

COMPATIBILITY DETERMINATION (CD) WORKING GROUP
Williams Coast Guard Building

Boston, MA
9:30am to 5:00pm
1 February 2005

MEETING SUMMARY

ACTION: Alternates for Working Group (WG) Members

All WG members who wish to have the option of using alternates must identify their respective alternate and provide the name to Ben Cowie-Haskell by February 18, 2005.

ACTION: List of Endangered Bird Species

It was requested that a list of endangered bird species that use the sanctuary be provided. Stellwagen Bank National Marine Sanctuary (SBNMS) staff will provide this list to the CD WG.

ACTION: Sub-Committee for CD Matrix

A matrix should be constructed that should list all current models and methods used for CD. To construct this matrix, a sub-committee was formed. The following will construct the matrix:

- Susan Farady
- Kate Killerlain
- Ben Cowie-Haskell

ACTION: Background Information from Other WGs

The WG determined that recommendations from other WGs that pertain to CD should be presented to the CD WG. Sanctuary staff will assemble an executive summary with the requested information.

ACTION: Potential Agenda List for Next Meeting

The following items were proposed for the next meeting:

- CD Matrix
- Fish and Wildlife Service Case Study
- Other WG Background Info
- John Day—Great Barrier Reef Case Study

ACTION: Next Meeting

The next CD WG meeting will be held on March 1, 2005, at the Williams Coast Guard Building in Boston, MA.

AGREEMENT: Revised Problem Statement

The WG agreed that the following would be used as the new Problem Statement for the CD WG:

To develop a methodology to assess and evaluate whether existing or proposed human uses are compatible with the sanctuary's primary purpose of resource protection.

AGREEMENT: Revised Guidance Questions

The WG agreed that the Guidance Questions associated with the Problem Statement would be revised as follows:

1. How does the sanctuary determine compatibility?
2. How is the determination of compatibility of uses being determined elsewhere; and how are those practices applicable to the sanctuary?
3. What criteria, standards, or steps should be used to determine the compatibility of a use or degree of use with resource protection?

DRAFT

Working Group Attendees (February 1, 2005):

| Name | WG Seat / Affiliation | Attendance |
|-----------------------|--------------------------------------|-------------------|
| Susan Farady | SAC Chair / Ocean Conservancy | Present |
| Ben Cowie-Haskell | Team Lead (SBNMS) | Present |
| David Bergeron | MA Fishermen's Partnerships | Present |
| Barry Gibson | Recreational Fishing Alliance | Present |
| Steve Milliken | Dolphin Fleet | Present |
| Priscilla Brooks | CLF | Present |
| Gib Chase | Conservation | Present |
| Tracey Morin Dalton | University of Rhode Island | Present |
| John Duff | University of Massachusetts - Boston | Present |
| Dale Brown | Gloucester Community Development | Present |
| Kathi Rodrigues | NOAA Fisheries | Present |
| Susan Snow-Cotter | MA Costal Zone Management | Present |
| Richard Meyer | Boston Shipping Association | Present |
| David Terkla | University of Massachusetts - Boston | Present |
| | | |
| Others Present | | |
| Mary Foley | National Park Service | Present |
| Andrew Raddant | DOI | Present |
| Diane Lazinsky | DOI | Present |
| Stephanie Campbell | NOAA Office of General Council | Present |
| Matt Brookhart | NMSP Headquarters | Present |
| Kate Smuckler | NOAA MPA Center | Present |
| Kate Killerlain | MA Coastal Zone Management | Present |
| Timothy Feehan | PSGS | Present |

WELCOME AND ADOPTION OF AGENDA

Susan Farady, WG Chair, welcomed the WG and opened the meeting. As the first item of business, all WG members were asked to introduce themselves. After introductions, the agenda for the meeting was presented to, and approved by, the WG. To keep the WG on track with the agenda, the following ground rules were set:

- Meetings start and end on time; members are responsible for getting caught up if delayed.
- Be respectful of everyone's time during the meeting and silence cell phones.
- Refrain from side conversations as they can distract others.
- Share speaking time during meetings with others.
- Have respect for different points of view and be attentive when others speak.
- Avoid characterizing the motives of others and bringing in non-Working Group issues.

WG INFORMATION

Ben Cowie-Haskell, SBNMS, provided information to the WG concerning how the Management Plan process was progressing, and how the CD WG should operate. Much of the information discussed can be found in the following document, provided to all WG members: *Management Plan Review: Stellwagen Bank National Marine Sanctuary Reference Document for SAC Working Groups*.

Status of the Management Plan Review

Under the National Marine Sanctuary Act (NMSA), all sanctuaries are required to prepare Management Plans. Each of the Management Plans must identify long-term strategies for addressing sanctuary needs. These strategies include setting priorities, management actions, research and education needs, performance measures, etc. The process by which Management Plans are prepared is complicated, involving the Sanctuary Program, Sanctuary Advisory Council (SAC) and the general public. Each Management Plan will be reviewed every 5 years. Unfortunately, the SBNMS process has been delayed due to a change in superintendents which caused a 2 year delay. This is a general problem, as all National Marine Sanctuaries have had trouble meeting the 5 year deadline. The projected timeline for the SBNMS Management Plan Review process is as follows:

- | | |
|----------------------------------|-------------------------|
| • Issue Identification (Scoping) | Fall 2002 |
| • Issue Prioritization | Winter 2003 |
| • Work Plan Development | Spring - Summer 2003 |
| • Action Plan Development by WGs | Fall 2003 – Summer 2004 |
| • SAC Recommendations | Fall 2004 |
| • CD Working Group | Winter 2005 |
| • Draft Manage. Plan Prep. | Winter/Spring 2005 |
| • Draft Mgmt. Plan release | Fall 2005 |
| • Public Comment Period | Fall 2005 |
| • Final Management Plan Prep. | Spring/Summer 05 |
| • Final Plan release | Fall 2006 |

For the purpose of preparing the Management Plan for the SBNMS, 12 WGs were originally developed by the SAC to respond to issues raised through scoping comments gathered from the general public. Scoping comments were arranged by specific topics:

- Topic 1: Ecosystem and Habitat Protection
- Topic 2: Impacts of Human Activities on Marine Mammals
- Topic 3: Condition of Water Quality and Contaminant Transport
- Topic 4: Lack of Public Awareness
- Topic 5: Protection of Submerged Cultural Resources
- Topic 6: Effective Enforcement
- Topic 7: Adequacy of Administrative Capacity
- Topic 8: Sanctuary Authority and Cross-Jurisdictional Interaction

The CD WG, was formed to respond to issue 1.D from Topic 1 which stated the need for CD. Of the 12 groups, 8 were developed to deal with resource issues and 4 were developed for administrative purposes:

- Resources
 - Marine Heritage Resources
 - Water Quality

- Site Characterization
- Ecosystem Based Management
- Ecosystem Alteration
- Marine Mammal Entanglement
- Marine Mammal Behavioral Disturbance
- Marine Mammal Vessel Strikes
- Administration
 - Public Outreach and Education
 - CD
 - Administrative Capacity, Infrastructure Development and Maintenance
 - Interagency Cooperation

Mechanics, Responsibilities and Decision Making

The purpose of each WG is to develop Draft Action Plans or Frameworks that characterize the issue or problem identified during scoping. These Action Plans or Frameworks must also identify strategies and activities that address each of the identified issues. Each WG operate under the ground rules which are similar to those mentioned above. These ground rules include:

- Goal is to reach agreement on recommendations to the SAC
- Make best effort to reach agreement
- Actively participate
- Respect others and their interests
- Focus on interests not position
- Stay focused on task
- Avoid side conversations
- Silence cell phones

It is important to note that, when presented to the SAC, a consensus agreement is strongest. All groups complied with the above rules, however, many groups failed to achieve consensus. This lead to recommendations either being amended by the SAC or being passed on to the sanctuary for decision. Each WG was also tasked with the following roles and responsibilities:

- Operate under the purview of the SAC
- Members selected through public nomination and SAC determination
- If alternates are used, members must identify their alternate and notify the chair that their alternate will attend a meeting in advance
- SAC Chair – administer & facilitate, fairness police
- SBNMS' Role (Team Lead) - make sure WG is meeting sanctuary objectives, contact Tech. Adv., supply background info, provide meeting support
- Tech Adv. – Provide special information, participate in (not dominate) discussion, NOT participate in decisions
- Public/Constituents – channel thoughts and concerns through WG rep

The general structure and mechanics of meetings has been followed by each WG. The CD WG will also operate under the same structure:

- Meet once a month for 3-4 months

- Time and location should maximize WG participation
- Anyone can request a break or caucus
- Draft agenda & support materials provided to WG & posted on web ~7 days prior to mtg.
- SBNMS will provide summaries following each mtg. that identify major discussions or actions, reviewed at subsequent mtg.
- Summaries will be posted on SBNMS website

The CD WG has been charged with the purpose of developing a framework to be used by the sanctuary superintendent to determine compatible uses within the SBNMS. This framework will be site-specific, dealing only with uses concerning the SBNMS. All recommendations from the WG will be given to the SAC, which will then give recommendations to the sanctuary. The current meetings of the CD WG will lay the groundwork for the next Management Plan Review process.

