

Resource Stewardship Strategy

National Park Service
U.S. Department of the Interior



❖ A **Resource Stewardship Strategy** serves as a bridge between the qualitative statements of desired conditions established in the park's GMP and the measurable goals and implementation actions determined through park strategic planning.

❖ A **Resource Stewardship Strategy**:

- identifies and tracks indicators of desired resource conditions
- recommends comprehensive strategies to achieve and maintain desired conditions and to manage natural and cultural resources
- is based on science and scholarship

❖ **DSC can lead a planning team to develop the four major components of a resource stewardship strategy:**

1. a description of the park's fundamental (and other important) resources and values and their *desired conditions*
2. the status of knowledge of these resources
3. identification of *indicators* and *target values* that allow the National Park Service to measure current conditions against desired conditions
4. *comprehensive strategies* needed to achieve or maintain desired resource conditions

❖ **RSS projects with DSC involvement:**

- Guadalupe Mountains National Park
- Sand Creek Massacre National Historic Site
- Abraham Lincoln Birthplace National Historical Park
- Chattahoochee River National Recreation Area
- Klondike Gold Rush National Historical Park



SAND CREEK MASSACRE NATIONAL HISTORIC SITE



ABRAHAM LINCOLN BIRTHPLACE NATIONAL HISTORICAL PARK



KLONDIKE GOLD RUSH NATIONAL HISTORICAL PARK



ABRAHAM LINCOLN BIRTHPLACE NATIONAL HISTORICAL PARK



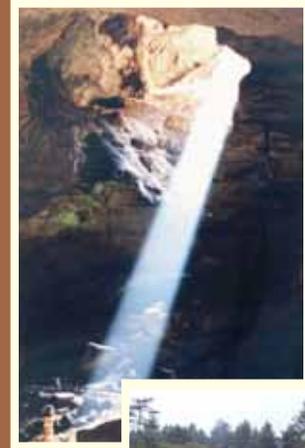
Resource Stewardship Strategies

OTHER SUPPORT OPPORTUNITIES

- Facilitate meetings and workshops for resource management and stewardship
- Provide training to parks on resource stewardship planning
- Consult and coordinate with other agencies
- Support the development of tools and guidelines for resource stewardship

TYPES OF PROJECT WORK

- Resource Stewardship Strategies
- Foundation Documents
- General Management Plans
- Vegetation Management Plans
- Exotic Species Management Plans
- Ungulate Management Plans



CLIMATE CHANGE

National Park Service
U.S. Department of the Interior



DSC PLANNING SUPPORTS AND PROVIDES EXPERTISE TO THE NPS'S CLIMATE CHANGE RESPONSE ACTIVITIES

❖ Leadership and Committee Participation

DSC Planning staff serve on the Climate Change Steering Committee and its planning and adaptation working group. In addition, staff are actively involved with climate change planning efforts in a variety of forms within the NPS and beyond, including Natural Resource Program Center efforts, Environmental Quality Division policy development, interagency workshops, and formal and informal training opportunities.

❖ Scenario Planning

DSC Planning staff were involved in the development of the Scenario Planning concept and several pilot park workshops, including Joshua Tree National Park, Kaloko-Honokohau National Historical Park, Assateague Island National Seashore, Wind Cave National Park, and Alaska parks. Currently, a cadre of DSC Planning staff are being trained in Scenario Planning to assist parks in all regions as they consider and plan for potential futures affected by climate change.

❖ Planning Documents

DSC Planning staff provide consistency in how climate change is included in general management plans and other planning documents. DSC Planning staff coordinate with regional, central office, and park staff to ensure that planning documents address parks' needs while meeting NEPA requirements as well as Department of Interior and NPS climate change policies and guidance.



New plans for the Flamingo area in Everglades National Park, such as the new marina building, call for sustainable, hurricane-resistant, eco-friendly facilities that will replace those destroyed by a hurricane in 2005. Elevated buildings, removable "eco-tents," and sustainable design elements such as rooftop water collection systems are all included in the Flamingo Master Plan and Design Program, a project that was managed by DSC Planning.



Alaska's national parks, including Noatak National Preserve, face climate change impacts on coastal processes, wildland fire cycles, and permafrost extent. DSC Planning is working on several projects in Alaska that include climate change planning, such as the Gates of the Arctic National Park and Preserve GMP Amendment and the Klondike Gold Rush National Historical Park Resource Stewardship Strategy.



