

\*\*\*\*\*



*IRIS*  
*Internet Research*  
*Information*  
*Series*



\*\*\*\*\*

**Public Land Planning Principles and Two  
Planning Examples:  
National Forests and Jekyll Island State  
Park, Georgia**

**A RECREATION Research Report in the IRIS Series<sup>1</sup>**

**August, 2008**

**H. Ken Cordell<sup>2</sup>**

---

<sup>1</sup> The Internet Research Information Series (IRIS) is an internet accessible science report series covering outdoor recreation statistics (RECSTATS), wilderness research (WILDERNESS) and other human-dimension and demographics research (DEMOSTATS) related to natural resources. This research is a collaborative effort between the USDA Forest Service's Southern Research Station and its Forestry Sciences Laboratory in Athens, Georgia; the University of Georgia in Athens; and the University of Tennessee in Knoxville, Tennessee. <http://warnell.forestry.uga.edu/nrrt/nsre/IrisReports.html>

<sup>2</sup> The author is H. Ken Cordell, Senior Scientist, Forest Service Research and Development and Adjunct Faculty, University of Georgia, Athens, GA.

## **Overview**

This paper provides an overview of widely accepted and adopted principles of public land planning. Two examples of public land planning processes are examined in light of these principles. First is planning for a typical national forest in the U.S. The second is development planning for a state park. The state park is Jekyll Island State Park on the Coast of Georgia.

Public land planning is an open, participatory, and collaborative process that is built upon a comprehensive evaluation of relevant social, economic, and ecological conditions and trends. From this open process comes a clear statement of mission, vision, and goals of management; a draft plan that meets interdisciplinary criteria for sustainable land management; clear statements of management objectives and options for achieving them; guidelines that will govern implementation of the management plan; and strategies for on-going evaluation and monitoring.

In the case of a national forest, the planning approach adopted by the U.S. Forest Service appears to have integrated fairly well the principles of public land planning. Particularly important is that management planning for a typical national forest is an open, public participatory process. In the case of Jekyll Island, it appears the process is less open or participatory. For both national forest and state park planning applications, a rich literature base exists documenting how and why public land planning principles work. For both the typical national forest and for Jekyll Island State Park, the process of developing a vision of the future seems to offer the best opportunity for actively engaging the public as a partner in planning.

## **Introduction**

The beginning of this IRIS Report was preparation of a response to a formal request to review a plan for a long-term park development impact analysis for Jekyll Island State Park. In doing that review, an opportunity presented itself to revisit the principles and processes involved in public land planning and to examine how they might be applied to two case examples. Because it concerns a publicly owned resource, federal, state, or local government land planning requires more steps and added considerations, when compared with private sector business planning. Both comprehensive and project planning for any public-sector undertaking must consider broadly the costs, benefits, and distributional effects of management options on people, and as well consider tradeoffs and effects on natural systems. The purpose of this paper is to review the principles of public land planning and then examine how these principles have been used in management planning for a typical national forest and in development planning for the example state park, Jekyll Island State Park. In conclusion, observations and recommendations are offered for better tying public land planning processes with widely accepted planning principles.

## **Context for Considering Public Land Planning**

The United States is blessed with national, state, and other systems of public lands for the benefit of current and future generations. Public lands provide ecosystem services, recreational opportunities, scenery relief in a developed landscape, habitat for wildlife, places for community events, economic stimulus to local economies, and many other benefits. The federal system of national forests, parks, refuges, and other lands includes over 650 million acres, much of it in the West. States manage significant systems of public lands also, primarily state parks and forests. Nationwide state lands total almost 12 million acres. National and state parks are of great interest to citizens because they provide an array of experiences of recreational, historic, archeological, geological, and natural interest. State parks are particularly vital to the public interest because they typically are located within easy driving distance. Georgia State Parks, for example, are located throughout the state.

