National Park Service
U.S. Department of the Interior

State of the Park Report 2015

Sitka National Historical Park

Alaska

2016

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On the cover: Ranger and park volunteers teaching gardening in front of the Russian Bishop's House, Spring 2014
Photo credit: Brinnen Carter

Disclaimer. This State of the Park report summarizes the current condition of park resources, visitor experience, and park infrastructure as assessed by a combination of available factual information and the expert opinion and professional judgment of park staff and subject matter experts. The internet version of this report provides the associated workshop summary report and additional details and sources of information about the findings summarized in the report, including references, accounts on the origin and quality of the data, and the methods and analytic approaches used in data collection and assessments of condition. This report provides evaluations of status and trends based on interpretation by NPS scientists and managers of both quantitative and non-quantitative assessments and observations. Future condition ratings may differ from findings in this report as new data and knowledge become available. The park superintendent approved the publication of this report.

Executive Summary

The mission of the National Park Service is to preserve unimpaired the natural and cultural resources and values of national parks for the enjoyment, education, and inspiration of this and future generations. NPS Management Policies (2006) state that "The Service will also strive to ensure that park resources and values are passed on to future generations in a condition that is as good as, or better than, the conditions that exist today." As part of the stewardship of national parks for the American people, the NPS has begun to develop State of the Park reports to assess the overall status and trends of each park's resources. The NPS will use this information to improve park priority setting and to synthesize and communicate complex park condition information to the public in a clear and simple way.

The purpose of this State of the Park report is to:

- Provide to visitors and the American public a snapshot of the status and trend in the condition of a park's priority resources and values;
- Summarize and communicate complex scientific, scholarly, and park operations factual information and expert opinion using non-technical language and a visual format;
- Highlight park stewardship activities and accomplishments to maintain or improve the State of the Park;
- Identify key issues and challenges facing the park to help inform park management planning.

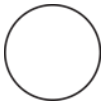
The purpose of Sitka National Historical Park (SITK) is to preserve and interpret, for public benefit, a culturally and historically significant landscape that tells the story of Southeast Alaska Native peoples, signature totemic art forms, the 1804 Battle of Sitka, and Russian exploration and colonization.

Significance statements express why the park unit's resources and values are important enough to warrant national park unit designation. Sitka National Historical Park is significant because:

1. The Battle of 1804: SITK was the site of a significant major armed resistance of Alaska Native people to Russian colonization, and is now the place where the conflicts between two rich and contrasting cultures are interpreted.
2. Totemic Art: SITK preserves and interprets totemic art that showcases the talents and cultures of Native peoples throughout Southeast Alaska.
3. Russia in the New World: SITK features our nation's best example of Russian colonial architecture, the Russian Bishop's House, which stands as a symbol of the enduring influence of the Russian Orthodox Church on Alaska's history and communities.
4. Museum Collections and Partnerships: Through relationships with local Tlingit clans and the Orthodox Church, the park provides museum care, while supporting the traditional use of ceremonial and liturgical objects.
5. Southeast Alaska Native Culture: Sitka National Historical Park fosters the preservation and interpretation of Southeast Alaska Native culture.
6. Indian River Estuary: The convergence of Indian River, the coastal resources, and the sea provides an inspiring, biologically rich environment that is critical to understanding the events that took place here.

The summary table, below, and the supporting information that follows, provide an overall assessment of the condition of priority resources and values at Sitka National Historical Park based on scientific and scholarly studies and expert opinion. The internet version of this report, available at http://www.nps.gov/stateoftheparks/sitk/, provides additional details and sources of information about the resources summarized in this report, including references, accounts on the origin and quality of the data, and the methods and analytical approaches used in the assessments. Reference conditions that represent "healthy" ecosystem parameters and regulatory standards (such as those related to air or water quality) provide the rationale to describe current resource status. In coming years, rapidly evolving information regarding climate change and associated effects will inform goals for managing park resources, and may alter how the trend in condition of park resources is measured. Thus, reference conditions, regulatory standards, and/or park judgment about resource status or trend may evolve as the rate of climate change accelerates and the park responds to novel conditions. In this context, the status and trends documented here provide a useful point-in-time baseline to inform understanding of emerging change, as well as a synthesis to share as SITK builds broader climate change response strategies with partners.

The Status and Trend symbols used in the table below and throughout this report are summarized in the following key. The background color represents the current condition status, the direction of the arrow summarizes the trend in condition, and the thickness of the outside line represents the degree of confidence in the assessment. In some cases, the arrow is omitted because data are not sufficient for calculating a trend (e.g., data from a one-time inventory or insufficient sample size).

Condition Status		Trend in Condition		Confidence in Assessment	
	**Warrants Significant Concern**		**Condition is Improving**		**High**
	**Warrants Moderate Concern**		**Condition is Unchanging**		**Medium**
	**Resource is in Good Condition**		**Condition is Deteriorating**		**Low**

State of the Park Summary Table

Priority Resource or Value	Condition Status/Trend	Rationale
Natural Resources		web ▸
Air Quality		Due to the lack of major local industrial development, relatively low human population density, and close proximity to the Pacific Ocean, the broad-scale air quality in Southeast Alaska is among the best in the world (Dillman et al. 2007). However, even small amounts of pollution can seriously impact visibility and sensitive ecosystem components, air-quality-related values that are important to the general public and park managers (Malm 1999, National Park Service 2006). Mercury levels in mussels from SITK are slightly higher than in Glacier Bay (GLBA), but are still considered low (Tallmon 2011). High polychlorinated biphenyl (PCB) levels were found in mussels and murre eggs in the SITK intertidal zone (Vander Pol et al. 2004, Nagorski et al. 2011, Tallmon 2011). Slightly elevated PAH levels were found in sediment and mussel samples at two sampling sites in/near SITK (Tallmon 2011). Although the air quality in SITK is generally in good condition, mercury and toxin deposition conditions warrant moderate concern. This concern is reflected in a statewide coastal fish consumption advisory and guidelines due to levels of mercury and POPs detected in fish (EPA NLFA 2015, AK H&SS 2014).
Geologic Features and Processes		Riverbank erosion is relatively minimal since stabilization in the mid-1980s. Coastal accretion and isostatic rebound are increasing the coastal area. Some beach areas demonstrate colonization by upland vegetation, indicating uplift above the intertidal zone. The intertidal zone at the mouth of Indian River continues to recover from removal of gravel from the 1930s to 1970s.

Priority Resource or Value	Condition Status/Trend	Rationale
Intertidal Water Quality/Habitat Quality		Generally, there is limited information about the intertidal zone. Individual studies exist that document some information about the intertidal zone. Monitoring is being piloted, as well as a protocol to standardize a method. Sea star wasting is of significant concern and has been found in the Sitka area. Suspected sea star wasting has been identified in SITK. Although the impact is not yet known on the SITK intertidal system, it is a cause for moderate concern.
Freshwater Quality/Habitat Quality (Indian River)		Water quality in general is in good condition and stable, but there is cause for concern because of water withdrawals at low flow periods. These water withdrawals may be detrimental when combined with peak salmon returns. This combination has been demonstrated to coincide with dissolved oxygen levels below the Alaska Department of Environmental Conservation's 7 mg/l standard for anadromous streams.
Hydrology (Indian River)		The hydrology of the Indian River has been studied fairly well for several years through NPS monitoring as well as through other associated efforts. There are many concerns over the flow rate and the amount of water diversion upstream of the park. Of significant concern are the low flow rates during periods of low rainfall and the lengths of time the river falls below the Alaska Department of Fish and Game in-stream flow reservation for healthy anadromous streams.
Land Birds		Currently, there is insufficient survey information to address the question of whether species diversity in the park is close to the maximum richness of surrounding lands. However, due to the proximity of the park to large extents of undeveloped lands, it is likely that species richness and diversity reflects that of the surrounding Tongass National Forest lands and should be studied in concert with them. One external factor is development near the park, which has potential to introduce domestic predators (e.g., cats and dogs) to the park's land bird populations. Breeding Bird Survey and Christmas Bird Count data suggest that species diversity and numbers are relatively stable.
Coastal Waterbirds		The average number of coastal bird species identified annually during the SITK Christmas Bird Count (CBC) from 1974–2010 is 35. The average number of individuals identified during the SITK CBC from 1974–2010 was 2,573. From the 36 years of data, it appears that the species diversity has ranged between 31 and 41 species over the entire period, and only moved below that range in 1983–84 and 1985–86. Yellow-billed loon numbers (a transitory species to the park) are decreasing and the ranges of other coastal birds are shifting, which may have a negative effect on the overall condition of coastal waterbirds in the near future.
Anadromous and Non-anadromous Freshwater Fish		Pink salmon straying into the Indian River from the Sitka Sound Science Center hatchery is a significant concern for the river ecosystem. Straying rates are currently being monitored and measured rates significantly exceed the 2% indicated in the Sitka Sound Science Center hatchery operation permit. Freshwater fish are currently being monitored for contaminants and PCB levels are slightly elevated relative to the rest of the Southeast Alaska parks, but are still well below the concern level for biological impact.
Forests		Although mature forests are generally in good condition, the regeneration processes for native species is negatively influenced by informal trails, deer browsing, and the maintenance of formal trails and cultural landscapes. Although there is some concern about the introduction of non-native forest pests, the overall status of forest pathogens has remained of relatively low concern (Stark et al. 2012:112).
Dark Night Sky		Although the park has not had a baseline night sky evaluation, the east side of the park adjoins a commercial/industrial district that has a large number and very intrusive placement of high-pressure sodium lights for security.

Priority Resource or Value	Condition Status/Trend	Rationale
Acoustic Environment		A baseline study of the soundscape of SITK has not been completed, either for airborne or aquatic sounds. However, anecdotal observations on the east side of the park indicate there are ongoing soundscape impacts due to the adjacent Sawmill Creek Road, an arterial connector road for the City and Borough of Sitka, with a current average daily traffic volume (ADTV) of between 9,100 and 9,600 (Transportation Engineering NorthWest, LLC 2006). In addition to vehicle traffic, the City and Borough of Sitka installed diesel turbine backup generators in the Jarvis Street electrical substation adjacent to the park. Urban sounds around the Russian Bishop's House are a concern, as well as aquatic sounds across the park's 43 acres of intertidal lands. The soundscape of the park has also been modeled using standard procedures. The modeled mean acoustic impact level (L50 dBA), a measure of noise contributed to the existing acoustic environment by man-made sources, is 2.4 dBA in SITK, meaning that the condition of acoustic resources warrants moderate concern. Overall, long-term projected increases in ground-based transportation and aircraft traffic indicate a downward trend in the quality of acoustic resources in the park, as does an increase in development and tourism (McDowell 2014).
Cultural Resources		**web** ▸
Archeological Resources		A complete, recent survey of the Totem Unit (Hunt 2010) has largely delineated and determined the eligibility of sites in 54 acres of the 55.5 acres administered by the park. Compliance-driven work around the Russian Bishop's House, the Old School, and the Priests' Quarters has demonstrated that those archeological resources—although in poorer condition than those in the Totem Unit—can contribute to an understanding of the Russian Bishop's House and contribute to the site's National Historic Landmark designation under Criteria D. Notable areas for further research include better location of Shis'ki-Noow, the wooden Kiks'adi Fort, through remote sensing across a broader area and research-driven excavations on the Russian Bishop's House grounds.
Cultural Anthropology/ Sociology		Most of the park's cultural anthropological/sociological studies are dated. Scholarly work conducted by outside scholars, most notably Anóoshi Lingít Aaní Ká (Dauenhauer et al. 2008), have improved the quality of both source material and cultural anthropological knowledge about the park. These works need to be adapted by the park to improve overall knowledge of the park's affiliated clans and Tribe, oral histories, and the interpretation of these resources to the general visiting public.
Cultural Landscapes		The two documented landscapes in the Cultural Landscape Inventory are in fair condition. The Russian Bishop's House is in fair condition due to modern intrusions into the historic scene by surrounding developments. The Indian River Park cultural landscape is in fair condition due to a combination of unmaintained landscape elements surrounding prominent resources (e.g., open vistas and clear areas around totems on Totem Trail) and the fact that a significant historic feature—the 1804 Battlefield—is being lost due to succession. Four other potentially significant landscapes have not been scheduled for study, evaluation, determination of eligibility, or listing on the National Register.

Priority Resource or Value	Condition Status/Trend	Rationale
Historic Structures		Due to a combination of the limited number of historic structures in the park and the historical importance of the structures, the overall condition of the historic structures, knowledge of their construction and maintenance, and the data available about their condition, are all good to excellent. Maintenance of the Russian Bishop's House as a National Historic Landmark has been good on an on-going basis. Adaptive reuse and occupation of the Old School and Priests' Quarters has led to their excellent maintenance and the immediate identification of maintenance issues. The main visitor's center has been well-maintained since its construction during Mission 66, and both the construction and renovations of the structure are well-documented. Finally, the park's totem poles have been both maintained on an ongoing basis, and re-carved when deterioration made ongoing maintenance impossible. Only one is in serious condition and funds are programmed in FY 2015 for re-carving that totem.
History		For a National Historical Park, the condition of the history program and the status of baseline historical documents are fair. The park's historic context studies are either older (outdated) or they do not exist. Most history research about the primary historical themes interpreted by the park is conducted at universities or by organizations only tangentially affiliated with the park. Current management efforts at the park are directed at correcting these deficiencies through employee details, shared academic resources, and a "Scholars-in-Parks" program, as well as project requests submitted to the appropriate funding sources to conduct critical historic context and historic resource studies.
Museum Collections		Although there are some significant vulnerabilities to the current storage of museum collections, the museum collection and associated records are generally in fair to good condition. Although a significant number of museum objects need to be cataloged, progress is currently being made on that task. The current significant vulnerabilities include the recent identification of the main facility as being in a projected tsunami zone (Suleimani et al. 2013; City and Borough of Sitka 1999, 2010), as well as security and fire systems that don't effectively address emerging risks to the collection (Akana 2015).
Visitor Experience		web ▸
Number of Visitors		The total of 161,157 visitors to the park in 2013 is lower than that of 2011 (186,864) and 2012 (195,157) and also lower than the 10-year average of 253,545 visitors for 2003–2012. This notable reduction is the direct result of the decreased number of cruise ships that come to Sitka. This trend is likely to start reversing itself since three new cruise lines will be coming to Sitka in 2015 (Princess, Disney, and Norwegian). Also, with improved trail counter data, the park will be able to more accurately account for the number of visitors using the trails but bypassing the visitor center. This will have a notable positive impact on recorded visitor numbers, as well as improve their overall accuracy. The park does have a sizeable number of regular local visitors that use the park for a variety of recreational and community purposes on a daily-to-weekly basis.
Visitor Satisfaction		Based on the standard visitor satisfaction survey conducted each year, the percentage of visitors satisfied in FY13 was 99.0%, which is slightly higher than the average for the previous five years (98.6%) and ten years (98.6%). Source: 2013 Visitor Survey Card Data Report

Priority Resource or Value	Condition Status/Trend	Rationale
Interpretive and Education Programs – Talks, Tours, and Special Events		The average number of interpretive programs and education programs, as well as participation in these programs, has been trending upward over the past five years. The hiring of a new staff member dedicated to local outreach and education has had a significant positive impact on education numbers. The new SITK junior ranger book debuted in 2014 and junior ranger program attendance has skyrocketed as a result.
Interpretive Media – Brochures, Exhibits, Signs, and Website		The park installed new wayside exhibits in 2014. The exhibits were done in consultation with the Sitka Tribe of Alaska and reflect goals of both the Sitka General Management Plan and Foundation Statement. All of the park's primary exhibits are at least 15 years old, with some being almost 30 years old. All of the exhibits are in need of upgrading as a result of both accessibility and content concerns. Park directional signs were installed in 2014–2015, but greater wayfinding will be needed when the Sea Walk is completed. The park's website is in good shape and will continue to improve in advance of the National Park Service Centennial.
Scenic Resources		Many visitors come to SITK for its iconic views of Sitka Sound, Mt. Edgecumbe, fish and wildlife viewing, and the O'Connell Bridge. Scenic views are important to the visitor experience. Views are considered pristine with little degradation over the last 5 years.
Accessibility		The 2011 Accessibility Report identified areas of needed improvement. Since that date, the park has been working diligently to address suggestions and make improvements where necessary.
Safety		SITK continues to place significant emphasis on visitor safety. Potential hazards are mitigated quickly and the number of accidents remains low. Operational Leadership Training has been completed by park staff, and CPR, First Aid, and AED training are offered to staff on a space available basis. Job Hazard Analysis is conducted before work is done, throughout the park. Regular safety messages are given and distributed to staff members.
Partnerships		The volunteer program has evolved considerably over the last 5 years. Volunteer hours have increased from 2,692 in 2010 to 6,121 in 2014. The number of volunteers has shifted over time as SITK has seen a marked shift toward residential and longer-term volunteers. Renewed emphasis has also been placed on hiring local volunteers to assist with resource and interpretive programming. The park maintains an extensive number of official and unofficial partnerships that strengthen the connection between the park and community.
Park Infrastructure		web ▸
Overall Facility Condition Index		Park infrastructure is well-cared-for, despite the loss of a permanent, full-time maintenance position in 2012, and another maintenance position being converted to subject-to-furlough. Active projects include replacing the Indian River Pedestrian Bridge (now 50 years old), performing cyclic maintenance on the park's totem poles, repairing the Russian Bishop's House north wall, completing the Sitka Sea Walk to the main park visitor center, replacing a deteriorated maintenance shed, and evaluating the park and surrounding transportation networks to improve visitor safety entering and leaving the park.

Summary of Stewardship Activities and Key Accomplishments to Maintain or Improve Priority Resource Condition

The list below provides examples of stewardship activities and accomplishments by park staff and partners to maintain or improve the condition of priority park resources and values for this and future generations:

Natural Resources

- The park continues to work closely with the Southeast Alaska Network (SEAN) to implement the inventory and monitoring of vital signs across a broad range of environmental variables (Moynahan 2008).
- NPS biologists continue to study pink salmon straying rates from the adjacent Sitka Sound Science Center hatchery (Gende 2014). This study will likely continue into 2016. The objective is to establish what long-term trends in pink salmon straying are and how they might affect the environmental quality of the Indian River.
- Conducted a "State of the Indian River" meeting in September 2014 to review and summarize water rights, allocations, and anadromous fish stocks. A follow-up management meeting is planned for 2015.

Cultural Resources

- The park is re-establishing a history program as part of the SITK Resource Division.
- Developed a History Research Plan (Allan 2015).
- Participated in the Maintained Cultural Landscape pilot program with the NPS Washington Office Cultural Landscape Program to improve maintenance of key landscapes.
- Completed a Cultural Landscape Inventory for the Russian Bishop's House (Welzenbach 2012).
- Sponsored the National Preservation Institute workshop for cultural landscape training in 2015.

Visitor Experience

- Developed a Cooperative Agreement with the Sitka Tribe of Alaska for a demonstration arts program to be run in conjunction with the Sitka Tribe of Alaska.
- Installed all new waysides in 2014 and directional signs in 2015. The waysides will be fully audio-described by summer of 2016.
- The SITK centennial in 2010/2011 included the presentation of a Centennial Ravenstail robe from Tlingit artist Teri Rofkar in March 2010, an E.W. Merrill photographic exhibit in April 2010, Tlingit-Alutiiq Cultural Sharing event in June 2010, the International Conference on Russian America in August 2010, Alaska Day celebrations on October 18th, 2010, and the raising of the Centennial Pole in April 2011.
- Held Yaaw Khusge Yaa Woogoo—Knowledge of Herring Camp. This collaborative project began in 2014 and is done in close coordination with the Sitka School District and Sitka Native Education Program.

Park Infrastructure

- The park continues to conduct general maintenance and upkeep of the Russian Bishop's House, which was constructed in 1842. The National Park Service invested over 6 million dollars rebuilding this historic structure, which is one of only 4 remaining buildings from Russian colonization in America—and the best preserved.
- The park continues to conduct work to preserve and protect the park's totem poles, so future generations can enjoy seeing these great works of art carved by Alaska Natives.
- The park continues to maintain the Mission 66 Visitor Center and two other historic structures to high standards so all can enjoy.
- Initiated a series of totem pole re-carving projects to replace deteriorated poles at the end of their lifecycles.

Summary of Key Issues and Challenges for Consideration in Management Planning

1. Visitor Understanding and Experience

The park's 1972 enabling legislation directs the NPS to "preserve in public ownership for the benefit and inspiration…an area which illustrates the early history of the United States by commemorating czarist Russia's exploration and colonization of Alaska…" However, the broad theme of Czarist Russia's exploration and colonization of Alaska has largely been overlooked. The park's interpretive focus for this core mission has been almost exclusively limited instead to the history and reconstruction of the Russian Bishop's House, and its use by Bishop Innocent.

Exhibits

SITK has two public museum spaces. Both the Visitor Center and the Russian Bishop's House exhibits are 30 years old and urgently need updating in content and style.

Multimedia

SITK offers a film: "The Voices of Sitka." While it is a popular interpretive tool, the film is old, is dated in content, and does not reflect contemporary audio or video quality.

Cruise Ship Visitors

100,000 or more cruise ship visitors disembark at Sitka from May through September have a limited amount of time in port, and may or may not choose to visit the park, even if they are aware the park is here. Cruise ship companies have been reluctant to heavily promote activities that might encourage their passengers to spend time away from the commercial enterprises in Sitka to which they have commercial ties.

Local Visitors

Sitka has nearly 9,000 year-round residents who live within a seven-mile radius of the park. The park has under-realized the opportunity to capture local visitors through more innovative, locally-focused programs.

2. Tlingit Integration into the Park

A challenge remains to integrate Tlingit culture and presence into the park's interpretive programming, even though it was called for 20 years ago in the SITK General Management Plan.

Southeast Alaska Indian Cultural Center

In 2010 the NPS did not renew its agreement with the Southeast Alaska Indian Cultural Center (SEAICC). Without NPS support, SEAICC dissolved. This resulted in a great loss to the park's visitor experience and local outreach—damaging the park's relationship with many Alaska Native entities.

3. Natural Resources

Indian River Water Rights and the Associated Ecological Impact of Sitka Sound Science Center's Indian River Diversion

Indian River water rights and the ecological impact of Sitka Sound Science Center's (SSSC) water diversion from Indian River are major decades-old issues that represent the greatest single threat to the park's natural resources. The Alaska Department of Natural Resources (ADNR) has delayed abandoning the SSSC water right.

Biological Inventory

The park needs a more complete biological inventory of its terrestrial, tidelands, and riparian areas.

4. Cultural Resources

Tsunami Zone

In 2013, the State of Alaska determined that the park's curatorial facility (and main visitor center) was within a tsunami inundation zone (Suleimani et al. 2013).