PROBLEM STATEMENT REVIEW

Ben Cowie-Haskell and Susan Farady opened the floor for discussion on the Problem Statement found in the Background Document located in Appendix A.

Issue 1: Original Problem Statement

Due to the lack of human resources, sanctuary staff were not able to convene a meeting of the CD WG until now. Because of this, the original Problem Statement is 1.5 years old and in need of updating. The original statement, as written in Appendix A, implies that the CD WG was charged with determining if present uses were compatible with the sanctuary's mandate. The Problem Statement would need revision to reflect the CD WG charge of developing a framework or methodology for determining compatible use in the sanctuary. This charge is the original intent, but the original wording was incorrect.

Issue 2: Revised Problem Statement

Understanding that the Problem Statement was in need of updating, sanctuary staff and the WG Chair proposed the following revision:

To identify a mechanism by which to: (1) assess the scale, scope or impact of existing or proposed human uses of the Sanctuary and (2) determine whether these activities, individually or cumulatively, are compatible with the sanctuary's primary purpose of resource protection.

After some deliberation by the WG, the following was agreed to as the new Problem Statement for the CD WG:

To develop a methodology to assess and evaluate whether existing or proposed human uses are compatible with the sanctuary's primary purpose of resource protection.

Discussion: Some WG members were concerned that enforcement of decisions or regulations on compatibility, especially on entities outside U.S. jurisdiction, would pose problems. Then intent, however, of the CD WG is to develop a mechanism. It was determined that the charge of the CD WG was to define, and develop guidelines to determine compatibility and not to deal with potential enforcement issues. Any law or regulation creation would be years down the road. It is the WG's role to only recommend what guidelines or regulations might be desirable. No development of regulations or actual determination on compatible uses would be done by the CD

WG. Such determinations would be made later using the methods developed by the group. The framework itself should not make judgments on specific uses.

Members of the WG agreed that they would be developing a methodology. This methodology would be used to determine if particular uses are compatible with the sanctuary's primary purpose of resource protection. Although some members were uncomfortable with the use of "resource protection" in the Problem Statement, it was explained that the WG was bound by the NMSA. It is stated there that the primary purpose of the sanctuary is resource protection.

Members also determined that it was important that in determining compatible use, uses would need to be assessed and evaluated. Since the sanctuary currently deals with the issue of compatibility in an indirect way (see Resources and Management of the SBNMS presentation below), no comprehensive assessment exists. It is important that information first be collected, then determinations on compatibility be made with collected information. It is possible that if a use is determined to be non-compatible, the use could potentially be modified to become compatible. If no modifications could be made, then the use would then be prohibited. Also, even though uses outside sanctuary boundaries could impact the sanctuary, assessments and evaluations of such uses could be dealt with in the methodology.

Determinations of compatible uses seemed, to a number of members, to have overlap with the proposed Zoning WG established by the Ecosystem-Base Management Action Plan. However, the Zoning WG is specifically charged with evaluating the current zoning scheme, and if found to be insufficient, to develop a new scheme. In contrast, the charge of the CD WG is more abstract as the charge is to examine a portion of the law and recommend how the sanctuary might apply it, since there is no current method for the sanctuary superintendent to determine compatible use.

It was determined that the Problem Statement needed to be short and easily understood by both the WG and the general public. Though some detail is lost with the revised statement, details will be established in the methodology that the CD WG develops. Such details would cover issues such as individual and cumulative effects of human uses.

Issue 3: New Guidance Questions

The Background Document (Appendix A) provides 5 questions to be used as discussion points to help the CD WG effectively deal with the Problem Statement. With the update of the Problem Statement, these questions were re-ordered to make more logical sense. After some discussion, the questions were altered to the following:

1. How does the sanctuary determine compatibility?
2. How is the determination of compatibility of uses being determined elsewhere; and how are those practices applicable to the sanctuary?
3. What criteria, standards, or steps should be used to determine the compatibility of a use or degree of use with resource protection?

Discussion: WG members discussed if the questions were useful. It was determined that the questions were there for guidance and to stimulate thought. The actual Background Document is written to try and answer these questions. To be more helpful to the WG, it was decided to combine and re-order the questions as shown above.

PRESENTATIONS

Ben Cowie-Haskell presented information to the WG concerning how compatible uses are determined by other agencies and groups. He also provided information on the current state of resources and management in the SBNMS.

Background Document on Compatibility

The purpose of the Background Document is to provide the CD WG with background information relevant to the discussion of compatible use determination. This document reviews existing Sanctuary procedures regarding compatibility, presents some general concepts of protected area use management, provides examples of other agency/program mechanisms, and then concludes by looking at the comparisons between the National Marine Sanctuary Program (NMSP) and other agencies.

The CD WG was created by the SAC as part of the SBNMS management plan review process. Advice on CD by the CD WG will be considered as input towards a revised SBNMS management plan as other Working Groups' advice has been via submission to the SAC for review and deliberation before submission to the Sanctuary Superintendent.

The Background Document, as presented by Ben Cowie-Haskell, is located in Appendix A at the end of this meeting summary.

Questions & Answers

Question 1: Is there permitting for uses that are currently prohibited?

Answer: The sanctuary can provide a permit for such activities. However, the activity itself must have some benefit to the sanctuary.

Comment: For wildlife refuges, the manager of the refuge has the authority to decide on compatible use. No other authority is needed, just the refuge managers decision.

Comment: National Parks have the law and Act for compatible use determination. Each park has its own legislation. For example, the Cape Cod National Seashore must allow commercial shellfishing. Hunting is not usually allowed in National Parks, although it is at the discretion of the Park itself. The Park will error on the side of resource preservation. Other issues involve the use of the Park. For Boston Harbor Islands, "social" carrying capacity was assessed to identify acceptable limits for visitor numbers and possible litter. This is to enhance the visitor experience, but the assessment must be made to look at what level of activity would affect the resource.

Comment: The NMSA states that multiple uses can be allowed, but resource conservation is the primary objective.

Resources and Management of the SBNMS

Ben Cowie-Haskell presented information concerning the site characterization and the present state of resources and management of the SBNMS.

The mission of the SBNMS is to conserve, protect and enhance the biodiversity, ecological integrity and cultural legacy of the sanctuary while facilitating compatible use. Stewardship of the sanctuary is conducted through marine mammal protection, heritage resource management and biodiversity conservation.

Biodiversity Conservation

Stellwagen Bank itself is a biodiversity hotspot in the Gulf of Maine. Fish species richness, whale bluefin tuna distributions contribute to making Stellwagen Bank unique. The geological features and physical structure of the Bank combine with water currents to make the Stellwagen Bank area highly productive. Because of this, it is important to understand the overall water quality and the human impacts to seafloor habitats within the sanctuary.

Charts created using backscatter data overlaid on a multibeam sonar-generated topographic map helps to identify key seafloor habitats to study. The presence of the southeast corner of the Gulf of Maine Closed Area within the boundary of the SBNMS (known as the "sliver") provides reference points consisting of the main 4 habitat types: sand, mud, boulder and gravel. This area covers 21% of the sanctuary area.

