimum criteria for wilderness are identified in a CCP and further evaluated to determine whether they merit recommendation for inclusion in the NWPS.

There are three phases to the wilderness inventory process: (1) inventory, (2) study, and (3) recommendation. Land and waters that meet the minimum criteria for wilderness are identified in the inventory. These areas are called wilderness study areas (WSAs). In the study phase, a range of management alternatives are evaluated to determine if a WSA is suitable for wilderness designation or management under an alternate set of goals and objectives that do not involve wilderness designation.

The recommendation phase consists of forwarding or reporting the suitable recommendations from the Director through the Secretary and the President to Congress in a wilderness study report. The wilderness study report is prepared after the record of decision for the final CCP has been signed.

Areas recommended for designation are managed to maintain wilderness character in accordance with management goals.

Evaluation Criteria

According to Section 13 of the Service's Director's Order No. 125 (12 July 2000), in order for a refuge to be considered for wilderness designation, all or part of the refuge must:

- Be affected primarily by the forces of nature, with the human imprint substantially unnoticeable;
- Have outstanding opportunities for solitude or a primitive and unconfined type of recreation;
- Have at least 5,000 contiguous acres (2,000 ha) or be sufficient in size to make practicable its preservation and use in an unimpaired condition, or be capable of restoration to wilderness character through appropriate management, at the time of review; and
- Be a roadless island.

Evaluation of the Size Criteria

Roadless areas or roadless islands meet the size criteria if any one of the following standards applied:

- An area with over 5,000 contiguous acres. State and private lands are not included in making this acreage determination.
- A roadless island of any size. A roadless island is defined as an area surrounded by permanent waters or that is markedly distinguished from the surrounding lands by topographical or ecological features.
- An area of less than 5,000 contiguous Federal acres that is of sufficient size as to make practicable its preservation and use in an unimpaired condition, and of a size suitable for wilderness management.
- An area of less than 5,000 contiguous Federal acres that is contiguous with a designated wilderness, recommended wilderness, or area under wilderness review by another Federal wilderness managing agency such as the Forest Service, National Park Service, or Bureau of Land Management.

Evaluation of Naturalness Criteria

In addition to being roadless, a wilderness area must meet the naturalness criteria. The area must appear natural to the average visitor rather than “pristine”; it should “generally appear to have been affected primarily by the forces of nature with the imprint of man’s work substantially unnoticeable.” The presence of historic landscape conditions is not required. An area may include some human impacts provided they are substantially unnoticeable in the unit as a whole. Significant human-caused hazards, such as the presence of unexploded ordnance from military activity, and the physical impacts of refuge management facilities and activities are also considered in evaluation of the naturalness criteria. An area may not be considered unnatural in appearance solely on the basis of the “sights and sounds” of human impacts and activities outside the boundary of the unit.

Evaluation of Outstanding Opportunities for Solitude or Primitive and Unconfined Recreation

In addition to meeting the size and naturalness criteria, a wilderness area must provide outstanding opportunities for solitude or primitive recreation. The area does not have to possess outstanding opportunities for both solitude and primitive and unconfined recreation, and does not need to have outstanding opportunities on every acre. Further, an area does not have to be open to public use and access to qualify under this criteria; Congress has designated a number of wilderness areas in the Refuge System that are closed to public access to protect resource values.

Opportunities for solitude refer to the ability of a visitor to be alone and secluded from other visitors in the area. Primitive and unconfined recreation means non-motorized, dispersed outdoor recreation activities that are compatible and do not require developed facilities or mechanical transport. These primitive recreation

activities may provide opportunities to experience challenge and risk; self-reliance; and adventure.

These two “opportunity elements” are not well defined by the Wilderness Act, but in most cases, can be expected to occur together. However, an outstanding opportunity for solitude may be present in an area offering only limited primitive recreation potential. Conversely, an area may be so attractive for recreation use that experiencing solitude is not an option.

Evaluation of Supplemental Values

Supplemental values are defined by the Wilderness Act as “...ecological, geological, or other features of scientific, education, scenic, or historical value.” These values are not required for wilderness.