Loan Agreements

The park has multiple loan agreements with local Tlingit clans for storage and safekeeping of clan objects. The oldest loan agreement has problematic conditions, requiring universal consent of unnamed and unspecified heirs.

Cultural Landscape
The park has suffered from benign neglect of its vegetation in three primary areas and consequently has compromised at least two of its primary assets.

Historical Research
The park needs to develop a more active historical research program, in order to achieve its mission to tell the story of Russian America.

Ethnographic Research
SITK has collected little information about the Kiks.adi or the Tlingit, which has limited the park's ability to effectively communicate the significance of the park to visitors.

5. Infrastructure

Sitka National Historical Park is critically short of office and work space. Existing offices are generally in small and widely-dispersed facilities. The operational efficiency and cohesiveness of the extremely small staff (13 FTEs) is further hampered by being located at five different work sites.

Maintenance Facility
SITK's main maintenance facility is in a commercially-zoned strip mall approximately 0.5 mi from the SITK Visitor Center and 1 mile from the Russian Bishop's House. The neighboring space in the mall has been leased to a tenant who intends to sell marijuana from the site. The building signs will display the NPS Arrowhead next to the logo of the marijuana store. This is neither an appropriate nor inspiring public portrayal of the National Park Service.

Visitor Center Renovation
The SITK Visitor Center underwent a major renovation in 2000 and 2001. Although the work resulted in some improvements—including the addition of indoor totem exhibit—it also produced structural, facilities, and space issues that remain today.

Housing
The park does not own any housing, although affordable housing is critical to the park's operational efficiency.

Transportation
The park is planning to extend a pedestrian Sea Walk to the Totem Unit's front entrance. Progress is being made slowly towards completing this connection. The most serious safety issue for park visitors is use of an unmarked pedestrian crossing on Sawmill Creek Road to access the Alaska Raptor Center.

6. Park Planning

In 2014 the park did a review of the 1998 General Management Plan (GMP) which clearly demonstrated the existing GMP to be a valuable and relevant management document; many of the core recommendations of the GMP have not been realized.

Chapter 1. Introduction

The purpose of this State of the Park report for Sitka National Historical Park (SITK) is to assess the overall condition of the park's priority resources and values, to communicate complex park condition information to visitors and the American public in a clear and simple way, and to inform visitors and other stakeholders about stewardship actions being taken by park staff to maintain or improve the condition of priority park resources for future generations. The State of the Park report uses a standardized approach to focus attention on the priority resources and values of the park based on the park's purpose and significance, as described in the park's Foundation Document or General Management Plan. The report:

- Provides to visitors and the American public a snapshot of the status and trend in the condition of a park's priority resources and values.
- Summarizes and communicates complex scientific, scholarly, and park operations factual information and expert opinion using non-technical language and a visual format.
- Highlights park stewardship activities and accomplishments to maintain or improve the state of the park.
- Identifies key issues and challenges facing the park to inform park management planning.

The process of identifying priority park resources by park staff and partners, tracking their condition, organizing and synthesizing data and information, and communicating the results will be closely coordinated with the park planning process, including natural and cultural resource condition assessments and Resource Stewardship Strategy development. The term "priority resources" is used to identify the fundamental and other important resources and values for the park, based on a park's purpose and significance within the National Park System, as documented in the park's foundation document and other planning documents. This report summarizes and communicates the overall condition of priority park resources and values based on the available scientific and scholarly information and expert opinion, irrespective of the ability of the park superintendent or the National Park Service to influence it.

SITK is situated in the community of Sitka, Alaska, which lies on the outer shore of Baranof Island in southeast Alaska, about 100 air miles southwest of Juneau. The park preserves historically and culturally significant sites and artifacts related to the 1804 Battle of Sitka between Tlingit and Russian forces, the Russian-American period in Alaska, and the Native people of Southeast Alaska.

Much of the land now in the park was originally dedicated as a public park by President Benjamin Harrison on June 21, 1890. On March 23, 1910, President William Howard Taft signed a proclamation designating Sitka National Monument, which added several tracts of land. On February 25, 1952, President Harry Truman signed a similar proclamation that readjusted the boundary. In 1972 President Richard Nixon signed Public Law 92-510. This expanded the designated area, added the Russian Bishop's House, and changed park's designation from national monument to Sitka National Historical Park, emphasizing preservation through public ownership of an area that illustrates a part of early U.S. history by commemorating czarist Russia's exploration and colonization of Alaska.

The park consists of two units comprising approximately 113 acres, including 49.5 acres of tidelands that are within the authorized boundary. The Fort Site Unit includes the visitor center, which houses park headquarters. This unit also contains the Indian River Cultural Landscape: the Totem Trail, adjoining trails, the site of the historic Kiks.adi Tlingit fort, the battleground of the 1804 Battle of Sitka, the Survival march Memorial, the K'alyaan Memorial Totem, and the Russian Memorial.

The Russian Bishop's House Unit, near Sitka's central business district, contains the Russian Bishop's House National Historic Landmark and two adjacent historic buildings: the Priests' Quarters and the Old School (formerly a school operated by the Russian Orthodox Church). The Russian Bishop's House is one of only four remaining examples of Russian colonial architecture in North America.

The purpose of SITK is to preserve and interpret, for public benefit, a culturally and historically significant landscape that tells the story of Southeast Alaska Native peoples, signature totemic art forms, the 1804 Battle of Sitka, and Russian exploration and colonization.

SITK is significant because:

1. **The Battle of 1804**: SITK was the site of a significant major armed resistance of Alaska Native people to Russian colonization, and is now the place where the conflicts between two rich and contrasting cultures are interpreted.
2. **Totemic Art**: SITK preserves and interprets totemic art that showcases the talents and cultures of Native peoples throughout southeast Alaska.
3. **Russia in the New World**: SITK features our nation's best example of Russian colonial architecture, the Russian Bishop's House, which stands as a symbol of the enduring influence of the Russian Orthodox Church on Alaska's history and communities.
4. **Museum Collections and Partnerships**: Through relationships with local Tlingit clans and the Orthodox Church, the park provides museum care for ceremonial and liturgical objects, while supporting their traditional use.
5. **Southeast Alaska Native Culture:** Sitka National Historical Park fosters the preservation and interpretation of Southeast Alaska Native culture.
6. **Indian River Estuary:** The convergence of Indian River, the coastal resources, and the sea provides an inspiring, biologically rich environment that is critical to understanding the events that took place here.

Map of the Park

Chapter 2. State of the Park

The State of the Park is summarized below for five categories— Cultural Resources, Natural Resources, Visitor Experience, Park Infrastructure, and Subsistence—based on a synthesis of the park's monitoring, evaluation, management, and information programs, and expert opinion. Brief resource summaries are provided below for a selection of the priority resources and values of the park. Clicking on the web ▸ symbol found in the tables and resource briefs below will take you to the internet site that contains content associated with specific topics in the report.

The scientific and scholarly reports, publications, datasets, methodologies, and other information that were used as the basis for the assessments of resource condition are referenced and linked throughout the report and through the internet version of this report that is linked to the NPS IRMA data system (Integrated Resource Management Applications). The internet version of each report, and the associated workshop summary report available from the internet site, provide additional detail and sources of information about the findings summarized in the report, including references, accounts on the origin and quality of the data, and the methods and analytical approaches used in data collection and the assessments of condition. Resource condition assessments reported in this State of the Park report involve expert opinion and the professional judgment of park staff and subject matter experts involved in developing the report. This expert opinion and professional judgment derive from the in-depth knowledge and expertise of park and regional staff gained from their being involved in the day-to-day practice of all aspects of park stewardship and from the professional experience of the participating subject matter experts. This expert opinion and professional judgment utilized available factual information for the analyses and conclusions presented in this report. This State of the Park report was developed in a park-convened workshop, followed by extensive research and writing by park, regional, and Natural Resource Stewardship and Science staff members.

The cultural resources, visitor experience, and facilities, statuses and trends detailed in Chapter 2 represent—by-in-large—the documented conditions derived from individual, resource-based databases maintained by the National Park Service in 2015. These statuses and trends may have changed slightly by the time this report is published. The natural resources statuses and trends documented in Chapter 2 provide a useful point-in-time baseline measured against reference conditions that represent "healthy" ecosystem parameters, or regulatory standards (such as those related to air or water quality). Note that these reference conditions and judgment about resources conditions and trends may evolve as the climate changes and human societies respond to new conditions.

Climate-derived weather has an impact on many aspects of park management, from ecosystems to park infrastructure. The climate is changing and human influence is now detectable throughout the Earth's ecosystems (IPCC 2013). Human effects on climate are even more pronounced in high latitudes and polar regions (Larsen et al. 2014). Alaska's average air temperatures have increased by 3 °F and average winter temperatures by 6 °F in the last 60 years, twice the rate as the rest of the United States (Chapin et al. 2014). The observed impacts include declining Arctic sea ice, shrinking glaciers, thawing permafrost, changing ocean temperatures and chemistry, increased coastal erosion, and more extensive insect outbreaks and wildfire (e.g., Larsen et al. 2014, Chapin et al. 2014, Markon et al. 2012).

Although Alaska is warming, interpreting climatic indicators is complicated. Climate and weather in Alaska is dynamic and nonlinear, with strong linkages to the position of the polar jet stream and El Niño events, among other factors (Papineau 2003). An important climate pattern is the Pacific Decadal Oscillation (PDO). Much of the recent warming occurred as a stepwise shift in 1976, attributed to a shift to a warm-phase PDO (Chapin et al. 2014, Bieniek et al. 2014). The recent shift back to a cool-phase PDO is associated with regionally cooler temperatures, with the exception of the North Slope (Bieniek et al. 2014). Nonlinear responses and regional variations will likely continue as the planet adjusts to global warming (IPCC 2013, Larsen et al. 2014). Data from national parks will continue to contribute to understanding both the drivers and effects of climate change.

At Sitka, the climate is expected to become warmer and drier over the next century (SNAP et al. 2009). Changes in climate will likely affect the park in several ways, including changes in hydrology, water quality, plant productivity and distribution, and wildlife ranges. The park will anticipate plausible—but unprecedented—conditions and some surprises, and will incorporate climate considerations in decision processes and management planning.

2.1. Natural Resources

Air Quality

web

Indicators of Condition	Specific Measures	Condition Status/Trend	Rationale
Deposition of Airborne Toxins	Mercury/Toxics Deposition		Toxic contaminants may enter the ecosystem from waterborne sources, or both regional and global airborne sources such as cruise ships, fugitive ore dust, and trans-Pacific transport (Pacyna and Pacyna 2002, Landers et al. 2008, Moynahan et al. 2008). Media including sediment, lichen, mussels, murre eggs, fish, and wet deposition have been assessed for toxic contaminants in and adjacent to SITK (Stark et al. 2012, Schirokauer et al. 2014). Although mercury levels in mussels from SITK are slightly higher than samples from Glacier Bay National Park and Preserve, mercury levels are still considered low (Tallmon 2011). High polychlorinated biphenyl (PCB) levels were found in mussels and murre eggs in the SITK intertidal zone (Vander Pol et al. 2004, Nagorski et al. 2011, Tallmon 2011). While generally low levels of polycyclic aromatic hydrocarbons (PAHs) were detected in mussel samples throughout Southeast Alaska, elevated PAH levels were found in sediment and mussel samples at two sampling sites in/near SITK (Tallmon 2011). Although no trend information is available because there are not sufficient on-site or nearby mercury wet deposition monitor data, mercury and toxin deposition conditions warrant moderate concern. This concern is reflected in a statewide coastal fish consumption advisory and guidelines due to levels of mercury and persistent organic pollutants (POPs) detected in certain species and sizes of fish (EPA NLFA 2015, AK H&SS 2014).
Visibility Unaffected by Human-caused Factors	Haze Index		Based on professional judgment the park feels visibility is in good condition, especially in regard to effects of haze. No scientific trend information is available because there are not sufficient on-site or nearby ozone monitoring data or other data that could be extrapolated to assess haze effects over the long term.

Geologic Features and Processes

web

Indicators of Condition	Specific Measures	Condition Status/Trend	Rationale
Riverbank Erosion	Amount of bank loss		There is limited data on erosion from riverbank erosion monitoring transects. Erosion since riverbank stabilization in the mid-1980s has been minimal (1998 - SITK Indian River Bank Erosion Transects). Permanent posts mark each end of the transects, and geographic coordinates of posts and transects are recorded on a GPS unit biannually by SITK staff to monitor rates of erosion. This monitoring indicates low levels of river bank loss. Flooding on August 18, 2015 may have caused as-yet-undocumented erosion.
Coastline Accretion	Accretion rate		Geospatial data over the last 15 years indicates ongoing coastline accretion and isostatic rebound. Using the geospatial dataset of coastlines, the coastline is accreting in several places (1998 - SITK Coastline). This data was derived from AutoCAD drawing files produced for the Mining and Planning Programs in the National Park Service Alaska Regional Office.

Intertidal Water Quality/ Habitat Quality

web

Indicators of Condition	Specific Measures	Condition Status/Trend	Rationale
Pollutant Levels	Mercury, persistent organic pollutants (POPS), polycyclic aromatic hydrocarbons (PAHs), organic fuel discharges and spills		Although most of these common pollutants occur at relatively low levels within the park both relative to levels in other parts of the United States and to other areas in the local community (Tallmon 2011:13), increasing private boat and cruise ship traffic adjacent to the park have increased the potential for the park to be exposed to both purposeful and accidental discharges. Recent diesel spills from the Jarvis Street Substation and fishing vessels have come very close to park tidelands.
Species Density and Diversity	Number of species and percent cover		Development of the intertidal monitoring protocol is moving forward with measures of percent cover and species. The species and percent cover are indicators of changing habitat within the intertidal zone. Algal species cover is significant, as is the location of mussel beds within the intertidal zone. Pilot studies for the development of the protocol for looking at these changes, but natural variability is not addressed as of yet and requires more monitoring time (Jones 2014). MARINe is a protocol that isn't directly associated with the SITK intertidal, but is being done in the area, and results from this may also be used as an inference for the area as a whole (Engle 2008).

Intertidal Water Quality/ Habitat Quality (continued)

web

Indicators of Condition	Specific Measures	Condition Status/Trend	Rationale
Sea Stars	Sea star abundance		Sea stars (a.k.a. starfish or Asteroidea) are top predators in the intertidal zone. Changes in the abundance of sea stars can indicate changes in the intertidal system. A recent outbreak of sea star wasting disease is cause for concern within the park. The disease is present in Sitka, and is suspected in the park. The abundance of sea stars is being included in the SEAN I&M intertidal monitoring recommendations and pilot monitoring has taken place, with a decrease in abundance seen between years. However, the natural variability has not been established at this site, and there have been only two sampling periods, so there is very little data to back up any identified decline.
Salinity	Average tidal cycle salinity		The freshwater outflow of the Indian River influences the intertidal zone. Changes in the intertidal salinity affect the types and species living in the intertidal zone. Changes to the discharge of the Indian River may influence the species distribution in the intertidal zone in SITK. Long-term measurements of the salinity are currently being measured as part of the intertidal monitoring pilot work. Long-term trends in the freshwater input into the intertidal zone may be affected by projected long-term changes in precipitation.
Non-native Fauna	Presence of European green crab, *Didenum vexillum (D. vex)*, and other non-native species		*D. vex* has been identified in Whiting harbor in Sitka. To date this invasive species has been contained and is being removed from the site. *D. vex* can overgrow and smother other benthic organisms in the system. European green crabs are slowly moving north along the Canadian coast towards Southeast Alaska. There is significant concern for cruise ship ballast water as a transport vector. Cruise ships currently moor less than 500 yards from SITK. Active monitoring for this species is being conducted by the Sitka Sound Science Center. To date none have been found. There are several other terrestrial and aquatic non-native species in the area that need to be watched for in the park.

Resource Brief: Intertidal Monitoring

Park staff members check on, and download data from, a temperature logger (photo by Katy Kildee)

The park is currently working with the NPS Alaska Regional Office to inventory and monitor a set of environmental variables that will inform park managers and the public about the changing environmental health of the intertidal zone in the park. Scientists at the Alaska Regional Office have worked with NPS resource staff members, SCA interns, and both Volunteers-in-Parks and International Volunteers-in-Parks to characterize the intertidal environment systematically along two major transects. There are currently four temperature loggers and four conductivity loggers deployed to capture information that complements marine contaminant information collected by the NPS Southeast Alaska Inventory and Monitoring Network (NPS/SEAN). Intertidal characterization work is based on the established MARINe protocols; this work captures information about sea star health and vegetation cover, and assists the park in detecting invasive species like the tunicate *D. vex* and European green crabs.

Freshwater Quality/Habitat Quality (Indian River)

web

Indicators of Condition	Specific Measures	Condition Status/Trend	Rationale
Dissolved Oxygen	7 mg/l threshold (Alaska water quality standard)		Alaska Department of Environmental Conservation (DEC) established water quality standards indicate oxygen levels throughout the year should always remain above 7 mg/l, even during low flow periods, to support biological uptake in anadromous streams (Indian River is an anadromous stream). 2013 measurements by SEAN I&M network indicated values consistently below this level with occasional measurements below 2 mg/l, which does not support aquatic life. The SEAN I&M network continues to monitor this parameter.
Water Quality	Alaska DEC water quality standards		Alaska DEC established water quality standards for pH, temperature, and turbidity. The Indian River meets these standards. SEAN I&M monitoring has gathered water quality data since 2007.

Hydrology (Indian River)

web

Indicators of Condition	Specific Measures	Condition Status/Trend	Rationale
Instream Flow Reservation	Length of time below ADF&G instream flow reservation		Instream flow reservations are important for fish survival and habitat quality. The Alaska Department of Fish and Game (ADF&G) has established flow reservations, and the amount of time that the flow reservations are not met is a critical indicator of stream habitat quality. ADF&G and Alaska Department of Natural Resources (DNR) have noted at meetings with Indian River water rights holders that they are concerned that instream flow reservations are being unmet for sufficient periods to be concerned with withdrawal rates and timing. Upstream diversions restrict the volume of water flow during critical, low-flow periods.
Flow Rates	Low flow discharge rate		Sufficient streamflow rates in the Indian River are critical for all system constituents. Low flow generally occurs in late summer, which coincides with returns of pink, chum, and coho salmon. Water diversion from the river limits water quantities passing through the park, especially during low flows. Limitation of water flows during periods of low rainfall poses significant concerns for river ecosystem functions. SEAN I&M and the Alaska Department of Natural Resources monitor river level, which—combined with current stream rating curves—can give an indication of river discharge. However, channel instability creates challenges for this process by changing streambed geometries. Current results indicate occasional low flow levels that warrant concern (below 30 cfs) when compared with levels the State of Alaska has determined are sufficient ecological flows for the Indian River.

NPS SEAN I&M scientist and Alaska Department of Natural Resources hydrologist install the telemetry package on the Indian River stream gauge (photo by Brinnen Carter)

Resource Brief: Online Gauge Installation

Recently, SITK has worked cooperatively with the National Weather Service, the City and Borough of Sitka and both the Alaska Department of Natural Resources and Department of Fish and Game to install “real-time” monitoring of the flow of Indian River. The park has cooperatively monitored both the streamflow and basic water quality measures of the river from 2008 to present; this effort has given managers and the public better “real-time” information about how the river responds to rain and snow events. Currently the river is undergoing a streamflow discharge study to correlate observed river heights with stream discharges in cubic feet per second (cfs). When this is complete, both river height and accurate discharge rates will be available on an ongoing basis.

Land Birds

web

Indicators of Condition	Specific Measures	Condition Status/Trend	Rationale
Species Diversity	Species richness and diversity		Currently, there are not sufficient survey data to address the question of whether species diversity in the park is close to the maximum richness of surrounding lands. However, due to the proximity of the park to large extents of undeveloped lands, it is likely that species richness and diversity reflects that of the surrounding National Forest lands and should be studied in concert with them. One external factor is development near the park that has potential to introduce domestic predators (e.g., cats and dogs) to the park's land bird populations. The Breeding Bird Survey, conducted between 2000 and 2010, indicates that there is neither an increasing nor decreasing trend in species richness over time (Stark et al. 2012). There may be undetected changes in species richness of native species compared to non-native species, or in Neotropical migrant species compared to resident species. In the Christmas Bird Count data, there is no discernible increasing or decreasing trend for the duration of the survey (Stark et al. 2012).
Species of Concern	Change in abundance of species of concern		Despite having several species of conservation concern within SITK boundaries, both the baseline and trend data for these species are inadequate for assessing this measure's condition at this time (Stark et al. 2012:61).

Resource Brief: Christmas Bird Count

The Christmas Bird Count, an annual bird survey that takes place during a 24-hour period between December 14th and January 5th, provides annual data on avian species and their abundance within the park and throughout Sitka. The inaugural Sitka Christmas Bird Count took place in 1974, and has been an annual occurrence within the park since its inception. The bird count relies on members of the public to volunteer and identify bird species and their abundance within a predetermined location. The results of the survey are partially dependent on the number of participants and participant expertise. The average participation in the Christmas Bird Count within the park is 4 visitors. The average number of bird species identified during the Christmas Bird Count from 1974–2010 is 22.4. There has been no noticeable fluctuation in the number of land bird species identified and their abundance during the Sitka count.

Visitors observing bird species in the Indian River estuary (photo by Ryan Carpenter)

Coastal Waterbirds

web

Indicators of Condition	Specific Measures	Condition Status/Trend	Rationale
Species Diversity	Species Richness and Diversity		The average number of coastal bird species identified annually during the SITK Christmas Bird Count (CBC) from 1974–2010 is 35. The average number of individuals identified during the SITK CBC from 1974–2010 was 2,573. From the 36 years of data, it appears that the species diversity has ranged between 31 and 41 species over the entire period, and only moved below that range in 1983–84 and 1985–86. The park's Natural Resource Condition Assessment (Stark et al. 2012) cautions that these data are highly subject to individual effort.
Species of Concern	Change in abundance of yellow-billed loon		There are records of the yellow-billed loon from the annual CBC in the park. Observations have been sporadic (Stark et al. 2012:75), and most of the observations from the CBC occurred between 1984 and 1993. Since 1993, the yellow-billed loon has only been observed in six (35%) of the 17 CBCs. While not enough to establish a strong trend, it does suggest either a general decline in population or range-shifts in populations that have led to fewer observations.

Resource Brief: Impact of Hatchery Operations

Summer 2014 marked the second year of a four-year study with the objective of better understanding the rate of straying of pink salmon from the Sitka Sound Science Center hatchery into the Indian River (Gende 2014). Results of examining otolith (fish ear bone) thermal marks revealed that, in addition to river-based pink salmon production, a sizable fraction of the adult pink salmon in the Indian River in 2014 were produced by the Sitka Sound Science Center hatchery, located adjacent to the park boundary. Pooling sexes, hatchery fish comprised 22% of sampled pink salmon on the first sampling date, and 26% of salmon on the second sampling date in 2014. Pooling sampling dates and sexes, hatchery fish constituted 24.2% of pink salmon in the Indian River in 2014. Pooling sampling years 2013 and 2014 (390 readable otoliths), the straying rate of pink salmon into the Indian River was 18%. Due to the ongoing concern with these straying rates, this study will extend into 2015 and 2016.