It is a widely understood professional principle in the operation of U.S. federal, state, and local governments that the public lands, watersheds, reservoirs, and other public properties under public agency care are managed for the benefit of its citizenry, broadly defined (Driver 1999). It is precisely for this reason that public land planning, in fact planning for any public service program, as opposed to planning private business operations, requires more steps and added considerations. It is widely understood and accepted among professional managers and planners of public lands (including parks, refuges, preserves, wilderness areas, experimental forests, etc.) that added considerations mean a more comprehensive process. “Good planning is insightful, comprehensive and strategic,” (Litman 2007). A number of well practiced examples exist to guide conducting a comprehensive process (Overdevest and Cordell 2001). The most critical underlying principle of this comprehensive process is that public land planning is a collaboration between the responsible government agency and the citizenry that government agency is charged to serve (Federal Highway Administration 1996). It is through collaboration with citizenry in deciding the management and future of public lands that the greatest benefit is gained in the long run.

There are numerous models and applications of contemporary collaborative planning by public land management agencies and authorities (Loomis 2002). They all, for the most part, share a common set of philosophies, principles, and sequence of steps. Professional associations generally recognize these same philosophies, principles, and stages of public planning, including the American Planning Association and the National Planning Association. Public land management planning is of great concern to Americans, as indicated by it being an area of focus by the National Governors’ Association (NGA). The following is a policy quote from the NGA website, “In some cases, land management decisions and various programmatic requirements have stimulated and perpetuated patterns of growth that are counter to long-term sustainability. The Governors urge the federal government to support state efforts to develop and implement long-term, sustainable land use initiatives.”

Long-term, sustainable land use initiatives are established by following widely used and peer reviewed planning protocols. John Loomis, a highly respected and published colleague, effectively provided a listing and full description of the basic parts of public land management plans (Loomis 2002). Underlying these plans are comprehensive assessments of physical and biological feasibility, economic efficiency, distribution equity (of benefits), social and cultural acceptability, and operational and administrative feasibility. Bright, Cordell, and Tarrant (2003) provided guidelines to tools and methods for conducting the social analyses necessary for underpinning land planning.

## **Principles of Public Land Planning**

Federal and state agencies typically have well established and practiced land planning approaches designed and refined by teams of professional land managers, planning specialists, and natural resource scientists. Central to these approaches is working directly with an engaged public which shares the decision making space with land management officials. Widely accepted principles of well tested and science-based planning include the following:

- Public land planning is an **open, participatory, and collaborative decision making process** that engages early and throughout the process all publics-- local governments, organizations, citizens, private businesses, special interests and others. (This principle of open collaboration applies to all steps from beginning to end in comprehensive, project, management, and administrative planning.)
- All management and use options being considered are based on a **comprehensive evaluation of social, economic, and ecological conditions and trends** (Loomis 2002 and Bright and Cordell 2003). (Evaluations are based on documented, reviewed, and open monitoring, surveys, assessments, analyses, and other studies which are based on the best available science.)
- All options being considered are consistent with the **mission, vision, and goals of management** of public land and public service programs, including strategic plans established at higher levels in an organization, such as government-wide, division, and agency-wide plans
- Planning and analysis are defined and accomplished by an **interdisciplinary planning team** representing social, economic, and ecological science disciplines, as well as other expertise as needed, to represent sensitive and important social, recreational, land use, water, ecological, and other issues and to assure the best available science is integrated
- **Management objectives and options for achieving them** to attain mission, vision and goals are defined and documented interdisciplinarily and collaboratively with all publics, as is the process for selecting preferred management options
- **Guidelines are developed and documented for** guiding project designs, management strategies, and policies to assure they are consistent with laws, regulations, policies, best available science, public input, and ecological sensitivities

- Planning documents are kept up-to-date with **evaluation reports and monitoring** that are open, long-term, and tied to mission, vision, goals, desired conditions, objectives, management options, projects, and management activities

### **How are Principles Applied to Planning for a Typical National Forest?**

*Background.*--The Forest Service was established by law in 1905. It is an agency of the U.S. Department of Agriculture. The agency manages public lands as national forests and grasslands across almost all the states in the United States. Gifford Pinchot was the first Chief of the Forest Service. He operated the agency in the early years of the 20<sup>th</sup> Century under the policy that it should "provide the greatest amount of good for the greatest amount of people in the long run." National forests and grasslands cover about 193 million acres of land, an area about the size of Texas.