INVENTORY FINDINGS

As documented below, some of the Refuge’s characteristics meet some of the wilderness criteria, but none of the islands in Marin Islands NWR meet the criteria significantly enough to warrant wilderness consideration. Therefore, inclusion of Marin Islands NWR in the NWPS will not be sought.

Roadless Areas and Roadless Islands

The Marin Island National Wildlife Refuge (Refuge) is comprised of 339-acres of combined tidelands and two islands. Both islands meet the roadless island criteria. These two roadless islands only contain foot trails.

Size Criteria

The two roadless islands on the Refuge make up roughly 13 acres. The Wilderness Act does not specify size criteria for islands, except that every roadless island should be reviewed. Therefore, the islands meet the size criteria.

Naturalness Criteria

The East Island contains substantial changes from historic conditions as evident by the presence of two residential houses, a pumphouse, water storage tank, an abandoned rock quarry, and numerous non-native plant species planted by former residents of the island. The majority of these changes took place in the 1900s when there was human occupation on the island and is easily evident on the Refuge. These buildings have not been readily identified as historically significant, however a more in depth assessment is planned during the implementation of the CCP. Removal of these structures will be considered, but it is expected that significant portions of the foundation would remain. For these reasons, the East Island does not meet the naturalness criteria for wilderness designation.

Opportunities for Solitude or Primitive and Unconfined Recreation

Both Islands sits in plain view of Marin County's local marinas, commercial areas, and residential areas. Because of the proximity of the marinas, there is regular daily watercraft traffic within the tidal areas of the Refuge boundary as well as the surrounding the Refuge that can be heard from any point on both Islands. Therefore, it may not be considered an area of solitude due to this surrounding environment. The remainder of the Refuge's acreages is submerged tidelands that boats traverse through on a daily basis. Recreation is limited to wildlife viewing, boating and fishing from the open waters and submerged Refuge boundaries. No unconfined recreation is will be allowed on the East Island, and opportunities to access the East Island will be limited to supervised tours. The West Island is owned by the California Department of Fish and Game and any activities sought on this Island would need to be reviewed by this agency. Based on this assessment, the Refuge does not fully provide opportunities for solitude or primitive and unconfined types of recreation that are characteristic of a wilderness area.

Supplemental Values

West and East Island represent unique assemblages of coastal scrub and oak woodland plant communities disappearing from the highly urbanized San Francisco Bay area. They also provide important nesting habitat for heron and egret colonies in the Bay area.

Appendix S. Memorandum of Understanding between USFWS, CDFG, SLC,
MCOSD, and TPL

MEMORANDUM OF UNDERSTANDING (MOU)

Between

THE U.S. FISH AND WILDLIFE SERVICE (SERVICE),
CALIFORNIA DEPARTMENT OF FISH AND GAME (CDF&G),
CALIFORNIA STATE LANDS COMMISSION (SLC),
MARIN COUNTY OPEN SPACE DISTRICT (MCOSD),
and
THE TRUST FOR PUBLIC LAND (TPL)

WHEREAS: The West Marin Island possesses one of the largest heron and egret rookeries in the State of California, and East Marin Island has potential for heron and egret rookery habitat development, and;

The acquisition of the Marin Islands, and tidelands surrounding both islands (hereinafter referred to as "Tidelands"), is in the best public interest, and;

The property to be purchased is situated within the unincorporated area of the County of Marin and is within the City of San Rafael, in the State of California, and consists of Assessor's Parcel Numbers 9-141-01, 02, 03, 04, 09, 11, 12, 13, 14, 15, 16, 17, & 18; 184-010-24, 25, 26, 27, 28, 29, 30, 32, 33, & 34, and;

The Marin Islands were appraised at \$3.4 Million, and TPL has an option to buy the Marin Islands and Tidelands for \$2.8 Million, and the public agency purchase price is \$2.6 Million, and;

