

ScottMadden Insights on Natural Resource Planning

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Introduction

- ◆ Natural resource planning is becoming increasingly important for utilities
- ◆ In addition to social pressures for more sustainable business practices, it is an essential element of obtaining licenses for electric, hydroelectric, and transmission operations
- ◆ Applicants seeking an exemption, original license, new license, or a license amendment for a project must consult with relevant federal, state, and interstate resource agencies, Native American tribes, and non-governmental agencies
- ◆ In many cases, these consultations result in agreements on programs that benefit threatened or endangered species, cultural resources, recreation areas, and other natural resources
- ◆ Proactive planning can help ensure a smooth process, avoid costly delays, and create public goodwill
- ◆ This document provides a brief overview of ScottMadden's perspective

What is Natural Resource Planning?

- ◆ Natural resource planning is a strategic framework designed to guide future environmental stewardship decisions
 - It integrates with other strategic exercises such as integrated resource planning and annual business planning
- ◆ Natural resource planning addresses stewardship issues that are in the public eye such as:
 - Sustainable development
 - Protection of sensitive resources
 - Benefits provided by access to public and private lands
- ◆ Programs may include protecting threatened and endangered species, improving water quality, creating recreation sites for public use, and protecting cultural and archeological sites
- ◆ The natural resource planning process evaluates a broad range of program alternatives
 - It includes development of multiple strategies for proactive stewardship
 - Strategies are assessed against potential future business environment scenarios to determine the optimal program mix
- ◆ The final plan lays out an immediate course of action and a road map with options for leaders to use when making future strategic decisions

Examples of Natural Resource Programs

Resource Area

Example Activities



Biological Resources

- ◆ Threatened and Endangered Species Protection
- ◆ Natural Areas Management
- ◆ Non-Native Invasive Plant Management
- ◆ Conservation Planning



Water Quality

- ◆ Water Quality Improvement
- ◆ Shoreline Stabilization
- ◆ Aquatic Ecology
- ◆ Public Outreach and Education



Recreation

- ◆ Public Day-Use Areas
- ◆ Campgrounds
- ◆ Stream Access Sites
- ◆ Hiking Trails Management



Cultural Resource Protection

- ◆ Archeological Resources Protection Act Compliance
- ◆ Native American Graves Repatriation Act Compliance
- ◆ National Historic Preservation Act Section 106 Compliance
- ◆ Public Outreach and Education

Why is Natural Resource Planning So Important Today?

Proactive natural resource planning helps address a number of challenges facing utilities today.

<u>Challenge</u>	<u>Potential Benefits</u>
Increased Environmental Pressures	Recent economic and legislative climates have shown a shift toward sustainable operations and higher environmental standards. Proactive planning helps utilities stay ahead of the curve.
Licensing Requirements	When utilities apply for licenses for new projects, FERC and state utility commissions require environmental impact statements to be developed that weigh environmental impacts against mitigation activities. Natural resource planning alleviates the threat of surprises and helps avoid costly delays.
Relationships with External Stakeholders	Involving external stakeholders such as agencies and environmental groups in the planning process can help ease tensions and create mutually beneficial relationships and outcomes.
Costs	Proactive planning helps smooth the licensing process, avoid costly delays, alleviate stakeholder concerns, and can work to deter future lawsuits.
Public Goodwill	Environmental stewardship and the development of natural resource and recreation programs for public benefit create significant goodwill in an effective and efficient manner.

Licensing Requirements Create Multiple Challenges

Applicants seeking an exemption, original license, new license, or an amendment to a license for a project must consult with relevant federal, state, and interstate resource agencies, Native American tribes, and non-governmental agencies.