The Forest Service published the most recent version of its long-term planning model in the April 2008 Federal Register. As a federal procedure, national forest planning has its origins in law, the Forest and Rangeland Renewable Resources Planning Act of 1974, as amended by the National Forest Management Act of 1976 (16 U.S.C. 1600 *et seq.*). Each national forest must periodically develop a comprehensive plan for its management. The purpose of national forest land planning is to set a context and limitations for any subsequent management activities, projects, or programs. The process is designed to maximize public benefit and minimize conflict. It is a strategy viewed as useful without major revision for 3 to 5 years.

*National Forest Planning.*--The process for planning for a typical national forest is summarized below. This summary is based on the published planning model in the April 2008 Federal Register. In brief, the Forest Service model follows these procedures:

- Establish open plan development, amendment, revision, and approval **procedures** consistent with laws, regulations, policies and planning protocols at all levels of federal government and assure appropriate evaluations of procedures at key stages of the plan process
- Identify all local government, organization, citizen, private business, and special interest **stakeholders** who have an interest and or dependency in the status and future of national forests and associated public systems (e.g., roads)
- Identify all **planning and management authorities** applicable at government-wide and local management unit levels and keep these updated
- Conduct and make public a **comprehensive evaluation** of current social, economic, and ecological conditions and trends that will likely affect sustainability and update these every 5 years to reflect substantial changes. Evaluations must be based on documented monitoring, surveys, assessments, analyses, and other studies.
- **Engage the citizen public** and all other stakeholders in defining the goal of management and assure that the entire planning process is open, participatory and collaborative in developing goals, desired conditions, objectives, management options, evaluations, components of the plan, and a monitoring program

- Clearly define and **publish the mission, vision, and goals of management** consistent with government-wide, department, and agency strategic plans and consistent with the concept of social, economic, and ecological sustainability
- Assemble an **interdisciplinary planning team** representing social, economic, ecological, and engineering disciplines, as well as other expertise as needed to represent sensitive community, development, social, land, wildlife, and water issues
- **Define all concepts**, issues of interest, approaches to assessment, components of plans, approving authorities, geographic area of analysis, responsible officials, and any other aspect of the plan or planning process and make those definitions public
- Through **the interdisciplinary team, develop and document a comprehensive plan** for the public land unit (e.g., a national forest such as the Chattahoochee-Oconee NF) that is strategic, adaptive to change, actively engages all stakeholders in considering management options, defines desired conditions (social, economic, and ecological), and is based on the comprehensive evaluation
- Following established mission, vision, goal, and desired conditions, collaboratively with all publics and stakeholders, **define and state management objectives** as concise projections of measurable, time-specific intended outcomes aimed at achieving the management mission, vision, goal, and desired conditions
- Follow a logical, iterative **procedure for identifying management options** for achieving mission, vision, goals, and objectives using a collaborative and participatory process and document the rationale for options identified
- **Select a preferred management option**, notify the public of option selection and reasons for selection, allow filing of formal objections to the option selection, modify the selection as needed and document reasons for modification
- Following final option selection, **develop guidelines** to guide project and management activity selections and designs for optimum contribution to desired conditions and objectives under the selected option, including public involvement in their development
- Maintain and **make public all planning documents** including evaluation reports, public involvement and comments, maps, approval documents, environmental evaluation reports, financial plans, and monitoring procedures
- Keep plan documents up-to-date (at least every 5 years) with **evaluation reports** that reflect changing conditions, science, and other important information
- With the public participating, design a **monitoring program** that is long-term and that is tied to mission, vision, goals, desired conditions, objectives, selected management option, projects, and management activities and that takes into account financial and technical capabilities, best available science, and key social/economic/ecological performance measures (including indicators of costs and benefits toward achieving the management goal)
- Before approval of projects and activities, **identify areas suitable** and not suitable for the various uses that would aim to achieve desired conditions and objectives for management

- In collaboration with stakeholders, especially cultural groups, **identify and designate special areas** so identified because of their special natural, historical, or social importance
- Define and keep documentation of **standards for plan implementation** to constrain activities or projects, to retain consistency with the overall management plan, to comply with applicable laws, regulations and directives, and to take into account the best available science
- Maintain and keep open for viewing all **plan approval documentation**, including reasons, science used, effective date, and essential approval documents
- **Monitor a scientifically validated series of indicators** of social, economic, and ecological sustainability tied to management goals, desired conditions, objectives, and public service defined by the approved plan.