Research within the sanctuary has revealed information vital to the understanding of fish movements, morphology and behavior. Tagging studies on cod using acoustic tags during 2001 and 2002 revealed that cod have higher site affinity than previously thought. In 2001, out of 38 tagged cod, 37% showed strong site attachment. In 2002, a similar pattern was shown with 51% of 40 tagged fish showing strong site attachment. Fisheries research reveals that over 40 years, the maximum size for a number of fish species has decreased within the SBNMS area. This reduction of size can alter how certain species interact with the overall community.

Birds

The location of Stellwagen Bank makes it an area with high concentrations of bird species. Many different species utilize the area, and many migrate to the area seasonally. Most surface feeders normally dive to only a few meters below the surface. The main threat might be gillnet boats cleaning their catch while hauling or setting the net. Shearwaters and gannets could be caught. Diving bird species predominate in the winter. Razorbills, puffins and dovekies are alcids, the northern hemisphere equivalent of penguins, and would be more prone to entanglement in nets.

Human Use

A major component of human use of the sanctuary is fishing, both commercial and recreational. The sanctuary has conducted surveys and used National Oceanic and Atmospheric Administration (NOAA) Vessel Trip Report (VTR) data to determine the spatial and temporal distribution of fishing activity within sanctuary boundaries. Activity is distributed throughout the SBNMS, although for commercial fishing there are particular areas of heavy activity for both mobile and fixed gear.

Commercial fishing vessels fishing in the SBNMS have averaged around 440 vessels per year. The ex-vessel value of fish landed from the SBNMS has been particularly important to MA ports, at a value of \$17,220,446.00 in 2000.

Other human uses include, but are not limited to, boating, commercial shipping, whale watching and diving. Whale watching has become a major industry for some MA ports. Stellwagen Bank's close proximity to land and unique characteristic of being an area with a large abundance of whales combines makes the SBNMS an important area for this activity. Whale watching increases tourist activity in New England.

Marine cable installation is another use within the sanctuary. Currently, a telecommunications cable runs through a portion of the SBNMS. A program is underway to study habitat recovery in the affected area.

Marine Mammal Protection

Marine Mammals such as whales are abundant within the SBNMS. 20 years of whale sightings data have shown high numbers of sightings within and around the sanctuary. As previously noted, the SBNMS is both a heavily fished and heavily traveled area. The presence of fixed fishing gear is a concern for whale entanglements. A shipping lane also traverses the sanctuary. With the large amount of shipping traffic to and from Boston, ship strikes of marine mammals is also a concern. Ship strike is also a concern for commercial whale watching. Research conducted by the sanctuary has indicated that non-compliance with whale watching guidelines is occurring.

It is uncertain if vessel traffic changes the behavior of whales. New developments in technology using specialized acoustic tags can show the behavior of whales. These tags also allow for comparisons to ambient noise that the whale would encounter.

Marine Heritage Resources

The SBNMS is rich in marine heritage resources. Many potential shipwreck sites have been identified throughout the area. The most famous of these is the wreck of the steamship Portland which was lost during the Portland Gale of 1898. This site was recently listed on the Nation Register of Historic Places in January, 2005. Other wrecks include the wreck site of the Frank A. Palmer and Louise B. Crary. Both were schooners, with the Frank A. Palmer being the largest 4 masted schooner ever built. Both sunk after collision in 1902.

Current Status of Management

The SBNMS operates under the direction of the NMSA. Under NMSA, the sanctuary must abide by the following:

- To maintain the natural biological communities and protect historic resources
- To protect and, where appropriate, restore and enhance natural habitats, populations, and ecological processes
- To create models of, and incentives for, ways to conserve and manage these areas, including the application of innovative management techniques
- To facilitate to the extent compatible with the primary objective of resource protection, all public and private uses of the resources

When the SBNMS was established, the designation document listed specific activities as prohibited. The following activities are subject to regulation by the designation document:

- Dumping, with exemptions
- Industrial extraction
- Seabed alteration, with exemptions
- Disturbing historic resources, with exemptions
- Taking/possession of marine reptiles, seabirds or marine mammals
- Lightering
- Interference with law enforcement

Currently, the sanctuary deals with issues of compatible use in an indirect manor. The sanctuary does this by issuing permits for certain activities. Permits allow certain activities that would otherwise be prohibited. However, there is generally some benefit to the sanctuary in issuing a permit. All permits

must also satisfy regulatory review criteria before being issued. The following are permit types being employed by the sanctuary:

- Research
- Education
- Archaeological
- Management
- Authorizations
- Special Use

Questions & Answers

Question 1: For the ex-vessel value of fish landed from the sanctuary, are lobsters reported with this?

Answer: The information is compiled from NOAA VTR data. The problem with lobster landings is that lobster is reported from Area 19. The SBNMS is only a small portion of Area 19. Our data also does not include tuna.

Question 2: What does tuna fishing look like now in the SBNMS?

Answer: This is uncertain. The last few years have not been good for tuna fishing within the sanctuary.

Question 3: Are there any endangered bird species in the sanctuary?

Answer: Roseate terns can be found in the sanctuary. A full list of species can be provided.

Question 4: With the whale sightings over 20 years shown with the vessel traffic, isn't that misleading? It seems to over-exaggerate the whale sightings.

Answer: That is correct; however, in high whale abundance years, the area of the sanctuary where the shipping lane runs is a very active whale area.

Comment: With whale entanglements, now that more whale watch boats are out there, more entanglements will be spotted. It is important to note that it is nearly impossible to tell where the entanglement occurred. As for ship strikes, it seems to depend on species. Right whales seem to get hit while other species move away from vessels. Since right whales are endangered, they pose a greater threat to shipping.

Comment: For international shipping, enforcement for any regulations on vessel traffic would not be possible due to international treaty. It would be possible to let ship captains know where whale aggregations occur so they can voluntarily alter the ships course. With past presentations, it seems that speed does not increase the chances of a strike. The Marine Mammal Vessel Strikes WG had a good idea with creating an alert center to warn vessel traffic of whale aggregations.

Question 5: With the whale watch industry, is there any data to suggest that increased compliance with guidelines will reduce the risk of strikes?

Answer: There is not much information on strikes. But, with the whale watch industry, speed around whales is an issue. As speed increases around whales, strikes have increased. Many vessels have shown non-compliance after viewing the whales and leaving the scene.

Comment: The research on guideline compliance was done on 35 trips out of many trips conducted by whale watch boats. This study made the assumption that the vessel operator knew

that a whale was within 2 miles of the boat, but this is not always the case. Whales are sometimes not seen until 0.25 to 0.5 miles away. The guidelines were put in place to deal with high-speed vessels, but with speed there are other problems—species, tide, drift, distance between whales. When leaving the whales, other crew members that are supposed to keep lookout for whales may not be doing their job correctly. Guidelines need to be revised. World-wide, whale watching guidelines are very general. The guidelines should be adapted for different species.

Comment: Activity seems dependant on the resource within the sanctuary. On very good days for whale watching, more boats are out that potentially crowd the whales. This could be affecting whale behavior and something needs to be done.

Question 6: Are divers currently wreck diving on any of the wrecks within the sanctuary?

Answer: Not many. Quite a number of these wrecks are quite deep. The Portland is at over 400ft. There are some very technical divers that would like the opportunity, but not your general recreational divers. The sanctuary is thinking of setting up mooring buoys at sites to make them more accessible but minimize damage.

Question 7: Is there to be a buffer around the Portland site to prevent damage?

Answer: The Maritime Heritage WG recommended a 1 mile buffer.

NEW BUSINESS

Next Steps

The WG discussed topic ideas for the next meeting.

CD Model Matrix

Given that many other entities have dealt with the issue of CD, it was decided that a matrix should be constructed that would list all current models and methods. This matrix should also contain references to these methods. To construct this matrix, a sub-committee was formed. The following will construct the matrix:

- Susan Farady
- Kate Killerlain
- Tracey Morin Dalton
- Ben Cowie-Haskell

Agenda Items for Next Meeting

The Chair called for ideas for the next meeting of the CD WG. Members expressed that the CD matrix should be finalized by the next meeting. This should be provided to the WG at the next meeting. Other case studies would also be useful for the WG to learn about. WG members expressed an interest in learning more about how other agencies dealt with CD. It was agreed that an example from the Fish and Wildlife Service could be used.