The acquisition of the Marin Islands and Tidelands is supported jointly by a Federal appropriation of \$1 Million, State funding of \$500,000 from the CDF&G and \$500,000 from the SLC, a donation of \$600,000 from MCOSD, and \$200,000 in private donations from a fund administered by TPL, and;

The Wildlife Conservation Board (WCB) on behalf of CDF&G will purchase the West Marin Island and all Tidelands, specifically all Assessor's Parcel Numbers except 9-141-17, and thereafter, transfer jurisdiction to CDF&G, and;

The Service will take title to a portion of the East Marin Island, specifically that portion of Assessor Parcel Number 9-141-17 shown as the "Service Portion" in Exhibit A, and this includes all major improvements, including rights-of-way for power and water lines, and;

The SLC will take title to a portion of the East Marin Island, specifically that portion of Assessor Parcel Number 9-141-17 shown as the "SLC Portion" in Exhibit A, and this excludes any major improvements.

NOW THEREFORE the parties hereto agree to the following:

1. The lands comprising West Marin Island, East Marin Island and the Tidelands, will be designated and administered as the Marin Islands National Wildlife Refuge (NWR) pursuant to the National Wildlife Refuge Administration Act (as amended), Code of Federal Regulations Title 50, and other applicable laws and regulations.
2. West Marin Island and the Tidelands will also be designated and administered as Marin Islands State Ecological Reserve pursuant to Article 4, Sections 1580 and 1581 of the California Fish and Game Code, and Section 630, Title 14, California Administrative Code.
3. West Marin Island, East Marin Island and the Tidelands will be commonly known as the Marin Islands National Wildlife Refuge and State Ecological Reserve (Marin Islands NWR/SER).
4. Within 1 year of acquisition, the Service and CDF&G will enter into a long-term cooperative agreement for management of the West Marin Island, by the Service, as a unit of Marin Islands NWR/SER.
5. Within 1 year of acquisition, the portion of East Marin Island purchased by the SLC will be leased to the Service on a 49-year, renewable basis for the sum of \$1.00 per year.
6. Within 2 years of acquisition, the Service, in cooperation with all parties to this agreement, will prepare a management plan for the Marin Islands NWR/SER.
7. Upon acquisition of the subject properties by the aforementioned parties, the Service will assume management responsibility for the Marin Islands NWR/SER. Management Planning and program implementation will be consistent with this agreement and any subsequent agreement(s) or lease(s) that may be executed between the Service and any party to this agreement. All parties hereto agree to the removal of the "Caretaker's Cottage" shown on Exhibit A.
8. The following signing will be installed subsequent to acquisition:
 - a. An appropriate dedication plaque will be placed on East Marin Island;
 - b. East Marin Island will be posted with NWR boundary signs;
 - c. West Marin Island will be posted both with NWR boundary signs and SER signs.

Additional signing, if any, will be described by the management plan.

9. The Marin Islands NWR/SER, excluding all navigable waters, will be closed to public access, except by Special Use Permit (see CFR Title 50), unless otherwise opened through appropriate planning and administrative procedures. No new permits or fees will be required for public access to associated navigable waters unless agreed to by all parties to this agreement.
10. The Service, CDFG, and SLC shall each be responsible for their own closing costs, including any survey costs, recording fees, escrow fees, and title insurance fees.

This MOU may be executed in counterparts, each of which shall be deemed an original and which together shall constitute one and the same MOU.

This MOU shall become effective on the date last signed below and shall remain in full force and effect until terminated by mutual agreement of all parties hereto. Any of the parties hereto may propose amendments or modifications to this agreement and they shall be incorporated upon ratification in writing by all the parties.

SIGNATURES

Mauri L. Pleasant
Regional Director, Fish & Wildlife Service

March 13, 1992
Date

W. John Schmitt
California Department of Fish & Game

March 18, 1992
Date

California State Lands Commission

Date

The Trust for Public Land

Date

President, Marin County Open Space District

Date

Attest: _____
Secretary

9. The Marin Islands NWA/SEA, excluding all navigable waters, will be closed to public access, except by Special Use Permit (see CFR Title 50), unless otherwise opened through appropriate planning and administrative procedures. No new permits or fees will be required for public access to associated navigable waters unless agreed to by all parties to this agreement.
10. The Service, CDF&G, and SLC shall each be responsible for their own closing costs, including any survey costs, recording fees, escrow fees, and title insurance fees.