*Review Comments.*--Forest Service land management planning has evolved over a number of years and a large number of applications. Since the original legislation establishing land planning as a requirement, the National Forest Planning Act of 1976, national forest planning has evolved from being driven mostly by large, complex linear programming models. These models were a primary means for integrating relevant issues, questions, and information. However, models could not replace stakeholders' needs to be fully engaged in identifying priorities for management. Now, the process relies mostly on public involvement for integration of issues, questions, and information. This evolution has seemed to remove significant amounts of conflicts and mistrust as a result of its now being a much more open and responsive process.

National forest planning and plans are not without controversy. Issues arise that are contentious, such as water rights in the west or issuance of grazing permits. Often these issues place recreation in the middle of competing interests. The Forest Service experience (much like other agencies which have adopted modern public land planning principles), however, has shown that engaging all stakeholders in identifying options and strategies disarms much of the contentiousness of plan development. This reviewer finds the Forest Service planning model as published in the April 2008 Federal Register well adapted to modern planning principles.

### **How are Principles Applied to Development Planning for Jekyll Island State Park**

*Background.*--Jekyll Island State Park is located along the Georgia coast, north of Jacksonville, Florida. St. Simons Island is north of Jekyll and Cumberland Island (a National Park and Wilderness Area) is south. The island is surrounded by salt marsh on the west side and ocean on the east. Jekyll Island is known for its migratory birds, wildlife, loggerhead turtles, historic district, bike trails, 4-H Center and a number of other features. It is well known to Georgians throughout the state. Jekyll is the smallest of Georgia's barrier islands, connected to the main land by a causeway across the marshes. Approximately one-third of the island is developed by hotels, residences, restaurants, marinas, roads and a 4-H Center.

As one of Georgia's state parks, Jekyll Island generally falls under the Georgia Statewide Comprehensive Outdoor Recreation Plan (SCORP) for 2008-2013. The Georgia SCORP is a five-year plan that is mandated by state law. It is a statewide assessment of the state's park and recreational needs. A statewide SCORP is required for eligibility for federal grant funds from Land and Water Conservation Fund, which helps finance state and local government acquisition and rehabilitation of outdoor recreation facilities and resources. Like the Forest Service planning model, Georgia's SCORP involves extensive public involvement, an assessment of social, demographic and recreation trends for Georgia (based on data from the National Survey on Recreation and the Environment), application of GIS technology to locate recreational areas, greenspace, natural habitats, socio-demographic shifts and economic differences. The Georgia SCORP relies on surveys of citizens and stakeholders to identify needs, demands, and attitudes important in identifying public priorities for future outdoor recreation actions and policies. The SCORP ties to other guiding policies such as the preceding 2003-2007 Georgia SCORP, the Georgia Land Conservation Act, the Georgia Comprehensive Wildlife Conservation Strategy, the Georgia State Parks and Historic Sites New Day, New Way Strategic Plan and other statewide or regional conservation and recreation plans.

The Strategic Plan for Georgia state parks and historic sites was developed within the framework of the mission of Georgia Department of Natural Resources. It follows fairly closely the principles of public land planning laid out earlier in this paper. The development of the strategic plan was in partnership with the University of Georgia and involved a diverse planning team. The recommendations, concepts and strategies in the strategic plan were developed collaboratively by state personnel, expert associates, stakeholders and citizens. The mission coming from the strategic plan is to protect the state's natural beauty and historic integrity, while providing for public enjoyment and education. The vision for state parks and historic sites is to become a national model for quality service, resource protection, outdoor recreational opportunities, ecosystems management and interpretation of heritage. The core values described include:

- “Stewardship of our state’s natural, cultural, and historical resources is fundamental to the understanding of our past and the well being of our future.
  - Protection of the integrity of each site’s unique resources dictates the level of public use.
  - Engaging our visitors in meaningful educational and outdoor recreational programs is vital to their appreciation of the resources we are entrusted to protect.
  - Customers demand affordable, quality services and facilities in a safe, positive environment.
  - Significant and positive connections exist between our state’s natural and cultural heritage sites and the local communities around them.
  - As public servants and caretakers of the public’s funds, we must apply best business practices to all operational activities.”
- (<http://www.gastateparks.org/net/content/page.aspx>)

Most Georgia state parks are managed by a park superintendent and their staff. Jekyll Island State Park is managed by an authority, the Jekyll Island Authority (JIA) which



reports to a board of directors. Over the past two years, the JIA has aligned a partnership with a private development company (Linger Longer, Inc.) to expand development on the island. Cited as reasons for expanding development was a perceived downward trend in park visitation. A development impact analysis is planned and underway for examining the effects of development. The development planning for Jekyll Island provides another opportunity to examine ways different public land managers approach planning. While a specific outline of development planning procedures followed at Jekyll Island State Park up to now are not available, examination of the development impact analysis, in that it is an integral part of the park planning process, provides useful insights into the approach and philosophy adopted by the JIA. The development impact analysis has been contracted to a private consulting company, the Bleakly Advisory Group.

The stated purpose of the development plan impact analysis is "... to quantify the effects of alternative (Jekyll Island State Park) growth scenarios and to help the JIA to reach consensus around a balanced, "optimal" revitalization plan and strategy that enhances visitor experiences and is fiscally, economically and environmentally sustainable over the long term," (Bleakly Advisory Group contractual memorandum, March 25, 2008). This March 25 contractual memorandum indicates there are 13 tasks to be accomplished. Further that memorandum states that: "In order (to) make informed planning decisions over the coming months, the JIA will need a better understanding of the cumulative effects of future revitalization and growth on the island's infrastructure capacity and environmental resources. The JIA will also need forecasting tools to help it to anticipate the financial impacts of future growth on JIA operations and its capacity to finance needed capital improvements."

The development impact analysis is to initially focus on five tasks:

1. "Analyze/forecast the likely characteristics of Jekyll Island's build out under existing policies and development controls, with emphasis on analyzing the impacts of already identified development proposals (Phase I) and various potential scenarios for remaining developable areas where no specific projects have yet to be identified (Phase II).
2. Analyze historic data to **establish correlations between development patterns and demands on the Island's roads, water, sewer, and electrical infrastructure**. Also, finalize the JIA's architectural and design guidelines to effectively regulate the character of future development in accordance with adopted plans.
3. Using the results of the first two tasks, **estimate the impacts** of implementing already identified Phase I development proposals and probable long-range Phase II scenarios **on the island's population, visitation, traffic demands and levels of service, other key infrastructure capacity, beach usage, and impacts on other environmentally sensitive areas**. As part of that effort, identify the need, timing, and cost of **major capital expenditures** that may be

required to expand the island's capacity to accommodate future development and visitation.

4. Estimate/**forecast the fiscal implications** of these short- and long-range forecasts on the JIA' s operations.
5. **Establish a context** for understanding the consequences of future growth on the visitor experience at Jekyll Island.”

The products identified as coming from these tasks are technical reports, presentations, and forecasting models. The stated aim of this analysis is to enable the JIA to evaluate the impacts of future development proposals, effectively manage the island's growth and implement a fiscally sound business plan that enhances visitor experiences over time. (Offered just below are general comments concerning the Jekyll Island development impact analysis plan. More specific comments are offered as an appendix to this report.)

*Review Comments.*--The purpose of the Jekyll Island impact analysis as stated is “... to quantify the effects of alternative growth scenarios and to help the JIA to reach consensus around a balanced, "optimal" revitalization plan and strategy that enhances visitor experiences and is fiscally, economically, and environmentally sustainable over the long term.” Results of the analysis are to be shared with members of the consulting teams and with the Jekyll Island Authority. It appears public involvement in defining a balanced and sustainable development approach is not planned at this time. It does not appear that forecast impacts, including impacts on visitor experiences, are to be made public. It is suggested that the impact assessment process could be improved by adopting a more open, participatory process.