International Volunteer-in-Park extracts otoliths from pink salmon carcasses to help determine the rate of hatchery straying into Indian River (photo by Scott Gende)

Anadromous and Non-anadromous Freshwater Fish

web

Indicators of Condition	Specific Measures	Condition Status/Trend	Rationale
Pink, Chum, and Coho Salmon	Ratio of thermally-marked pink salmon to non-marked salmon		The Sitka Sound Science Center operates a pink, chum, and coho salmon fish hatchery adjacent to SITK. The hatchery uses Indian River water as the source water for fish rearing and as an attractant for returning fish. Returning hatchery salmon stray into the Indian River, artificially increasing escapement rates and potentially causing ecosystem impacts. Preliminary straying data show that 18% of pink salmon entering Indian River are hatchery fish. Alaska Department of Fish and Game hatchery permit conditions indicate the straying rate should be 2% or less. There is recent work on the ratio of salmon straying with ongoing work funded through 2016 (Gende 2014).
Contaminants	Persistent organic pollutant (POPs) and polychlorinated biphenyl (PCB) concentrations		The SEAN I&M program is embarking on contaminants monitoring of the fishes of the Indian River. A recent SEAN I&M assessment identified slightly elevated concentrations of PCBs in the fishes of Indian River as compared to other SEAN sampling sites. However, relatively low levels of contaminants are present overall.

Forests

web

Indicators of Condition	Specific Measures	Condition Status/Trend	Rationale
Forest Succession Processes	Native species regeneration		Although mature forests are in generally good condition, the regeneration processes for native species is negatively influenced by informal trails, deer browsing, and the maintenance of formal trails and cultural landscapes.
Forest Pathogens	Insect and disease damage		Although there is some concern about the introduction of non-native forest pests, the overall status of forest pathogens has remained of relatively low concern (Stark et al. 2012:112).
Non-native Flora	Number of species of non-native flora, area infested with non-native flora, distribution of mountain ash and Japanese knotweed in park.		Non-native flora from vascular inventories has indicated that there has been a slight increase in the number of invasive flora in the park; however, the distribution has remained relatively stable. The park has been surveyed for mountain ash trees, with all identified locations geo-referenced (Overbaugh 2014). A plan for tree removal has been developed. However, because of the nature of seed distribution and proximity of seed source trees to the park, concern for the establishment of new starts in the park is warranted. Additional invasive plants include dandelion, creeping buttercup, reed canary grass, common plantain, common sheep sorrel, curly dock, European mountain ash, and white clover (Bono 2013).

Dark Night Sky

web

Indicators of Condition	Specific Measures	Condition Status/Trend	Rationale
Anthropogenic Light	Intrusion of anthropogenic light into natural night sky luminance		Although the park has not had a baseline night sky evaluation, the east side of the park adjoins a commercial/industrial district that has a large number and very intrusive placement of high-pressure sodium lights both for pedestrian safety and building security. Additional development and light placement in this corridor is anticipated over the next ten years.

Acoustic Environment

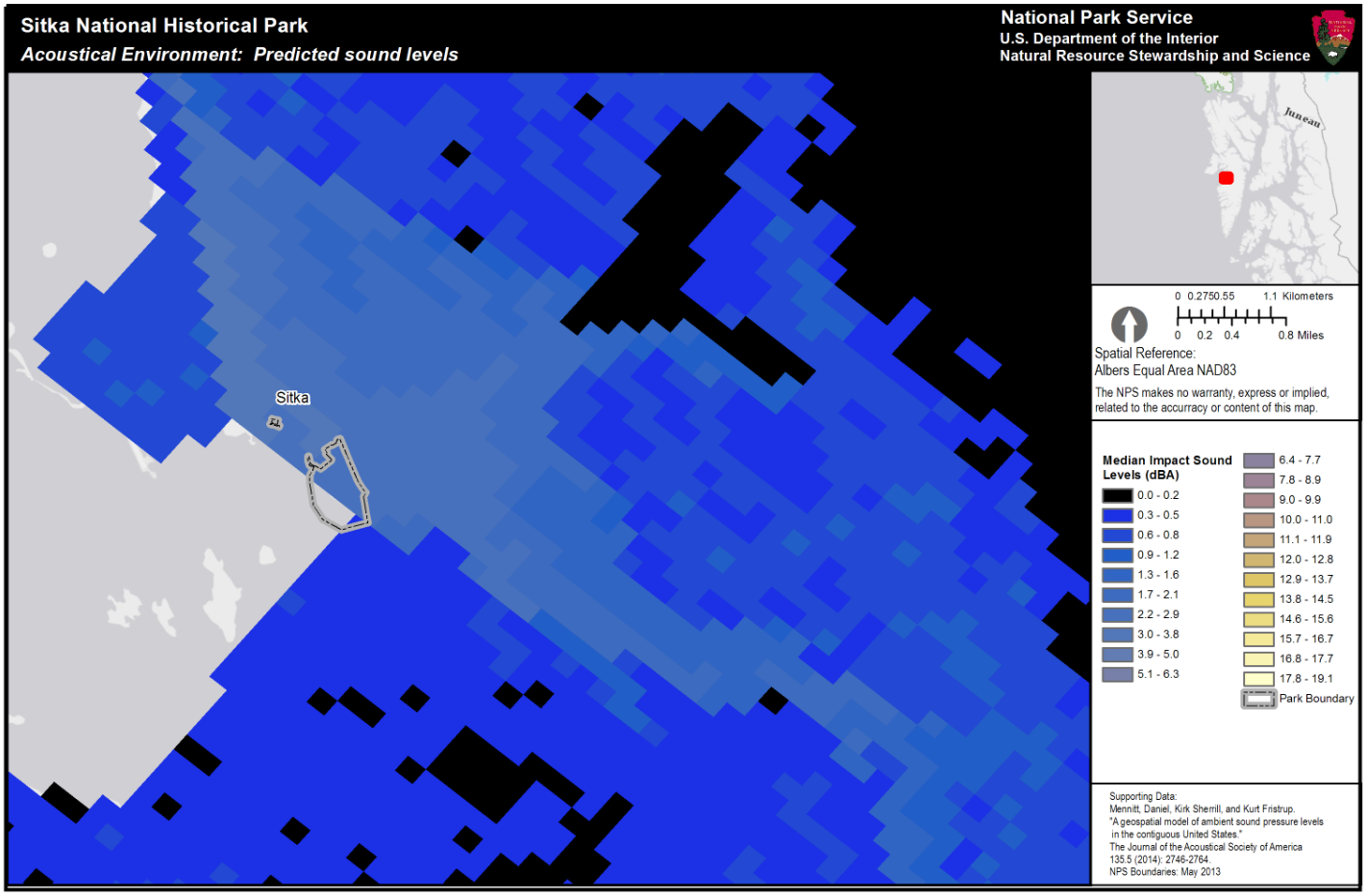
web

Indicators of Condition	Specific Measures	Condition Status/Trend	Rationale
Acoustic Impact Level	Mean acoustic impact level (L_{50} dBA) – a measure of the noise contributed to the acoustic environment by man-made sources.		A baseline study of the soundscape of SITK has not been completed. However, anecdotal observations on the east side of the park indicate there are ongoing soundscape impacts due to the adjacent Sawmill Creek Road, an arterial connector road for the City and Borough of Sitka with a current average daily traffic volume (ADTV) of between 9,100 and 9,600 vehicles (Transportation Engineering NorthWest, LLC 2006). In addition to vehicle traffic, the City and Borough of Sitka has installed diesel turbine backup generators in the Jarvis Street electrical substation adjacent to the park. Additionally, the city maintains a sea-plane base adjacent to downtown Sitka, with landings and takeoffs that front the southwest shore of the Totem Unit of the park. Small sea planes, like most small planes, have a strong sound profile during take-off, with most of the sound lateral to the aircraft (Faegre 2002). The park is adjacent to one of the seaplane base's approaches and take-off strips. In addition to sound impacts to the Totem Unit, the urban setting of the Russian Bishop's House brings with it urban sounds during most of the day. Vehicle traffic on adjacent Lincoln Street, sounds from Pacific High School next to the Old School, and activities in Crescent Harbor all contribute anthropogenic noise to the acoustic environment both outside and inside the Russian Bishop's House. Although some sounds (e.g., pedestrians, students, boats) would be considered compatible with the historic significance of the structure, other sounds (vehicle traffic, sirens, small power equipment) would not. Additional baseline sound inventories need to be conducted to determine what sounds are present and whether they would be considered intrusive or not to the site's historical nature.

Resource Brief: Acoustic Environment at SITK

All physical sound resources (i.e., wildlife, waterfalls, wind, rain, and cultural or historical sounds), regardless of their audibility, are referred to as the *acoustic environment* of a park. The quality of the acoustic environment in SITK affects the visitor experience, cultural landscapes and structures, and wildlife. Currently, both anecdotal evidence and the modeled condition of acoustic resources at SITK suggest that conditions going forward warrant moderate concern. In addition to concerns about airborne sound impacts on both the Totem Unit and the Russian Bishop's House, anthropogenic aquatic sounds may have an effect on a range of plants and wildlife in the 43 acres of intertidal lands in the park. Significant power boat traffic in the adjacent navigational channel could be causing effects, but lack of study of these sound levels seriously hampers evaluation of these effects.

To model the acoustic environment (a complex and multifaceted resource), the National Park Service has developed a national geospatial noise pollution model (Mennitt et al. 2014). This model predicts the increase in median sound level that can be attributed to human activities on an average summer day. The model uses measured sound levels from hundreds of national park sites and about one hundred explanatory variables such as location, climate, land cover, hydrology, wind speed, and proximity to noise sources such as roads, railroads, and airports. Although Alaska parks have been modeled using non-urban criteria, SITK has characteristics of an urban park, and has initiated a 2015 request for technical assistance to gather additional in situ information about the acoustic environment. For more information about acoustic resources, condition criteria, and the model used in State of the Park Reports, refer to Recommended Indicators for Acoustic Resource Quality, the NPS Natural Sounds and Night Skies Division website.



NPS Natural Sounds & Night Skies Division and NPS Inventory and Monitoring Program MAS Group 20150202

Park-specific acoustic impact (mean L50 dBA) map, as generated by ver. 3.1 of the geospatial model. The color scale indicates how much man-made noise raises the existing sound pressure levels in a given location (measured in A-weighted decibels, or dBA), with 270 meter resolution. Black or dark blue colors indicate low impacts while yellow or white colors indicate greater impacts. Due to the national scale of the model inputs, this graphic does not reflect recent localized changes (e.g., roads or development).

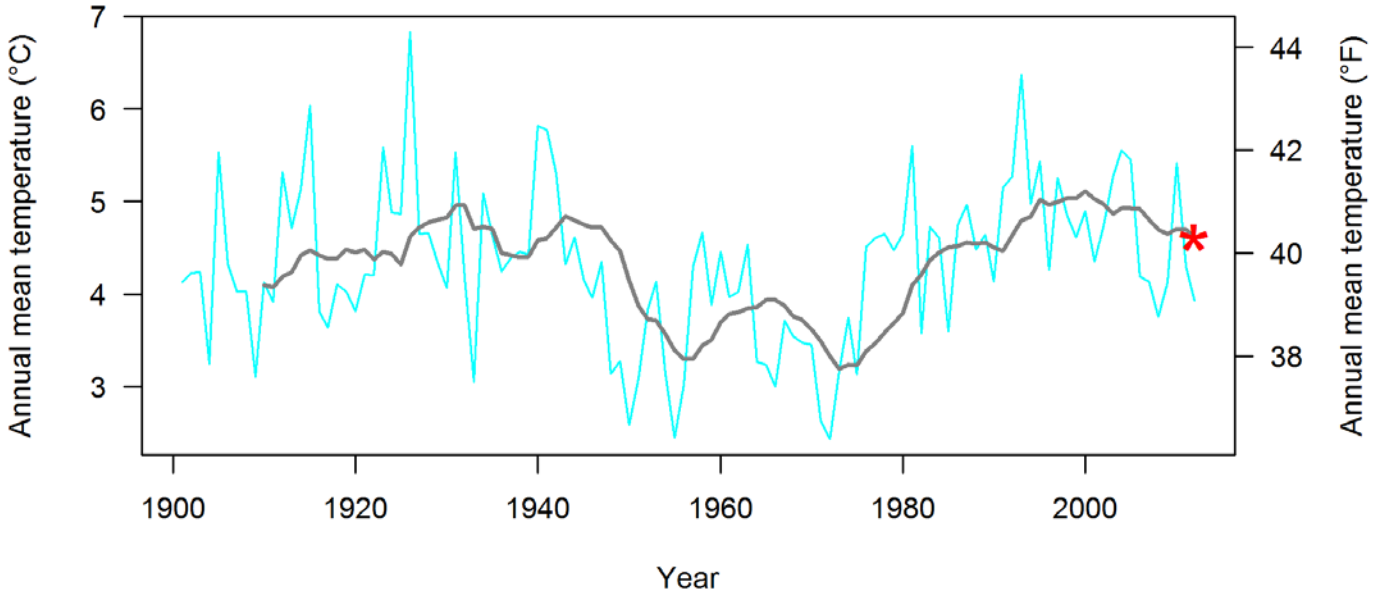
Resource Brief: Recent Climate Change Exposure

Sitka National Historical Park is influenced by the Alaska Current, which brings relatively warm water and moist air north to the southeast coast of Alaska. Winters are warmer than expected for similar latitudes and summers are cooler. Average annual precipitation at the Sitka Airport averages about 90 inches with most precipitation occurring as rain. In April through July, a high pressure ridge usually moves north across SE Alaska causing a dry season of 3 to 4 inches of rain per month. The high pressure returns to the central Pacific the rest of the year pushing storms into the Gulf of Alaska and over Southeast Alaska. The wettest months of the year are September through November, with an average of 14.8 inches falling in October. Temperatures in Sitka are moderate, with January lows averaging 31 °F and July and August highs averaging 55 °F.

The climate in Sitka is expected to become warmer and drier over the next century (SNAP et al. 2009). The following analysis provides an overview of historical and projected changes. To understand the magnitude and direction of ongoing changes in climate in-and-around Sitka National Historical Park, NPS researchers investigated how recent climate compares to historical conditions (Monahan and Fisichelli 2014). Researchers evaluated climate change exposure by asking which of 25 biologically-relevant climate variables recently (past 10–30 years) experienced "extreme" average values relative to the 1901–2012 historical range of variability. An "extreme" condition (e.g., extreme warm) is defined as outside of 95% of the historical observations for that condition.

For each temperature and precipitation variable, researchers analyzed data within three progressive time intervals, or "moving windows," of 10, 20, and 30 years to calculate a series of averages from 1901 to 2012. For example, in progressive 10-year intervals, averages of temperature and precipitation were calculated for 103 time intervals (1901–1910, 1902–1911 . . . 2003–2012), and repeated this approach for the 20- and 30-year "windows." This analysis smooths year-to-year fluctuations to help identify the longer-term trends in the park's historical range of variability (HRV). The three "moving windows" encompass both management time-lines and important climatic periods and cycles.

NPS researchers compared the average temperature and precipitation values for each of the most recent 10, 20, and 30 year intervals (2003–2012; 1993–2012; and 1983–2012) to those of all corresponding intervals across the entire period of 1901–2012. These results (expressed as percentiles) describe recent conditions relative to historical conditions. For example, a 90th percentile for annual average temperature over the most recent 10-year interval (2003–2012) means that the annual average temperature during this time exceeded 90% of the annual average temperatures for all 10-year periods from 1901 to 2012. Researchers then averaged the percentiles of the most recent 10, 20, and 30-year time periods and computed the maximum difference in recent percentile. For each climate variable, this resulted in both an overall measure of recent climate change exposure with respect to HRV (dots in second figure below), and an estimate of sensitivity to moving-window size (length of bars in second figure below). See Monahan and Fisichelli (2014) for a detailed explanation of methods, and figure below for an example analysis applied to annual mean temperature at the park.

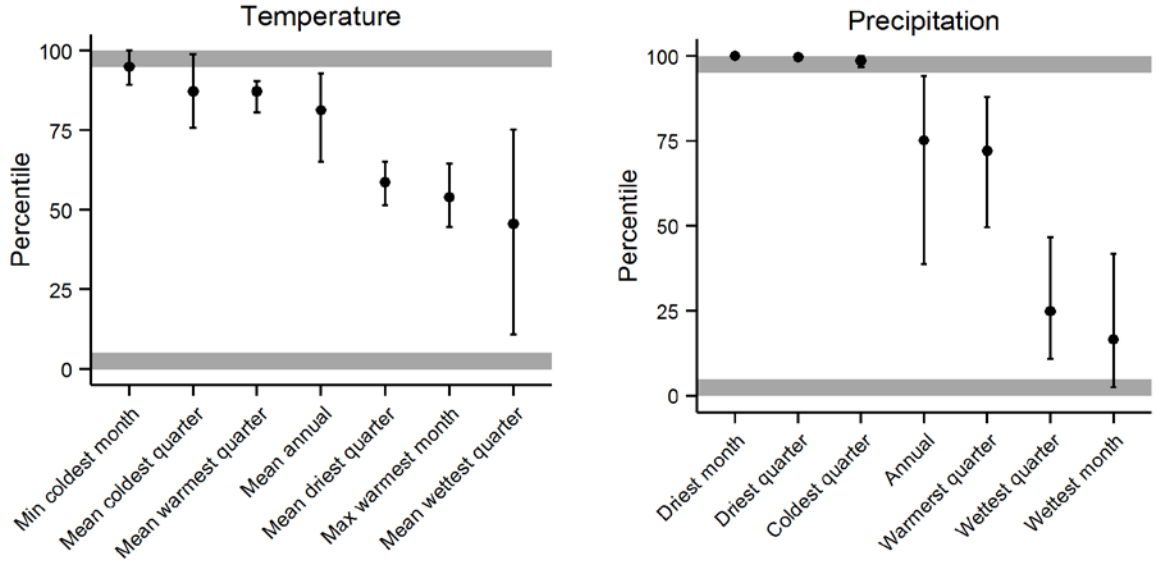


Time series used to characterize the historical range of variability and most recent percentile for annual mean temperature at Sitka National Historical Park (including areas within 30-km [18.6-mi] of the park's boundary). The blue line shows temperature for each year, the gray line shows temperature averaged over progressive 10-year intervals (10-year moving windows), and the red asterisk shows the average temperature of the most recent 10-year moving window (2003–2012). The most recent percentile is calculated as the percentage of values on the gray line that fall below the red asterisk (see results of most recent percentiles for all temperature and precipitation variables in figure below).

Resource Brief: Recent Climate Change Exposure (continued)

Recent percentiles for 14 temperature and precipitation variables at Sitka National Historical Park appear in the figure below. Results for "extreme" variables at the park were as follows:

- One temperature variable was "extreme warm" (minimum temperature of the coldest month).
- No temperature variables were "extreme cold."
- No precipitation variables were "extreme dry."
- Three precipitation variables were "extreme wet" (precipitation of the driest month, precipitation of the driest quarter, precipitation of the coldest quarter).



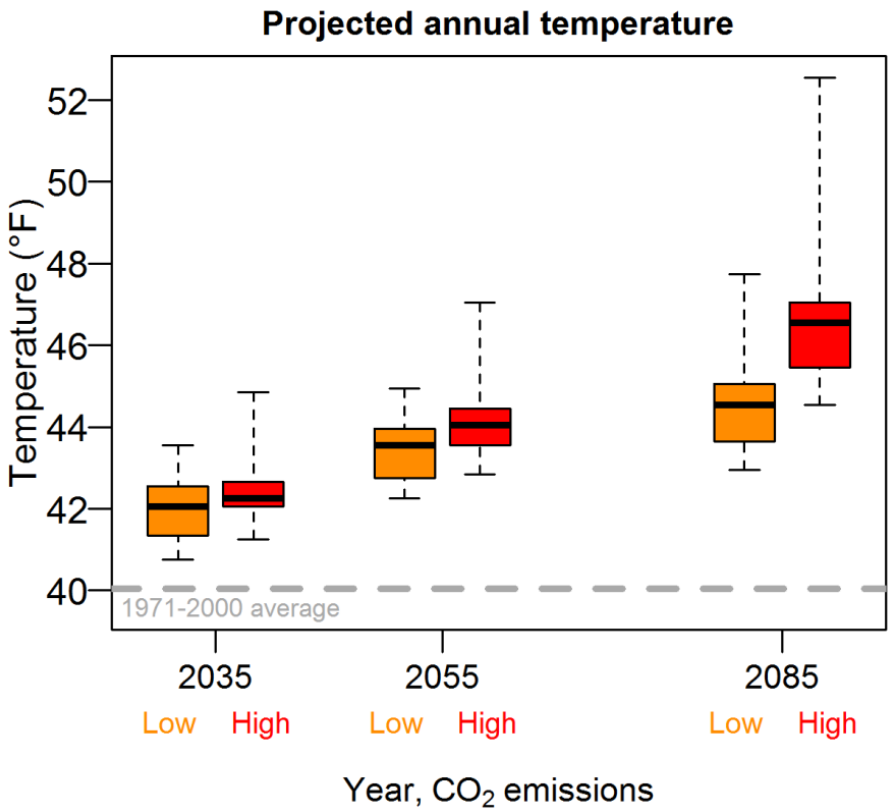
Recent temperature and precipitation percentiles at Sitka National Historical Park (including areas within 30-km [18.6-mi] of the park's boundary). Black dots indicate average recent percentiles across the 10, 20, and 30-year intervals (moving windows). Variables are considered "extreme" if the mean percentiles are <5th percentile or >95th percentile (i.e., the gray zones, where recent climate is pushing the limits of all observed climates since the year 1901). Black bars indicate the range of recent percentiles across 10, 20, and 30-year moving windows (larger bars indicate higher sensitivity to moving window size).

Key points for interpreting these results:

- Recent climatic conditions are shifting beyond observed ranges of variability from around 1900 to present.
- A strong warming trend began in the mid-1970s when the Pacific Decadal Oscillation (PDO) changed to a warm phase. This warm period lasted until the early 2000s (see first figure above) when the PDO shifted back to its cool phase. Although now cooling in SITK, the underlying, long-term warming trend in Alaska appears to have moderated this cooling (Melillo et al. 2014).
- Climate change will likely affect all aspects of park management.

