

Compatibility Determination

- Use:** Environmental Education and Interpretation
- Station Name:** Midway Atoll National Wildlife Refuge/Battle of Midway National Memorial
- City/County and State:** Midway Atoll is the penultimate western atoll in the Northwestern Hawaiian Islands, is an unincorporated territory of the United States, and lies outside the State of Hawaii.

Establishing and Acquisition Authority(ies):

Midway Atoll NWR (NWR) was established in 1988 as an overlay NWR under a cooperative agreement with the U.S. Navy. Under this agreement, administrative responsibility for the refuge was shared by the U.S. Fish and Wildlife Service (FWS) and the Navy. The Naval Air Facility at Midway was operationally closed in 1993. Facility cleanup was completed by June 30, 1997, when the Navy and its contractors departed. Custody and accountability for Midway Atoll were officially transferred from the Navy to the FWS in May 1996. Executive Order 13022, signed by President Clinton on October 31, 1996, superseded earlier orders that assigned responsibility for Midway to the Navy. Secretary of the Interior Babbitt signed Secretary's Order 3217 on September 13, 2000, designating Midway Atoll NWR concurrently as the Battle of Midway National Memorial. On June 15, 2006, President Bush signed Presidential Proclamation 8031 making Midway Atoll NWR part of the newly established Papahānaumokuākea Marine National Monument. Under that Proclamation, Midway has unique authority and responsibility as a Special Management Area.

Refuge Purpose(s):

Midway Atoll NWR was established pursuant to the Fish and Wildlife Act of 1956 and the Fish and Wildlife Coordination Act of 1934. Pertinent language in those statutes includes:

1. ". . . for the development, advancement, management, conservation and protection of fish and wildlife resources . . . for the benefit of the U.S. Fish and Wildlife Service, in performing its activities and services." (Fish and Wildlife Act of 1956)
2. ". . . shall be administered by the Secretary of the Interior directly in accordance with cooperative agreements . . . and in accordance with such rules and regulations for the conservation, maintenance, and management of wildlife resources thereof, and its habitat thereon . . ." (Fish and Wildlife Coordination Act of 1934).

The following additional purposes were included in Executive Order 13022, dated October 31, 1996, which transferred jurisdiction and control over the Midway Islands from the U.S. Navy to the U.S. Department of the Interior:

1. Maintaining and restoring biological diversity within the refuge;

2. Providing for the conservation and management of fish and wildlife and their habitats within the refuge;
3. Fulfilling the international treaty obligations of the United States with respect to fish and wildlife;
4. Providing opportunities for scientific research, environmental education, and compatible wildlife-dependent recreational activities; and
5. In a manner compatible with refuge purposes, recognizing and maintaining Midway's historic significance.

National Wildlife Refuge System Mission

The mission of the National Wildlife 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. (16 U.S.C. 668dd et seq.)

Description of Use(s):

Both environmental education and interpretation strive to convey an understanding and appreciation of refuge resources and the issues that affect them. For this reason these two uses have been combined in one compatibility determination.

Due to Midway's remote location and limited accessibility, onsite environmental education programs will be limited. However, with new technology, we will be able to offer offsite programs through satellite transmissions to schools around the world. Recognizing the role of teachers and educators in conveying environmental education to their students, refuge staff and partners will develop biennial teachers' workshops to be held on Midway. These workshops will be linked to existing curriculums such as Navigating Change. Refuge staff will also facilitate opportunities for cooperative organizations to conduct college level courses or informal education camps on Midway.

Interpretation of the natural and historic resources on Midway Atoll NWR and cultural resources of the Northwestern Hawaiian Islands will take many forms, including (1) guided walks and bicycle tours with FWS interpreters, (2) self-guided interpretive walks to selected historical sites, (3) regularly scheduled "field talks" with FWS interpreters or cooperators who will demonstrate research techniques or natural history phenomena (e.g., evening petrel flights), and (4) indoor evening programs on various topics relative to Midway's cultural, historic, and natural history.

Visitors will also be able to participate on scheduled 3-hour field trips to Eastern Island, where they will be led on guided walks by FWS-approved staff and/or guides.

Visitors will be encouraged to come to the visitor center for further interpretation of refuge resources, environmental issues, and the Battle of Midway National Memorial. New exhibits will be developed that highlight the new Papahānaumokuākea Marine National Monument.

This use also includes visitors who arrive via cruise ship or other carrier of a large number of passengers and are led on 2-hour interpretive tours by FWS-approved staff and/or guides.