This MOU may be executed in counterparts, each of which shall be deemed an original and which together shall constitute one and the same MOU.

This MOU shall become effective on the date last signed below and shall remain in full force and effect until terminated by mutual agreement of all parties hereto. Any of the parties hereto may propose amendments or modifications to this agreement and they shall be incorporated upon ratification in writing by all the parties.

SIGNATURES

Mauri L. Pleasant
Regional Director, Fish & Wildlife Service

March 13, 1992
Date

California Department of Fish & Game

Date

Janie S. Sisk
California State Lands Commission

March 19, 1992
Date

The Trust for Public Land

Date

President, Marin County Open Space District

Date

Attest: _____
Secretary

9. The Marin Islands NWR/SER, excluding all navigable waters, will be closed to public access, except by Special Use Permit (see CFR Title 50), unless otherwise opened through appropriate planning and administrative procedures. No new permits or fees will be required for public access to associated navigable waters unless agreed to by all parties to this agreement.
10. The Service, CDF&G, and SLC shall each be responsible for their own closing costs, including any survey costs, recording fees, escrow fees, and title insurance fees.

This MOU may be executed in counterparts, each of which shall be deemed an original and which together shall constitute one and the same MOU.

This MOU shall become effective on the date last signed below and shall remain in full force and effect until terminated by mutual agreement of all parties hereto. Any of the parties hereto may propose amendments or modifications to this agreement and they shall be incorporated upon ratification in writing by all the parties.

SIGNATURES

Martin Z. Plouffe
Regional Director, Fish & Wildlife Service

March 13, 1992
Date

California Department of Fish & Game

Date

California State Lands Commission

Date

William J. [Signature]
The Trust for Public Land

March 17, 1992
Date

President, Marin County Open Space District

Date

Attest: _____
Secretary

9. The Marin Islands NWR/SER, excluding all navigable waters, will be closed to public access, except by Special Use Permit (see CFR Title 50), unless otherwise opened through appropriate planning and administrative procedures. No new permits or fees will be required for public access to associated navigable waters unless agreed to by all parties to this agreement.
10. The Service, CDFSG, and SLC shall each be responsible for their own closing costs, including any survey costs, recording fees, escrow fees, and title insurance fees.

This MOU may be executed in counterparts, each of which shall be deemed an original and which together shall constitute one and the same MOU.

This MOU shall become effective on the date last signed below and shall remain in full force and effect until terminated by mutual agreement of all parties hereto. Any of the parties hereto may propose amendments or modifications to this agreement and they shall be incorporated upon ratification in writing by all the parties.