Effective planning and management must be grounded in understanding of past climate dynamics and that future conditions may shift beyond the observed variability from 1900 to present. For example, at SITK average annual temperature (30 year mean) is projected to be higher than the 1971–2000 average under all future time periods and greenhouse gas emissions projections (see figure below). Climate change will be observed as shifts in mean conditions and as changes in climate variability (e.g., more—or less—intense storms and flooding). Within SITK, these changes will alter the status, trend, and condition, of many resources.

Resource Brief: Recent Climate Change Exposure (continued)



Historical and projected mean annual temperature for Sitka National Historical Park. Historical data (1971–2000 average) are from Monahan and Fisichelli (2014). Projected climate change (30 year means) for the region including the park are for three future time periods centered on 2035 (2021–2050), 2055 (2041–2070), and 2085 (2070–2099) (Stewart et al. 2013 NOAA Technical Report NESDIS 142-7). Two greenhouse gas emissions scenarios are presented, the low (B1) and high (A2) scenarios (IPCC 2007). Boxplots indicate the variability in future projections among 15 CMIP3 climate models. Values for the area including the park are based on the mean model output for that location and the range of climate model projections for the region: the bold horizontal black line represents the mean among all models, the upper and lower bounds of the boxes indicate the 25th and 75th percentile model output values and the whiskers show the minimum and maximum values.

2.2. Cultural Resources

Archeological Resources

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Indicators of Condition	Specific Measures	Condition Status/Trend	Rationale
Knowledge	Sufficient research is conducted to understand the relationship of the park's archeological resources to the historic contexts for the park.		The Totem Unit has been completely surveyed (Hunt 2010). However, critical resources like the "New Wood" fort (Shis'ki-Noow) have not been definitively located through archeological research. Hunt (2010) links archeological resources to local Tlingit clans, as components of modern Alaskan Tribes (Sitka Tribe of Alaska, Central Council of Tlingit and Haida) and Native Corporations (She'atika, Sealaska). The Russian Bishop's House property has also been extensively excavated, largely in response to development activities (NHPA Section 106 compliance excavations). Materials recovered have been firmly linked to the Russian educational, healthcare, and orphanage activities on the site and their associated historical themes.
	Archeological resources are identified and evaluated using appropriate anthropological and historical contexts.		Archeological research in the park has a long tradition of including the local Tribe and affiliated clans in research. That relationship was renewed during work between 2005 and 2008 (Hunt 2010).
	Scope of archeological resources in the park is understood and a determination has been made whether or not they are a fundamental or other important resource.		The Totem Unit of the park has been completely archeologically surveyed using a combination of interval shovel-testing and limited remote sensing (Hunt 2010). Resources discovered during this survey (Shis'ki-Noow, Indian villages, etc.) are fundamental to the legislated significance of the park. The Russian Bishop's House has had extensive compliance excavations and archeological materials and data from those excavations are fundamental to the park's legislated purpose.
	Percentage of archeology baseline documents with current and complete information.		Both older Overviews and Assessments (Betts 1999) and more recent complete surveys (Hunt 2010) have relatively complete and current information.
	The distribution and types of archeology sites is understood.		Archeological sites throughout the park have been comprehensively surveyed. Both the distribution and types of sites are relatively well-know, although critical resources (e.g., Shis'ki-Noow, parts of the Russian Bishop's House (grounds) have not been fully explored using archeological methods.

Archeological Resources (continued)

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Indicators of Condition	Specific Measures	Condition Status/Trend	Rationale
Knowledge (continued)	Percentage of sites/archeological landscapes that are tied to information regarding influences from the physical and social environment.		The complete survey of the park (Hunt 2010), combined with the more recent Natural Resource Condition Assessment (Stark et al. 2012) provides enough information to determine influences from the physical environment. Ongoing research about the social environment will improve knowledge of the social influences that may affect sites in the park.
	Percentage of sites with known date ranges associated with a research theme.		Each site identified in Hunt (2010) was linked to a research period and/or theme. Excavated sites around the Russian Bishop's House are well-defined temporally and associated with the Russian America research theme, or other well-defined themes in Alaska history.
	Percentage of park intensively surveyed.		100% of the park has been surveyed using traditional, interval-based shovel testing (Hunt 2010). A portion of the Totem Unit has been surveyed with remote-sensing equipment (metal detector, resistivity, conductivity, and Ground Penetrating Radar). It should be noted that even with this work, the location and condition of the park's legislated resource (Shis'ki-Noow) has not been determined definitively.
Inventory	Percentage of survey data included in the Geographic Information System (GIS) meeting current cultural resource standards.		Of 19 recorded sites in the Archeological Sites Management Information System (ASMIS), only five have data input into GIS that meets CRGIS standards.
	Percentage of archeological resources with complete, accurate, and reliable State site forms.		Hunt (2010) prepared site forms (either new or revised) for all sites researched from 2005–2008. Additional revisions for the Russian Bishop's House may be required in the future.
	Percentage of archeological resources with complete, accurate, and reliable data in the Archeological Sites Management Information System (ASMIS).		Fieldwork conducted throughout the park in 2014 (Pepe 2014) added current photographs and condition assessment information to ASMIS, as well as verifying existing data.
	Percentage of known sites with adequate National Register documentation.		All archeological sites have adequate National Register documentation. One notable site (Shis'ki-Noow) needs additional archeological remote sensing prospection and updated documentation.

Archeological Resources (continued)

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Indicators of Condition	Specific Measures	Condition Status/Trend	Rationale
Documentation	Percentage of known sites with Determination of Eligibility (DOE) documentation.		All known sites have Determinations of Eligibility.
	Percentage of archeological materials cleaned, conserved, studied, cataloged, and properly stored.		According to the most recent Collections Management Report (Sitka NHP 2014), only 80 of 49,216 archeological objects remain to be cataloged. Those objects will be cataloged by September 2015.
	Percentage of records documenting archeological resource conservation, cataloging and storage maintained as a part of the archeological collection.		With limited exceptions, archeological records (reports, Overviews and Assessments, cataloging sheets, field forms, and other primary documents) are arranged and stored as part of the museum collection with accession-level links to archeological objects.
	Park base maps are prepared showing the location and distribution of archeological resources, the nature and extent of archeological identification activities, and the types and degree of threats and damages.		Of 19 recorded sites in the Archeological Sites Management Information System (ASMIS), only five have data input into park base maps. However, site locations are easily reviewed in two other documents (Hunt 2010, Betts 1999).
	Percentage or number of sites without assessed and defined threats and damages.		All sites were assessed in 2014 and up-to-date threats and damages were added to ASMIS. No sites lack defined threats and damages.
	Research results are disseminated to park managers, planners, interpreters, and other NPS specialists and incorporated into appropriate park planning documents.		Archeological reports are widely available to local park managers, planners, and interpreters and most are used to develop accurate and timely planning documents.

Archeological Resources (continued)

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Indicators of Condition	Specific Measures	Condition Status/Trend	Rationale
Certified Condition	Percentage of Maintained Archeological Resources in the Facility Management Software System (FMSS) with a Facility Condition Index (FCI) indicating good condition.		The park has no Maintained Archeological Sites in FMSS as stand-alone location records. The park's one maintained archeological site is in FMSS as an asset of the Shis'ki-Noow Maintained Landscape, with an FCI of 0.429, which is poor.
	Percentage of archeological resources in the Archeological Sites Management Information System (ASMIS) certified in good condition.		75% of the park's archeological sites are certified in ASMIS in good condition. Fifteen of sixteen (93.75%) of unevaluated, recommended-eligible, or listed sites are certified in good condition.

Cultural Anthropology/Sociology

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Indicators of Condition	Specific Measures	Condition Status/Trend	Rationale
Knowledge	Sufficient research is conducted to understand the relationship of the park's ethnographic resources to the historic context(s) for the park.		No ethnographic overview and assessment (EO&A) has been conducted to link the park's ethnographic resources to the park's historic contexts. One study of traditional uses of the park (Thornton 1998) has been conducted, but it is close to 20 years old and should be included in a broader ethnographic study. Multiple requests are currently submitted for funding to correct the lack of an EO&A.
	The scope of resources significant to Tribes, clans, and lineal descendants affiliated with the park is understood and a determination has been made whether or not they are a fundamental resource or other important resource or value.		The most recent study of what resources may be significant to park-affiliated Tribes, clans, and lineal descendants is from 1998 (Thornton 1998). Although the park maintains active consultative relationships with Tribes, Clan leaders, and lineal descendants, no recent studies have been undertaken to improve this understanding. One cultural affiliation study request has been forwarded for regional funding consideration for oral history tapes in the park's possession.

Cultural Anthropology/Sociology (continued)

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Indicators of Condition	Specific Measures	Condition Status/Trend	Rationale
Knowledge (continued)	Percentage of cultural anthropology baseline documents with current and complete information.		No cultural anthropological baseline document is current or complete. Projects have been proposed for funding that would correct this deficiency.
Inventory	Appropriate studies and consultations document resources and uses, traditionally associated people, and other affected groups, and cultural affiliations.		Thornton (1998) documented Tlingit use of park resources on a seasonal basis, along with traditionally-associated clans. However, a comprehensive ethnographic assessment—and accompanying consultations—has not been accomplished.
	Traditionally associated groups, and the legislative, regulatory, or policy basis for relationships with them, are identified.		Presidential proclamations, Executive Orders, and Congressional legislation have clearly defined the basis of relationships the park has with sovereign Tribes, Tlingit clans and their leaders, and the Orthodox Church in America. Detailed implementation has been carried out on an ongoing basis both informally and formally through regular contact between park managers and tribal officials and clan leaders.
	Resources eligible for the National Register of Historic Places as traditional cultural properties (TCPs) are identified.		Although at least two properties (*Shis'ki-Noow* and the Russian Bishop's House) are likely eligible for listing on the National Register as traditional cultural properties, no property has been formally identified or studied. The park is currently requesting funds to conduct TCP studies of the Totem Unit, which will likely formally identify and study these properties.
	Percentage traditional cultural properties (TCP) with adequate National Register documentation.		Although park managers know through traditional use studies and cultural landscape studies (Thornton 1998, Goldschmidt and Haas 1998) that SITK could (and probably should) be nominated and designated a TCP for the Sitka Tribe of Alaska, among other Tribes, no TCP-designation study has been attempted to date. A request for funding a TCP study has been initiated.
Documentation	Planning documents contain current information on traditional resource users and uses, the status of ethnographic data, and the legislative, regulatory, policy, or other bases for use.		The General Management Plan (NPS 1998), included a substantial number of pre-GMP studies to inform the work, including a traditional use study (Thornton 1998), two landscape studies (Chaney et al. 1995, Smith-Middleton and Alenen 1998), an Archeological Overview and Assessment (Betts 1999), and updates to the List of Classified Structures. However, the traditional use study was not updated when the park's Foundation Statement (NPS 2012) was developed.

Cultural Anthropology/Sociology (continued)

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Indicators of Condition	Specific Measures	Condition Status/Trend	Rationale
Documentation (continued)	Research results are disseminated to park managers, planners, interpreters, and other NPS specialists and incorporated into appropriate park planning documents.		Anthropological research in the Alaska Region is generally widely disseminated through multiple channels (e.g., Alaska Park Science, AK Today, research briefings, etc.). It is also generally incorporated into park planning documents, although the new planning framework has encouraged the reduction in the incorporation of anthropological research directly into the most general planning document (e.g., park Foundation Statement), except by reference.

Resource Brief: Russian Bishop's House Ecclesiastical Landscape

SITK is the only National Park Service Unit that represents the historical presence and significance of Russian colonial expansion into the northwest portion of North America and the eventual purchase of the Alaska Territory by the United States in 1867. One major component of the Russian expansion into Alaska was the evangelical and missionary work of the Russian Orthodox Church, supported directly by commercial interests and the Russian Crown. The Russian czars and czarinas made the expansion of Russian commercial interests into the Alaska territory conditional on corporate support of ecclesiastical and missionary work. As such, the Russian Orthodox Church established parishes, missions, and other church-related structures in every village and town in which Russian commercial interests were represented, as well as into interior Alaska where Russian commercial interests were less influential. This, in turn, established an ecclesiastical landscape that has continued to influence the development and social relationships of Alaska.

Members of the Ecclesiastical Landscape team outside the Russian Bishop's House with the Bishop David of Sitka and Alaska and Cultural Landscape specialists from around the NPS.

Sitka National Historical Park protects and preserves the Russian Bishop's House, the physical, spiritual, and geographic center of the Orthodox Church's ecclesiastical landscape from the early 1840s until the mid-1900s. In order to fully appreciate how central this building was to the ecclesiastical landscape, park managers and their cooperators are studying this landscape, focusing on how the Bishop's residency in Sitka and travels to and from—and correspondence with—parishes and missions throughout the state formed a social landscape that supported both the Orthodox Church, and Russian commercial interests prior to 1867. Moreover, the study explores how that social landscape changed through the Alaska Purchase, the Soviet Revolution, the World Wars, and modern times. This will help the park explain to park visitors how the significance of the Russian Bishop's House has changed over the past 170 years, and why it remains of significant interest to both the Orthodox Church in America and Orthodox congregants throughout Alaska. The study has the active participation of the Orthodox Church in America, the Alaska Regional Office, and the park's cooperators at the University of Arizona.

Cultural Landscapes

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Indicators of Condition	Specific Measures	Condition Status/Trend	Rationale
Knowledge	Sufficient research exists to understand the relationship of the park's cultural landscapes to the historic context(s) for the park.		Indian River Unit was studied in the 1990s and a Landscape History and Cultural Landscape Report produced (Smith-Middleton and Alanen 1998, Smith-Middleton and Alanen 1999). A Cultural Landscape inventory was produced for the Russian Bishop's House in 2012 (Welzenbach 2012) and an Ecclesiastical Landscape Report is underway to characterize the Russian Bishop's House in terms of the historic churches and parishes in Alaska.
	Cultural landscapes are identified and evaluated using appropriate historical contexts.		All of the park's cultural landscapes have been identified and evaluated using the park's established historical contexts, regardless of the completeness of the study of each landscape.
	Scope of cultural landscapes in the park is understood and a determination has been made whether or not they are a fundamental or other important resource.		Four of the six cultural landscapes in the park remain incompletely scoped and not determined to be either fundamental resources or other important resources.
	Percentage of cultural landscape baseline documents with current and complete information.		Only the Russian Bishop's House site has both current and complete information (Welzenbach 2012). The Totem Unit has complete, but non-current information, and the remaining four landscapes have neither current nor complete information.
	Adequate research exists to document and preserve the cultural landscape's physical attributes, biotic systems and uses when those uses contribute to historical significance.		The combination of the park's administrative history (Antonson and Hanable 1987) and landscape studies (Smith-Middleton and Alanen 1998, Smith-Middleton and Alanen 1999, Welzenbach 2012) provide adequate research to preserve the park's cultural landscapes.

Cultural Landscapes (continued)

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Indicators of Condition	Specific Measures	Condition Status/Trend	Rationale
Inventory	Percentage of landscapes eligible for the National Register in the Cultural Landscapes Inventory (CLI) with certified complete, accurate, and reliable data.		Only two of the six park cultural landscapes have been listed on the National Register, and then only as sites, not cultural landscapes. The remaining landscapes have been scheduled for evaluation and completion in FY 2017–FY 2020. Therefore 66% of the landscapes do not have certified complete, accurate, and reliable data.
	Percentage of Cultural Landscapes Inventory (CLI) data included in the Geographic Information System (GIS) meeting current cultural resource standards.		The park has two complete and four incomplete cultural landscapes in the CLI. All have data in GIS that meet CRGIS standards (Cusick 2015).
Documentation	Percentage of cultural landscapes with adequate Nat'l Register documentation.		Only two of the six park cultural landscapes are complete. The remaining landscapes have been scheduled for evaluation and completion, but those studies have not been initiated.
	Percentage of cultural landscapes with Determination of Eligibility (DOE) documentation.		33% of the park's cultural landscapes have Determinations of Eligibility. The remaining landscapes have been scheduled for evaluation and completion in FY 2017–FY 2020.
	Research results are disseminated to park managers, planners, interpreters, and other NPS specialists and incorporated into appropriate park planning documents.		The existing cultural landscape documents have been broadly disseminated both within the park and to the broader academic community. They are available online and the ones produced in the 1980s and 1990s were used to write the park's General Management Plan and Resource Management Plan.
Certified Condition	Percentage of cultural landscapes certified in the Cultural Landscapes Inventory (CLI) in good condition.		Both cultural landscapes in the CLI are in fair condition.
	Percentage of Maintained Landscapes (historic) in the Facility Management Software System (FMSS) with a Facility Condition Index (FCI) indicating good condition.		No historic maintained landscape is recorded in good condition in FMSS.

Historic Structures

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Indicators of Condition	Specific Measures	Condition Status/Trend	Rationale
Knowledge	Sufficient research is conducted to understand the relationship of the park's historic structures to the historic context(s) for the park.		Cloyd and Donald (1980) prepared a detailed Historic Structures Report for the Russian Bishop's House. Full construction drawings exist for the park's visitor center, a National Register of Historic Places-listed Mission 66 structure, as well as complete drawings for all remodeling conducted on the building. Similarly, architectural documentation exists for remodeling of both the Old School and Priests' Quarters, as well as how they are linked to the park's historic themes.
	Historic Structures are identified and evaluated using historical contexts.		The complex of the Russian Bishop's House, Old School, and Priests' Quarters has been extensively evaluated relative to the themes of Russian America and Orthodox education. The visitor center has been historically contextualized in terms of preparing for the National Park Service 50th Anniversary (Mission 66), as well as the modernist architecture movement.
	Scope of historic structures in the park is understood and a determination has been made whether or not they are a fundamental or other important resource.		The scope is understood and historic structures are determined to be fundamental resources (NPS 2012).
	Percentage of historic structure baseline documents with current and complete information.		All historic structures have current and complete architectural information.
	Adequate research exists to preserve the historic structures' physical attributes that contribute to historical significance.		All the park's historic structures have sufficient research to preserve their historical, contributing features.
Inventory	Percentage of historic structures eligible for the National Register with accurate, complete, and reliable data in the List of Classified Structures (LCS).		100% of historic structures have accurate data in LCS.

Historic Structures (continued)

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Indicators of Condition	Specific Measures	Condition Status/Trend	Rationale
Inventory (continued)	Percentage of historic structures with geographic information system data meeting current cultural resource standards.		100% of historic structures have geographic information system (GIS) data meeting the Federal Geographic Data Committee CRGIS standards.
Documentation	Percentage of historic structures with adequate National Register documentation.		100% of historic structures have adequate National Register documentation.
	Percentage of historic structures with Determination of Eligibility (DOE) documentation.		100% of structures have Determinations of Eligibility or better.
	Research results are disseminated to park managers, planners, interpreters, and other NPS specialists and incorporated into appropriate park planning documents.		100% of Historic Structures Reports and other historic structures information is disseminated to NPS employees and is used in park planning documents.
Certified Condition	Percentage of historic structures certified in the List of Classified Structures (LCS) in good condition.		100% of historic structures are in good condition.
	Percentage of historic structures in the Facility Management Software System (FMSS) with a Facility Condition Index (FCI) indicating good condition.		100% of historic structures are in good condition.

Resource Brief: The 3D Scanning Project

Following in the footsteps of E.W. Merrill, Sitka National Historical Park's first custodian whose photographs documented the arrival of the totem poles in the park, two specially-trained architects scanned the park's totem poles in the summer of 2013, preserving them digitally in the Library of Congress archives. The two-man team scanned the totem poles with a high-definition, three-dimensional laser scanner, and masked the wireframe of data points with high-resolution images to create 360-degree virtual views of the poles—the first time such technology has been used on carvings of this size by the National Park Service. The team from the National Park Service's Heritage Documentation Program in Washington, D.C., also documented the Russian Bishop's House, recording a detailed floor plan with tape measures and digital range finders, and scanned the exterior and significant interior rooms, including the restored 19th-century Russian Orthodox chapel and reception room.

Historic Documentation Program architect clears vegetation in preparation for laser scanning of the Raven/Shark Pole.

The three-dimensional laser scanner measures distance with a point of light rather than sound. Placed on a stand in the center of a room or adjacent to a totem pole, the device fires a rapidly-pulsating beam of light outward from its rotating and oscillating sensor head. Each time a beam returns from bouncing off a wall, ceiling, or object in the room, the sensor registers the distance, and logs a data point. Taking about an hour to complete a 360-degree view of a room, the resulting image appears as a matrix of closely spaced dots, called a "point cloud." The scanner is capable of recording images in the dark and sensitive enough for rain to obscure the readout—a potential challenge while scanning the poles here.

The team of architects took high-resolution photographs of each totem pole in three-foot sections at six angles and uploaded images into a computer program that masks the scanned "point cloud" with the images taken of the totem poles. This results in a high-resolution, vertical tour including a close look at each figure of the pole from the very top to the very bottom.

The drawings, photographs, and "point cloud" data of the park's totem poles and the Russian Bishop's House will be available to the public online at the Library of Congress' Historic American Buildings Survey site. A virtual tour is available as a feature on the park's website, taking the National Park Service Director's Call to Action #17, "Go Digital!" to a new level of interactivity, and serving a broad range of online visitors who may not be able to visit in person. Images from this scanning project were also used on the park's new waysides, installed in 2014

History

web

Indicators of Condition	Specific Measures	Condition Status/Trend	Rationale
Knowledge	Sufficient research is conducted to understand the national significance and historical contexts for the park.		The park does not currently have a historian and there is no park-based research being conducted to further understanding of the national significance and historical contexts of the park. However, there are a substantial number of external historical works (Allan 2015) that have developed a relatively good understanding of these areas. Moreover, the park is actively seeking project funds to improve research.
	Sufficient research is conducted to establish the reasons for park establishment and a history of the NPS management of the site.		The Secretary of the Interior's report to the President (DOI 1890), as well as reports in the early 1900s were sufficient for President Taft to declare the public "presidential" park as Sitka National Monument in 1910 under the authority of the Antiquities Act. Sufficient research was conducted during the *Sitka Alternatives Study* (NPS 1968) and the *Sitka Historical Sites—A Plan for Redevelopment* (NPS 1971) to establish the reasons for the park's status change in the National Park System to a Congressionally-authorized National Historical Park rather than a National Monument. Although these were sufficient research at the time and ongoing research has been conducted by the NPS into the early 2000s, there is no current Historic Context, Historic Resource, or Special Resource Study underway.
	Percentage of history baseline documents with current and complete information.		Although the park has some historic baseline documents, they tend to focus on park tangible resources, rather than park historic themes. Most work on park historical themes has been accomplished without substantial park funding or involvement (e.g., Dauenhauer, Dauenhauer, and Black 2008). A recent Historic Research Plan (Allan 2015) has recommended a series of Historic Context Studies and Historic Resource Studies that would correct these deficiencies and improve the range and scope of the park's baseline history documents.
	Research supports cultural resource management.		Generally, historical research supports cultural resource management and interpretation, but the currency of that research lags behind the need to actively modernize management and interpretive foci.
	Research at the appropriate level of investigation (exhaustive, thorough, or limited) precedes planning decisions involving cultural resources.		Historical research at the appropriate level of investigation does not occur prior to decision-making. Research tends to be cursory and based on established, older historical works about the park (Antonson and Hanable 1987, Menz 1986). Park management is actively pursuing project funding to address this deficiency.
	Research is conducted by qualified scholars.		In all cases, professional historians—either from universities, contractors, or government agencies—have been employed to write histories and history planning documents. This trend is likely to continue.