Offsite interpretation of the natural, historic, and cultural resources of the Midway Atoll NWR would also include the collection and removal of samples to be used to highlight the flora, fauna, and ecosystems of the Monument. In keeping with the Monument Management Plan principle of “bringing the monument to the people, rather than the people to the monument,” limited numbers of specimens may be collected for exhibit in offsite educational facilities (e.g. aquaria) or for offsite education or interpretation programs (e.g. bolus dissections). Offsite interpretation may also include, but is not limited to: Museums for representative samples and education; NOAA’s Mokupa’apa Discovery Center and the State of Hawai’i’s Waikīkī Aquarium for education and interpretation; Federal Law Enforcement Training Center and FWS’s National Fish and Wildlife Forensics Laboratory for training and identification for law enforcement; and primary and secondary schools and universities for education. Specimens may include whole or pieces of live organisms (e.g. coral, fish), parts of organisms (e.g. bolus’), or remains of organisms. Each collection project for education would have different objectives, protocols, and methodologies; therefore, each study will necessitate its own thorough review through the Monument permitting process. Specimens considered would not include specially protected species without appropriate Endangered Species Act, Marine Mammal Protection Act, or Migratory Bird Treaty Act authorization.

Availability of Resources:

Current refuge staffing is not adequate to properly run a quality visitor program. For Fiscal Year 2007 it is anticipated that the refuge will add at least one refuge ranger on-island to work with visitors. Additional staff support will be provided by the Hawaiian and Pacific Islands NWR Complex for periods of peak visitor use. To properly support the full visitor program envisioned in 2008 and beyond, two additional visitor services specialists and a law enforcement officer will be required in addition to increased staffing needs by the refuge infrastructure support contractor. Certain refuge infrastructure improvements will also be needed to support the visitor program. These will include improved signing, larger and safer boats, on-island transportation (bicycles or golf carts), and kayaks.

Midway Atoll NWR has been charged by Congress and FWS with developing a visitor program that is self-sustaining financially. To help us meet this goal Congress has also given the refuge receipts authority, which allows the refuge to keep reasonable fees collected for services provided at Midway Atoll. These fees will be used to offset costs of implementing the visitor services program.

Category and Itemization	One time (\$)	Annual (\$/yr)
Administration and Management		\$ 17,140
Maintenance		1,000
Monitoring		
Special equipment, facilities or improvements	30,000	2,000
Offsetting revenues	\$165,000	\$165,000

Estimated costs were calculated using 35% of the base cost of a General Schedule 7 refuge ranger assuming that this priority use would use that portion of a year to administer. Off-setting revenues are fees paid by visitors for their stay on Midway. Monitoring of impacts would be completed by the refuge ranger as part of their time committed to this use.

Anticipated Impacts of the Use(s):

Environmental Education

Impacts from visitors attending scheduled workshops and participating in walking or biking interpretive tours or self-guided tours on Sand Island will be minimal. All of these activities will occur on hard surfaced roads with very limited wildlife disturbance.

Minimal to no impact on refuge resources is anticipated from offsite programs, since educational demonstrations will be conducted or supervised by trained FWS-approved staff and/or guides.

Minimal to no impact on Monument resources is expected from collecting non-living specimens such as bolus' or remains. It is anticipated that non-living specimen collection would be incidental to another permitted activity; as such, there would be no to little disturbance impacts related specifically to collection.

The impacts from collecting limited numbers of living specimens are expected to be minimal, as each project would be carefully reviewed and collections restricted to ensure compatibility and prevent any significant short-term, long-term, or cumulative impacts. Collection requests would be evaluated through the Monument permitting process and comparisons examined with ongoing or recently completed activities in the Monument to determine if the species collected, methodologies used, or habitat type and locations used may lead to undesirable cumulative impacts. An agreement for any third-party transfer of specimens would be developed to meet the standards of a Cooperative Research and Development Agreement (CRADA).

Collecting limited numbers of specimens for education purposes should have indirect positive impacts on Monument resources. For example, a living reef habitat representative of that found in the Monument would benefit Monument management by contributing to increased public awareness of the Monument and issues that affect it. Students dissecting albatross bolus and the education programs from this collection help to achieve the Monument mission and Refuge purposes, and widely circulate information about the remote Monument resources. Supporting

environmental education and interpretation programs which strive to convey an understanding and appreciation of wildlife resources, the issues that affect them, and the techniques and programs pursued in their management typically increases public support for resource conservation.

Standard and specific conditions are included in this CD under Stipulations Necessary to Ensure Compatibility.