Some WG members requested that information on the background of other WGs should be reviewed. It was determined that all background information was not needed, only information concerning recommendations that may deal or overlap with CD should be summarized. Sanctuary staff will assemble

this information. It should be noted that all WG meeting summaries and Action Plans have been posted on the sanctuary website.

While discussing possible presentations for the next meeting, Sanctuary Program staff noted that John Day, from Australia, was visiting the National Marine Sanctuary Headquarters. If he is available, WG members would like him to present his experiences with the Great Barrier Reef.

The following items were proposed for the next meeting:

- CD Matrix
- Fish and Wildlife Service Case Study
- Other WG Background Info
- John Day—Great Barrier Reef Case Study

Next Meeting

The WG discussed that with deadline of completing work by May, before the June SAC meeting and meeting every 3 or 4 weeks, it would be possible to have 3 to 4 meetings before May 1. The WG indicated a desire to schedule more frequent meetings initially with the option that later meetings could be cancelled if the WG's work is not completed. Members will be polled by email for the next meeting date.

The next CD WG meeting will be held on March 1, 2005, at the Williams Coast Guard Building in Boston, MA.

FINAL COMMENTS

Meeting adjourned.

Gerry E. Studds Stellwagen Bank National Marine Sanctuary
Management Plan Review
Compatibility Determination Working Group – Draft Agenda

Date: 1 February 2005
Location: Williams Coast Guard Building
 408 Atlantic Ave, Boston, MA
 Ben's cell: 781-424-0699

| TIME | TOPICS AND OBJECTIVES |
|-------------|--|
| 9:00-9:30 | <ul style="list-style-type: none"> • Welcome (coffee and pastries provided) • Introductions <ul style="list-style-type: none"> • Round Robin (Name, Affiliation, Background, and Interests) • Groundrules <p>Objective: Familiarization with members. Discussion Leader: Susan Farady</p> |
| 9:30-10:30 | <ul style="list-style-type: none"> • Why Are We Here? <ul style="list-style-type: none"> • Status of the Management Plan Review • The Working Group Process • Mechanics, Responsibilities, and Decision Making <p>Objective: Familiarize working group members with the management plan review process and the how's and why's of the working group. Discussion Leader: Ben Cowie-Haskell</p> |
| 10:30-12:00 | <ul style="list-style-type: none"> • Review Problem Statement Document <ul style="list-style-type: none"> • Review Public Scoping Comments on Compatibility <p>Objective: Review and revise problem statement Discussion Leader: Ben</p> |
| 12:00-2:00 | <ul style="list-style-type: none"> • Lunch presentation: Resources and Management of the SBNMS Ben Cowie-Haskell <p>Objective: Familiarize members with sanctuary resources, uses, and regulations (Lunch will be provided)</p> |
| 2:00-4:00 | <ul style="list-style-type: none"> • Review background paper on compatibility <p>Objective: Understand current status of compatibility determination in the National Marine Sanctuary Program Discussion Leader: Susan</p> |
| 4:00-5:00 | <ul style="list-style-type: none"> • Next Steps <ul style="list-style-type: none"> • Developing a methodology for determining compatibility • Meeting Schedule <p>Discussion Leader: Susan</p> |

APPENDIX A

DRAFT

**Background Information on Compatible Use Determination
Within The National Marine Sanctuary Program
And Other Natural Resource Management Agencies**

Prepared by the National Marine Sanctuary Program
for use by the Stellwagen Bank National Marine Sanctuary Working Group
on Compatibility Determination

January 21, 2005

SUMMARY

The purpose of this paper is to provide the Compatibility Determination Working Group (CDWG) for the Stellwagen Bank National Marine Sanctuary (SBNMS) with background information relevant to the discussion of compatible use determination. First we review existing Sanctuary procedures regarding compatibility, present some general concepts of protected area use management, then provide examples of other agency/program mechanisms, and finally conclude by looking at the comparisons between NMSP and other agencies.

TABLE OF CONTENT

| | |
|--|-----------|
| SUMMARY | 1 |
| I. INTRODUCTION..... | 3 |
| II. BACKGROUND | 4 |
| III. COMPATIBILITY DETERMINATION WITHIN THE NATIONAL MARINE SANCTUARY PROGRAM | 5 |
| 1. Prohibition of Certain Activities By Congress..... | 5 |
| 2. Designation Document | 6 |
| 3. Regulations..... | 6 |
| 4. Permitting Process | 7 |
| IV. COMPATIBILITY DETERMINATION OUTSIDE THE NMSP | 8 |
| 1. Limits of Acceptable Change..... | 8 |
| 2. Examples of Use Management | 10 |
| a. U.S. Fish and Wildlife Service | 10 |
| b. U.S. National Park Service..... | 12 |
| c. U.S. Forest Service..... | 14 |
| d. Saba Marine Park (Caribbean)..... | 15 |
| 3. Summary..... | 16 |
| REFERENCES | 17 |
| APPENDIX A..... | 19 |
| 1. U.S. Fish and Wildlife Service..... | 19 |
| a. Legislation..... | 19 |
| b. Purposes of a Refuge | 19 |
| 2. Saba Marine Park..... | 20 |
| 3. U.S. Forest Service..... | 20 |

I. INTRODUCTION

The purpose of this paper is to provide the Compatibility Determination Working Group (CDWG) for the Stellwagen Bank National Marine Sanctuary (SBNMS) with background information relevant to the discussion of compatible use determination. The CDWG was created by the Sanctuary Advisory Council (SAC) as part of the SBNMS management plan review process. The CDWG is to provide recommended guidance on formulating standards or guidelines by which compatibility of use can be determined pursuant to the CDWG's problem statement:

To identify a mechanism by which to assess the scale, scope or impact of existing or proposed human uses of the Sanctuary and to determine whether these activities, individually or cumulatively, are compatible with the Sanctuary's primary purpose of resource protection.¹

This problem statement and the following questions are from the *Working Group Problem Statements* document as approved by the SAC in November 2003.

1. What criteria or standards should be used to determine the compatibility of a use or degree of use with resource protection?
2. How is the determination of compatibility of uses being determined elsewhere; and how are those practices applicable to the Sanctuary?
3. How does the Sanctuary identify resources that are sensitive or at risk including cumulative impacts of uses on resources and the natural system of the Sanctuary?
4. How does the Sanctuary determine whether a use complements or interferes with the ability to manage the Sanctuary for its primary objective of resource protection?
5. What collaborations with public and private organizations will promote activities that are compatible with the primary purpose of resource protection?

Advice on compatibility determination by the CDWG will be considered as input towards a revised SBNMS management plan as other Working Groups' advice has been via submission to the SAC for review and deliberation before submission to the Sanctuary Superintendent.

¹ Compatibility Determination Working Group Problem Statements - November 3rd, 2003

II. BACKGROUND

The National Marine Sanctuaries Act (NMSA or Act), 16 U.S.C. sec.1431 *et seq.*, is the enabling legislation for the National Marine Sanctuary Program (NMSP). One of the purposes and policies of the Act, the NMSP is to “maintain the natural biological communities in the national marine sanctuaries, and to protect, and, where appropriate, restore and enhance natural habitats, populations, and ecological processes” (sec. 301(b)(3)). In addition to protecting sanctuary resources², another one of the purposes and policies of the Act is to “facilitate to the extent compatible with the primary objective of resource protection, all public and private uses of the resources of these marine areas not prohibited pursuant to other authorities” (sec. 301(b)(6)).

Section 303(a) of the Act authorizes the NMSP to designate an area of the marine environment³ as a national marine sanctuary and promulgate regulations implementing the designation of that specific sanctuary, if:

- The area fulfills the purposes and policies of the Act
- The area is of special national significance
- Existing authorities are inadequate or should be supplemented to ensure coordinated and comprehensive conservation and management of the area and designation of a national marine sanctuary will facilitate these objectives
- The area is of a size and nature that will permit comprehensive and coordinated conservation and management

A sanctuary may also be designated directly by an act of Congress. For example, Congress designated Stellwagen Bank National Marine Sanctuary (SBNMS) in 1992. Its stated purposes are to protect and manage the conservation, ecological, recreational, research, educational, historical and esthetic resources and qualities of the area.⁴

Section 304(a)(1) of the Act requires the NMSP, when proposing to designate a national marine sanctuary, to “issue, in the Federal Register, a notice of the proposal, proposed regulations that may be necessary and reasonable to implement the proposal, and a summary of the draft management plan.” In the designation of a national marine sanctuary, the NMSP must also identify which activities are potentially to be regulated.