SIGNATURES

Martin J. Blum
Regional Director, Fish & Wildlife Service

March 13, 1992
Date

California Department of Fish & Game

Date

California State Lands Commission

Date

The Trust for Public Land

Date

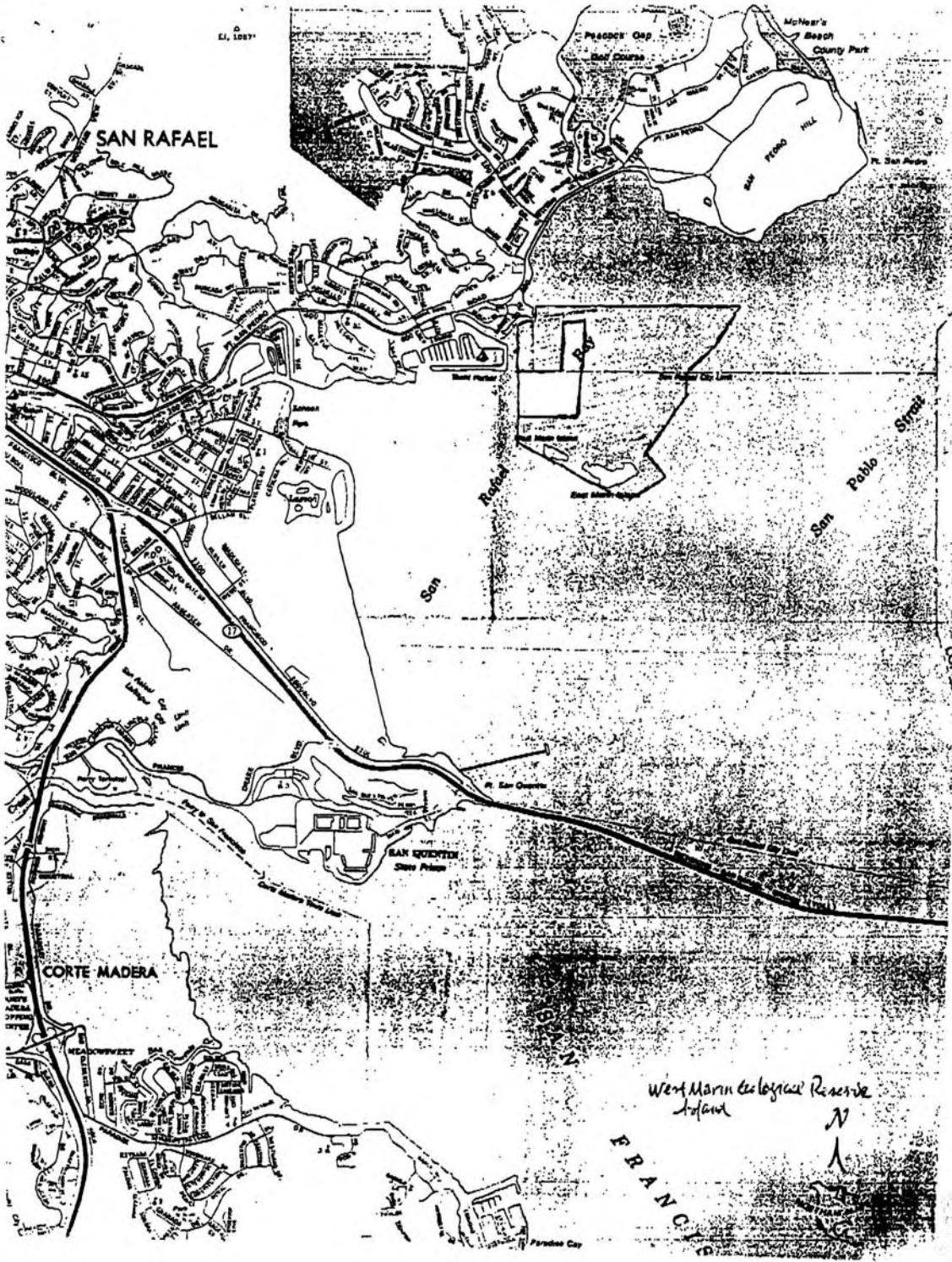
[Signature]
President, Marin County Open Space District

March 30, 1992

Date

Attest: [Signature]

APPROVED AND FORWARDED
[Signature]
COUNTY COUNSEL'S OFFICE



Appendix T: Planning Team Members and Persons Responsible for Preparing this Document

U.S. Fish and Wildlife Service

Giselle Block	Refuge Biologist, Marin Islands NWR
Winnie Chan	Refuge Planner, San Francisco Bay NWR Complex
Jeanne Clark	USFWS, Writer-Editor
Charles Houghten	Chief, Refuge Planning Division, Region 1
Mark Pelz	Chief of Refuge Planning, CA/NV Refuge Planning Office
Christy Smith	Refuge Manager, Marin Islands NWR
Mendel Stewart	Project Leader, San Francisco Bay NWR Complex

California Department of Fish and Game

John Krause

California State Lands Commission

David Plummer

Appendix U: Response to Comments



Sacred Sites Protection Committee
P.O. Box 14428
Santa Rosa, CA 95402
707- 566-2288

July 31, 2006

Winnie Chan
Refuge Planner
San Francisco Bay NWR Complex
P.O. Box 524
Newark, CA 94560

RE: Marin Islands National Refuge Draft Plan

Dear Ms. Chan:

The Federated Indians of Graton Rancheria (FIGR) thanks you for your contact regarding our interest in this project.