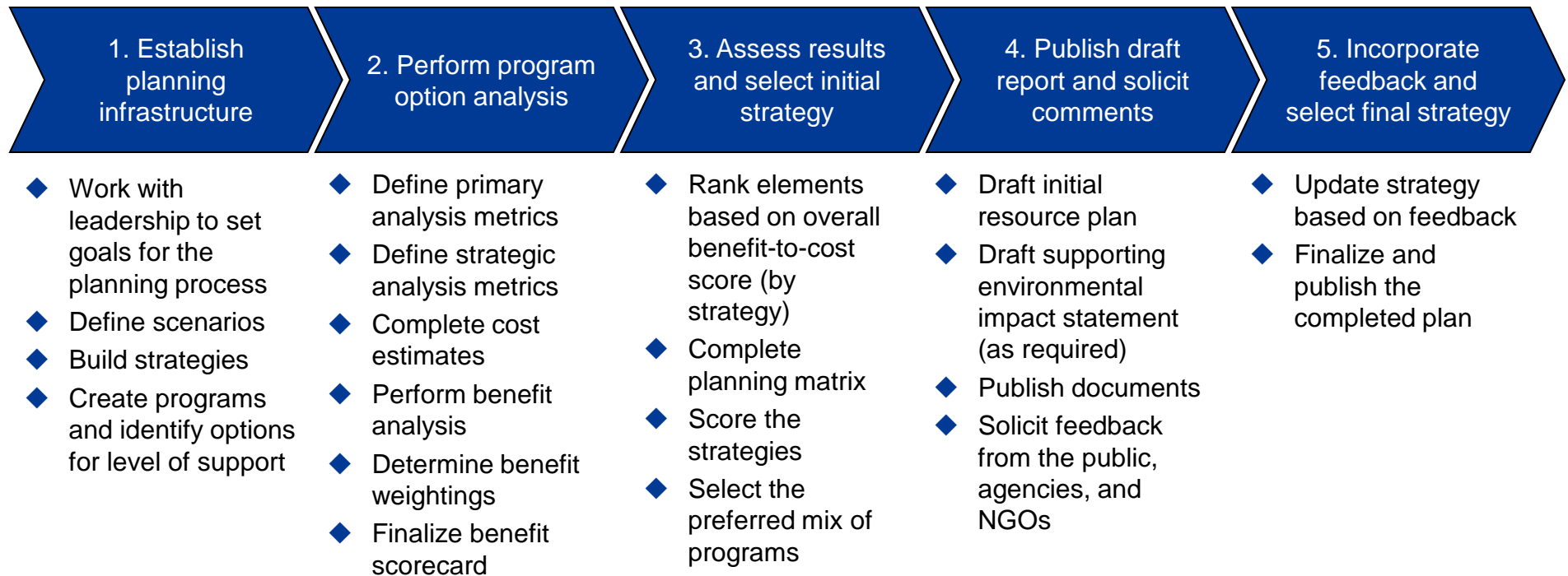
- ◆ To gain support, utilities must prove to each group that they are addressing their concerns
- ◆ In many cases, this results in a negotiated settlement to create or fund new natural resource programs

Example: FERC Recommended Initial Consultation List For a Georgia Hydropower Project		
Advisory Council on Historic Preservation	U.S. Department of Commerce	Trout Unlimited
Bureau of Indian Affairs (U.S. Dept. of Interior)	U.S. Environmental Protection Agency	Georgia Department of Agriculture
Federal Emergency Management Agency	U.S. Fish and Wildlife Service	Georgia Department of Natural Resources – Environmental Protection Division
Federal Energy Regulatory Commission	U.S. Forest Service	Georgia Department of Natural Resources – Historic Preservation Division
National Oceanic and Atmospheric Administration	United States Geological Survey	Georgia Department of Natural Resources – State Parks and Historic Sites Division
National Park Service	American Canoe Association	Georgia Department of Natural Resources – Wildlife Resources Division
U.S. Army Corps of Engineers	American Whitewater	Georgia Soil and Water Conservation Commission
U.S. Bureau of Land Management (U.S. Dept. of Interior)	Appalachian Trail Conservancy	Cherokee Nation
U.S. Bureau of Reclamation (U.S. Dept. of Interior)	Front for Environmental Action	Eastern Band of Cherokee Indians
U.S. Coast Guard	Georgia River Network	United Keetoowah Band of Cherokee Indians
U.S. Department of Agriculture – Forest Service	Hydropower Reform Coalition	Upper Tallapoosa Watershed Group

Proactive natural resource planning helps satisfy many requirements ahead of time and eliminates costly delays

Proven ScottMadden Natural Resource Planning Process

Creating a natural resource plan requires a structured process with standardized tools, defined decision rights, specific criteria, and analytics.