² “Sanctuary resource” means any living or nonliving resource of a national marine sanctuary that contributes to the conservation, recreational, ecological, historical, educational, cultural, archeological, scientific, or aesthetic value of the sanctuary. NMSA sec. 302(8).

³ “Marine environment” means those areas of coastal and ocean waters, the Great Lakes and their connecting waters, and submerged lands over which the United States exercises jurisdiction, including the exclusive economic zone, consistent with international law. NMSA sec. 302(3).

⁴ 58 F.R. 53865, October 9, 1993.

III. COMPATIBILITY DETERMINATION⁵ WITHIN THE NATIONAL MARINE SANCTUARY PROGRAM

Issues are typically brought to the attention of the NMSP during public scoping for designation or management plan review. The NMSP uses National Environmental Policy Act (NEPA) requirements to analyze the impacts of various use alternatives. This NMSP relies upon this analysis to generally determine the compatibility of broad categories of uses. There are no system-wide standards or framework to determine whether or not a use should be allowed if it has not already been categorically prohibited or restricted. As a result, compatibility determinations are made by a suite of mechanisms that are typically implemented on a case-by-case basis, i.e., for individual sanctuaries. Issues can arise when activities within a sanctuary authorized under one law present a conflict with the purpose of the NMSA.

For example, in the SBNMS the Clean Water Act allows certain discharges in the sanctuary such as certain discharges by cruise ships. From a public health and general environmental perspective, this is acceptable under the Clean Water Act as administered by EPA. However, in this case the broader issue is whether such discharge from such vessels is appropriate or compatible within a national marine sanctuary.

Other problems can occur when deciding whether activities (proposed or pre-existing) occurring within a sanctuary that are not covered under existing regulations should be allowed to continue or occur in the sanctuary and, if so, in what capacity. For example the use of motorized personal watercraft (e.g., Jet Skis) is not currently regulated in SBNMS; however, their use in the sanctuary could become problematic.

Current mechanisms used to assess the compatibility of activities within Sanctuaries include:

1. **Prohibition of Certain Activities By Congress.**

Certain activities are prohibited as a result of being explicitly identified as such in a Federal statute, such as one designating a sanctuary or other ruling.⁶ For example, in the designation of SBNMS, Congress prohibited exploration for, and mining of, sand, gravel, and other minerals. As a result, these activities are considered *per se* incompatible uses at SBNMS.

⁵ The NMSP does not officially endorse the use of the language "compatibility determination".

⁶ National Marine Sanctuaries can be designated by one of two mechanisms: an act of Congress or by the Secretary of Commerce under the NMSA.

2. Designation Document

When a sanctuary is designated, a Designation Document is developed in conjunction with an Environmental Impact Statement (EIS). Drafting the EIS requires public scoping as well as an analysis of the potential impacts of the proposed action, in this case primarily the regulations implementing the sanctuary designation. The Designation Document serves many functions for the new sanctuary, such as identifying boundaries and resources of biological or historical significance. The Designation Document also identifies the activities regarding the sanctuary that are subject to regulation in order to protect the conservation, recreational, historical, research, educational and esthetic resources and qualities of the area. Once the sanctuary is designated, the NMSP may only regulate activities that are on the list of activities to be regulated⁷. The sanctuary Designation Document provides the scope of the activities potentially to be regulated in the new sanctuary, which have been identified as potentially incompatible activities.

If the NMSP wishes to regulate an activity that is not included in the list of potentially regulated activities, it must amend the Designation Document. A sanctuary's terms of designation may be changed by following the same procedures used by the NMSP to designate a sanctuary, which are provided in sections 303 and 304 of the Act.

3. Regulations

Each sanctuary has site-specific regulations in place that prohibit specific activities from occurring within (and in some case, outside of) the sanctuary. These regulations range from being specific (e.g., no Jet Skiing in a designated area) to broad (e.g., no disturbance of the seabed). These regulations are first developed when a site is designated, and then subject to review at a minimum every 5 years under the NMSA. During a site's management plan review process, regulations may be updated or eliminated, or new regulations may be developed, depending on the resource management need. Through the management plan review process, the public is provided opportunity to comment on any proposed change to an existing regulation.

In the Designation Document for SBNMS, the following activities are subject to regulation⁸:

- Discharging within or from beyond the boundary of the Sanctuary
- Exploring, developing or producing oil, gas, and minerals
- Drilling into, dredging or otherwise altering the seabed
- Developing or conducting mariculture
- Taking or attempting to take a living or historical Sanctuary resource

⁷ House Report No. 96-864(1), April 22, 1980.

⁸ For full text of activities subject to regulation, see 58 F.R. 53873, October 19, 1993.

- Transferring a petroleum-based product from vessel to vessel
- Operating a vessel
- Possessing a Sanctuary resource
- Interfering with an investigation in connection with enforcement of the Act or any regulation pursuant to the Act.

The actual regulations of SBNMS prohibit or restrict some of the activities mentioned above.⁹ There are several exceptions to sanctuary regulatory prohibitions. For example, incidental alteration of the seabed is allowed if it results from anchoring vessels, traditional fishing operations, or installation of navigation aids. Otherwise altering the seabed is prohibited in SBNMS. Disturbance of historic resources is prohibited except for incidental disturbance resulting from traditional fishing operations.

4. Permitting Process

The NMSP has the authority to issue permits in appropriate instances for activities that further the objectives of the sanctuary, such as research and education, or for activities that may be considered compatible under certain conditions. Site staff typically processes the permits, which are then cleared by the NMSP headquarters. There are three types of permits: Special Use Permits, NMS Permits, and Authorizations.

Special Use Permits

The NMSP has the authority, under the NMSA, to issue Special Use Permits (SUPs) for individual sanctuaries for activities that are compatible with the purposes for which the sanctuary was designated and do not injure sanctuary resources. SUPs are usually issued for “commercial-type” activities.

National Marine Sanctuary Permits

Under NMSP regulations for individual sanctuaries, permits may in appropriate instances be issued for activities that would otherwise be prohibited but offer some other benefit to the sanctuary (i.e., further the objectives of the sanctuary), such as research and education.

Authorizations of Other Agency Permits

The NMSP may for some sanctuaries authorize activities that would otherwise violate sanctuary regulations when the activities are subject to a permit under other authorities that overlap sanctuary jurisdiction, such as the Clean Water Act, Marine Mammal Protection Act, Endangered Species Act, Migratory Bird Treaty Act, Magnuson-Stevens Fishery Conservation and Management Act.

⁹ 15 C.F.R. sec.922.142.

IV. COMPATIBILITY DETERMINATION OUTSIDE THE NMSP

Concepts of use management have been studied extensively and applied in making compatibility determinations in other management regimes. In this section, we describe one of the concepts that is used in some form or another in many agencies' management strategies. We also present several examples of agencies using it to determine compatibility.

1. Limits of Acceptable Change

The concept of Limits of Acceptable Change (LAC) uses a set of desirable long-term conditions as the basis for making decisions regarding use compatibility. It provides tools to deciding what resource conditions are acceptable, and then prescribing management actions geared toward protecting or achieving these conditions.¹⁰ It was developed to build on the concept of carrying capacity by researchers of the U.S. Forest Service in the early 1980s as a tool for "establishing acceptable and appropriate resource and social conditions in recreational settings,"¹¹ and to "address the problem of managing recreational use in national [terrestrial] protected areas."¹² As the concept matured, it was recognized that its utility could be broadened to include management of multiple-use areas, which can bring additional challenges to management.¹³

The LAC concept is based on compromising uses that result from two conflicting goals of management, for example conservation and access to recreation. In multiple-use areas, the concept could be applied if one of the goals takes precedence over others, as indicated in a mandate or administrative history for example.