Divers study coral reefs and submerged shipwrecks at Biscayne National Park, where climate change threatens natural and cultural resources as well as visitor experience. Biscayne's GMP, which is being managed by DSC Planning, is one of the first to contain comprehensive climate change information and NEPA analysis.



Long-term climate change impacts on the iconic ecosystem at Joshua Tree National Park are yet unknown. Changes in precipitation and temperature may alter the reproduction and habitat of Joshua trees and threaten their survival. DSC Planning is working on the Joshua Tree GMP, which will incorporate information from their scenario planning process and other information about climate change in this fragile desert ecosystem.



GUIDING PRINCIPLES FOR DEFINING ORVs

❖ ORVs must be river-related

- Is it located in the river or on its shorelands (generally within ¼ mile on either side of the river)?
- Does it contribute substantially to the function of the river ecosystem?
- Does it owe its location or existence to the presence of the river?

❖ ORVs must be rare, unique, or exemplary in a regional or national context.

- Is it a conspicuous example from among a number of similar values on a regional or national scale that are themselves uncommon or extraordinary?
- A region of comparison should be defined for each ORV as appropriate. Regions should not be so large as to unreasonably restrict ORVs to those that are truly nationally significant, nor so small that most river resources would qualify as exemplary in some way.

❖ ORVs must be defined for individually designated river segments.

- Are there tangible resources associated with the ORV within the river segment?
- How does the ORV vary by river segment?
- Is the ORV located within a portion of a segment or span across multiple segments?

❖ ORVs must be accurate, specific, and descriptive.

- Does the ORV definition clearly articulate an aspect of the river's national significance and importance to the public.

❖ ORVs must be defensible.

- Is the ORV definition based on existing documentation or professional observations by subject matter experts?



*VIRGIN WILD AND SCENIC RIVER,
ZION NATIONAL PARK*



MERCED WILD AND SCENIC RIVER, YOSEMITE NATIONAL PARK



OBED WILD AND SCENIC RIVER



*SNAKE RIVER HEADWATERS, GRAND TETON AND
YELLOWSTONE NATIONAL PARKS*



Wild and Scenic Rivers / Outstanding Remarkable Values

OTHER SUPPORT OPPORTUNITIES

- Outstandingly Remarkable Values
- Goals and Objectives for Protecting River Values
- Boundary Delineation
- Development of Lands and Facilities
- User Capacity
- Evaluation of Water Resource Projects (Section 7)
- Instream Flows
- Monitoring Strategy

TYPES OF PROJECT WORK

- CRMP for Merced River, Yosemite National Park, California
 - ORV workshop for Obed Wild and Scenic River, Tennessee
 - CRMP for Snake River Headwaters, Yellowstone & Grand Teton National Parks, Wyoming, Idaho, Montana
 - CRMP for Tuolumne River, Yosemite National Park, California
 - CRMP for Virgin River, Zion National Park, Utah
 - CRMP / EA for Wekiva River, Florida
 - ORV workshop for Missouri National Recreational River, Nebraska, South Dakota
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❖ Wilderness Studies

- Wilderness studies evaluate roadless and undeveloped areas (including new areas or expanded boundaries) for possible recommendation to Congress for inclusion in the National Wilderness Preservation System.
- DSC staff have led or are leading wilderness studies for the following parks:
 - Apostle Islands National Lakeshore
 - Big Cypress National Preserve (Addition)
 - Channel Islands National Park
 - Everglades National Park (East Everglades Addition)
 - Gates of the Arctic National Park and Preserve
 - Great Sand Dunes National Park and Preserve
 - Pictured Rocks National Lakeshore
 - Sleeping Bear Dunes National Lakeshore

❖ Wilderness Stewardship Plans

- Wilderness stewardship plans provide a framework and guidance for managing wilderness areas, including guidance for preserving wilderness character.
- DSC staff are leading or assisting with wilderness stewardship plans for the following parks:
 - Apostle Islands National Lakeshore
 - Black Canyon of the Gunnison National Monument
 - Buffalo National River
 - Curecanti National Recreation Area
 - Lake Mead National Recreation Area
 - Petrified Forest National Park

❖ Additional Wilderness-Related Activities

DSC staff members are engaged in the following Wilderness-related leadership and support activities:

- Serving on the nationwide NPS Wilderness Character Integration Team
- Reviewing policy guidance and position papers on Wilderness-related topics
- Facilitating Wilderness-specific research for resource and social issues
- Participating in conferences related to Wilderness
- Providing technical support services to facilitate problem-solving

❖ NEPA documents

DSC team members are working on various environmental documents that evaluate impacts on Wilderness character.