As stated in the analysis plan, the effects of alternative growth scenarios are to be quantified. One focus of quantification is to be on impacts on “visitor experiences”. In public land planning, especially public lands having recreation as a primary objective, the concept of visitor experiences is extremely important and often is the central focus of recreation management of public lands. Quantification, however, is difficult. Reaching agreement between management and visitors on the meaning of visitor experiences is a first critical step. Different visitors often have quite different expectations of what constitutes satisfying experiences. For example, dedicated birders may not consider good surfing conditions important to a quality birding experience. It is important in any planning exercise that the concepts of visitor experiences and quality visitor experiences be clearly defined and be based on peer reviewed research. It is recommended that an interdisciplinary team be engaged to help define and operationalize these concepts.

It is also recommended that it be made clear what is meant by a “visitor.” As it is with planning for national forests, this is a challenging question. In seeking to implement the Forest Service planning model, identifying the intended makeup of

the visitor base requires carefully defining who the current visitor base is and how changes in management, development or fee structures may change that base. As used for Jekyll Island, the reference to “visitors” could include reference to current visitors, new visitors drawn by development, island residents, conference attendees, youth groups, renters, day users, tourists, workers, and many others.

In the purpose statement, the concept of “sustainability” is mentioned. Sustainability is a widely used concept in many professional circles. One must assume that as used in the Jekyll Island State Park development impact analysis plan, sustainability refers to persistence of desirable effects of development over the long term. Given that the most recent version of the development plan has not yet been made public, it is unclear how an impact analysis of effects on long-term sustainability could be undertaken. Defining and measuring what sustainability means when applied to the fiscal, economic and environmental dimensions of the Island’s management is a complex question. Attempting to address this question implies that a vision, goal, and desired future condition have been established. It is recommended that the concept of sustainability in the context of fiscal, economic, and environmental aspects be defined and operationalized using widely adopted standards and approaches. This especially could benefit by making public identified plan options and desired outcomes from these options.

A core benefit of adopting the first principle of public land planning, i.e., public participation in decision making, is public acceptance and support. The proposed development impact analysis is intended to provide the Jekyll Island Authority with observations and recommendations concerning impacts. Others in the private group involved with planning and development are also to have access to analysis results. It is not clear how public collaboration in the analysis and selection of future development scenarios is to be achieved. Recommended is full engagement of all publics in scenario selection, impact measurement, forecasting, and review of findings from this analysis study. This would include identifying and defining criteria for social, economic, and environmental sustainability, as well as for sustainability of quality visitor experiences.

## **Observations**

Writing this paper and doing background reviews for it presented an opportunity to revisit the principles and processes involved in public land planning. In revisiting these principles, one is reminded that planning concerning a *publicly owned* resource, federal, state, or local government, requires more steps and added considerations, when compared with private sector business planning. Public-sector planning must consider broadly the costs, benefits, and distributional (equity) effects on people, as well as effects on natural systems.

Widely accepted principles of public land planning include being an open, participatory, and collaborative process; being based on a comprehensive evaluation of surrounding social, economic, and ecological conditions and trends; being consistent with overall

mission, vision, and goals of the associated division of government; being done by an interdisciplinary planning team; having well defined management objectives and options for achieving them; providing guidelines for all subsequent projects and management strategies; and providing evaluation reports and monitoring that are open and long term.

Planning for management of national forests pretty much follows these principles, although this has not always been the case. In past decades, national forest planning was more of a closed process driven by “black box” linear programming models. Now, a comprehensive plan or plan revision must periodically be completed for each national forest in the National Forest System. The current planning model for completing these plans seems well grounded in established and broadly accepted planning principles. A key characteristic of contemporary national forest land planning is engagement of the public in all stages of the process. Doing it this way has led to greater harmony between managers and stakeholders.