The use of LAC in resource management requires that a series of steps be followed in order to determine the ideal future condition of the resources. Once the desired outcome has been determined, with appropriate input from the public, each proposal for use is evaluated by examining its impact, positive or negative, on the desired conditions. Using the LAC process enables the resource manager to determine not only whether a use or event is compatible with the mandate of the protection agency, but

¹⁰ Stankey, G.H. *et al.* January 1985. *The Limits of Acceptable Change (LAC) System for Wilderness Planning*. United States Department of Agriculture. Forest Service. Intermountain Forest and Range Experiment Station, Ogden, UT 84401. General Technical Report INT-176.

¹¹ *Ibid.*

¹² *Ibid.*

Also from Stankey *et al.* 1985

¹³ Brunson, M. December 1997. *Beyond Wilderness: Broadening the Applicability of Limits of Acceptable Change*. In Proceedings - Limits of Acceptable Change and Related Planning Processes: Progress and Future Directions. United States Department of Agriculture. Forest Service. Intermountain Forest and Range Experiment Station, Ogden, UT 84401. General Technical Report INT-371.

also whether the cumulative impacts of several uses or events can still be considered acceptable regardless of the compatibility of individual occurrences.

LAC attempts to answer the following question: “what resource and social conditions are appropriate (or acceptable), and how do we attain those conditions?”¹⁴ This is in contrast with more traditional resources management strategies, which tend to focus on this question: “how many is too many?” in reference to uses of the resources. LAC originally contained four key components:

- Specification of acceptable and achievable resource and social conditions, defined by a series of measurable parameters;
- Analysis of the relationship between existing conditions and those judged acceptable;
- Identification of management actions necessary to achieve these conditions;
- A program of monitoring and evaluation of management effectiveness.

These four components are further divided into the following practical steps:

- 1) Identify area special values, issues, and concerns
- 2) Identify and describe recreation opportunity classes or zones
- 3) Select indicators of resource and social conditions
- 4) Inventory existing resource and social conditions
- 5) Specify standards for resource and social conditions in each opportunity class
- 6) Identify alternative opportunity class allocations
- 7) Identify management actions for each alternative
- 8) Evaluation and selection of a preferred alternative
- 9) Implement actions and monitor conditions

The LAC method attempts to engage resource managers in the integration of the complexity inherent to managing the use of protected areas. It addresses both physical and social sciences with a strong involvement of the community, and provides a basis for decision-making regarding compatibility determination. LAC provides a broad framework with specific desired outcomes that can be used to guide the process of compatibility determination. Several agencies have adopted frameworks following the LAC concept, such as the Visitor Experience Resource Protection (VERP) with the

¹⁴ McCool, S. *Limits of Acceptable Change: A Framework for Managing National Protected Areas: Experiences from the United States* Online at: www.prm.nau.edu/prm300_old/LAC_article.htm

National Park Service (see below) and the Management Process for Visitor Activities (VAMP) with Parks Canada.¹⁵

2. Examples of Use Management

Other national resource management authorities in the U.S. and abroad have created frameworks for determining compatible uses within their jurisdictions. A brief review of these examples provides broader perspective.

a. U.S. Fish and Wildlife Service

Background

In the National Wildlife Refuge System Improvement Act of 1997¹⁶, it was clearly stated that wildlife comes first on National Wildlife Refuges. In the National Wildlife Refuge System (NWRS) priority public uses are wildlife dependent, i.e., wildlife observation, hunting, fishing, photography, interpretation, and environmental education. Other uses are usually prohibited except if allowed by a permit from the Refuge Manager. The NWRS generally does not use the concept of LAC in order to determine compatibility of use on a refuge.

The agency's definition of compatible use is "a proposed or existing wildlife-dependent recreational use or any other use of a national wildlife refuge that, based on sound professional judgment, will not materially interfere with or detract from the fulfillment of the NWRS mission or the purpose of the national wildlife refuge."¹⁷

Process

Once a use¹⁸ is being proposed to a refuge, the FWS follows a series of dichotomous steps to determine the compatibility of that use¹⁹. The following questions are answered during this process:

1. Is the use a "refuge use"?

YES - go to step 2

¹⁵ Nilsen, P. and G. Taylor. 1997 A Comparative Analysis of Protected Area Planning and Management Frameworks. Proceedings – Limits of Acceptable Change and Related Planning Processes: Progress and Future Directions. United States Department of Agriculture. Forest Service. Intermountain Forest and Range Experiment Station, Ogden, UT 84401. General Technical Report INT-371. Pages 49-57.

¹⁶ National Wildlife Refuge System Improvement Act of 1997. 16 U.S.C. sec.668dd-668ee.

¹⁷ 65 F.R. 62486, October 18th, 2000.

¹⁸ A refuge use is "a recreational use (including refuge actions associated with a recreational use or other general public use), refuge management economic activity, or other use of a national wildlife refuge by the public or other non National Wildlife Refuge System entity". Fish and Wildlife Service – Refuge Management. Policy 603 FW 2Q.

¹⁹ Personal phone communication with Ward Feurt. Rachel Carson National Wildlife Refuge. December 2nd, 2004.

NO - use is not subject to compatibility

2. Is the use an emergency?

YES - use is not subject to compatibility

NO - go to step 3

3. Does the Service have jurisdiction over the use?

YES - go to step 4

NO - use is not subject to compatibility

4. Is the proposed use legal (does it comply with any law or regulation)?

YES - go to step 5

NO - use is denied

5. Does the use conflict with any Executive Order, or Department or Service policy?

YES - use is denied

NO - go to step 6

6. Does the use conflict with any refuge goal or objective?

YES - use is denied

NO - go to step 7

7. Is the use consistent with public safety?

YES - go to step 8

NO - use is denied

8. For uses other than wildlife-dependent activity, is the use manageable within the available budget and staff?

YES - go to step 9

NO - use is denied

9. Does the use conflict with other resource management objectives?

YES - use is denied

NO - Complete a Compatibility Determination document.

Compatibility Determination

There are 6 types of activities that have been determined to be wildlife dependent: wildlife observation, photography, fishing, hunting, environmental education, and interpretation. Wildlife-dependent activities have priority of use over non wildlife-dependent activities. When determining compatibility, the manager must give consideration to the availability of budget or staff for the proposed use. Note that the

use may still be considered incompatible if there is a lack of staff available, unacceptable impacts to the resource, or the timing and/or funding is not appropriate.

The use needs to be consistent with not only the law but also the purpose of the individual refuge in which the use would take place. The purpose of the refuge is found in the legislation that designated the refuge or in the conditions of the land purchase for the refuge. If the use is going to interfere with the purpose of the refuge, then it is considered incompatible.

The FWS has established general categories for similar groups of activities in order to streamline the compatibility determination process. For example, research generally falls under one group. If the research will further the purpose of the individual refuge, then it may be granted a permit. If the research is not likely to benefit the wildlife of the refuge, even if it does not directly harm the resources, then it may not receive a permit.

The compatibility determination process is often conducted in conjunction with the NEPA process. If a proposed use is not mentioned in the refuge guidelines and has not gone through the compatibility determination process before, then a new NEPA document must be issued before the use can take place, even if it is deemed compatible. All compatibility determination documents are available to the public.

It is important to consider that an application may be denied even if it is not incompatible, due to lack of staff resources or inappropriate timing, for example. If conflict arises between different uses, the agency will give priority to the use that "most positively contributes to the achievement of refuge purposes, the National Wildlife Refuge System, and specific refuge management goals."

Example

The Rachel Carson National Wildlife Refuge in Maine provides examples of how compatibility is determined for a proposed use. See Appendix A.

b. U.S. National Park Service

Background

The U.S. National Park Service (NPS) was founded in 1916 by the NPS Organic Act (16 U.S.C. sec.1). This act determined that one of the purposes for which the national parks are managed is "to conserve the scenery and the natural and historic objects and the wild life therein." The NPS is also directed by the Redwood National Park Act of 1978 not to allow activities that derogate the values and purposes for which these areas have been established (16 U.S.C. sec.1, 1a-1). Since then the directives from the Redwood National Park Act have been found to apply to the NPS as a whole.²⁰

²⁰ U.S. National Park Service. 2001. *National Park Service Management Policies*. Section 1.4.