- 1.1 We request further information on the cultural resources on these islands. Copies of any archaeological surveys completed on this site would be helpful before commenting further on the impact(s) of your conservation plan. A visit to the site, if it can be arranged would be of great help to determine what mitigation measures, if any, we might ask to be done.

Please email me at your earliest convenience regarding this matter.

Thank you for your assistance,

A handwritten signature in black ink, appearing to read "Nick Tipon".

Nick Tipon
For the Sacred Sites Protection Committee

ntipon@earthlink.net

Cc: Gene Buvelot: Council Liaison

Response to Comments

1.1 A comprehensive cultural resources assessment has not been conducted on the refuge. This assessment is planned in the CCP, prior to removal of the structures or any other major construction activities.



MARIN CONSERVATION LEAGUE

1623A Fifth Avenue ● San Rafael CA 94901

(415) 485-6257 ● Fax (415) 485-6259

e-mail: mcl@marinconservationleague.org ● web site: www.marinconservationleague.org

August 21, 2006

Winnie Chan, Refuge Planner,
San Francisco Bay NWR Complex
P.O. Box 524
Newark, CA 94560

Board of Directors

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Brannon Ketcham
Michelle Passero

Tim Rosenfeld
Lawrence Smith

Susan Stompe
Periann Wood

J. Scott Feierabend
Executive Director

2.1

RE: Marin Islands National Wildlife Refuge - Draft Comprehensive Conservation Plan and Environmental Assessment

Dear Ms Chan:

The Marin Conservation League (MCL) has reviewed the Marin Islands National Wildlife Refuge – Draft Comprehensive Conservation Plan (CCP) and Environmental Assessment (EA). It is clear by the proposed alternatives that the Refuge is interested in perpetuating the protection and preservation of these unique islands as envisioned by the initial efforts of various conservation groups, spearheaded by the Friends of the Marin Islands.

Our comments address items presented in the Draft CCP as well as the Environmental Assessment Alternatives. In general, we concur with the ultimate management vision for the refuge, but have addressed our concerns to the inconclusive nature of long-term management of structures on the island (potentially historic resources), and the lack of focus on the majority of the Refuge, the 320 acres of subtidal habitat.

Background

It would be enlightening to include that there was once a third island, South Marin Island (also locally called Murphy Rock, or San Rafael Rock) which was eliminated by development in the 1950's, when its base became part of the levee in east San Rafael.

Impacts of former human use of East Marin Island may still be felt by the fact that the herons, crowded onto West Marin Island, do not nest on East Marin Island. The draft management plan suggests that the cause may be that the abundance of non-native vegetation is inappropriate for nesting. An additional reason may be due to former management practices. A former caretaker who maintained the landscaping of East Marin Island in the 1980's not only took care of the Barbary sheep which grazed the vegetation, but also, as he informed one of our members, discouraged herons from nesting on East Marin, and removed their nests, as they "made a mess."

General Comments

MCL supports the goals of the refuge with emphasis on Goal #1: "Maintain and restore, where possible, wildlife communities and coastal scrub and oak woodland plant communities native to San Francisco Bay, including biological and physical features that provide optimal habitat for the heron and egret colony, as well as other coastal wildlife" as well as associated Objectives. Based on the fact that the primary preservation objective is focused on the heron and egret colony, CCP should include an Objective to explicitly recover a rookery on the East Marin Island.