CHANNEL ISLANDS NATIONAL PARK



PETRIFIED FOREST NATIONAL PARK



EVERGLADES NATIONAL PARK



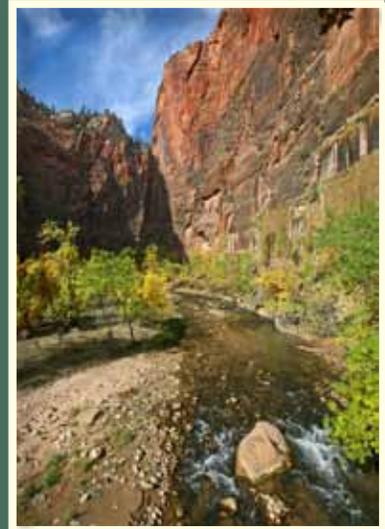
GREAT SAND DUNES NATIONAL PARK AND PRESERVE



Wilderness Stewardship Products and Services

WAYS WE CAN PROVIDE SUPPORT

- Lead or assist with:
 - wilderness studies
 - wilderness stewardship (management) plans
 - wilderness eligibility determinatin
 - backcountry management plans
- Prepare environmental assessments and environmental impact statements
- Facilitate meetings
- Lead and coordinate workgroups
- Plan and conduct public meetings
- Manage contacts
- Guidance regarding management of human waste in the wild





Visitor Use Management

Improving Visitor Experiences and Protecting Resources

Visitors to our national parks travel far and wide for opportunities to experience America's greatest natural wonders, to remember our nation's past, to take part in active recreation pursuits, and to search for places of quiet solitude. The National Park Service's mission is to preserve unimpaired the natural and cultural resources and values of the national park system for the enjoyment, education, and inspiration of this and future generations.

Balancing visitor opportunities and resource protection is central to public land stewardship and requires a professional and scientific approach. In support of this mission, the Visitor Use Management Team of the Denver Service Center brings innovation and expertise to the advancement of and best practices for visitor use management. We are helping to set the standard for progressive, defensible, and responsive visitor use management processes and products within the National Park Service.

PROVIDING SUPPORT TO YOU

- Collect and analyze information to understand fundamental visitor use questions, such as:
 - Who are our visitors and what are they doing during their visit?
 - What are fundamental characteristics of visitor experiences and opportunities?
 - How are current visitor use patterns affecting resources and visitor experiences?
- Identify visitor use data gaps and needs.
- Facilitate visitor use research and monitoring efforts, including study design and development of visitor surveys.
- Develop public involvement strategies (including design of public meetings, focus groups, and stakeholder workshops) and analyze public comments.
- Identify visitor use issues and develop related management alternatives.
- Identify resource and social indicators and standards for long-term monitoring.
- Develop visitor use management strategies and actions to address existing and future needs, including regulation and allocation of kinds and amounts of use (user capacity).
- Develop visitor use-related plan elements, including environmental impacts.





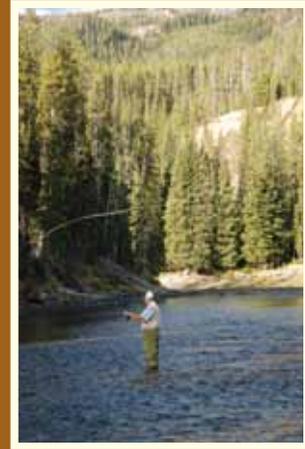
Visitor Use Management

OTHER SUPPORT OPPORTUNITIES

- Facilitate meetings
- Lead and coordinate workgroups
- Manage CESU agreements and contracts
- Provide training for visitor use planning and management topics
- Consult and coordinate with other agencies, and the research and academic community
- Support the development of tools and guidelines for visitor use management
- Chair of Interagency Committee on Visitor Use