It seems that development planning for Jekyll Island State Park, as evidenced by the approach described for doing a long-term impact analysis, could benefit from closer attention to public land planning principles. The development impact analysis could especially benefit from greater public involvement. Fully engaging the public in identifying options, describing best ways to pursue those options, and defining what the desired outcomes should be better assures that management options for the island are socially optimal. Where it is difficult to secure active engagement (for example, because working people often cannot attend meetings), statistically designed surveys can be conducted. Because Jekyll Island is a state park with multiple objectives, this surveying should seek to describe preferences of the various categories of publics---visitors, residents, commercial interests, organizations, and the public at large. The public should be a key part of any surveying because all members of Georgia’s citizenry have a stake in the future of Jekyll Island State Park, whether they are now or ever will be a visitor to the island. Knowing the stakeholder is a key aspect of public land planning.

## References

Bright, A.D., Cordell, H.K., and Tarrant, M.A. (2003). Guidelines for Conducting Social Assessments. General Technical Report SRS-65. Asheville, NC: USDA Forest Service, Southern Research Station. 83 p.

Driver, B.L. 1999. Management of Public Outdoor Recreation and the Related Amenity Resources for the Benefits they Provide. In H. Ken Cordell (PI), *Outdoor Recreation in American Life*. Champaign, IL: Sagamore Publishing, pp. 2-15.

Federal Highway Administration. (1996). *Public Involvement Techniques for Transportation Decisionmaking*. Retrieved on July 31, 2008, from <http://www.fhwa.dot.gov/reports/pittd/cover.htm>.

Litman, T. (2007). *Planning Principles and Practices*. Victoria, Canada: Victoria Transport Policy Institute. 22 p.

Loomis, J. (2002). *Integrated Public Lands Management Principles and Applications to National Forests, Parks, Wildlife Refuges, and BLM Lands*. 2<sup>nd</sup> Edition. New York: Columbia University Press, Columbia University. 594 p.

Overdevest, C. and Cordell, H.K. (2001). *Recreation Realignment Report*. Retrieved on July 31, 2008, from <http://www.srs.fs.fed.us/trends/rrrpt.html>.

## **Appendix**

The five tasks identified for the impact assessment are listed and commented upon below. These comments are derived by a requested review of the JI impact analysis plan and are seen as ways for improving the analysis conduct and outcomes.

1. “Analyze/**forecast the likely characteristics of Jekyll Island's build out** for (Phase I) and yet to be identified (Phase II) development.

It would be helpful if the meaning of “Characteristics ...of build out” could be identified and offered for public comment. One could assume this means fiscal, economic, physical and environmental characteristics. Fiscal characteristics can be many, including the revenues, costs, and profits of Island-based businesses. Such a fiscal analysis is needed to assure hotels, restaurants, rentals, fishing interests, marina operations, campground, and other businesses are positioned to be viable businesses over the long term. A thorough economic impact analysis is also needed to identify the direct, indirect, and induced economic impacts on the Island, to Brunswick, to the counties in Georgia’s District 3, and to areas beyond. Economic impact analysis approaches are well documented in the literature and ample applications to state parks and other areas in Georgia are available. An analysis of environmental characteristics affected by development also needs to be conducted. Of special concern are effects on threatened and endangered species, effects on fresh water supply, effects on maritime forests, effects on beach erosion, impacts on vulnerability to storm surges and property loss, and effects on fisheries. These multiple dimensions of characteristics are complex and will require a multidisciplinary team with expertise in the various envisioned development outcome characteristics to which referred. Public input in identifying critical characteristics needing to be baselined and monitored is needed and would also be helpful.

2. “Analyze historical data to **establish correlations between development patterns and demands on the Island's roads, water, sewer, and electrical infrastructure**. Also finalize the JIA's architectural and design guidelines to effectively regulate the character of future development in accordance with adopted plans.”

Typically, historical data are not of much benefit in modeling to forecast future conditions, such as impacts of change on roads, water, sewer, other infrastructure and demands for services. Forecasting is a forward-looking process. Past correlations will not likely take account of new technologies, consumer tastes, design standards, trends in transportation, utility usage rates, and other trends.

Additionally, specification of architectural and design guidelines usually precede development design. It appears that architectural and design guidelines are out of phase with development that may already have been selected. A core principle of public land planning is that project development guidelines be derived using a public collaboration format. Another core principle is that they be consistent with an area or system master plan, be based on the best available science, and take explicit account of ecological sensitivities. It is unclear how these principles are being taken into account. For example, a primary ecological sensitivity is the ocean front side of Jekyll Island and potential interactions with beach stability in the face of rising sea level. Will design guidelines take changing beach environment sensitivity into account? This stage of impact analysis could benefit from more explicit explanation of the phasing of design guidelines relative to development planning. There are numerous experts at the University of Georgia and in other universities who have studied beach erosion and its long-term causes and impacts.

