

Park Operations

Connecting park management with a vision for a sustainable tomorrow: The Integrated Environmental Plan

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NATIONAL PARK SERVICE (NPS)

responsibilities encompass stewardship of natural and cultural resources and management of visitor amenities and park infrastructure. Each of these elements is involved in the challenge of managing parks under a changing climate. Apostle Islands National Lakeshore (Wisconsin) has made significant strides in fostering sustainable practices and promoting innovative solutions to this challenge. The park's newly introduced Integrated Environmental Plan (IEP) streamlines the processes that allow the park to respond to new scientific research and understanding of climate change and to focus management actions on evolving guidance related to climate change.

The IEP is an adaptive management system guided by the park's visions and goals for the future. It is fueled by the legal reporting requirements and voluntary sustainability initiatives of the park and managed by staff in clearly defined roles and responsibilities. It proactively addresses park sustainability, providing a long-term decision-making framework. Thus, the IEP is adaptive and provides a means for the park to focus on both mitigation and adaptation strategies to address climate change.

Projected benefits from the IEP are (1) less time spent administering environmental actions and more time devoted to accomplishing them, (2) more effective data collection and reporting, (3) a conduit for scientific input into park decisions regarding priorities for environmental management and sustainability, and (4) discovery of synergies among different park program areas. The IEP also serves as a platform for

Abstract

Apostle Islands National Lakeshore (Wisconsin) has been a leader in environmental stewardship, participating in numerous programs that foster sustainable practices and promote innovative solutions with environmental benefits. However, managing several different voluntary environmental initiatives and meeting mandatory environmental compliance requirements, together with a desire to enhance sustainability commitments, became time-consuming and complex. The small-park staff looked at creative solutions to address the challenge, and the Integrated Environmental Plan (IEP) is the result. The IEP is a management system ... [that] combines, streamlines, and simplifies administration and reporting of the park's many environmental initiatives. As a central repository for the various environmental protocols, the IEP creates more effective data collection and an efficient reporting platform. The IEP also allows scientific input to better support park decisions regarding environmental management and to help discover the synergies among different park priorities, including responding to climate change. Annual updates of goals and reexamination of park visions provide an avenue for management adaptation, mitigation efforts, and communication on multiple environmental issues.

Key words: adaptation strategy, Environmental Management System, Integrated Environmental Plan, mitigation strategy, sustainability management systems, sustainability planning

communicating climate change-related initiatives in the park. Finally, while it principally directs mitigation actions, it also helps the park adapt to climate change in a standardized manner.

Program development

In 2008, Apostle Islands underwent a routine environmental audit of the NPS Midwest Region conducted by PRIZIM, Inc., an environmental and energy management consulting firm that has been assisting the National Park Service for more than 10 years. Federal directives, including presidential Executive Orders, Department of the Interior policy, and NPS Director's Orders, require national parks to implement an environmental management system (EMS) that mitigates environmental impacts of park operations and activities such as hazardous materials use, energy consumption, and transportation.

PRIZIM was impressed by park efforts to integrate sustainability priorities into daily practices; however, the park's EMS needed to better document all the park's environmental programs, procedures, and achievements.

At the time of the audit, park protocols addressing sustainability and environmental management were outlined in (1) an EMS, (2) documented best management practices, (3) Superintendent's Orders, and (4) a Climate-Friendly Park Plan. The park complied with numerous reporting requirements, such as annual updates on energy and fuel usage, and also participated in various environmental initiatives, from community to national levels. Many goals of these initiatives overlapped, but each program was run separately. Administrative requirements were time-consuming and complicated, adding more work

Director's Order 13A: Environmental Management Systems

The purpose of this Order is to provide the foundation for implementing a Service-wide [Environmental Management Systems] approach to guide environmental decision making and actions at all levels...

to already overburdened park staff, who felt their energies were fragmented and inefficient.