History (continued)

web

Indicators of Condition	Specific Measures	Condition Status/Trend	Rationale
Inventory	Park historic contexts and site histories have been written in consultation with State Historic Preservation Officers (SHPOs).		When park Historic Resource Studies, Historic Context Studies, and Special Resource Studies have been written, they have been reviewed and commented-on by the Alaska SHPO, the Sitka Tribe of Alaska, and other consulting parties.
	Percentage of nationally-significant cultural resources with appropriate level of historical documentation (Historic Resource Study, Historic Context Study, etc.).		The two nationally-significant resources in the park—the 1804 Battlefield and Tlingit Fort and the Russian Bishop's House—have some historic documentation (Dauenhauer, Dauenhauer, and Black 2008; Faulkner, Hanable, and Spude 1987, Cloyd and Donald 1980), but most of the publications tend to be focused either narrowly on the site in an exhaustive way, or are broadly scoped but not concretely linked to the sites. Current work by the park's "Scholars-in-the-Park" is improving the quality and distribution of this historical knowledge.
	Research data are accessioned as part of the park's museum collection.		Most historic works related to both the Russian Bishop's House and the Tlingit Fort and Battlefield are available either in the park's library or in the park's archives. However, numerous historical works have been produced on the history of Sitka and Southeast Alaska that directly relate to the two primary resources that have not been incorporated into the park's library or archives.
Documentation	Research results are disseminated to park managers, planners, interpreters, and other NPS specialists and incorporated into appropriate park planning documents.		Park-produced historical documents are broadly available to NPS staff, both in the park library and in digital format (for many documents). However, significant historical work on themes related to the park produced by non-NPS scholars and authors are not generally disseminated to NPS staff. This "bridging" effort would normally be accomplished by a staff historian, who would train interpreters, critique and improve interpretive programs and materials, and increase the numbers of accessible history documents available to park staff and the public. Moreover, staff has to reach out to outside sources of research to incorporate the most recent historical works into park planning documents.

Three visitors and their horse-drawn "jitney" in Sitka National Historical Park, ca. 1910 (photo courtesy of Library of Congress)

Resource Brief: Historic Research Plan

From 2009 forward, park managers have been concerned that the history function at the park has not received enough emphasis, especially since the park is one of only two historical parks in the Alaska Region. To address this concern, a professional NPS historian who has both knowledge of both the legislated significance of the park and the broader scope of Alaska and United States history was engaged to produce a Historic Research Plan for the park (Allan 2015). The importance of a comprehensive approach was critical, and the plan provides both a "status check" for the current state of the history program as well as concrete measures to be taken in the near, medium, and long term to improve it. The study's ranking of potential, specific improvements to the history program have been especially helpful to managers for determining the direction of the history program going forward.

Museum Collections

web

Indicators of Condition	Specific Measures	Condition Status/Trend	Rationale
Knowledge	Sufficient research and analysis exists to understand the relationship of the park's museum collection to the historic context(s) for the park.		The collection largely fits within the Scope of Collection, and directly relates to the historic context of the park. However, additional research is needed on specific objects within the collection in order to be able to provide a more comprehensive interpretation of the collection. Currently there are no historians or ethnographers on staff who would be available for this type of study.
	The museum collection in the park is understood and a determination has been made whether or not they are a fundamental or other important resource.		Museum collections held by the park are well-understood and are a fundamental resource. Selected items in the collection may not fall within the park's Scope of Collections Statement (SOCS), and are currently being evaluated for return (in the case of loans) or disposition (in the case of out-of-scope items). The SOCS is current within the last five years, but needs additional specifications regarding the acquisition of Tlingit and Russian American material in respect to the park's purpose.
	Percentage of museum collection baseline documents with current and complete information.		80% of the park's baseline documents are complete but require updating. The park currently needs a Collection Management Plan. Collection Condition Surveys have been completed for portions of the collection, by material type. The Collection Storage Plan is largely accurate, but needs to be updated. Project funding requests have been submitted to address these deficiencies.
	Affected Native Americans are consulted concerning items of cultural affiliation.		Consultation is conducted regarding objects on loan to the park from Native American groups on an ongoing basis. The park needs to consult further in selected areas of the collection, such as the oral history collection. This consultation need is being worked into future plans regarding the oral history collection.
	Affected Native Americans are consulted regarding Native American human remains, associated or unassociated funerary objects, sacred objects, or objects of cultural patrimony in accordance with the Native Americans Graves Protection and Repatriation Act (NAGPRA).		All NAGPRA issues are addressed in consultation with affected lineal descendants, clans, and Tribes.

Museum Collections (continued)

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Indicators of Condition	Specific Measures	Condition Status/Trend	Rationale
Knowledge (continued)	Park has an Inadvertent Discovery Plan that involves curatorial staff.		The park has an Inadvertent Discovery plan for NAGPRA items that involves curatorial staff.
	Museum curator is included in permit review and informed about park resource projects that may affect collections.		Museum curator is not formally included in permit review (e.g., through signature on issued permits), but is usually notified when a project will result in collections.
Inventory	Archival and manuscript collections are surveyed and described in the Interior Collections Management System (ICMS) and finding aids are produced.		Archival and manuscript collections are currently individually cataloged in an outdated Record Group method that does not utilize the Archives module of ICMS. An archives reprocessing project is currently underway to organize the archives in appropriate collections and hierarchies in ICMS and to produce finding aids.
	Percentage of existing collection that is accessioned and cataloged.		81.66% of the collection is accessioned and cataloged. To correct the largest area of deficiency, an archives backlog cataloging project is currently underway.
	Scope of Collection is consistently implemented; items or objects are researched to determine their appropriateness for inclusion in the museum/archive collection.		The Scope of Collection statement is current, and is regularly used to guide acquisition decisions.
Documentation	Accession and deaccession files are complete with all appropriate signatures.		Some donated accessions are missing required documentation. In FY14 a registrar detail was hired to identify and remedy as many accession file problems as possible. While issues remain, the park now has a clear understanding of what is needed and is actively working to rectify the records where possible.
	Percentage of cataloged records with completed descriptive fields (beyond required fields).		100% of records in ICMS contain additional information in non-required descriptive fields. Record information is also regularly updated as the records are used.

Museum Collections (continued)

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Indicators of Condition	Specific Measures	Condition Status/Trend	Rationale
Documentation (continued)	Furnishings in historic structures are documented in a historic furnishings report.		The historic furnishings report for the Russian Bishop's House was written in 1987. Although generally accurate, the report should be evaluated and updated, if additional information could be added through new access to Russian archives and museum collections.
	Percentage of museum collection reported in CMR.		100% of the museum collection is reported in the CMR.
Certified Condition	Percentage of museum objects reported in ICMS in good condition.		Approximately 30% of the collection has a condition of good or better in ICMS. Project requests are currently scoped to both conduct conservation surveys and conservation treatments to improve the overall condition of the collection.
	Percentage of facility condition standards reported as met in the Automated Checklist Program (ACP).		72.88% of Museum Checklist standards were reported as met in 2014. The curator is currently correcting deficiencies that can be corrected by staff action. Project funds have been requested to correct more costly deficiencies.
	Percentage of museum collection storage facilities in good condition, as recorded the Facility Management Software System (FMSS) with a Facility Condition Index (FCI) indicating good condition.		All museum collection storage facilities are recorded in FMSS in good condition.

Resource Brief: Merrill Collection Donation

The E. W. Merrill glass plate negative collection of approximately 1,100 images is the most significant photographic collection relevant to Sitka National Historical Park. E.W. Merrill took photographs of the park's totem poles, Tlingit fishing camps, Tlingit clan gatherings and regalia, significant Russian buildings and architecture, Orthodox ministers and school children, watercraft, and a host of other subjects directly related to the park's legislated significance. The photographs of park locations include the Russian Bishop's House, a National Historic Landmark, the totems poles installed in the park in the late 1800s, scenic views still enjoyed by visitors, and numerous other cultural and natural resources in the park. The images date between 1897 and the mid-1920s, and thus serve as some of the earliest baseline photographic documentation for nationally-significant resources in the park.

The E.W. Merrill collection is of the highest historical value to both the park and the local community. The visual and social information captured in Merrill's images is not only irreplaceable but is also a primary resource for community members, ethnographers, and historians alike. Descendants of individuals captured in the images still live in the community. The research potential of this collection is very high and—due to the local community's interest in keeping the collection in Sitka—the park anticipates a large number of access requests. SITK is committed to the preservation of this collection and to making the images available to researchers and the general public to the greatest extent possible.

E.W. Merrill photograph of traditional Tlingit clan members and their canoes, taken during the 1904 potlatch to celebrate the Battle of 1804 (SITK 3761).

Sitka NHP will make these valuable images available for research and general public use. Digitizing the glass plate negative images is the best balance of preserving the images indefinitely and making the E.W. Merrill collection publicly accessible. Once digitized, the images will exist in a format not susceptible to physical wear, will be readily available to make prints for display in an exhibit, and will be ready for use on the park website and other digital image platforms such as a new kiosk in the visitor center. There is significant ongoing interest in the historic images in the collection by members of the public, particularly in the local community, and the park anticipates a high number of requests regarding this collection. Transferring the images to an electronic version is imperative for the long-term safety and preservation of the physical glass plate negatives, as it will limit the need to handle them.

2.3. Visitor Experience

Visitor Numbers and Visitor Satisfaction

web

Indicators of Condition	Specific Measures	Condition Status/Trend	Rationale
Number of Visitors	Number of visitors per year		The total of 161,157 visitors to the park in 2013 is lower than that of 2011 (186,864) and 2012 (195,157) and also lower than the 10-year average of 253,545 visitors for 2003–2012. This notable reduction is the direct result of the decreased number of cruise ships visiting Sitka. This trend is likely to start reversing itself since three new cruise lines will be coming to Sitka in 2015 (Princess, Disney and Norwegian). Also, with improved trail counter data, the park will be able to more accurately account for the number of visitors using the trails, but bypassing the visitor center. This will have a substantial positive impact on recorded visitor numbers, increasing their accuracy and improving their value for park management. The park does have a sizeable number of regular local visitors that use the park for a variety of recreational and community purposes on a daily-to-weekly basis.
Visitor Satisfaction	Percent of visitors who were satisfied with their visit		Based on the standard visitor satisfaction survey conducted each year, the percentage of visitors satisfied in FY13 was 99.0%, which is slightly higher than the average for the previous five years (98.6%) and ten years (98.6%). Source: 2013 Visitor Survey Card Data Report

Junior Rangers from the 2014 event stop for a popcorn snack

Resource Brief: New Junior Ranger Book Debuts

SITK's new Junior Ranger Activity Book debuted in the fall of 2013. The book features over a dozen new activities for kids, including mazes, word searches, crossword puzzles, and art projects. New junior rangers have greeted the book enthusiastically. In the first year, park rangers have issued hundreds of young visitors their very own SITK badge for completing age-appropriate activities based on the new book. To capitalize on the new book's popularity, the park now offers Junior Ranger Day events. The half-day events attract hundreds of community school children and are offered on a bi-annual basis and vary in theme. To date, Junior Ranger Days have focused on wilderness, art, and garden preparation, and have often filled the visitor center to overflowing.

Interpretive and Education Programs – Talks, Tours, and Special Events

web

Indicators of Condition	Specific Measures	Condition Status/Trend	Rationale
Education Programs	Number and quality of programs, and number of participants		In 2014, the park facilitated 102 education programs with a total of 2,486 visitors attending these tours. The number of programs was down from 2013 (119), but the number of participants was up from 2013 (1,988). The number of education programs in 2014 is above the five year average of 85 and the number of visitors attending those programs is above the five year average of 1,783.
Ranger Programs	Number and quality of programs and attendance		In 2014, the park facilitated 1,064 interpretive programs with a total of 5,756 visitors attending these tours. The number of programs facilitated is down slightly from 2013 (1,076), while the number of visitors attending programs is up from 2013 (5,648). The number of interpretive programs in 2014 is above the five year average of 1,007 programs and the number of visitors attending interpretive programs is above the five year average of 5,368. Substantive changes to programming will be taking place in FY15 including refining the scope of program offerings and the timing of programs.
Junior Ranger Programs	Number of programs and attendance		In 2014 the park held two Junior Ranger events with a total of 206 visitors attending the events. In 2013 there was one Junior Ranger event with a total of 200 visitors attending. These were the first two years that Junior Ranger programing was offered at the park. SITK distributed 594 Junior Ranger books in 2014. Insufficient data exists to documenting Junior Ranger book distribution prior to 2014.
Special Events	Variety and longevity of events, community involvement		In 2014 the park hosted 17 special events contacting 726 visitors. This number of special events is up from 2013 when the park hosted 13 special events but down from 2013 when the park contacted 1,902 visitors. The number of special events in 2014 is down from the five year average of 23 and the number of visitors contacted from special events is down from the five year average of 2,156.

Resource Brief: Educational Bird Walks

The SITK Totem Unit includes many critical habitats for nesting, resident, and migrating birds. Park staff members have made a sustained effort to engage Sitkans by leading Winter Bird Walks and weekly Spring Migration Bird Walks during the month of May. The public has joined rangers to identify and appreciate the park's diverse avifauna. Participants have marveled at the numbers of spring Neotropical migrants and winter residents that rely on the rich resources of the park's intertidal zone and canopy of western hemlock and Sitka spruce, respectively. In addition to the public programs, the park also offers monthly youth bird walks to teach Sitka youth about the park's birds. This group has set the goal of learning to identify through sight and sound fifty local bird species. In total, 232 visitors joined rangers for bird walks in 2014. There were 17 public and youth bird programs in the park in 2014.

Interpretive ranger leads a class on a bird walk

Resource Brief: Yaa Khusgé Yaaw Woogoo – The Knowledge of Herring Camp

The sounds of children's voices calling out their observations of marine wildlife could barely be heard over the squawking gulls, massive exhalations of humpback whales and the sound of tons of Pacific herring (*Clupea pallasii*) being hauled from the sea during Sitka's herring sac roe fishery. For two years in a row, this cacophony has provided the background music for *Yaa Khusgé Yaaw Woogoo* – The Knowledge of Herring Camp. This week-long marine science camp focuses on the importance of Pacific herring in Southeast Alaska's marine environment and the cultural significance of herring to the people of Southeast Alaska.

Students raise a plankton tow during Yaa Khusgé Yaaw Woogoo—Knowledge of Herring Camp—2015

Herring Camp, a partnership between the Sitka School District, Sitka Tribe of Alaska, and the National Park Service in March 2014 and 2015, offered middle school students the chance to explore Sitka National Historical Park's rich coastal ecosystem. During camp, students discover how herring, a keystone species, influence Sitka's abundant marine wildlife and all the people that call Sitka home. Marine ecologists led interactive science experiments with students in the lab and in the field. Students collected plankton, measured water temperature and salinity, dissected herring and studied herring taxonomy, biology and ecology. Scientific work was enhanced by the participation of Tlingit elders who share their traditional ecological knowledge with the students.

Interpretive Media – Brochures, Exhibits, Signs, and Website

web

Indicators of Condition	Specific Measures	Condition Status/Trend	Rationale
Wayside Signs	Condition and currency of signs		The park's current wayside plan was finalized in May, 2014. At present, all but one of the waysides has been installed. The final sign is awaiting clearance from the City and Borough of Sitka. Four of the waysides feature multimedia components that are accessible through QR codes. Audio description (AD) for all of the waysides will be completed by 2016.
Park Directional Signs (off-site)	Usefulness, quantity, and placement		The park has one off-site directional sign. This large road sign located near the Sheldon Jackson campus was installed in the summer of 2014. Signage along the SeaWalk is recommended to facilitate the movement of visitors from the cruise ship docks to the park's visitor center, trails, and Russian Bishop's House.
Exhibits	Visitor Center exhibits		The current exhibit does not account for multiple learning styles or accessibility needs, nor does it fully meet the interpretive goals as outlined in the park's General Management Plan (GMP). Accessibility concerns are documented in the accessibility section below. The objects on display are primarily in stable condition and are monitored for obvious signs of deterioration, but the overall length of time they have been on exhibit is of concern. The Visitor Center exhibit has been in place since 1988, and the cases do not allow for convenient access to the objects for regular condition assessments. Some objects have been switched out over the years, but many, including significant textiles and baskets, have been on display for over 20 years. Light levels in the exhibit are kept at a minimum, which does help prevent UV damage to sensitive objects. Some cases are missing security screws. Because there is limited temperature or relative humidity control in the building, environmental conditions fluctuate greatly with the changing seasons. The result of such environmental changes can be seen in a metal object on display that is showing signs of deterioration, likely due to high humidity levels.
	Totem Hall exhibits		The display of the older totem poles in Totem Hall is probably the best possible location and environment for the ongoing preservation of these objects. Although temperature and relative humidity are not controlled in this space, the environment remains very stable, and within the acceptable levels for the preservation of the poles on display. Condition assessments of these poles have not been done since they were installed in 2000. The current exhibit does not account for multiple learning styles or accessibility needs, nor does it fully meet the interpretive goals as outlined in the park's General Management Plan. Of specific note, the large backdrop against which the totems are placed is inaccurate and misrepresentative.

Interpretive Media – Brochures, Exhibits, Signs, and Website (continued)

web

Indicators of Condition	Specific Measures	Condition Status/Trend	Rationale
Exhibits (continued)	Russian Bishop's House 1st Floor		Case designs are outdated, and have mechanical and electrical parts that are degrading (fans, lighting). The objects are difficult to access, so condition assessments of the items on display have not been done since the exhibit opened in the 1980s. A fur in one of the cases that was replaced in 2014 was discovered to have extreme UV damage.
	Russian Bishop's House 2nd Floor		The objects on display are deteriorating, the length of time they have been on exhibit is cause for some concern, and visible light/UV damage to objects is a problem. Although UV blocking film was put on the windows when the house was restored in the 1980s, its effectiveness decreased greatly over the last 30 years. As a result, light damage to textiles or other objects with fabric on display has occurred, especially in south facing rooms of the house. In 2014 new UV and visible light blocking shades were installed in the areas of the house most susceptible to high light levels. Even with the new shades in place, light levels in the house are higher than those recommended for the display of textiles. Objects that do not include textile materials are in stable condition and remain unchanging. It is likely that some objects have more need for concern than others.
	Totem Preservation Exhibit		This is an outside exhibit, enclosed behind a wire cage wedged under a gable of the visitor center. In general, the structure appears as an afterthought, and is not visitor friendly. There is minimal signage, and poor lighting on the totems displayed. The totem themselves are already in an advanced state of decay, and being outside, albeit covered, continues to expose the objects to mold, moisture, pests and other serious agents of decay. A condition assessment of these poles has not been completed since the exhibit was installed. This outdoor exhibit is in need of significant attention. The 2006 Exhibit Assessment Report: The Totem Exhibit identifies visitor traffic flow, exhibit structure, and interpretation as in need of evaluation and refurbishment. Specifically, improvements to tread surface, pathway width, directional signage, roofline, lighting, exterior lettering, and flanking half-walls were called out as areas of concern. New wayside signage was installed in 2014.

Interpretive Media – Brochures, Exhibits, Signs, and Website (continued)

web

Indicators of Condition	Specific Measures	Condition Status/Trend	Rationale
Exhibits (continued)	Totem Trail		This is an outdoor exhibit. The objects (totem poles) on display are exposed to the elements and require constant monitoring for condition. Condition assessments of the poles have been regularly done by professional conservators over the last 20 years, and those requiring treatment have been identified and conserved where possible. The poles are regularly treated with fungicides and pesticides. The park has plans to develop a long-term totem pole management strategy that will address when and how totem poles should be re-carved or replaced, and what should be done with the pole being replaced.
Print Media	Accuracy and availability of primary park publications		The park's primary publications consist of the brochure and map, the Russian Bishop's House guide, and the "Take a Walk in Your Park" brochure. According to recommendations from the 2011 Accessibility Report, all brochures need to be translated into Braille and made available in large print, electronic, and audio formats. Specific to the brochure: • Contains out-of-date information related to the Southeast Alaska Indian Cultural Center. • Provides limited information on park accessibility for people with disabilities. • Needs to be reviewed by tribal officials for content appropriateness. • Park needs copyright of images so it can be placed on website.
Audio-visual Media	Orientation Films		The park features two orientation films: *Voices of Sitka* was produced in 2000 and The *Russian Bishop's House: An Icon Reborn* was produced in 2010. Both films are open-captioned to accommodate people with hearing loss or deafness; however, the captions do not include the natural sounds, music and native languages portrayed throughout the video. Both videos need more complete audio description. Specific to *Voices of Sitka*: • The film does have an assistive listening system that amplifies sound for individuals with hearing loss. • The *Voices of Sitka* should be considered for replacement in the near future and thought should be given to whether a separate film on the Battle of 1804 should be produced.

Interpretive Media – Brochures, Exhibits, Signs, and Website (continued)

web

Indicators of Condition	Specific Measures	Condition Status/Trend	Rationale
Audio-visual Media (continued)	Other AV material		The park has offered a cell phone audio tour of the park's Totem Trail since 2009. Since its inception, this service has been used by 6,232 unique callers. While the number of unique callers has been increasing at a fairly consistent rate (2012: 927 unique callers, 2014:1,304 unique callers), the area of greatest improvement has been with the mobile platform. The total for mobile web hits in 2012 was 17 and in 2014 was 786. Several deficiencies were noted during the 2011 Accessibility Study and have been addressed including the development of a written transcription, implementation of QR codes, and development of a mobile web platform. Still to be considered is an in-house device available for loan to visitors who require the cell phone description technology as an accommodation for a disability and the development of an accessible numbering system for tour stops. In the future, the park should consider adding stops for both the RBH and VC lobby.
Websites	Currency and scope of website; number of website visitors		The park's website has kept pace with all of the mandatory improvements required as part of the Content Management System (CMS) upgrade for the Centennial. Independent of that, the park has made significant improvements on every single webpage, built new pages, and has outlined a plan for future improvements and has identified opportunities for future shared content pages. The number of website visitors has been increasing slightly over time with 69,341 virtual visitors in 2013 and 70,274 virtual visitors in 2014. This number is expected to improve as a result of the park's webpages becoming accessible on mobile devices.
	Social media: Facebook updates and "likes," overall activity		The park has hosted a Facebook page since 2011 and currently has 4,232 likes. Overall, the page has had a slow but steady increase in followers since its inception. There are no regular daily hits to the park's page indicating that visitors are not regularly seeking out park information through Facebook. However, when statuses with photos and information are posted, the page receives large numbers of hits, shares, and likes.