3. “Using the results of the first two tasks, **estimate the impacts** of implementing already identified Phase I development proposals and probable long-range Phase II scenarios **on the island's population, visitation, traffic demands and levels of service, other key infrastructure capacity, beach usage, and impacts on other environmentally sensitive areas**. As part of that effort, identify the need, timing, and cost of major capital expenditures that may be required to expand the island's capacity to accommodate future development and visitation.”

A central and basic principle of public planning is that it be an open, collaborative decision making process with the public and stakeholders. This phase of the impact analysis offers the greatest opportunity for public involvement. Selection of futures scenarios will affect in dramatic ways the outcome of the impact assessment. Their selection will also affect dramatically whether or not new capital expenditures will be needed. For example, if the publicly-preferred development scenario is to upgrade and replace existing architecture, rather than develop new architecture, it is likely that new capital development may not be needed.

Estimating impacts presumes development of forecasting models linking development and development impacts (for example impacts on visual resources). Needed are predictions of impacts on population, visitation, traffic flows, and disturbances in environmentally sensitive areas. The data and

information from above tasks 1 and 2 are not likely to enable sufficiently sound models of the relationships of interest for predicting population, visitation, traffic, and other dimensions. As well, it is unclear how the primary focus on visitor experiences and who the visitor is can be predicted from historic data. Visitor experiences and experience satisfactions are complex concepts, yet must be well understood before development scenarios are considered. There is a rich literature base on visitor experience dimensions, measurement of satisfactions, monitoring and predicting visitation, and site usage (such as beach usage). It seems that a more thorough analysis of impacts could be undertaken that is based solidly on the best available science. It is recommended state-of-the-art forecasting modeling be considered. All of this should follow open public collaboration in considering and selecting development scenarios.

4. Estimate/**forecast the fiscal implications** of these short- and long-range forecasts on the JIA's operations; and

Task 4 focuses on a key aspect of business operations analysis. Fiscal implications can be viewed as encompassing a wide array of economic considerations, well beyond costs and revenues for Island management. In light of preceding review comments, it is recommended that additional sources be used to conduct a broad and in-depth analysis of the fiscal and economic implications of development scenarios. It is unclear whether these development scenarios already exist, and whether they meet one of the most universal criteria for planning for public lands, which is, they fall within the range of publicly preferred options. Fiscal implications are directly determined by the scenarios selected, some of which may carry no additional capital or operational costs (other than inflation).

Any kind of resort development in 2008 and beyond will face a very different market given downturns in housing demand and much increased fuel costs. These are just a few of the major economic conditions that are changing rapidly. Any estimates and forecasts must be solidly based in transportation, housing, tourism, and changing demographics forecasting being conducted broadly.

5. **Establish a context** for understanding the consequences of future growth on the visitor experience at Jekyll Island.”

As stated earlier, the concept of “visitor experience” is critical to any public land planning, including Jekyll Island State Park. Visitor experiences should be clearly outlined as that part of planning that lays out “desired future conditions.” Desired visitor experiences can only be defined by visitors themselves. Methods for defining desired visitor experiences have been well developed. It is not clear how the development plan impact analysis will develop and quantify this part of the analysis. Different visitor bases will define

a desired visitor experience differently. It is critical to have a clear understanding of what is meant by a visitor and whether the intention is to maintain or change the visitor base. Visitors of the future may refer to the continuation of current visitors, to some vision of new visitors drawn by development, to renters, to island residents, to conference attendees, to youth groups, to day users, to tourists, to workers, or to many others coming to the state park. Defining *and* measuring recreation and tourist experiences, particularly “satisfaction” with experiences, is complex. But measuring parameters relevant to visitor experiences have a solid research and literature background. It is recommended that this literature be carefully reviewed and integrated before a development impact analysis proceeds.