Multiple Tools Work Together in a Structured Approach

ScottMadden has created a proven natural resource planning approach that marries various perspectives and analysis to provide the optimal mix of programs.

Program Options

Program Category	Program	Goal / Activity	Current Mgmt	Program Options		
				Option 1	Option 2	Option 3
Aquatic Monitoring and Management	Aquatic Ecology Management	Conduct and submit reports on existing aquatic biological communities. Oversee and evaluate public outreach opportunities to raise public awareness (consistent with Executive Order 11735).	100	50	70	100
	Stream and Wetland Monitoring Program	Conduct stream assessments per year.	50	50	50	50
	Water Resource Grant Program	Water stream and reservoir data.	50	50	50	50
Partnership Programs	Case Study / Research Initiative	Case studies / research projects implemented and reported.	2	2	2	2
	Strategic Partnership Planning	Monitor existing relationships, partnerships and third party agencies. Identify new or enhance existing relationships, partnerships and agreements.	1	1	1	1
Public Outreach	Water Media Program	Develop and disseminate press releases, press kits, and other media.	1	1	1	1
	Water Efficiency Program	Develop and disseminate water efficiency information.	10	10	10	10
	Water Resource Outreach Campaign	Water resource outreach products per year.	10	10	10	10
Water Resource Improvement Programs	Watershed Stewardship Program	Reduce phosphorus by 1,000 pounds per year.	200	200	200	200
	Targeted Reservoir Initiative Program	Reduce phosphorus loading streams by 1,000 pounds per year.	100	100	100	100
	Water Resource Grant Program	Develop and implement evaluation, management, and experimentation processes.	100	100	100	100

Cost Estimates

Program Category	Program	Current		Cautious		Enhanced		Flagship	
		FTE	Total Cost	FTE	Total Cost	FTE	Total Cost	FTE	Total Cost
Water Resource Improvement Programs	Water Resource Improvement Campaign	0.50	\$ -	0.00	\$ -	0.00	\$ -	0.00	\$ -
	Targeted Reservoir Initiative Program	0.50	\$ -	0.00	\$ -	0.00	\$ -	0.00	\$ -
	Water Resource Grant Program	0.50	\$ -	0.00	\$ -	0.00	\$ -	0.00	\$ -
Aquatic Monitoring and Management	Aquatic Ecology Management	0.50	\$ -	0.00	\$ -	0.00	\$ -	0.00	\$ -
	Stream and Wetland Monitoring Program	0.50	\$ -	0.00	\$ -	0.00	\$ -	0.00	\$ -
	Water Resource Grant Program	0.50	\$ -	0.00	\$ -	0.00	\$ -	0.00	\$ -
Partnership Programs	Case Study/Research Initiative	0.00	\$ -	0.00	\$ -	0.00	\$ -	0.00	\$ -
	Strategic Partnership Planning	0.00	\$ -	0.00	\$ -	0.00	\$ -	0.00	\$ -
	Water Media Program	0.00	\$ -	0.00	\$ -	0.00	\$ -	0.00	\$ -
Public Outreach	Water Efficiency Program	0.00	\$ -	0.00	\$ -	0.00	\$ -	0.00	\$ -
	Water Resource Outreach Campaign	0.00	\$ -	0.00	\$ -	0.00	\$ -	0.00	\$ -
	Water Resource Grant Program	0.00	\$ -	0.00	\$ -	0.00	\$ -	0.00	\$ -
Total DAM - All Programs		0.50	\$ -	0.00	\$ -	0.00	\$ -	0.00	\$ -