Scenic Resources

web

Indicators of Condition	Specific Measures	Condition Status/Trend	Rationale
Scenic Views	Scenic Views Quality & Protection		SITK is considered an urban park, located in downtown Sitka, AK. Many visitors come to SITK for its iconic views of Sitka Sound, Mt. Edgecumbe, fish and wildlife viewing, and the O'Connell Bridge. Scenic views are important to the visitor experience. Views are considered pristine with little degradation over the last 5 years. This is based on park staff anecdotal evidence.

Resource Brief: Park Celebrates 100th Anniversary

On May 15th, 2011, SITK added another totem pole to its famous collection—a 35-foot red cedar work of art by Tlingit carver Tommy Joseph—in honor of the park's 100th anniversary. Hundreds of people gathered on the beach in front of the park's visitor center to celebrate the Centennial pole and stand it up, using ropes and following the direction of the carver—just as has been done among the Tlingit, Haida, and Tsimshian for centuries (YouTube video). Raising the Centennial pole was the culmination of a year of events and activities (2010–2011) marking the 100th year of Alaska's oldest national park. Other events during the celebration included the presentation of a Centennial Ravenstail robe from Tlingit artist Teri Rofkar in March 2010, the E.W. Merrill photographic exhibit in April 2010, the Tlingit-Alutiiq Cultural Sharing in June 2010, the 2010 International Conference on Russian America in August, and Alaska Day celebrations in October.

Tlingit carver Tommy Joseph puts the finishing touches on the Centennial Pole, 2011.

The Ravenstail Robe commissioned by noted Tlingit weaver Terri Rofkar, 2010.

Accessibility

web

Indicators of Condition	Specific Measures	Condition Status/Trend	Rationale
Mobility	ADA compliance		The 2011 Accessibility Report suggested several areas of accessibility improvement for the park to consider. Concerns already addressed: • Benches in the Russian Bishop's House now meet ADA requirements. • Restrooms containing deficiencies such as fixtures installed beyond maximum accessible reach range, the need for an ambulatory stall in the women's restroom, and the need to re-size the accessible stall in the men's restroom will be undergoing improvements beginning 2015. • Two picnic tables are now accessible. • Park trails with running and cross slope that exceed the maximum guidelines are appropriately demarcated with orientation signage. • After consultation, the park decided that the raised thresholds and handrails in the Russian Bishop's House will not be modified due to their historic integrity. Vertical access to the 2nd floor of the Russian Bishop's House will also not be implemented. Areas to consider for improvement: • The boardwalk route system to the Russian Bishop's House, Priests' Quarters and Old School do not meet requirements for an accessible route due to running slope. • The excessive slope and lack of signage at lower parking lot's accessible parking spaces and need for a landing at the top of the curb cut to connect the accessible route to the accessible parking. • The serpentine walkway has areas of running slope that exceed the maximum requirements for accessibility. Portions of the route are considered to be a ramp and require the installation of handrails. • The log benches along Totem Trail do not incorporate back rests and at least one arm rest and do not all meet recommended seat height. • Romtec vault toilets do not meet the requirements for accessibility.
Multi-lingual Resources	Audio and print materials in multiple languages Bi-lingual staff		The park has one brochure published in alternative language format—a Russian version of the Russian Bishop's House guide. At present there is little to no perceived demand for alternate formats or multilingual speakers. There are several members of the staff who speak other languages including German, Spanish, and (at times) Tlingit.

Accessibility (continued)

web

Indicators of Condition	Specific Measures	Condition Status/Trend	Rationale
Visual Accommodation	ADA compliance		The 2011 Accessibility Report suggested several areas of accessibility improvement for the park to consider. Concerns already addressed: • The new wayside interpretive panels found throughout the park have an audio description and/or tactile component and will be accessible for individuals who have low vision or are blind by 2016. Areas to consider for improvement: • The blind experience barriers to programs through lack of alternate formats for publications, lack of tactile experiences in exhibit areas, and an absence of audio description of the exhibits and other park features. • People with low vision experience barriers to accessing programs through insufficient font size, serif font types and low lighting in exhibit spaces. • Plexiglas exhibit cases have sharp edges creating a potential safety hazard for individuals with low vision.
Auditory Accommodation	ADA compliance		The 2011 Accessibility Report suggested several areas of accessibility improvement for the park to consider. Concerns already addressed: • The Russian Bishop's House film is now shown with captions. • A transcription of the cell phone audio tour is now provided for individuals who are deaf and contains a map of the totem locations. Areas to consider for improvement: • Implement an assistive listening system for the Russian Bishop's House video. • Develop assistive listening system for talks and tours. • Develop a policy for acquiring and handling requests for sign language interpreters. • Provide an in-house device available for loan to visitors who require cell phone description technology as an accommodation for a disability.
Public Transportation	Access to park via public transportation		Public Transportation in Sitka is the bus line called the RIDE, which operates from 6:30 am–7:30 pm Monday through Friday. The cost is $2 for an adult one-way ticket and $1 for a senior/child/disabled ticket. Sitka National Historical Park is serviced by two bus stops, one on Metlakatla and one on Sawmill Creek at the East Entrance. These stops are on the Blue Line. In 2014, 622 people used the bus stop on Metlakatla in front of the Visitor Center and 154 people used the stop on Sawmill Creek in front of the East Entrance. In 2013, 620 people used the Metlakatla stop and 223 used the Sawmill Creek stop. In 2012, 427 and 137.

Safety

web

Indicators of Condition	Specific Measures	Condition Status/Trend	Rationale
Visitor Safety	Recordable incidents		The safety of visitors is a park priority. The park works to quickly identify and mitigate potential hazards, and the number of accidents is very low.
Staff Safety and Training	Number of staff trained		Operational Leadership Training has been completed by park staff, and CPR, First Aid, and AED training are offered to staff on a space-available basis. Job Hazard Analysis is conducted before jobs throughout the park. Regular safety messages are given and distributed to staff members.

Partnerships

web

Indicators of Condition	Specific Measures	Condition Status/Trend	Rationale
Volunteers	Number and hours contributed		The volunteer program has evolved considerably over the last 5 years. Volunteer hours have increased from 2,692 in 2010 to 6,121 in 2014. This represents a contribution of approximately $115,000 (based on standard NPS guidance). The number of volunteers has shifted over time toward residential volunteers and longer-term commitments as opposed to service projects. Renewed emphasis has also been placed on employing local volunteers to assist with resource and interpretive programming.
Partnerships	Number of partnerships		The park maintains an extensive number of official partnerships including: Alaska Geographic, Alaska Department of Natural Resources, Alaska State Troopers, The City and Borough of Sitka, Federal Highways Administration, the Maritime Museum of British Columbia, the National Park Foundation, the Orthodox Church in America, Sealaska Corporation, the Shelikof Museum, the Sitka Historical Society, the Sitka School District, the Sitka Tribe of Alaska, the United States Forest Service, University of Alaska Fairbanks, the University of California Davis, and the U.S. Geological Service. The park also works collaboratively with Alaska Department of Fish and Game, the Alaska State Museum, Fort Ross (California), the National Science Foundation, the Seward House Museum, the Sitka Community Hospital Foundation, the Sitka Conservation Society, the Sitka Sound Science Center, the Southeast Alaska Regional Health Consortium, and the Southeast Alaska Land Trust.

2.4. Park Infrastructure

Overall Facility Condition Index  web

The National Park Service uses a facility condition index (FCI) to indicate the condition of its facilities and infrastructure. FCI is the cost of repairing an asset, such as a building, road, trail, or water system, divided by the cost of replacing it. The lower the FCI number, the better the condition of the asset. The condition of the buildings and other infrastructure assets at each park is determined by regular facility inspections, or "condition assessments," including daily informal inspections and formal yearly inspections. Deficiencies identified from these assessments are documented in the NPS Facility Management Software System and the cost for each repair determined. Repairs that cannot be completed within the year count against the condition of a structure. The total cost of these deferred repairs divided by the total cost to replace the structure results in the FCI, with values between 0 and 1 (the lower the decimal number, the better the condition). The FCI is assigned a condition category of Good, Fair, Poor, or Serious based on industry and NPS standards. Deferred maintenance projects that require additional funding are identified based on FCI. Planned preventive maintenance on critical components occurs during the year, using a park's base budget. For additional information about how park managers use information about the condition of facilities and infrastructure to make decisions about the efficient use of funding for maintenance and restoration activities at the park, Click Here.

Asset Category	Number of Assets 2009 / 2014	FCI 2009 / 2014	Condition Status/Trend	Rationale
Buildings	11 / 12	0.030 / 0.036		Park buildings are well maintained by a facilities staff that is dedicated to their care and up-keep. However, the weather in Southeast Alaska's rain forest environment takes its toll on SITK facilities. It is a constant challenge and an ongoing process to keep facilities in good condition.
Trails	3 / 6	0.345 / 0.075		Trails are used year round in this urban park and are well maintained. However, the park needs a vegetative management plan to deal with encroaching growth along trails and its Totem Poles and Cultural Landscape and view-scape. Trails will all receive a new gravel surface in 2015.
Unpaved Roads	0 / 1	----- / 0.000		The only documented unpaved road in the park is a service road to a maintenance storage shed. The public does not use it. Once the shed is replaced, the road will be improved.
Paved Roads, Parking Areas, Bridges	6/ 6	0.388 / 0.486		The primary Indian River foot bridge is planned for replacement in FY16. Another aluminum foot bridge needs upgrading. The lower visitor center parking lot is in need of repaving after site-planning takes place.
All Others	25 / 34	0.000 / 0.132		Existing park maintenance staff is committed to the Capitol Investment Strategy and aggressively carrying out preventative maintenance on the park's totem poles. The level of maintenance in the past has allowed some deferred maintenance to accrue.

Resource Brief: Green Parks Plan

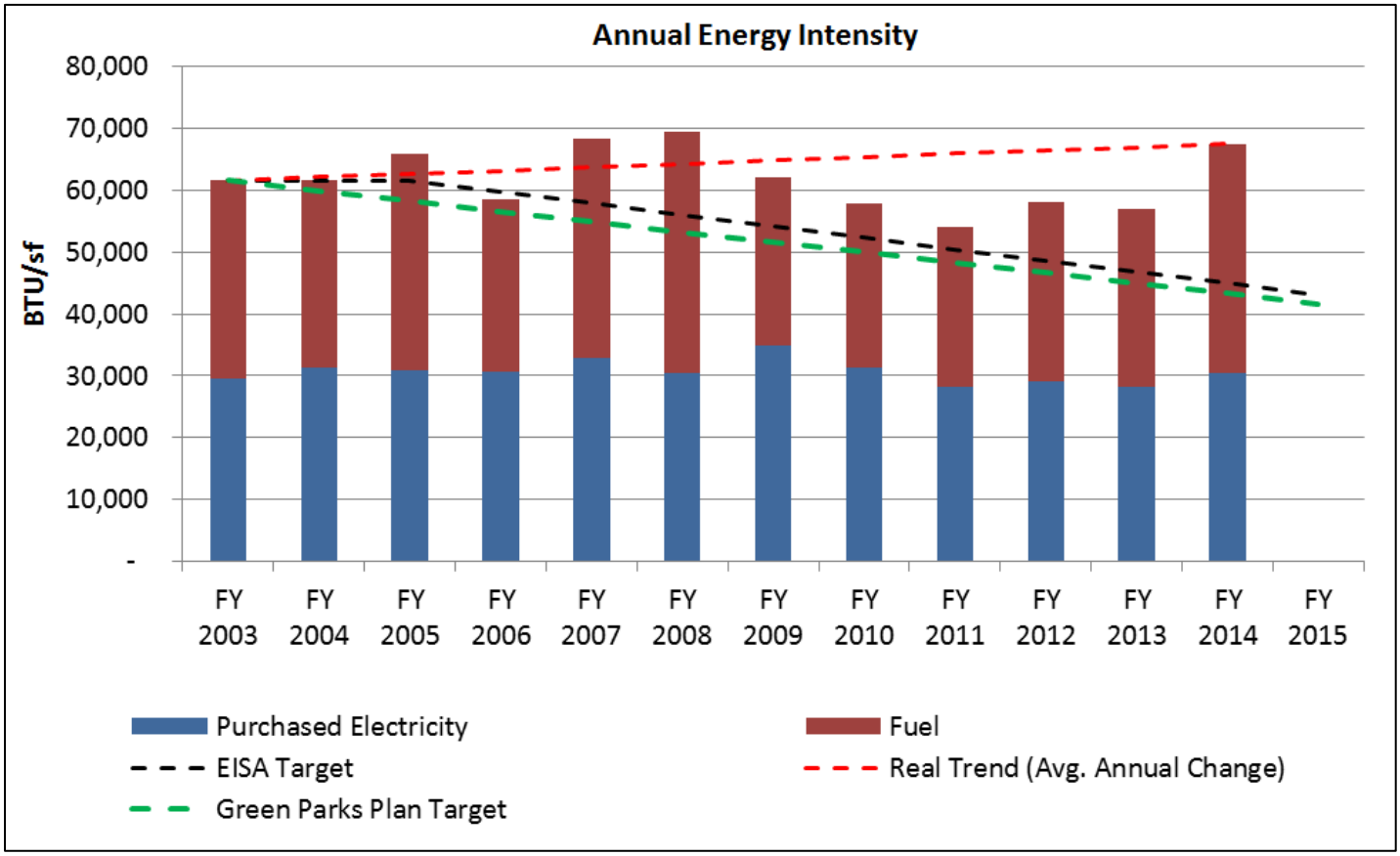
The NPS manages the largest number of constructed assets of any civilian agency in the Federal Government. It operates more than 67,000 structures that account for more than 50 million square feet of constructed space such as visitor centers and historic structures. The Green Parks Plan (GPP) defines a collective vision and a long-term strategic plan for sustainable management of NPS operations. A critical component of the implementation of the GPP will be informing and engaging parks' staff, visitors, and community partners about climate change and sustainability to broaden opportunities to foster change.

The Vision defined in the GPP plan is, "The NPS will preserve park resources unimpaired for the enjoyment of current and future generations by reducing its environmental impact through sustainable operations, design, decisions, and management at every level of the organization." The plan is based on nine strategic goals that focus on the impact of facilities on the environment and human welfare. Two of those goals are closely aligned with Park Infrastructure as defined in this State of the Park report. Those are:

- Be Energy Smart: The NPS will improve facility energy performance and increase reliance on renewable energy; and
- Be Water Wise: The NPS will improve facility water use efficiency.

For Energy, one of the performance objectives is to reduce Servicewide building energy intensity by 35 percent by 2016 from the 2003 baseline, where energy intensity is energy consumption per square foot of building space. For Water, one of the performance objectives is to reduce potable water use intensity by 30 percent by 2020 from the 2007 baseline.

Historical data for energy and water consumption reported by SITK and available in the Energy Data Reporting Tool (EDRT) is shown below.



SITK has an abundance of water that is not metered. However, the park strives not to waste and to use the resource sparingly.

Highlights for SITK include:

- Energy intensity has remained fairly constant since the 2003 baseline with minor variations from year to year.
- The increase in 2014 is due to the addition of a USGS facility that has not been fully weatherized to modern standards. The heating system is also to be replaced.

Resource Brief: Using Sonic Tomography at SITK

In order to determine the soundness of the buried yellow cedar support posts attached to SITK's red cedar totem poles, facilities specialists contacted Arbormedics in Atlanta, Georgia, an organization that specializes in sonic tomography to determine the health of trees. The sonic tomography system is specifically designed to test tree trunks for fungal decay based on the density of wood. The system generates data based on the speed of sound waves traveling through the tree trunk. The software then compares the speeds to other speeds found in the same tree—not to a known standard for a certain species. This means that the base poles are evaluated against the "hardest" parts in their own trunk, rather than a standard for living yellow cedars determined in different climates or locations.

Arbormedics and SITK maintenance workers assess the condition of the Trader Legend Pole.

The system consists of a set of pins ("nails") placed approximately 1/4–1/2 inch into the periphery of the trunk. It is normal to use 8–10 nails for the park's support poles. Each pin is attached to a module that captures the sound wave generated by tapping on the additional pins with an electronic hammer. As information is collected, a "spider web" of data maps the density of wood and provides an accurate digital image of the inside of the trunk. A typical sonic scan produces the equivalent of 189 drillings and provides an accurate image detailing percentages of various densities. A less desirable alternative system is the "resistograph," which drills holes deep into the trunks and measures the resistance the drill bit encounters. Most arborists drill a 20-inch tree trunk 6–8 times and guess the rest of the picture. Research shows that resistograph drilling creates perfect channels for fungal movement throughout the tree trunk—essentially hastening the decay of the base pole.

Sonic scanning provides SITK with a baseline condition of the totem pole bases at the park. More importantly, a repeat scan in 2–3 years will provide the park with instrumental data regarding the rate of decay by comparing the images from one scan to the next. This is a very good way to budget and plan for replacement of the support posts. It will also provide the park with information about the pattern of decay that may be helpful in positioning future poles.

2.5 Subsistence

Sitka National Historical Park is a pre-Alaska National Interest Lands Conservation Act (ANILCA) park, and thus does not have a federal subsistence management mandate. However, the mouth of the Indian River is used locally to fish for anadromous fish, from steelhead to coho salmon. Fisherman access this area just outside the park boundary via park trails. Fishing for salmon is prohibited by Alaska State fishing regulations between the park tidal boundary (mean high water) and the Indian River Bridge at Sawmill Creek Road.

Chapter 3. Summary of Key Stewardship Activities and Accomplishments

Activities and Accomplishments

The list below provides examples of stewardship activities and accomplishments by park staff and partners to maintain or improve the condition of priority park resources and values for this and future generations:

Natural Resources

- Completed a Natural Resource Condition Assessment (NRCA) in 2012.
- Completed mapping of park land cover.
- Completed an Intertidal Monitoring Pilot project.
- Park managers conducted a "State of the Indian River" meeting in September 2014 to review and summarize water rights, allocations, and anadromous fish stocks. A follow-up management meeting is planned for 2015.
- The park continues to make active use of volunteers and Student Conservation Association (SCA) interns to help regional and SEAN scientists, as well as partner scientists from the State of Alaska and other institutions.
- The park continues to work closely with the Southeast Alaska Network (SEAN) to implement the inventory and monitoring of vital signs across a broad range of environmental variables (Moynahan 2008).
- NPS biologists continue to study pink salmon straying rates from the adjacent Sitka Sound Science Center hatchery (Gende 2014). This study will likely continue into 2016. The objective is to establish what long-term trends in pink salmon straying are and how they might affect the environmental quality of the Indian River.

Cultural Resources

- Developed a History Research Plan (Allan 2015).
- Established the "Scholar-in-the-Park" program to improve the history program area.
- Organized museum collections, including completing organization, culling, and improved finding aids, for archival collection.
- Corrected accessioning deficiencies to improve property control of museum collection.
- Participated in the Maintained Cultural Landscape pilot program with the NPS Washington Office Cultural Landscape Program to improve maintenance of key landscapes.
- Completed the Cultural Landscape Inventory document for the Russian Bishop's House (Welzenbach 2012).
- Sponsored the National Preservation Institute workshop for cultural landscape training in 2015.
- Completed an archeological site condition survey in 2014, with assistance from a volunteer archeological technician.
- Completed applications to compete for Cultural Resource Protection and Preservation funding of core anthropological and cultural affiliation documents.
- The park continues to prioritize ongoing maintenance of historic structures in good condition, including project identification, scoping, compliance, and documentation.
- The park continues to prioritize continuation of knowledge transfer of Totem preservation and restoration techniques.
- The park continues to prioritize ongoing consultation with NHPA consulting parties about project work, park operations, and other issues of mutual concern.
- The park continues to work on identifying, scanning, and posting key cultural resource management documents to the park website.

Visitor Experience

- Developed a Cooperative Agreement with the Sitka Tribe of Alaska for a demonstration arts program to be run in conjunction with the Sitka Tribe of Alaska.
- Installed all new waysides in 2014 and directional signs in 2015. The waysides will be fully audio-described by summer of 2016.
- The SITK centennial in 2010/2011 included the presentation of a Centennial Ravenstail robe from Tlingit artist Teri Rofkar in March 2010, an E.W. Merrill photographic exhibit in April 2010, Tlingit-Alutiiq Cultural Sharing event in June 2010, the International Conference on Russian America in August 2010, Alaska Day celebrations on October 18th, 2010, and the raising of the Centennial Pole in April 2011.
- Held Yaaw Khusge Yaa Woogoo—Knowledge of Herring Camp. This collaborative project began in 2014 and is done in close coordination with the Sitka School District and Sitka Native Education Program.
- Debuted the new SITK Junior Ranger Book in October of 2013. Interest in the new books is high; three Junior Ranger Day special events have reached almost 300 Sitka children. For the first time, the park hosted two Junior Ranger Day events. These events combined to reach around 100 children and resulted in the kids earning SITK Junior Ranger badges or Junior Ranger Wilderness Explorer Badges.
- Instituted SITK's Facebook page in 2011. The page is fully compliant with the NPS Social Media Policy and has more than 4,000 followers.
- The park continues to update its website to reflect required and desired changes for the 2016 Centennial.

Park Infrastructure

- Initiated a series of totem pole re-carving projects to replace deteriorated poles at the end of their lifecycles.
- Committed to using all non-toxic cleaners, no toxic solvents and no herbicides for vegetative management.
- Switched (to the extent possible) to using electric lawn mowers, string trimmers, leaf blowers, cut off saws and even chain saws. Chain saws are lubricated with vegetable oil.
- Installed new, energy efficient heat pumps at the Russian Bishop's House.
- Fully implemented an industry standard software system to account for time and materials to perform maintenance tasks to accurately track and be accountable for costs.
- Replaced all directional signs and waysides in 2014–2015.
- Purchased (and uses) an electric car. The maintenance staff continues to make use of a crew bicycle for travel to the Visitor Center from the Maintenance Facility.
- The park continues to conduct general maintenance and upkeep of the Russian Bishop's House, which was constructed in 1842. The National Park Service invested over 6 million dollars rebuilding this historic structure, which is one of only 4 remaining buildings from Russian colonization in America—and the best preserved.
- The park continues to conduct work to preserve and protect the park's totem poles, so future generations can enjoy seeing these great works of art carved by Alaska Natives.
- The park continues to maintain the Mission 66 Visitor Center and two other historic structures to high standards so all can enjoy.
- The park continues to recycle glass, plastic, paper and cardboard, fluorescent light bulbs and aluminum.
- The park ensures that cut brush, grass clippings, tree branches and other vegetal materials are chipped and the biomass is placed back in the park and never into the garbage waste stream.
- The park continues to use a new technology called sonic tomography to assess totem pole support post conditions.
- Maintenance continues to make maximum use of the local hire authority provided through ANILCA.