TYPES OF PROJECT WORK

- Foundation Statements
- General Management Plans
- Visitor Use Management Plans
- Wilderness and Backcountry Management Plans
- Wild and Scenic River Management Plans
- Climbing and Off-road Vehicle Management Plans
- Commercial Services Plans
- Transportation and Vehicle Management Plans
- Soundscapes/Air Tour Management Plans
- Special Resource Studies



SITE PLANNING AND DESIGN

National Park Service
U.S. Department of the Interior



At DSC-P this level of planning may go under various names: e.g., site management plan, development concept plan (DCP), master plan, comprehensive site design, preservation plan

❖ Typical Objectives:

- Define uses and functions for a site and coordinate the interrelationships between uses, resources, and facilities
- Establish consistent, unified character that adheres to a common vision and will inform subsequent stages of design
- Sustain resources, promote rewarding and appropriate visitor experience, align with park purpose/significance and other sideboards

❖ May be:

- Part of a GMP, or
 - Developed on its own subsequent to GMP
- *In either case, must be consistent with GMP direction*

Often follows a “two-phase” process
(within the same project or separate but related projects):

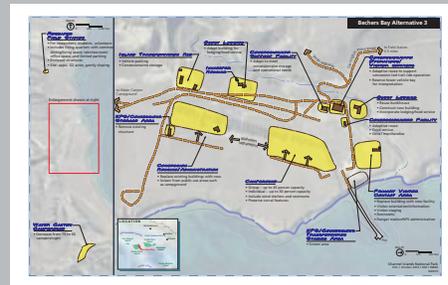
- Phase 1 – Alternatives (including NEPA compliance) – Preferred alternative establishes overall site planning direction
 - *Products may include:* site selection, general program description, functional relationship (bubble) diagrams, very general cost estimates
- Phase 2 – Master Plan
 - *Products may include:* detailed design program, master plan illustrations (plan view), circulation plan, design guidelines, character sketches, phasing plan, more detailed cost estimates

Project areas may include: new or existing development areas, historic sites etc. Recent or ongoing projects include:

- EVER – Flamingo Master Plan and Design Program
- HALE – Kīpahulu District Master Plan
- CHIS – Site Planning for GMP (e.g., Scorpion Ranch, Bechers Bay)
- FOVA – East and South Vancouver Barracks Master Plan/EA
- LAME – Cottonwood Cove/Katherine Landing DCP
- YOSE – Tuolumne Meadows Site Plan



LAKE MEAD NATIONAL RECREATION AREA,
COTTONWOOD COVE



BECHER'S BAY DCP, CHANNEL ISLANDS NATIONAL PARK



VISITOR CENTER LODGING AREA,
(PORTION OF FLAMINGO MASTER PLAN) EVERGLADES NATIONAL PARK,



EAST AND SOUTH BARRACKS MASTER PLAN,
FORT VANCOUVER NATIONAL HISTORIC SITE

American Planning Association

National Park Service
U.S. Department of the Interior



❖ American Planning Association (APA)

- Dedicated to advancing the art, science and profession of good planning
- 40,000 members; 47 regional or state chapters
- 20 special interest divisions (including the Federal Planning Division)

❖ Federal Planning Division (FPD) of APA

- Improve the quality of life for persons who live on, work on, and/or use federal lands and facilities
- Protect and enhance the value of federal properties for their designated purposes
- Foster positive relationships between federal lands and adjacent communities and areas

❖ Key Benefits to NPS

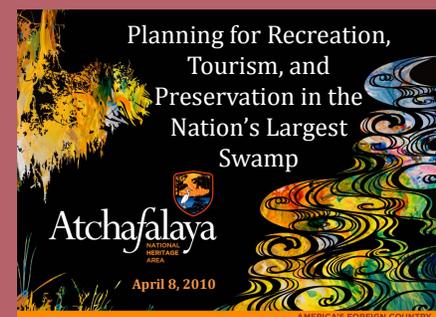
- Interagency networking
- Exposure to cutting edge planning practice
- Educational and training opportunities
- National/International venue to share NPS projects
- Professional certification through the American Institute of Certified Planners (AICP)