Interpretation

Minimal impact to refuge resources is anticipated as described in the above “guided walks and bicycle tours” section. Additional potential impact to nesting seabirds, monk seals, and green sea turtles may occur if visitors and residents wander off self-guided interpretive walks. Impacts include destroying nesting burrows of Bonin petrels or wedge-tailed shearwaters; injuring or killing an egg, chick, or adult by stepping on a bird or nest; decreasing nesting success of breeding birds; or disturbing or deterring a resting monk seal or green sea turtle from a preferred haulout, molting, or pupping location. Studies conducted in seabird colonies with ecotourism operations have documented that birds located away from frequently visited areas react strongly to any human activity. Birds were observed to habituate to high levels of constant visitation, but not to less constant (although regular) visitation (Fowler 1995). Therefore, birds located far from trails are most likely to be disturbed from wandering visitors or residents. Monk seal research has documented that pregnant females would abandon preferred pupping locations due to human disturbance (Kenyon 1972).

Cruise ships that visit Midway Atoll are required to stay outside the harbor entrance channel and to ferry their passengers to shore via ship’s tenders. Possible damage to coral could occur if the ship anchored in shallow water or drifted into coral areas. Additional damage could occur from discharge of gray or black water from the ship during the anchorage period at Midway.

Regularly scheduled field talks at selected locations by FWS-approved staff and/or guides

Minimal to no anticipated impacts on refuge resources are associated with regularly scheduled “field talks.” Talks will be located near seabird colonies, but leaders and participants will not enter into the main area of the colony for these talks. Keeping the group at the edge of the colony will limit stress to the few birds actually closest to the group. Studies have shown that birds can adapt to repeated disturbance, so selection of an area where the birds are regularly passed by residents and visitors on town roads will minimize the impact of this activity.

Potential impacts include brief disturbance to nesting seabirds. Only trained FWS-approved staff and/or guides conducting the talk will be entering nesting colonies for brief periods.

Evening programs at various indoor locations

No anticipated impacts are anticipated due to indoor locations.

Eastern Island tours

Minimal impacts include disturbance to nesting birds (primarily Laysan and black-footed albatrosses (*Diomedea immutabilis* and *Diomedea nigripes*, respectively), and sooty and gray-backed terns (*Sterna fuscata* and *Sterna lunata*, respectively)) along tour routes. Tours will be restricted to the historic runways, limiting the disturbance to shrub and burrow nesters such as the red-footed booby (*Sula sula*), great frigatebird (*Fregata minor*), and Christmas shearwater (*Puffinus nativitatis*). During the sooty tern nesting season, tours will be adjusted as needed to minimize disturbance to nesting sooty terns on runways. Visitors will be advised to travel in single file in an expeditious manner through the colony. Photography will be allowed at the beginning and end of such a transit, not in the middle, to reduce the length of disturbance to the core nesting population.

Impacts will also be associated with the increased number of boat landings on the island. Boat landings (boat and people noise) may occasionally disturb resting endangered Hawaiian monk seals and threatened green sea turtles on Eastern Island beaches as well as those that are prospecting safe haulout locations (Kenyon 1972). All trips to Eastern Island will be closely supervised by FWS-approved staff and/or guides. Visitor tours of Eastern Island will be offered no more than once a week, unless specifically authorized by the refuge manager, and generally will be completed within a 3-hour period. Boats will tether to either end of the 150-foot pier, and disembarking passengers will be briefed on proper behavior to minimize disturbance to Hawaiian monk seals or green sea turtles that may be present.

Public Review and Comment:

This determination was issued for public review and comment as part of the Draft Interim Visitor Services Plan from the period of December 8, 2006, through February 6, 2007. The plan and associated compatibility determinations were made available through printed copies upon request and through the FWS Website at <http://www.fws.gov/midway>. This level of review and comment was selected to meet FWS requirements under the National Wildlife Refuge System Administration Act of 1966, as amended.

Amendments to this CD for collection of specimens for education were made available for public review for 2 weeks from May 6, 2009 to May 20, 2009.

Determination:

- Use is Not Compatible
- Use is Compatible with Following Stipulations

Stipulations Necessary to Ensure Compatibility:

- All onsite environmental education will be closely supervised by FWS-approved staff and/or guides, as well as by accompanying teachers.
- All students will be subject to the same restrictions (e.g., beach closures, distances from monk seals, etc.) as other visitors.
- All guided Sand Island tours will be led by FWS-approved staff and/or guides and will be adjusted on the spot to avoid disturbance of Hawaiian monk seals and green sea turtles and to minimize conflicts with nesting seabirds.
- No more than 25 people will be led at one time on guided walks and bicycle tours. Tour groups from cruise ships, which walk along paved roads with clear markings and tour guides to ensure the group remains together, may exceed this number, up to a total of 50 people per group.
- All visitors will attend an orientation upon (or before) arrival and be given appropriate narrative and graphic material to clearly indicate which areas are open for public use and to clarify regulations in force to protect wildlife and habitat. Cruise ship visitors receive an orientation from a FWS-approved staff and/or guides onboard ship or by handouts specific to their visit to Midway Atoll.
- Signing along self-guided trails will identify approved areas for beach access, wildlife observation, etc. Monument staff will monitor public use to assess and respond to incidents of noncompliance with refuge regulations. Vegetative screening will be used to ensure that visitors do not walk off trails.
- “Field talks” will be located outside, on roads or trails along the edge of nesting seabird colonies or at a safe distance from other wildlife species. Only trained FWS-approved staff and/or guides conducting the talk will be entering nesting colonies for brief periods.
- Interpreters will clearly explain the rationale for access restrictions and the actions that will be taken to enforce regulations.
- The frequency, duration, and route of guided Eastern Island tours will be modified, as needed, to avoid disturbance to Hawaiian monk seals and green sea turtles and to minimize disturbance to seabirds.
- Cruise ships will be encouraged to remain in position without anchoring, if feasible. If not, they will be given a specific location for safe anchorage outside the channel entrance. FWS personnel will work with NOAA to identify the best location for this anchorage prior to the first cruise ship arrival under the new monument regulations.
- Cruise ships will be prohibited from discharging of any gray or black water during their anchorage period and for the entire period they are within monument waters, in accordance with their monument permit conditions. They will be advised of this

requirement during event planning and reminded again just prior to arrival. Any detected violation of this requirement will be cause for barring of this cruise line from any future stops at Midway Atoll NWR and will be pursued as a violation of monument regulations. Refuge staff will seek assistance from NOAA to use currently available sonar or other technology to assess the suitability for anchoring cruise ships just out from the harbor channel entrance. Sites determined to be suitable will be marked by GPS and that site transmitted to visiting ships. Cruise ships will also be advised that due to possible impacts to monk seals and sea turtles, the speed limit for their tenders within the harbor is 10 knots.

- Due to concern over the introduction of invasive marine species into Midway Atoll and the monument, all cruise ships and sailboats must meet the hull inspection requirements required under Presidential Proclamation 8031.
- *Donations or loans of specimens would comply with 50 CFR 12.35 thru 12.38. Collections of live samples that are taken off site of the refuge are considered on loan to the permittee. The donation or loan may be made only after the execution of a transfer document which is subject to the conditions specified in 50 CFR 12.36.*
- *Monument special permit conditions would include the following conditions that meet the requirements for FWS special use permits and covers all activities within Papahānaumokuākea Marine National Monument.*
 - a. *This permit is not to be used for nor does it authorize the sale of collected organisms. Under this permit, the authorized activities must be for noncommercial purposes not involving the use or sale of any organism, by-products, or materials collected within the Monument for obtaining patent or intellectual property rights.*
 - b. *The permittees may not convey, transfer, or distribute, in any fashion (including, but not limited to, selling, trading, giving, or loaning) any coral, live rock, or organism collected under this permit without the express written permission of the Co-Trustees.*

Justification:

Midway Atoll NWR provides unique educational opportunities, not found elsewhere in the United States. Compatible environmental education and interpretation are priority general public uses of the National Wildlife Refuge System as designated in the National Wildlife Refuge System Improvement Act of 1997. *Allowing collection of limited numbers of specimens for education purposes should have indirect positive impacts on Monument resources. Supporting environmental education and interpretation programs which strive to convey an understanding and appreciation of wildlife resources, the issues that affect them, and the techniques and*

programs pursued in their management typically increases public support for resource conservation.

References Cited:

Kenyon, K.W. 1976. Man versus the monk seal. J. of Mammal. 53(4):687-696.

Fowler, G.S. 1995. Ecotourism, field studies and stress: behavioral and hormonal responses of Magellanic penguins to nest site disturbance. Abstracts to Pacific Seabird Group Annual Meeting, 1995.

Mandatory 10- or 15-year Reevaluation Date:

Mandatory 15-year reevaluation date (for wildlife-dependent public uses)

Mandatory 10-year reevaluation date (for nonwildlife-dependent public uses)

NEPA Compliance for Refuge Use Decision (check one below)

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

Refuge Determination:

Refuge Manager
Approval:

(Signature)

Date: _____

Project Leader,
Hawaiian and Pacific
Islands NWRC

(Signature)

Date _____

Concurrence:

Refuge Supervisor
National Wildlife
Refuge System
Pacific Region

(Signature)

Date _____

Regional Chief,
National Wildlife
Refuge System

(Signature)

Date _____