Planning Matrix

Planning Strategies	Scenarios				Total Score (by scenario)
	Economy Recovers Dramatically	Environmental Focus is a National Priority	Prolonged Economic Malaise	Carbon Legislation Creates Economic Downturn	
Resource conservation					
Recreation focus					
Balanced management					

Benefits

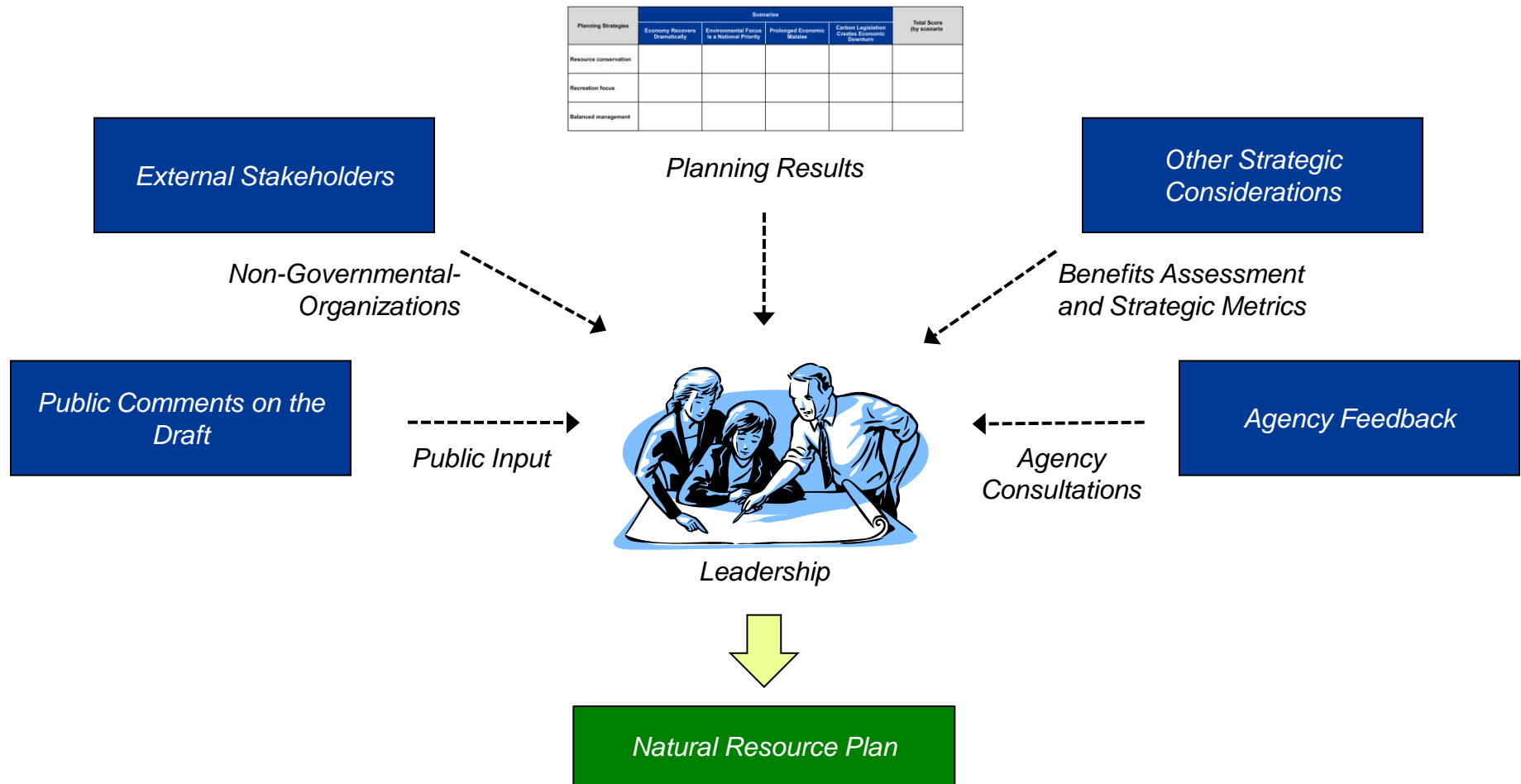
Recreation Program	Recreation / Visitor Use Benefits	Water Resource Benefits	Species / Habitat Conservation and Abundance	Cultural Resource Preservation	Management Data and Research	Public Perception, Partnerships, Outreach
Recreation Service Assessments	Recreation interest value of services estimated and reported for management.	Recreation resource benefit from water quality improvement and water supply for recreation.	Recreation resource benefit from water quality improvement and water supply for recreation.	Recreation resource benefit from water quality improvement and water supply for recreation.	Recreation resource benefit from water quality improvement and water supply for recreation.	Recreation resource benefit from water quality improvement and water supply for recreation.
Developed Recreation Facilities and Services	Recreation resource benefit from water quality improvement and water supply for recreation.	Recreation resource benefit from water quality improvement and water supply for recreation.	Recreation resource benefit from water quality improvement and water supply for recreation.	Recreation resource benefit from water quality improvement and water supply for recreation.	Recreation resource benefit from water quality improvement and water supply for recreation.	Recreation resource benefit from water quality improvement and water supply for recreation.
Recreation Design Processes	Recreation resource benefit from water quality improvement and water supply for recreation.	Recreation resource benefit from water quality improvement and water supply for recreation.	Recreation resource benefit from water quality improvement and water supply for recreation.	Recreation resource benefit from water quality improvement and water supply for recreation.	Recreation resource benefit from water quality improvement and water supply for recreation.	Recreation resource benefit from water quality improvement and water supply for recreation.
Recreation Planning, Scheduling and Service Support	Recreation resource benefit from water quality improvement and water supply for recreation.	Recreation resource benefit from water quality improvement and water supply for recreation.	Recreation resource benefit from water quality improvement and water supply for recreation.	Recreation resource benefit from water quality improvement and water supply for recreation.	Recreation resource benefit from water quality improvement and water supply for recreation.	Recreation resource benefit from water quality improvement and water supply for recreation.
Clear and Open Campground Access	Recreation resource benefit from water quality improvement and water supply for recreation.	Recreation resource benefit from water quality improvement and water supply for recreation.	Recreation resource benefit from water quality improvement and water supply for recreation.	Recreation resource benefit from water quality improvement and water supply for recreation.	Recreation resource benefit from water quality improvement and water supply for recreation.	Recreation resource benefit from water quality improvement and water supply for recreation.