❖ Denver Service Center Involvement

- DSC staff serve as the NPS agency liaison and national student representative to FPD
- Presentations at the National APA Conference and/or FPD Training Conference from 2006-2010
- Organized four presentation proposals for 2011 conference in Boston, MA

Awards

- Cane River NHA Management Plan (Outstanding Collaborative Planning Project -2003)
- Rio Grande Wild & Scenic River GMP/EIS (Outstanding Collaborative Planning Project or Program - 2004)
- NAMA - American Planning Award 2010



National Heritage Areas

National Park Service
U.S. Department of the Interior



DSC Support for National Heritage Areas

❖ Feasibility Studies

- Evaluate the feasibility and suitability of designating the proposed area
- Develop interpretive themes
- Coordinate public outreach and education on national heritage areas
- Work with community to obtain preliminary partnership commitments
- Assist in the selection of a proposed local coordinating entity

❖ DSC Projects

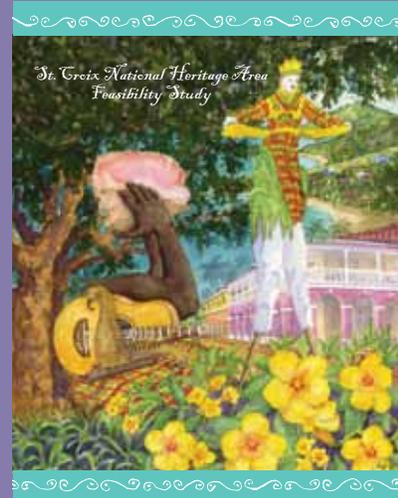
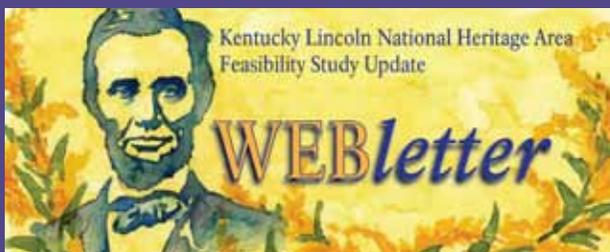
- St. Croix NHA Feasibility Study
- Kentucky Lincoln NHA Feasibility Study
- Chattahoochee Trace NHA Feasibility Study
- Southern Campaign of the Revolution NHA Feasibility Study

❖ Management Planning

- Provide technical assistance to local coordinating entity
- Develop Management Plan document
- Assist with implementation and interpretation plans
- Provide NEPA compliance
- Support public and partner outreach

❖ DSC Projects

- Atchafalaya NHA Management Plan/EA
- Gullah/Geechee Cultural Heritage Corridor Management Plan/EA
- Cane River NHA Management Plan/EA



ST. CROIX USVI NATIONAL HERITAGE AREA FEASIBILITY STUDY



GULLAH/GEECHEE CULTURAL HERITAGE CORRIDOR MANAGEMENT PLAN/EA



ATCHAFALAYA NATIONAL HERITAGE AREA MANAGEMENT PLAN/EA



SOUTHERN CAMPAIGN OF THE REVOLUTION NATIONAL HERITAGE AREA FEASIBILITY STUDY

Special Resource Studies

National Park Service
U.S. Department of the Interior



❖ What is a Special Resource Study?

Usually a new unit of the national park system is established by an act of Congress. Before passing such legislation, Congress requires reliable information about the quality of resources in the area under consideration and the potential for visitor enjoyment and efficient management. The National Park Service (NPS) collects this information and reports its findings to Congress through special resource studies. This process ensures that only those candidate sites that are most deserving of designation are included within the national park system.

❖ DSC Projects

- Abraham Lincoln Sites
- Alexander Hamilton Estate
- Battle of Camden
- Fort San Geronimo
- Green MacAdoo School
- Manhattan Project Sites
- Shepherdstown Battlefield

❖ Special Resource Study Process:



Study Process	Key Steps and Outcomes
Information Gathering and Public Scoping 	<ul style="list-style-type: none"> • Research available data on related resources, and historic/socioeconomic context. • Meet with key stakeholders. • Hold scoping meetings to gather public input.
Prepare Draft Study 	The Draft Special Resource Study will include <ul style="list-style-type: none"> • resource description and historical background; • evaluation of national significance; • evaluation of suitability and feasibility as a unit of the national park system; • a range of management alternatives; and • description of affected environment (e.g., cultural resources, visitor experience, socioeconomics).
Public Review of Draft 	<ul style="list-style-type: none"> • Invite local discussion and solicit feedback on the draft study.
Finalize Study 	<ul style="list-style-type: none"> • Consider public support for findings. • Revise draft document following public comment and internal review. • Prepare a final determination about whether the study area meets criteria for inclusion as a unit of the national park system. • Recommend action to Congress.
Congressional Action	<ul style="list-style-type: none"> • Congress takes action on the study recommendation.