In response to these challenges, a team of park employees, supported by PRIZIM staff, developed the IEP, a system that combines, streamlines, and simplifies management and reporting of sustainability and environmental management endeavors. The IEP performs the same functions as a traditional EMS, but takes it a step further, encompassing all the park's long-term, ongoing environmental management activities (except compliance activities governed by the National Environmental Policy Act). The IEP also distributes management responsibilities throughout the park to ensure the most effective and efficient use of staff and budget resources in line with management priorities.

Key components

The IEP comprises several key components:

- **IEP Procedures:** Provides overarching guidance for, and links to, supporting workbooks that constitute the IEP.
- **Impacts and Future Visions Workbook:** Identifies significant environmental impacts of park activities, the key operational controls to mitigate impacts, and long-term goals of environmental performance—future visions—that park staff hopes to attain.
- **IEP Management Workbook:** Tracks progress on annual goals, objectives, and targets that lead to the park's future visions. Organizes sustainability initiatives, regulatory compliance documents, records, and reports associated with the IEP in distinct spreadsheet tabs.
- **Environmental Stewardship Matrix:** Captures ideas for future projects, identifies environmental best management practices instituted in park functions, and catalogs past achievements. On an annual basis, ideas are drawn from the matrix and developed into goals with objectives and targets in the IEP Management Workbook.
- **Annual Calendar:** Identifies tasks and specifies responsible parties for managing the IEP, achieving annual goals and objectives, and fulfilling environmental compliance requirements.

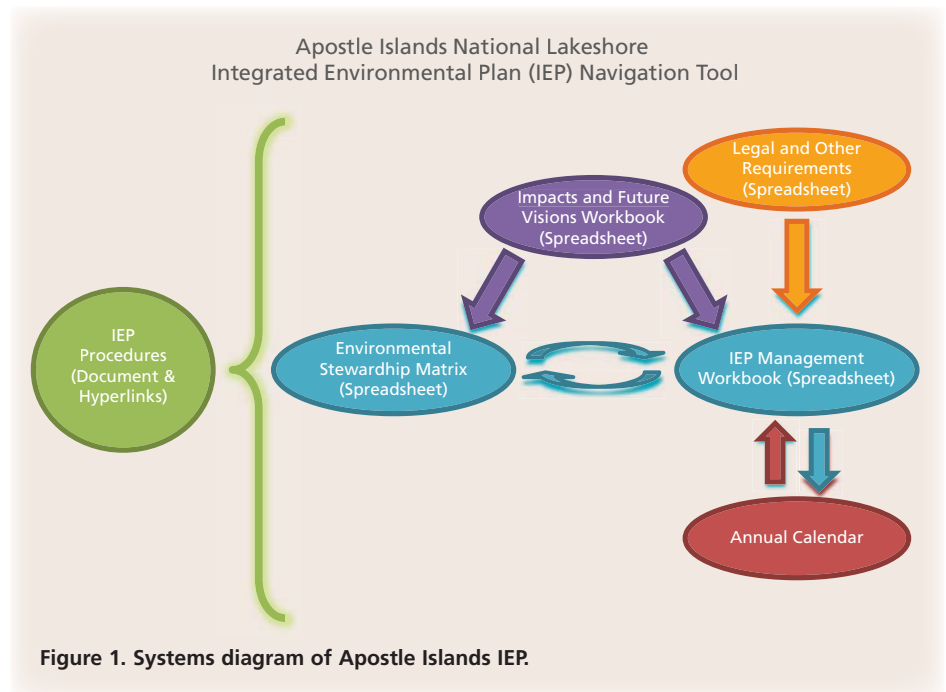


Figure 1. Systems diagram of Apostle Islands IEP.

Conclusion

Apostle Islands is fully implementing the IEP in 2011 and will continue to revise it as part of annual management reviews. Currently, the focus of the park's environmental management is on mitigation efforts. However, the IEP provides a solid foundation for greater attention to changing management priorities as detailed guidance becomes available in support of the NPS Climate Change Response Strategy. The hope is that the IEP will continue to evolve as a tool to improve sustainability and environmental performance and aid in the park's mission to protect the valuable resources of this Lake Superior archipelago.

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