The other purpose of the NPS is to “provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations.” The dual mission of NPS brings an inherent conflict between resource protection and accessibility. The laws give NPS management some discretion to allow certain uses that may have an impact on the park resources and values when they further the purposes of the park. However, an activity or use may not take place if it is shown to result in impairment of a park’s resources and values.²¹

Process

Visitor Experience and Resource Protection

In the 1990s, NPS developed the Visitor Experience and Resource Protection (VERP) framework using the LAC concept. The VERP framework was designed to provide logic to decision-making regarding issues of carrying capacity, with the goal of incorporating the framework in the development of the more comprehensive General Management Plan.²² It is defined as:

*A planning and management framework that focuses on visitor use impacts on the visitor experience and the park resources. These impacts are primarily attributable to visitor behavior, use levels, types of use, timing of use, and location of use.*²³

The VERP framework consists of nine elements, which loosely follow the nine steps of the LAC process discussed above:

- 1) Assemble an interdisciplinary project team
- 2) Develop a public involvement strategy
- 3) Develop statements of park purpose, significance, and primary interpretive themes; identify planning constraints
- 4) Analyze park resources and existing visitor use
- 5) Describe a potential range of visitor experiences and resource conditions
- 6) Allocate the zones to specific locations within the park
- 7) Select indicators and specify standards for each zone; develop a monitoring plan
- 8) Monitor resource and social indicators
- 9) Take management actions

Determination of Impairment

²¹ U.S. National Park Service. 2001. *National Park Service Management Policies*. Section 1.4.

²² Hof, M. and David Lime. 1997. *Visitor Experience and Resource Protection Framework in the National Park System: Rationale, Current Status, and Future Direction*. In *Proceedings – Limits of Acceptable Change and Related Planning Processes: Progress and Future Directions*. United States Department of Agriculture. Forest Service. Intermountain Forest and Range Experiment Station, Ogden, UT 84401. General Technical Report INT-371.

²³ U.S. National Park Service. 1997. *VERP: The Visitor Experience and Resource Protection Framework: A Handbook for Planners and Managers*.

Not all national parks use the VERP framework. Those parks that do not make use of VERP make compatibility determinations by determining whether or not it results in impairment of park resources. The management policies clearly state that “if there is a conflict between conserving resources and providing enjoyment for them, conservation is to be predominant.”²⁴

An impairment is defined as an impact that would harm the integrity of a park’s resources including the opportunities that would otherwise be present for the enjoyment of those resources.²⁵ The decision to find that a use causes impairment rests on the responsible NPS manager, who is usually the park superintendent. This decision depends on:

- The particular resources that would be affected
- The severity, duration and timing of the impact
- The direct and indirect effects of the impact
- The cumulative effects of the impact and other impacts

The likelihood of an impact being considered an impairment is high if the conservation of a resource or value of a park is necessary to fulfill specific purposes of the park, key to the integrity of the park or of the enjoyment of the park, or identified as a goal in the park’s general management plan. On the other hand, if an impact is an unavoidable result of an action targeted at the preservation of the integrity of a resource, then it is less likely to be considered an impairment.

The NPS manager in charge of allowing a use must incorporate any environmental impact statements required by NEPA, relevant scientific studies and other sources of information, and the public in his or her decision. If a proposed activity has the potential to be considered an impairment, then it must be treated as a known impairment and not be allowed to proceed. It is then determined to be incompatible with the NPS mandate.

*c. U.S. Forest Service
Background*

The Forest Service (FS) is responsible for managing certain areas as wilderness. The regulations implementing the National Forest Management Act requires management of wilderness areas to “provide for limiting and distributing visitor use of specific portions in accord with periodic estimates of the maximum levels of use that allow natural processes to operate freely and that do not impair the values for which wilderness areas were created (Federal Register 1982, section 19.18(a)).” In order to

²⁴ Ibid.

²⁵ U.S. National Park Service. 2001. *National Park Service Management Policies*. Section 1.4.

achieve the objectives of the Forest Service with respect to recreation, the concept of LAC was developed in the 1980s.

Process

The process of developing a LAC framework is described in section IV (1) above.

Examples

- The Forest Service developed a realistic example (Imagination Peaks Wilderness) of the LAC framework in one of their publications. See additional material in binder.
- The Bob Marshall Wilderness Complex (BMWC) in the Northern Rocky Mountains of northwestern Montana developed a Wilderness Recreation Management Direction document implementing LAC concepts in 1987.²⁶ See Appendix A.

d. Saba Marine Park (Caribbean)²⁷

Background

The Saba Marine Park (SMP) was established in 1987 around the island of Saba, in the Eastern Caribbean, by Ordinance of the Netherlands Antilles government. The SMP provides the visitor with high biological diversity, pristine character, bathymetric differentiation and coral reef communities. The mandate of the SMP is to preserve the natural resources of the marine environment for recreational, scientific, educational and commercial purposes. In the late 1990s, the SMP started drafting a long-term management plan to succeed in protecting the marine environment and multi-purpose uses. A local community-base task force representing a variety of local interests participated in the planning process. In developing the management plan, the task force used a management technique known as Limits of Acceptable Change (LAC).

Process

The management plan was designed by going through a series of steps, following the LAC method. The product of LAC was a set of desired outcomes for SMP, which were used to develop guidelines for determining the compatibility of proposed uses. The task force, using LAC, agreed to a set of preventive and corrective actions as well as an extensive monitoring plan, which is necessary to determine whether an action should be taken due to a problem arising with the resources.

Example

An example of the process that the task force used to draft the management plan is shown in Appendix A.

²⁶ Warren, G. A. December 1997. *Recreation Management in the Bob Marshall, Great Bear, and Scapegoat Wildernesses*. In: Proceedings – Limits of Acceptable Change and Related Planning Processes: Progress and Future Directions. United States Department of Agriculture. Forest Service. Intermountain Forest and Range Experiment Station, Ogden, UT 84401. General Technical Report INT-371.

²⁷ All Saba information taken from the *Saba Marine Park Management Plan, 1999*.

3. Summary

Examples of compatibility determination with other government agencies show that there is a variety of strategies used to decide whether activities should be allowed in a protected area. When making a decision regarding a proposed use most agencies follow a series of steps; however, there is usually not a detailed framework on how they determine whether a particular use is compatible with their mandate. This decision must take in account many different factors, and is usually left to the person who has the authority to make the compatibility determination (e.g., the person who issues the permits).

DRAFT

REFERENCES

National Marine Sanctuaries Act. 16 U.S.C. sec.1431 *et. seq.*

National Park Service Organic Act. 16 U.S.C. sec.1

Redwood National Park Act. 16 U.S.C. sec.1, 1a-1

National Wildlife Refuge System Improvement Act of 1997. Public Law 105-57.

Brunson, M. December 1997. *Beyond Wilderness: Broadening the Applicability of Limits of Acceptable Change*. In: Proceedings - Limits of Acceptable Change and Related Planning Processes: Progress and Future Directions. United States Department of Agriculture. Forest Service. Intermountain Forest and Range Experiment Station, Ogden, UT 84401. General Technical Report INT-371.

Hof, M. and D. Lime. 1997. *Visitor Experience and Resource Protection Framework in the National Park System: Rationale, Current Status, and Future Direction*. In Proceedings - Limits of Acceptable Change and Related Planning Processes: Progress and Future Directions. United States Department of Agriculture. Forest Service. Intermountain Forest and Range Experiment Station, Ogden, UT 84401. General Technical Report INT-371.

House Report No. 96-864(1), April 22, 1980.

McCool, S.F. *Limits of Acceptable Change: A Framework for Managing National Protected Areas: Experiences from the United States* Available online at:
www.prm.nau.edu/prm300_old/LAC_article.htm

McCool, S.F. and D. N. Cole. 1998. *Experiencing Limits of Acceptable Change: some Thoughts After a Decade of Implementation*. In: Proceedings: Limits of Acceptable Change and related planning processes: progress and future directions; 1997 May 20-22; Missoula, MT. Gen. Tech. Rep. INT-GTR-371. Ogden, UT: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station.