Geographic Information Systems (GIS)

National Park Service
U.S. Department of the Interior



❖ The Geographic Information Systems Team provides GIS services for a diversity of National Park system planning projects. Our services utilize cutting edge technology to prepare and map alternative management strategies, create cartographic map products, and develop web-mapping applications. We are developing new innovative GIS products such as the NPS Park Atlas, Public Comment Web-Mapping for NEPA Analysis, and a variety of other planar and 3D products for internal and public scoping.

❖ NPS Park Atlas includes:

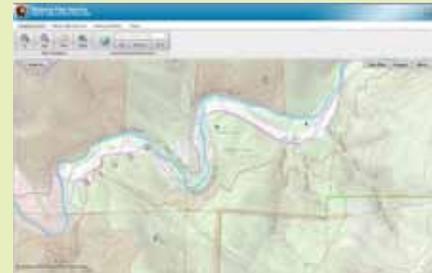
- a large format paper atlas based on specific topic categories such as Existing Conditions, Facilities, Visitor Use, and Natural and Cultural Resources
- a web-based mapping site that allows users to interact with park atlas GIS data interactively
- a GIS database that can be shared across parks, regions, and programs

❖ DSC GIS can perform a variety of spatial analysis tasks and prepare a range of 3D products including:

- viewshed and line-of-site
- vegetation classification and change analysis
- density analysis
- displaying and converting CAD data to a GIS environment
- 3D visualization in Google Earth and ArcGlobe

❖ A Snapshot of DSC GIS Projects:

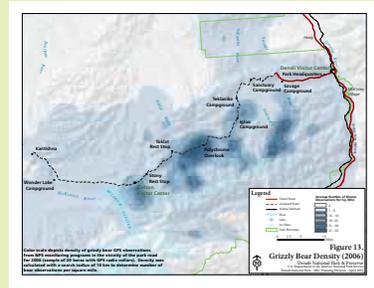
- Buffalo National River Park Atlas
- Wind Cave National Park Park Atlas
- Denali National Park Vehicle Management Plan
- Gates of the Arctic National Park GMP
- Grand Canyon National Park Overflights EIS
- Zion National Park WSR ORV
- Chickamauga and Chattanooga NMP GMP
- Grand Teton National Park WSR ORV
- Gullah/Geechee Cultural Heritage Corridor



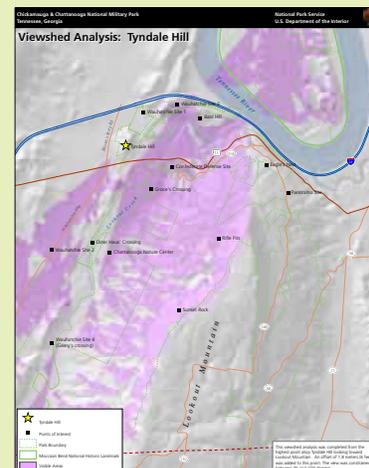
BUFFALO NATIONAL RIVER - PARK ATLAS WEB MAPPING SITE



GRAND CANYON NATIONAL PARK - OVERFLIGHTS GOOGLE EARTH APPLICATION



DENALI NATIONAL PARK & PRESERVE - DENSITY ANALYSIS



CHICKAMAUGA AND CHATTANOOGA NATIONAL MILITARY PARK - VIEWSHED ANALYSIS



Geographic Information Systems (GIS)

OTHER SUPPORT OPPORTUNITIES

- GIS needs assessment
- 3D GIS modeling
- Cartography for reports and publications
- Spatial analysis
- Web mapping
- Data mining, data collection, and data creation
- Data conversion and migration
- Remote sensing

TYPES OF PROJECT WORK

- GIS project management
 - Geographic database development and management
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Park Atlas Framework