Chapter 4. Key Issues and Challenges for Consideration in Management Planning

VISITOR UNDERSTANDING AND EXPERIENCE

Russian American Theme

Sitka National Monument, established in 1910, was re-designated as Sitka National Historical Park (SITK) in 1972 after the acquisition of the Russian Bishop's House, a National Historic Landmark. The 1972 enabling legislation directs NPS management to "preserve in public ownership for the benefit and inspiration of present and future generations of Americans an area which illustrates the early history of the United States by commemorating czarist Russia's exploration and colonization of Alaska…the Secretary of the Interior is authorized to acquire…the lands and interests therein, and improvements thereon, including the Russian mission…".

Over the last 43 years, the broad theme of Czarist Russia's exploration and colonization of Alaska has largely been overlooked. The park's interpretive focus for this core mission has been almost exclusively the history and reconstruction of the Russian Bishop's House itself, and its use by Bishop Innocent. This limited focus on the Russian Bishop's House produces a visitor experience more akin to the visit to a historic house museum instead of a visit to a National Historical Park representing a richly evocative and very historically-influential component of American History: Russian-America.

The thoughtful recommendations of the NPS Alternatives Study (1971), which developed the strategic framework for the Russian American component of the park, were only partially adopted through the purchase of the Russian Bishop's House. The NPS Alternatives Study recommended acquiring the Russian Blockhouse in downtown Sitka, as well as additional property from the Russian Orthodox Church. This was intended to promote a more representative interpretation of the Russian-American Period, and the Russian-Tlingit cultural, historic, military, religious, economic, and social interactions. Other Russian American features (Castle Hill, Old Sitka/Battle of 1802 Site, and the Russian Blockhouse) were included in various Congressional bills in 1971 and 1972, but the bills' sponsors decided to include only the Russian Mission (as it was called at the time), due to the urgency of correcting its dire condition. Completing the 1971 study recommendations now could profoundly improve a visitor's understanding of Russian America in Alaska, taking the interpretive experience far deeper than that provided by the Russian Bishop's House alone.

The need to address this mandated—but underdeveloped—theme is relevant to the NPS mission. In the absence of additional, more diverse physical resources, management will be hard-pressed to effectively develop the broader Russian-American theme mandated by the mission.

The urgency of this management challenge is elevated since 2017 is the 150th anniversary of the Alaska Purchase, a pivotal event that represents early, peaceful, American assertion of global power immediately after the Civil War. Apart from the sites that serve to develop the Russian-American theme, SITK should have a substantive presence in the planning and execution of sesquicentennial celebrations because the events marking the end of the Russian-American period in American history are directly relevant to the park's core mission.

Sitka was the capital of Russian America—as well as the American territorial capital until 1900—and Sitka National Historical Park is the only National Park in the NPS system directed to tell the story of Russian America. A full range of management alternatives, from direct ownership, co-management where appropriate, and heritage area designations, to other partnership agreements, would help bring together the relevant and remaining Russian American resources as Congress originally intended.

Exhibits

SITK has two public museum spaces. The Visitor Center houses a collection of Tlingit artifacts and totems. The Russian Bishop's House has exhibits dedicated to the Russian American era. Both of these permanent exhibits are 30–40 years old and urgently need updating in content and style. As one example, the furnishings used in the Bishop's residence on the second floor of the Russian Bishop's House may in some cases be historically inaccurate, since they were collected and set up for display during the Cold War, when access to Russian archives was restricted. A major opportunity to improve visitor understanding and experience would be to research and replace—or significantly update—these collections.

Multimedia

In the Visitor Center Theater, SITK offers a film: "The Voices of Sitka." While it is a popular interpretive tool, the film is over 10 years old, is dated in content, and does not reflect contemporary audio or video quality. As a secondary issue, the film does not have releases from the local actors/participants and therefore cannot be sold as a retail item.

The park has made some progress in connecting visitors to the resources through multimedia, specifically with greater attention to Facebook, a blog and the use of Quick Response (QR) codes on the new directional and interpretive trail signs installed last year. There are still challenges in staffing and expertise to keep the park's website current with rapidly-developing social media such as Twitter and Instagram. These newer communication channels can be especially effective in reaching the individual traveler as well as virtual visitors.

Cruise Ship Visitors

A long-standing and continuing challenge is the park's effectiveness in connecting to the 100,000 or more potential visitors who disembark at Sitka from May through September. In the traditional system, cruise ships anchor off Crescent Harbor adjacent to the park and bring their passengers to two downtown docks with small boats. The park has typically dispatched a seasonal ranger or volunteer in uniform to those docks to engage with the visitors and provide information about the park. Over the past two years the cruise ship disembarkation points have expanded—with a new, privately-owned dock seven miles north of town. Passengers are now bused to and from various downtown points, making it more difficult for park staff to connect with these visitors.

The greater challenge is to connect with visitors arriving by ship before they disembark in Sitka. Cruise ship companies have been reluctant to heavily promote activities that might encourage their passengers to spend time away from the commercial enterprises in Sitka to which they have commercial ties. SITK will continue to explore ways to improve the effectiveness of the park's first contacts with visitors from cruise ships, as well as those who arrive by the Alaska Marine Highway System (AMHS).

Local Visitors

The park receives on the order of 100,000 seasonal visitors annually, the vast majority arriving on cruise ships from May through September, and therefore targets its programming for the summer visitor. However, SITK is uniquely positioned to both account for and increase visitation because it is located in downtown Sitka. Sitka has nearly 9,000 year-round residents who are potential park visitors on a daily basis. All of these people live within a seven-mile radius of the park. Until recently, non-seasonal visitor numbers were recorded as zero. Trail counts of local visitor use are still not occurring. Preliminary estimates show around 200 persons a day are experiencing the park trails. Extrapolated, the park could be undercounting visitor days by 73,000.

The larger management challenge is to capture local visitors through more innovative, locally-focused programming. Nationally, a revelation regarding local park relevancy has resulted in the NPS Director's *Call to Action* item "Find your Park," which suggests Sitka is not the only National Park that may be undervaluing local visitors and constituents. In line with "Find Your Park," a new watch-phrase for SITK is, "Our visitor season is 12 months long," and the challenge is to attract Sitka's local residents to the park in all seasons. The potential for substantially increasing local visitor days each year should be pursued to the extent that funding and staffing permit.

Tlingit Integration into the Park

The park's ongoing, positive relationship with the various elements of the Tlingit community, and especially the Kiks.adi Tlingit clan—which is called out directly in the park's enabling legislation—is a key theme in the General Management Plan (GMP). The park has promoted this ongoing dialog with the Tlingit community, including periodic meetings with elders and clan leaders, and monthly, formal consultations with the federally-recognized Sitka Tribe of Alaska.

Effective connections with the Tlingit community face several challenges. The first is the changing political landscape. Tlingit leaders and park managers change on a regular basis. This demands vigilance on the part of the park management team to keep abreast of the changing Tlingit leadership and to keep senior park staff educated in Tlingit social structure, leadership, culture, politics and history as they begin serving the park. The character of the park-Tlingit interaction has largely been one-way, with the park reporting on its Tlingit-relevant activities and plans, and soliciting input from elements of the Native community. The challenge is to engage in more holistic dialog and action as envisioned by the GMP.

A second challenge is to fully integrate Tlingit culture and presence into the park's interpretive programming, as also called for in the

GMP. This, too, has been largely one-way. The park has been challenged significantly in building both seasonal and permanent staff with a Tlingit presence, and the interpretive programs are drawn and delivered by the largely non-Native interpretive staff. Park management must strive to address both of these significant gaps in the park planning and operations with respect to the Tlingit community.

Southeast Alaska Indian Cultural Center

In 2010 the NPS chose not to renew its long-term cooperative agreement with the Southeast Alaska Indian Cultural Center (SEAICC). SEAICC, a nonprofit organization whose mission was to perpetuate the cultural of Southeast Alaska Native People through the arts, had been co-located at the park's visitor center for more than 40 years. The organization was widely characterized as a valued Alaska Native Park Partner and had been an extremely popular visitor attraction, with many repeat visitors traveling year after year to visit and work with the local artists.

SEAICC was a major contributor to the renaissance in Northwest Coast Art in Southeast Alaska. Its programming included daily Native artist demonstrations in wood carving, metal-smithing, beading and tapestries, as well as special evening programs, classes, and opportunities for apprentices to work with more experienced craftsmen. SEAICC was responsible for nurturing many award-winning, world-class artists who—through their journey to learn and rediscover traditional art—caused resurgence in native language and culture.

Without NPS support, SEAICC as a non-profit organization dissolved. This resulted in a great loss to the park's visitor experience and local outreach—damaging the park's relationship with many Alaska Native entities. A replacement organization (or agreement) is in development to restore Tlingit art and cultural programs to the park, but significant challenges remain.

CULTURAL RESOURCES

Tsunami Zone

In 2013, the State of Alaska determined that the park's curatorial facility (and main visitor center) was within a tsunami inundation zone (Suleimani et al. 2013). No formal NPS risk assessment has been undertaken to ascertain the need for corrective action or what alternatives or mitigations are possible, but both the City and Borough of Sitka All Hazard Plan (2010) and Comprehensive Plan (1999) determined that tsunami-risk is the single-most probable and destructive hazard to the portion of the community on the coast. Tsunamis are a significant threat to the park's irreplaceable cultural property.

Loan Agreements

The park has entered into multiple and various loan agreements with local Tlingit clans for the storage and safekeeping of various clan objects over the past 40 years. The oldest of these loan agreements has problematic conditions, requiring universal consent of unnamed and unspecified heirs in order for the loaned objects to be "checked out."

Another emerging concern with the loan agreements is that there may be an under appreciation by the loaning parties that the park may only enter into these arrangements if there is a genuine public interest and public benefit. Development of standard loan clauses that require a public benefit (cultural demonstration, cultural education, public viewing, photo cataloguing of unique and exceptional objects, etc.) is warranted to avoid having the park appear to be a passive and private storage facility for clan objects.

Cultural Landscapes

The park has suffered from benign neglect of its vegetation in three primary areas and consequently has compromised at least two of its primary assets. The most problematic cultural landscape alteration is that of the actual battle site and battle zone. The battlefield has been allowed to go into succession between 1990 and 2015, changing from a coastal meadow to an alder-spruce forest. Correcting this change should include detailed assessment of the location of the Kiks.adi fort, a greater understanding of the sites of Russian landings, and associated vegetation and view-shed clearings to provide for a period landscape.

Second, the viewsheds from the Kiks.adi Tlingit Fort Site have grown in, creating a "room-like" effect on the fort site, rather than the openness known to exist when the fort was occupied and defended. Specific corrective action will be required to restore selected views that existed during the 1804 Battle, including the view prevailing between the Kiks.adi fort and the Russian Navy's anchored warship Neva during the Neva's bombardment. In the absence of a historically accurate viewshed, interpretation of battle-related events is exceedingly difficult.

Finally, and to a lesser degree, totem viewing along the Totem Trail has been adversely impacted by encroachment of trees and bushes into previously-open, vegetative "frames" for these park highlights, conveying a more closed, less visually-impactful visitor experience from both the trail and the water (i.e., cruise-ships, charter vessels, etc.).

Historical Research

SITK is a historical park without a trained historian. This has adversely impacted the park's ability to effectively communicate the significance of the park to visitors and has also contributed to the stagnation of research and historic interpretive material development. An active and professional historical program at the park is appropriate for an NPS unit whose core mission is to tell the story of Russian America.

Ethnographic Research

SITK's 1910 presidential monument designation is based on the Kiks.adi/Russian Battle of 1804, along with reference to the Kiks.adi (Tlingit) village. Little information has been collected on the Kiks.adi or Tlingit. The lack of ethnographic research has impacted the park's ability to effectively communicate the significance of the park to visitors and also contributed to the stagnation of interpretive material that would normally evolve as new historical and ethnographic approaches are developed.

NATURAL RESOURCES

Indian River Water Rights and the Associated Ecological Impact of Sitka Sound Science Center's Indian River Diversion

Indian River water rights and the associated ecological impact of Sitka Sound Science Center's diversion of water from the Indian River are major issues that are both decades-old and represent the greatest single threat to the park's natural resources. The Indian River is the ecological heart of the park, running right through the middle of the Totem Unit and emptying into Sitka Sound and the Pacific. It is the only river in the park and is a major salmon-spawning stream, as well as the core of a temperate rain forest habitat for many other species.

President Benjamin Harrison issued a federal proclamation designating the current SITK Totem Unit land as a public park in 1890. The Alaska Department of Natural Resources (DNR) does not acknowledge that proclamation as valid for reserving water rights to the park. Consequently, a senior State-of-Alaska water right, transferred from the now-defunct Sheldon Jackson College to the Sitka Sound Science Center, diverts up to 30 cubic feet per second (cfs) from the Indian River to support raising hatchery fish and "attracting" returning fish to the hatchery during spawning. At times during the salmon spawning season, this diversion pulls more than 50 percent of the flow away from the river. The ecological impact of extreme low flow due to Sitka Sound Science Center's hatchery diversion needs to be quantified beyond the current observations of dead resident fish and dead, un-spawned salmon. An evaluation should be done for impacts of water flow on the entire park ecosystem. Sitka National Historical Park currently lacks a staff biologist; it would be advantageous to hire a professional biologist to quantify the impact of the Indian River water diversion on the park's biota.

The situation is also complicated by the DNR's delay in adjudicating appropriate water rights for the Sitka Sound Science Center salmon hatchery, which is also responsible for an estimated 18 percent additional load through hatchery salmon straying into the park's Indian River. Alaska Department of Fish and Game (ADF&G) pink salmon return estimates suggest a geometric (and ultimately unsustainable) rise in pink salmon returns that will impair the ecological function of the Indian River in low-flow years.

Biological Inventory

The park needs more complete biological inventory of its terrestrial, tidelands, and riparian areas. The most pressing need relates to inventorying the park's tideland taxa because the tidelands have direct exposure to large cruise ships and other marine vessels with associated risks of petroleum and other contaminate spills, as well as the introduction of invasive species. Both oil spills and invasive species have disastrous effects on sensitive tideland habitats and species. Sitka National Historical Park currently lacks a staff biologist; it would be advantageous to hire a professional biologist to expand the park's understanding of species present within the park.

Without a species baseline inventory, no quantification of acute impacts or cumulative impacts can occur. The level of concern for an oil spill impacting the park and Indian River is evidenced by a major multiagency weeklong oil spill drill led by the U.S. Coast Guard and SEAPRO in April 2015.

Climate Change

Changes in climate can affect many park resources. Plant productivity and distribution is projected to change with climate (Eckert et al. 2006) and warming may increase the threat of non-native species invasion (Auer and Link 2010). The melting of permanent snowfields in the upper reaches of the Indian River watershed could cause a short-term increase in runoff and streamflow, which could alter streamflow and sedimentation in the park (Eckert et al. 2006). Climate change may also contribute to changes in species distributions; bird species may move their home ranges north (Hitch and Leberg 2007, Moynahan et al. 2008). Effects of climate change are influenced by the park's location on the Pacific Ocean.

There are actions SITK can take to adapt to and mitigate the effects of climate change. Adapting in Sitka depends on observed effects and—so far—no direct effects to visitor experience have been observed. Park managers have recognized that changes in sea level, isostatic levels, and sea temperatures could endanger the non-renewable cultural resources in the park and have scoped to move the museum collection and selected totem poles to higher elevations, outside the tsunami and storm surge zones. A natural resource adaptation strategy may include a management action plan to preserve salmon, or adapting operational practices to maintain a viable environment for changing species and the visitor experience.

INFRASTRUCTURE

General

Sitka National Historical Park is critically short of office and work space. Existing offices are generally in small and widely-dispersed facilities. The operational efficiency and cohesiveness of the extremely small staff (13 FTEs) is further hampered by being located at five different work sites. Staff at multiple work sites generates considerable communication challenges and facilities redundancies—including multiple phone and computer system nodes operating through antiquated data lines, as well as heating and utility costs for multiple buildings, most of which have insulation and other infrastructure that is a generation or more out of date. Staff distribution also directly impairs routine communication and requires greater time, expense, and risk exposure due to frequent travel between sites.

Curatorial Facility

Currently, most of the museum collection is located in storage within the park's main visitor center, at approximately 6 feet AMSL (above mean sea level). Multiple studies and emergency plans have demonstrated that this puts the collection within the historic tsunami risk zone and that the primary risk for resources this close to the ocean is tsunamis. Additionally, earthquakes and volcanoes could endanger the collection. Consistent with the current NPS service-wide curatorial storage plan, the park has requested funds to purchase lands above the tsunami zone (+100ft AMSL) and construct a curatorial storage facility that can serve as a multi-park facility for Southeast Alaska. This will allow the priceless park museum collection to be effectively preserved in the community where it has the most significance.

Maintenance Facility

SITK's main maintenance facility consists of three "bays" of a commercially-zoned strip mall approximately 0.5 mi from the SITK Visitor Center and 1 mile from the Russian Bishop's House. Sitka National Historical Park shares the strip mall with a pet store, a health food store, a woodworking shop, and a Mexican-food/pizza restaurant. The top floor of the mall has various forms of housing, including a small hotel.

The store areas immediately adjacent to the park's leased maintenance space include spaces leased to a tenant who intends to sell marijuana from the site. (Alaska recently legalized the sale of marijuana and the tenant is waiting for the State of Alaska to develop commercial marijuana regulations). The building signs will display the NPS Arrowhead next to the logo of the marijuana store. This is neither an appropriate nor inspiring public portrayal of the National Park Service.

The park has 8 reserved parking spots at this mall. It is expected that additional signage will be required to keep the park's parking spaces open and available for park use once the marijuana store opens.

The existing maintenance facility is under GSA lease, which was renewed for 10 years in 2014. The lease may be canceled with 4-month notice. However, it is in the park's best interest to continue to use the GSA in any future leasing since the direct cost of the lease does not come from the park's base budget.

The park has explored a new opportunity to lease a maintenance facility from the City and Borough of Sitka at its new, secure Jarvis Street maintenance facility directly across the street from the park's east entrance. Further discussions are necessary with GSA in order to gain the greatest benefit from this potential opportunity to partner with the local government.

Visitor Center Renovation

The SITK Visitor Center underwent a major renovation in 2000 and 2001. Although the work resulted in some improvements—including the addition of indoor totem exhibits— it also produced structural, facilities, and space issues that remain today.

The visitor center heating and ventilating system has never fully functioned. After several mechanical reviews and suggested modifications that called for removing improperly designed and installed heating and ventilating components, the system feeding the Curatorial Wing is now regulated by having employees manually adjust several zone valves. This process requires frequent operational checks, and over the course of a typical year accounts for excessive labor hours. This workaround requires scaling a ladder into the attic space which—although from a management perspective is unacceptable—has become standard practice in the staff's daily duties.

The inability to regulate temperature also raises and lowers the relative humidity in the curatorial wing beyond museum-standard levels, which is undesirable for the care and storage of priceless objects and artifacts. The curatorial wing is severely deficient in office space, has no lab space, and has a makeshift collections study space. All of this results in the frequent and temporary relocation of shelves, desks, and tables in order to access and work on cultural objects. In the summer season, this space is too crowded and limits the opportunity to take advantage of the numerous scholars, interns, and volunteers that have been recruited to work at the park.

The Curatorial Wing is walled off from the Visitor Center proper and requires access to either space through exterior doors. The curatorial restroom was plumbed improperly during renovation and did not drain effectively. After a decade of attempted fixes, the facility was capped and converted to storage.

Housing

The park does not own any housing although affordable housing is critical to the park's operational efficiency. The park needs secure, long-term housing—especially for seasonal staff. The ability to attract quality summer seasonal employees, scholars, and volunteers, is predicated on the ability to provide them with affordable housing because Sitka has one of the most expensive short-term rental markets in Alaska, and the housing supply is quite limited. Currently the park meets its seasonal housing need by leasing one, eight-bedroom multiplex from the U.S. Forest Service and one, four-bedroom house from the U.S. Geodetic Survey. Should SITK lose these existing leases, park operations and staffing would be impacted greatly. Therefore, it is a high park priority to secure long-term leases for these facilities, or explore their transfer to the park.

Transportation

The safe and efficient movement of visitors and staff to, through, and out of the park is a significant and continuing management challenge. Park management is tackling the issue through a series of projects either underway or in the planning stages.

The first of the transportation issues is the western approach to the park along the Lincoln Street corridor (i.e., from downtown). This flow of traffic is the primary means of accessing the Totem Unit of the park from the cruise ship facilities downtown, and includes pedestrian, bicycle and motor vehicle transport, which includes private vehicles and commercial and community buses.

The City and Borough of Sitka completed its portion of the community, multi-partner, pedestrian SeaWalk in 2013, starting at the downtown cruise ship lightering facility and ending at the park boundary. The park is planning to extend the SeaWalk to the Totem Unit's front entrance, which is moving towards completion. A 400-foot section remains incomplete. The Alaska Regional Office has an IDIQ contract with the designers who designed the adjacent City SeaWalk, and ample funding from the Federal Highway Administration.

Once the park portion is completed, the SeaWalk will provide for the safest and most efficient flow of pedestrian traffic to the park, and will enhance the visitor experience by allowing pedestrians to enjoy beach views and a closer look at an iconic park resource, Merrill Rock, which sits on the western boundary at the sea.

The safe and efficient inflow and egress of vehicular traffic along the Lincoln Street Corridor to the park from the west is a significant and long-term challenge. The primary element of that challenge is a complete reconfiguration of the visitor center parking facilities to allow for appropriate parking and approaches—including accessible approaches—for large commercial vehicles, emergency vehicles, private vehicles, bicyclists, pedicabs, and other conveyances, which during peak visitor season can create high levels of vehicle activity. The management team has reviewed this challenge at a high level. Detailed scoping and planning has yet to begin.

The park's renowned trail system is a multi-use transportation network. Parts of the trail system allow visitors to enjoy the cultural and natural resources of the park, including the world-renowned Totem Trail. Other parts promote safe and efficient local pedestrian and

walking-bicyclist passage over the Indian River Pedestrian Bridge through the heart of the park, connecting the eastern business and residential area of Sitka to the downtown and western districts of the city.

The trail issue at hand is the construction of a new pedestrian bridge over Indian River. The existing structure is at the end of its useful life. Planning, funding and public scoping of the bridge project are complete. Construction will begin in 2016. The biggest challenge will be to manage a safe work project while also providing an enjoyable visitor experience since the existing bridge doubles as the park's most popular salmon-viewing site during peak spawning runs from July to September.