Schultz, E.G., McCool, S. F., Kooistra, D. 1999. *Management Plan: Saba Marine Park*. For: Saba Conservation Foundation, The Bottom Saba, Netherlands Antilles.

Stankey, G.H., D.N. Cole, R.C. Lucas, M.E. Petersen, and S.S. Frissell. 1985. *The limits of Acceptable Change (LAC) system for wilderness planning*. Gen. Tech. Report INT -176, USDA Forest Service Intermountain Forest and Range Experiment Station, Ogden, UT.

U.S. Fish and Wildlife Service. October 18, 2000. *Final Compatibility Policy Pursuant to the National Wildlife Refuge System Improvement Act of 1997*. 65 F.R. 62486.

U.S. Fish and Wildlife Service – Refuge Management. Policy 603 FW 2Q.

U.S. National Oceanic and Atmospheric Administration (NOAA). *Compatibility Determination Working Group Problem Statements*. November 3rd, 2003. Available online at: <http://stellwagen.noaa.gov/management/mpr/wgstatements.html>

U.S. National Oceanic and Atmospheric Administration (NOAA). October 19, 1993. *Final designation document for SBNMS* – 58 F.R. 53873,

U.S. National Park Service. 1997. *VERP: The Visitor Experience and Resource Protection Framework: A Handbook for Planners and Managers*. Available online at: <http://planning.nps.gov/tools.cfm>

U.S. National Park Service. 2001. *National Park Service Management Policies*. Section 1.4.

Warren, G. A. December 1997. *Recreation Management in the Bob Marshall, Great Bear, and Scapegoat Wildernesses*. In: *Proceedings – Limits of Acceptable Change and Related Planning Processes: Progress and Future Directions*. United States Department of Agriculture. Forest Service. Intermountain Forest and Range Experiment Station, Ogden, UT 84401. General Technical Report INT-371.

APPENDIX A

Examples of compatibility determination

1. U.S. Fish and Wildlife Service

a. Legislation

When a use is proposed to a National Wildlife Refuge, the refuge must first determine if the use is legal. For example, the following statutes, regulations, and executive order are considered when determining whether a proposed use is legal or not at the Rachel Carson National Wildlife Refuge in New England:

1. The National Wildlife Refuge Administrative Act of 1966, as amended (16 U.S.C. sec.668dd - 668ee).
2. The Endangered Species Act of 1973, as amended (16 U.S.C. sec.1531-1544).
3. The National Environmental Policy Act of 1969, as amended (42 U.S.C. sec.4321-4340f).
4. Executive Order 11990, Protection of Wetlands.
5. Refuge Recreation Act (16 U.S.C. sec.460k).
6. Opening of Rachel Carson Refuge to Hunting (50 C.F.R. sec.32.31).

b. Purposes of a Refuge

If a proposed use is legal but not wildlife-dependent, then the individual National Wildlife Refuge must determine whether it is compatible with the purposes for which the refuge was established. At Rachel Carson National Wildlife Refuge, for example, there are five purposes for which the refuge was established:

1. ". . . for use as an inviolate sanctuary, or for any other management purpose, for migratory birds." 16 U.S.C. sec. 715d, Migratory Bird Conservation Act
2. ". . . suitable for -- (1) incidental fish and wildlife-oriented recreational development, (2) the protection of natural resources, (3) the conservation of endangered species or threatened species...". 16 U.S.C. sec.460k-l Refuge Recreation Act
3. ". . . conservation of the wetlands of the Nation in order to maintain the public benefits they provide to help fulfill international obligations contained in various migratory bird treaties and conventions..." 16 U.S.C. Sec.3901(b), Emergency Wetlands Resources Act of 1986
4. ". . . for the development, advancement, management, conservation, and protection of fish and wildlife resources..." 16 U.S.C. Sec.742f(a)(1), Fish and Wildlife Act of 1956
5. ". . . 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, if such terms are deemed by the

Secretary to be in accordance with law and compatible with the purpose for which acceptance is sought." 16 U.S.C. Sec.742f(b)(1), Fish and Wildlife Act of 1956

2. Saba Marine Park

The following example illustrates the process that the task force used to draft the management plan. In order to manage the coral reefs, including the use of the resource, the SMP determined the following steps to be necessary:

1. Describe value: The Park contains a wide diversity of species, coral communities and bathymetric features reflecting its volcanic background. The natural diversity found around Saba is unique.
2. Design goal: Preserve the diversity of species found within the SMP
3. Define existing conditions: Good overall – some residual effects of Hurricane George in 1998.
4. Assign indicators of biophysical conditions: water quality, sedimentation, damaged corals
5. Describe standards of acceptable change:
These standards were decided upon by the task force using a combination of local knowledge and previous scientific research when available.
 - water quality – constant values over time
 - sedimentation – 10 mg/cm² for resuspended matter and 10 mg/L for suspended matter.
 - Damaged corals – proportion of damaged corals in high use areas will not exceed 150% (or 200%) of the proportion of damaged corals in low use area at the same site
6. Some Possible Management Actions:
 - Preventive: Educate divers and dive operators on low-impact diving techniques
 - Corrective: If causes of deterioration are unknown, the SMP will initiative active research efforts to determine the cause of negative impacts
 - For diving related issues, meetings with dive operators and guides will become more frequent
 - If impacts are fishing related, the SMP will organize informational meetings for local fishermen to address the specific problem
 - If impacts are yachting related, the SMP will increase patrols and contacts among yacht users to enforce rules and regulations
7. Monitoring plan: technical descriptions of monitoring methods

3. U.S. Forest Service

The Bob Marshall Wilderness Complex (BMWC) in the Northern Rocky Mountains of northwestern Montana developed a Wilderness Recreation Management Direction (RMD) document implementing LAC concepts in 1987. The RMD developed specific

inventories and monitoring requirements as well as minimum resource condition standards, as shown below.

Inventories and Monitoring

- 1) Determine overall use patterns, activities, and levels
- 2) Conduct an extensive social survey
- 3) Inventory trail conditions
- 4) Determine range trend and condition

Resource Condition Standards

- 5) Trail, campsite, and rive encounters with other parties
- 6) Number of human impacted sites
- 7) Occurrences of litter on riverbank
- 8) River recreation use experience quality
- 9) Encounters with other float parties at Schafer Meadows
- 10) Forage utilization
- 11) Aircraft landings at Schafer Meadows airstrip

The compliance with standards was determined; however, many standards were not assessed due to a lack of statistically representative data. The result of the assessment is shown in the table below.

Table 1: Monitoring accomplishments and compliance with standards

| Accomplishment | Monitoring and Condition standard | | | | | | | | | | |
|--|-----------------------------------|---|---|---|---|---|---|---|---|----|----|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| Monitoring Accomplished as planned | | | | | X | X | X | | | | X |
| Incomplete Information | X | X | X | X | | | | X | X | X | |
| Resource standards: mostly attained | | | | | X | | X | | | | |
| Resource standards: partially attained | | | | | | | | | | | X |
| Resource standards: not attained | | | | | | X | | | | | |

The RMD proposed a series of management actions to respond to concerns about current conditions. Such actions are meant to bring the current conditions closer to attaining the minimum standard condition. There are two main categories of management actions – consideration for wilderness conditions and consideration for recreation management. Here are a few examples of such management actions.

Proposed Management Actions

I. Wilderness Conditions

- 1) Retain the indicators and standards described in the RMD
- 2) Establish new LAC indicators and standards for winter use

II. Recreation Management

- 1) Install temporary stock hitchrails or highlines for general public at bottleneck locations
- 2) Limit group size to the current level of 15 people, and reduce livestock numbers from the current 35 animals per group
- 3) Require firepans or fire blankets for all open fires
- 4) Restrict park and saddle stock grazing before September in areas of known excessive forage use
- 5) Inventory outfitter developed trails and evaluate their effects on wilderness conditions
- 6) Continue to emphasize Leave No Trace wilderness education programs

Each alternative management action is subject to the need for environmental assessment, and more actions may be developed in response to public involvement. Once an action has been performed, additional monitoring is required to determine whether the action had the desired effect, i.e., bringing the targeted conditions closer to the minimum standard.