Benefit Weightings

Environmental Stewardship Metric	Metric Weights		
	Conservation	Recreation	Balanced
Recreation/ Visitor Benefit Use	1%	44%	17%
Water Resource Benefit	9%	4%	17%
Species/ Habitat Conservation and Abundance	40%	10%	17%
Cultural Resource Preservation	0%	1%	17%
Management Data and Scientific Knowledge/ Reduce Compliance Costs	5%	1%	16%
Public Perception, Partnerships, Outreach	5%	20%	16%
Total	100%	100%	100%

External Stakeholder Input is Critical

In addition to the planning analysis, input from the public, agencies, and other stakeholders is essential to ensure the development of a robust plan that can satisfy all future requirements and gain support from the public.



Why ScottMadden?

We have recent and relevant experience in natural resource planning

- ◆ We have developed a first-of-its-kind natural resource plan for the largest public power utility in the country
- ◆ We have led multiple stakeholder engagement groups to secure buy-in for strategic planning efforts
- ◆ We have assisted numerous utilities with all areas of strategic planning
- ◆ We have substantial experience in sustainability-related projects, and we understand how to integrate them with natural resource planning



- ◆ We have developed a standardized approach and evaluation tools that we can deploy to assist companies in performing natural resource planning
- ◆ We have worked with hundreds of energy clients over nearly 30 years including 90% of the top 20

Contact Us

For more information on natural resource planning, please contact us.

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