Potential Historic Resource Management

In order that Goal 1 is achieved, the plan indicates that one of the main limitations to the natural recovery of the East Marin Island is the "attractive nuisance" provided by the buildings and development. The lack of a cultural resources assessment, called for as part of the actions for this current plan, restricts our ability to full understand the restoration opportunities or constraints on East Marin Island. The refuge expresses a concern over the ongoing vandalism occurring to the buildings,

Marin County's Environmental Watchdog

A nonprofit corporation founded in 1934 to preserve, protect and enhance the natural assets of Marin

Response to Comments

2.1. There is no documented information of a heron and egret colony on East Marin Island. Individuals have attempted to nest there, but with no success. While a sole objective to focus on promoting heron and egret nesting East Marin Island could be useful, the CCP objectives focusing on wildlife and habitat collectively support a heron and egret colony on East Marin Island.

- 2.2 and it is likely that the presence of these buildings increases the number of trespasses onto the island, ultimately affecting recovery potential of the heron and egret nursery. The EA alternatives and draft CCP do not explicitly describe how the buildings will be finally addressed. While the removal of buildings seems to be the ultimate plan (as shown in Figure 7, Map of Management Actions), wording under the EA preferred alternative, are not clear whether buildings will be removed, allowed to deteriorate, or improved and interpreted. The vague nature of this is likely due to the lack of a cultural resources assessment. It should be noted at this point, that any recommendations to develop or re-occupy the structures on the East Marin Island would severely detract from the long-term management Goal 1.

Subtidal Lands and Management

- 2.3 In addition, the plan seems to focus on the 13+ acres of terrestrial habitat, and generally discounts the management or values of the nearly 320 acres of subtidal habitat. While there is discussion of recreational fishing in the subtidal areas (not from shore), there is no discussion of management or protection of the subtidal habitat. In the 1950s and 1960s, subtidal parcels such as those managed by the Refuge, were subject to potential development, leading to, for example, the development of the third Marin Island.
- 2.4 • Is anchorage allowed or not within the Refuge?
- 2.5 • Is there a desire to expand the protection of subtidal habitat (and the Refuge) through acquisition of other subtidal parcels?
- 2.6 • What is the relationship between monitoring and management in these areas?

Because this is a forward looking plan, it seems that these issues should also be addressed as part of the document.

Environmental Assessment

MCL supports the basic plans for Alternatives B and C: improvement and expansion of resource management including protection of the heronry and continued heron study by Audubon Canyon Ranch, removal of the remaining buildings, encouraging expansion of native plants, and removal of invasive non-native plants.

- 2.7 We are concerned, however by plans for “expanded recreational opportunities” in Alternative C that include the addition of staff-led tours, a designated foot trail, educational signs, and support of kayaking and kayaking tours (around the islands, not landing). As a destination of a “Water Trail” for the Bay area, it would create additional impacts. Additional boaters around the islands would have additional pressure on the heronry and its feeding areas. It is not clear that expanded enforcement will be enough to deter potential impacts associated with these new uses. It also does not address
- 2.8 how potential tours would be adapted if the rookery were to expand to the East Marin Island.

We would like to thank you for the opportunity to comment and appreciate your continued stewardship of these unique islands in the San Rafael Bay. These are special little islands, with their spectacular heronry, so near and yet so far from urbanized areas, and they are worth special care.

Sincerely,



Roger E. Roberts,
President

Response to Comments

2.2. The structures will be removed when sufficient funds become available and after a comprehensive cultural resource assessment can be conducted. The buildings will not be refurbished or remain idle on the Refuge.

2.3. A needs assessment is planned in the CCP to determine management or protection needs for sub-tidal habitat.

2.4. Anchorage will be allowed within the sub-tidal areas of the Refuge, but not on shore.

2.5. The Service has no plans to acquire additional subtidal lands at the present time.

2.6. Monitoring and/or management needs for sub-tidal areas will not be developed until after a needs assessment is completed.

2.7. Marin Islands will not be designated as an official water trail trailhead because of the sensitivity of the wildlife on the Refuge. Efforts such as supervised tours, law enforcement patrols and educational material, will be made to reduce wildlife interface with visitors.

2.8. If the heron and egret colony were to permanently expand onto East Marin Island, tours would be permanently discontinued.