The third significant transportation challenge is safe passage of visitors into and out of the park from its eastern entrance that borders Sawmill Creek Road (SMC), a heavily-trafficked arterial that connects Sitka to its prime commercial district. The largest safety issue for park visitors is that the SMC traffic flow divides the park from another major visitor attraction, the Alaska Raptor Center, which is located across the road and to the left as a visitor exits the park. The existing SMC crosswalk is placed to the right, in such a manner that it is often ignored or bypassed by visitors, who choose instead to walk along the eastern park boundary and cross the highway at an unmarked crossing.

Park managers have secured a Federal Highways grant in partnership with the City and Borough of Sitka to fund a transportation corridor safety study to address these Sawmill Creek Road issues and to help provide for greater traffic and pedestrian safety.

PARK PLANNING

In 2014 the park's management team did a comprehensive review of the 1998 General Management Plan (GMP). The review and gap analysis clearly demonstrated the existing GMP to be a valuable and relevant management document, although dated. The gap analysis demonstrated that many of the core recommendations of the GMP had not yet been realized. This analysis creates the opportunity for planning multiple large- and small-scale projects, actions, and activities at the park that will bring the park into closer compliance with the management strategies stated in the GMP.

Subsequent efforts are needed to continue on this path. The park management team will first consolidate what remains to be accomplished under the GMP and develop a strategic plan to identify priorities, resources and actions, as recommended in the overall NPS planning framework—all in keeping with the concept of adding value through public service.

References

See the State of the Park Report for the Park website for a more complete list of references to documents and data sets upon which the assessments in this State of the Park report are based. References for several of the key documents cited in this report are as follows:

1998. SITK Coastline. Geospatial Dataset-2215999.

1998. SITK Indian River Bank Erosion Transects. Geospatial Dataset-2216004.

[AK H&SS] Alaska Department of Health and Social Services (H&SS), Division of Public Health. 2014. 2014 updated fish consumption advice for Alaskans. Bulletin No. 13. Anchorage, Alaska. Generic Document-2221908.

Akana, N. 2015. Sitka NHP Security Survey. Presentation and Survey on file, Sitka NHP.

Allan, C. 2015. Historical Research Plan. Plan on file, Sitka NHP.

Antonson, J., and W. S. Hanable. 1987. Administrative history of Sitka National Historical Park. Administrative History. National Park Service, Alaska Region. Anchorage, Alaska. Published Report-655816.

Auer, K., and K. Link. 2010. Invasive and exotic species management for Sitka National Historical Park: 2010 summary report. Natural Resource Data Series NPS/SITK/NRDS—2010/104. National Park Service, Fort Collins, Colorado.

Betts, R. C. 1999. An overview and assessment of archeological resources, Sitka National Historical Park, Alaska. Contract #1443PX991097174. Vanguard Research. Sandpoint, Idaho. Published Report-619783.

Bieniek, P. A., J. E. Walsh, R. L. Thoman, and U. S. Bhatt. 2014: Using climate divisions to analyze variations and trends in Alaska temperature and precipitation. Journal of Applied Meteorology and Climatology. 27: 2800–2818.

Bono, G. L. 2013. Invasive and Exotic Plant Species Management for Sitka National Historical Park: 2012 Summary Report. Natural Resource Data Series NPS/SITK/NRDS—2013/432. National Park Service. Fort Collins, Colorado. Published Report-2192706.

Chaney, G. P., R. C. Betts, and D. Longenbaugh. 1995. Physical and cultural landscapes of Sitka National Historical Park, Sitka, Alaska. Vanguard Research. Douglas, Alaska. Published Report-619781.

Chapin, F. S., III, S. F. Trainor, P. Cochran, H. Huntington, C. Markon, M. McCammon, A. D. McGuire, and M. Serreze. 2014. Ch. 22: Alaska. Climate Change Impacts in the United States: The Third National Climate Assessment, J. M. Melillo, Terese (T.C.) Richmond, and G. W. Yohe, Eds., U.S. Global Change Research Program, 514–536.

City and Borough of Sitka. 1999. Sitka Comprehensive Plan. Report on file, Sitka National Historical Park.

City and Borough of Sitka. 2010. City & borough of Sitka multi-hazard mitigation plan. City & Borough of Sitka. Plan-2224031.

Cloyd, P. C., and A. S. Donald. 1980. Russian Bishop's House, Sitka National Historical Park, Alaska: Historic Structure Report. Denver: U. S. Department of the Interior, National Park Service.

Cusick, J. 2015. Personal Communication, March 2015.

Dauenhauer, N. M., R. Dauenhauer, and L. T. Black (eds.). 2008. Anóoshi Lingít Aaní Ká / Russians in Tlingit America: the battles of Sitka, 1802 and 1804. University of Washington Press, Sealaska Heritage Foundation. Seattle, Washington. Classics of Tlingit Oral Literature. Book-2221958.

Dillman, K., L. Geiser, and G. Brenner. 2007. Air quality bio-monitoring with lichens on the Tongass National Forest. USDA Forest Service. Petersburg, Alaska. Published Report-2192634.

Eckert, G., E. Hood, C. Talus, and S. Nagorski. 2006. Assessment of coastal water resources and watershed conditions at Sitka National Historical Park, Alaska. Technical Report NPS/NRWRD/NRTR—2006/347. National Park Service, Water Resource Division, Natural Resource Program Center, Fort Collins, Colorado.

Engle, J. M. 2008. Unified monitoring protocols for the multi-agency Rocky Intertidal Network. U. S. Department of the Interior, Minerals Management Service. Protocol-2181647.

EPA National Listing of Fish Advisories (NLFA). 2015. Advisories for Alaskan Waters. Available at: http://fishadvisoryonline.epa.gov/Advisories.aspx. Accessed on 4/16/ 2015.

Faegre A. 2002. Seaplane noise. Aron Faegre & Associates. Portland, Oregon. Unpublished Report-2221914.

Faulkner, S. M., W. S Hanable, and R. L. S. Spude. 1987. Russian America Theme National Historic Landmarks. National Historic Landmark Theme Studies. U.S. Department of the Interior, National Park Service. Anchorage, Alaska. Published Report-2185918.

Gende, S. 2014. Indian River Pink Salmon Otolith Sampling, Final 2014 Report. Manuscript on file, Sitka National Historical Park.

Goldschmidt, W. R., and T. H. Haas. 1998. *Haa Aaní*, Our Land. Introduction in, *Haa Aaní*, Our Land: Tlingit and Haida Land Rights and Use. Sealaska Heritage Foundation, Alaska. Book-2223480.

Hamade, A. K. 2014. Fish consumption advice for Alaskans: a risk management strategy to optimize the public's health. Alaska Scientific Advisory Committee for Fish Consumption. Generic Document-2221860.

Hitch, A. T., and P. L. Leberg. 2007. Breeding distributions of North American bird species moving north as a result of climate change. Conservation Biology. 21(2):534–539.

Hunt, W. 2010. Archeological Survey and Testing at Sitka National Historical Park. National Park Service, Midwest Archeological Center, Lincoln, Nebraska.

[IPCC] Intergovernmental Panel on Climate Change. 2013. Climate Change 2013: The Physical Science Basis. Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change [Stocker, T. F., D. Qin, G.-K. Plattner, M. Tignor, S. K. Allen, J. Boschung, A. Nauels, Y. Xia, V. Bex and P. M. Midgley (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA, 1535 pp.

Jones, T. 2014 Interim Report on Intertidal Monitoring. Manuscript on file, Sitka National Historical Park.

Landers, D. H., S. Simonich, D. Jaffe; L. Geiser, D. H. Campbell, A. Schwindt, C. Schreck, M. Kent, W. Hafner, H. Taylor, K. Hageman, S. Usenko, L. Ackerman, J. Schrlau, N. Rose, T. Blett, and M. Erway. 2008. The Fate, Transport, and Ecological Impacts of Airborne Contaminants in Western National Parks (USA). Western Airborne Contaminants Assessment Project Final Report. EPA/600/R-07/138. Environmental Protection Agency (EPA). Corvallis, Oregon. Published Report-660829.

Larsen, J. N., O. A. Anisimov, A. Constable, A. B. Hollowed, N. Maynard, P. Prestrud, T. D. Prowse, and J. M. R. Stone. 2014. Polar regions. In: Climate Change 2014: Impacts, Adaptation, and Vulnerability. Part B: Regional Aspects. Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change [Barros, V.R., C. B. Field, D. J. Dokken, M. D. Mastrandrea, K. J. Mach, T. E. Bilir, M. Chatterjee, K. L. Ebi, Y. O. Estrada, R. C. Genova, B. Girma, E. S. Kissel, A. N. Levy, S. MacCracken, P. R. Mastrandrea, and L. L. White (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA, pp. 1567–1612.

Malm, T. 1999. Distribution patterns and ecology of *Fucus serratus L*. and *Fucus vesiculosus L*.in the Baltic Sea. Ph.D. Thesis, Department of Botany, University of Stockholm, Sweden.

Markon, C. J., S. F. Trainor, and F. S. Chapin, III, (eds.). 2012. The United States National Climate Assessment— Alaska Technical Regional Report: U.S. Geological Survey Circular 1379, 148 p.

McDowell Group. 2014. Trends and Opportunities in the Alaska Maritime Industrial Support Sector. Alaska Department of Commerce, Community & Economic Development, Division of Economic Development. Juneau, Anchorage. Published Report-2221869.

Melillo, J. M., T. C. Richmond, and G. W. Yohe, (eds.). 2014. Climate Change Impacts in the United States: The Third National Climate Assessment. U.S. Global Change Research Program. Washington, DC. Published Report-2215236. Available at: http://www.globalchange.gov/ncadac

Mennitt, D., K. Sherrill, and K. Fristrup. 2014. A geospatial model of ambient sound pressure levels in the contiguous United States. Journal of the Acoustical Society of America. 135(5):2746–2764. Journal Article-2218195.

Menz, K. B. 1986. Historic furnishings report - Russian Bishop's House - Sitka National Historical Park. Historic Furnishing Report. National Park Service, Harpers Ferry Center. Published Report-2186787.

Monahan, W. B., and N. A. Fisichelli. 2014. Climate exposure of US National Parks in a new era of change. Plos One. 9(7):1. Journal Article-2211579.

Moynahan, B. J., W. F. Johnson, D. W. Shirokauer, L. C. Sharman, G. Smith, and S. M. Gende. 2008. Vital Signs Monitoring Plan Southeast Alaska Network. Natural Resource Report. NPS/SEAN/NRR—2008/059. National Park Service Natural Resource Stewardship and Science. Fort Collins, Colorado. Published Report-664202.

Nagorski, S., D. Engstrom, J. Hudson, D. Krabbenhoft, J. DeWild, E. Hood, and G. Aiken. 2011. Scale and distribution of global pollutants in Southeast Alaska Network park watersheds. Natural Resource Technical Report NPS/SEAN/NRTR—2011/496. National Park Service, Fort Collins, Colorado. Published Report-2176772.

National Park Service. 1968. Sitka Alternatives Study. Manuscript on File, Sitka NHP.

National Park Service. 1971. Sitka Historical Sites—A Plan for Redevelopment. Manuscript on File, Sitka NHP.

National Park Service. 1998. General management plan - Sitka National Historical Park, Alaska. U.S. Department of the Interior, National Park Service. Published Report-2186799.

National Park Service. 2006. NPS Management Policies. National Park Service, Office of Policy, Washington, DC. Published Report-2173472.

National Park Service. 2012. Sitka National Historical Park Foundation Statement. National Park Service. Plan-2221947.

National Park Service. 2014. Collections Management Report. On File at Sitka NHP.

Overbaugh, C. 2014. Interim Report on Exotic Plant Management in the Alaska Region. Report on file at Sitka National Historical Park.

Pacyna, E. G., and J. M. Pacyna. 2002. Global emission of mercury from anthropogenic sources in 1995. Water, Air and Soil Pollution 137(1–4):149–165. Journal Article-2221866.

Papineau, J. M. 2001. Wintertime temperature anomalies in Alaska correlated with ENSO and PDO. International Journal of Climatology. 21(13): 1577–1592.

Pepe, J. 2014. Archeological Site Condition Reporting. Archeological Site Management Information System. Site files held at Sitka National Historical Park.

Schirokauer, D., L. Geiser, A. Bytnerowicz, M. Fenn, and K. Dillman. 2014. Monitoring air quality in Southeast Alaska's National Parks and Forests: Linking atmospheric pollutants with ecological effects. Natural Resource Technical Report. NPS/SEAN/NRTR—2014/839. National Park Service. Fort Collins, Colorado. Published Report-2206693.

Schwindt, A. R., J. W. Fournie, D. H. Landers, C. B. Schreck, and M. L. Kent. 2008. Mercury concentrations in Salmonids from Western U.S. National Parks and Relationships with Age and Macrophage Aggregates, Environmental Science & Technology, 42 (4):1365–1370. Journal Article-664114.

Smith-Middleton, H., and A. Alanen. 1998. Impressions of Indian River: Cultural Landscape Report, Sitka National Historical Park, National Park Service. Cultural Landscape Report. NPS Alaska Regional Office. Alaska Regional Office. Published Report-2185895.

Smith-Middleton, H., and A. Alanen. 1999. Testaments to Place and Time: Cultural Landscape Report, Sitka National Historical Park, National Park Service. Cultural Landscape Report. NPS Alaska Regional Office. NPS Alaska Regional Office. Published Report-2185804.

[SNAP] Scenarios Network for Alaska and Arctic Planning, University of Alaska (SNAP-UAF). 2009. Climate Change Summary Reports of National Parks, Preserves, and Monuments.

Stark, K. J., C. Lee, J. M. Sopcak, K. Kilkus, A. Nadeau, and S. Amberg. 2012. Sitka National Historical Park Natural Resource Condition Assessment. Natural Resource Report NPS/SITK/NRR—2012/525. National Park Service, Fort Collins, Colorado. Published Report-2185074.

Suleimani, E. N., D. J. Nicolsky, and R. D. Koehler. 2013. Tsunami inundation maps of Sitka, Alaska. Alaska Division of Geological and Geophysical Surveys Report of Investigations. RI 2013-3. Fairbanks, Alaska. Published Report-2221901.

Tallmon, D. A. 2011. Contaminants assessment of intertidal resources in southeast Alaska national parks. Natural Resource Technical Report NPS/SEAN/NRTR—2011/498. National Park Service, Fort Collins, Colorado. Published Report-2176794.

Thornton, T. F. 1998. Traditional Tlingit use of Sitka National Historical Park. National Park Service. Published Report-2186808.

Transportation Engineering NorthWest, LLC. 2006. Sawmill Cove Industrial Park, Sitka, AK: transportation impact study – summary report final draft. Transportation Engineering NorthWest, LLC. Sitka, Alaska. Unpublished Report-2221861.

University of Idaho Park Studies Unit. 2013. Park Visitor Survey Card Reports, FY2013. NPS Visitor Survey Reports.

Vander Pol, S., P. R. Becker, J. R. Kucklick, R. S. Pugh, D. G. Roseneau, and K. S. Sima. 2004. Persistent Organic Pollutants in Alaskan Murre (*Uria* spp.) Eggs: Geographical, Species, and Temporal Comparisons. Environmental Science & Technology 38(5):1305–1312. Journal Article-2221863.

Welzenbach, C. 2012. Cultural Landscape Inventory of the Russian Bishop's House, Sitka NHP. National Park Service.

See Also:

Collection of Natural Resource-Related References

Collection of Cultural Resource-Related References

Collection of Visitor Experience-Related References

Collection of Other References

Glossary

See the State of the Parks home page for a link to a complete glossary of terms used in State of the Park reports. Definitions of key terms used in this report are as follows:

Americans with Disabilities Act (ADA)	Law enacted by the federal government that includes provisions to remove barriers that limit a disabled person's ability to engage in normal daily activity in the physical, public environment.
Archeological Sites Management Information System (ASMIS)	The National Park Service's standardized database for the basic registration and management of park prehistoric and historical archeological resources. ASMIS site records contain data on condition, threats and disturbances, site location, date of site discovery and documentation, description, proposed treatments, and management actions for known park archeological sites. It serves as a tool to support improved archeological resources preservation, protection, planning, and decision-making by parks, centers, regional offices, and the national program offices.
Baseline Documentation	Baseline documentation records the physical condition of a structure, object, or landscape at a specific point in time. A baseline provides a starting point against which future changes can be measured.
Cultural Landscapes Inventory (CLI)	A Cultural Landscapes Inventory describes historically significant landscapes within a park. The inventory identifies and documents each landscape's location, size, physical development, condition, characteristics, and features, as well as other information useful to park management.
Cultural Landscape Report (CLR)	A Cultural Landscape Report is the principal treatment document for cultural landscapes and the primary tool for long-term management of those landscapes. It guides management and treatment decisions about a landscape's physical attributes, biotic systems, and use when that use contributes to historical significance.
Curation	National parks are the stewards of numerous types of objects, field notes, publications, maps, artifacts, photographs, and more. The assemblage of these materials comprises a museum collection. Curation is the process of managing, preserving, and safeguarding a collection according to professional museum and archival practices.
Facility Condition Index (FCI)	FCI is the cost of repairing an asset (e.g., a building, road, bridge, or trail) divided by the cost of replacing it. The lower the FCI number, the better the condition of the resource.
Foundation Document	A park Foundation Document summarizes a park's purpose, significance, resources and values, primary interpretive themes, and special mandates. The document identifies a park's unique characteristics and what is most important about a park. The Foundation Document is fundamental to guiding park management and is an important component of a park's General Management Plan.
Fundamental and Other Important Resources and Values	Fundamental resources and values are the particular systems, processes, experiences, scenery, sounds, and other features that are key to achieving the park's purposes and maintaining its significance. Other important resources and values are those attributes that are determined to be particularly important to park management and planning, although they are not central to the park's purpose and significance. These priority resources are identified in the Park Foundation Document and/or General Management Plan. The short-cut name that will be used for this will be Priority Resources.
General Management Plan (GMP)	A General Management Plan is a strategic planning document that outlines the future management of a National Park Service site for the next 15 to 20 years. The plan will set the basic philosophy and broad guidance for management decisions that affect the park's resources and the visitor's experience.

Historic Integrity	Historic Integrity is the assemblage of physical values of a site, building, structure, or object and is a key element in assessing historical value and significance. The assessment of integrity is required to determine the eligibility of a property for listing in the National Register.
Historic Resource Study (HRS)	The historic resource study is the primary document used to identify and manage the historic resources in a park. It is the basis for understanding their significance and interrelationships, a point of departure for development of interpretive plans, and the framework within which additional research should be initiated.
Historic Structures Report (HSR)	The historic structure report is the primary guide to treatment and use of a historic structure and may also be used in managing a prehistoric structure.
Indicator of Condition	A selected subset of components or elements of a Priority Resource that are particularly "information rich" and that represent or "indicate" the overall condition of the Priority Resource. There may be one or several Indicators of Condition for a particular Priority Resource.
Integrated Resource Management Applications (IRMA)	The NPS-wide repository for documents, publications, and data sets that are related to NPS natural and cultural resources.
Interpretation	Interpretation is the explanation of the major features and significance of a park to visitors. Interpretation can include field trips, presentations, exhibits, and publications, as well as informal conversations with park visitors. A key feature of successful interpretation is allowing a person to form his or her own personal connection with the meaning and significance inherent in a resource.
Invasive Species	Invasive species are non-indigenous (or non-native) plants or animals that can spread widely and cause harm to an area, habitat, or bioregion. Invasive species can dominate a region or habitat, out-compete native or beneficial species, and threaten biological diversity.
List of Classified Structures (LCS)	LCS is an inventory system that records and tracks the condition of the approximately 27,000 historic structures listed in the National Register of Historic Places that are the responsibility of NPS.
Museum Collection	NPS is the steward of the largest network of museums in the United States. NPS museum collections document American, tribal, and ethnic histories; park cultural and natural resources; park histories; and other aspects of human experience. Collections are managed by professionally-trained NPS staff, who ensure long-term maintenance of collections in specialized facilities.
National Historical Park (NHP)	Historic areas in the National Park System that have great physical extent and complexity. NHPs are automatically listed on the National Register of Historic Places.
National Historical Landmark (NHL)	National Historic Landmarks are nationally significant historic places designated by the Secretary of the Interior because they possess exceptional value or quality in illustrating or interpreting the heritage of the United States. Today, fewer than 2,500 historic places bear this national distinction.
Native American Graves Protection and Repatriation Act (NAGPRA)	A federal law passed in 1990. NAGPRA provides a process for museums and federal agencies to return certain Native American cultural items (e.g., human remains, funerary objects, sacred objects, objects of cultural patrimony) to lineal descendants and culturally-affiliated Indian tribes and Native Hawaiian organizations.

Natural Resource Condition Assessment (NRCA)	A synthesis of existing scientific data and knowledge, from multiple sources, that helps answer the question: what are current conditions of important park natural resources? NRCAs provide a mix of new insights and useful scientific data about current park resource conditions and factors influencing those conditions. NRCAs have practical value to park managers and help them conduct formal planning and develop strategies on how to best protect or restore park resources.
Priority Resource or Value	This term refers to the Fundamental and Other Important Resources and Values of a park. These can include natural, cultural, and historic resources as well as opportunities for learning, discovery, and enjoyment. Priority Resources or Values include features that have been identified in park Foundation Documents, as well as other park assets or values that have been developed or recognized over the course of park operations. Priority Resources or Values warrant primary consideration during park planning and management because they are critical to a park's purpose and significance.
Project Management Information System (PMIS)	A servicewide intranet application within the National Park Service to manage information about requests for project funding. It enables parks and NPS offices to submit project proposals to be reviewed, approved, and prioritized at park units, regional directorates, and the Washington Office.
Resource Management	The term "resources" in NPS encompasses the many natural, cultural, historical, or sociological features and assets associated with parks. Resource management includes the knowledge, understanding, and long-term stewardship and preservation of these resources.
Southeast Alaska Network (SEAN)	One of 32 I&M networks established as part of the NPS Inventory and Monitoring Program. The Southeast Alaska Network provides scientific data and expertise for natural resources in three parks located in Alaska.
Specific Measure of Condition	One or more specific measurements used to quantify or qualitatively evaluate the condition of an Indicator at a particular place and time. There may be one or more Specific Measures of Condition for each Indicator of Condition.
Volunteers In Parks Program (VIP)	The Volunteers In Parks Program was authorized by Public Law 91–357 enacted 1970. The primary purpose of the VIP program is to provide a vehicle through which the National Park Service can accept and utilize voluntary help and services from the public. The major objective of the program is to utilize this voluntary help in such a way that is mutually beneficial to the National Park Service and the volunteer. Volunteers are accepted from the public without regard to race, creed, religion, age, sex, sexual orientation, national origin, or disability.