Guidance for Shoreline Management Planning at Hydropower Projects




Office of Energy Projects
Federal Energy Regulatory Commission

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Introduction

The Federal Energy Regulatory Commission (FERC or the Commission) is responsible for issuing licenses for the construction, operation, and maintenance of non-federal hydropower projects. Licensees are responsible for operating and maintaining these projects in accordance with license requirements and project purposes (i.e., public recreation, environmental protection, etc.). Consistent with these license responsibilities, a licensee may, with Commission approval, authorize specific uses and occupancies of the project reservoir shoreline that are not related to hydroelectric power production or other project purposes (non-project uses).

In recent years, FERC has received an increasing number of applications for shoreline development activities at licensed projects. Many of these applications have been for commercial dock construction. The increase in development pressure on shorelines for non-project uses and occupancies is fueled largely by increasing demand for water-oriented recreation and waterfront property. The demand for waterfront property or property that has water access (water-privileged) is especially keen. Historically, waterfront real estate development often focused on second-home and vacation rental properties. Recently, significant numbers of year-round homes are being built near many projects. These year-round developments include upscale homes, planned communities, and retirement homes. They are frequently located next to project lands and often have access to project waters via boat ramps, community parks, and commercial developments such as marinas.

As demands for residential development near projects increase, there is a corresponding increase in demands for additional recreational development of project lands and waters. All of these developments take advantage of access to or views of project waters, and exist because of their proximity to the water. Private recreational facilities include resorts, marinas, dry docks, boat services and sales, golf courses, and campgrounds. Public recreational facilities include local parks, state parks, campgrounds, trails, hunting areas, fishing areas, and wildlife preserves.

As development pressure on lands adjacent to or near project lands increases, a wider range of stakeholders are becoming involved in FERC review processes. In recent years, FERC has noticed an increase in the number of stakeholder comments and inquiries regarding shoreline issues. Stakeholders such as federal, state, and local agencies, along with homeowners' associations, environmental groups, hunting and fishing clubs, water-based recreation groups, real

estate interests, and the general public are now frequently participating in project review. Many of these stakeholders have different, and sometimes conflicting concerns. Local governments often support development activities adjacent to projects because these activities can increase tax bases, provide jobs, and boost local economies. The real estate and construction industries also often support waterfront development. Groups that are frequently concerned about the effects of waterfront development on natural resources include federal, state, and local government resource agencies; environmental groups; and a variety of recreation and sporting interests. Other groups are concerned about public safety, water craft traffic, and even commercial navigation.

Licensees have a responsibility to ensure that shoreline development activities that occur within project boundaries are consistent with project license requirements, purposes, and operations. As development and multiple uses of the shoreline continue to grow, licensees will face more and more challenges related to the effects of such development on project lands and waters, including public recreational use and environmental resources.

A comprehensive plan, such as a shoreline management plan (SMP), can assist the licensee in meeting its responsibilities throughout the term of its license. An SMP is a comprehensive plan to manage the multiple resources and uses of the project's shorelines in a manner that is consistent with license requirements and project purposes, and addresses the needs of the public. The Commission expects all licensees developing comprehensive plans to involve the public and allow for agency consultation, review, and comment.

The SMP planning process allows project stakeholders to voice their concerns. One of the primary purposes of this guidebook is to educate both licensees and stakeholders about how to participate in the SMP planning process. In FERC's experience, when stakeholders with different views work together during the development of an SMP, they often are able to create plans that are acceptable to all, or at least most, of the parties. Striking a balance that supports local economic interests, protects environmental resources, and allows the public to enjoy those resources is vital for the long-term success of an SMP. Commission staff believes that by including various stakeholders in the development of the SMP, the resulting plan will be stronger and more acceptable to all parties.

This guidebook has been written to assist both licensees and stakeholders. It is intended to provide general guidance on developing an SMP, including potential pitfalls and how to avoid them, what to expect from FERC and other involved agencies, ways to involve the public in the SMP development process, and how to implement, monitor, and enforce the SMP once it is in place. This document is not intended to provide detailed, step-by-step instructions on how to develop and implement an SMP, but instead is a basic framework to guide licensees and stakeholders. Each individual licensee will need to determine how the information in this guidebook applies to its particular project. The guidebook is organized as follows:

- ***Chapter 1—The History and Regulatory Basis for Shoreline Management at FERC Projects*** details the regulatory history of shoreline management at FERC projects.

- ***Chapter 2—Pre-Planning Activities*** outlines a number of activities that a licensee can complete to ensure a meaningful and efficient SMP development process.

- ***Chapter 3—Preparing the Shoreline Management Plan*** gives instructions and guidance for preparing the SMP.

- ***Chapter 4—Implementing the Shoreline Management Plan*** guides the licensee through the implementation process once the SMP has been completed and discusses non-project uses that need Commission approval whether or not an SMP is in place at the project.

CHAPTER 1
THE HISTORY AND REGULATORY BASIS FOR SHORELINE MANAGEMENT AT FERC PROJECTS

1.1 The Federal Power Act

The Federal Power Act of 1935 (FPA) authorized FERC to regulate non-federal hydroelectric projects. Included in FERC's regulatory mandate are specific requirements for protecting non-power resources, including fish and wildlife habitat, irrigation, water supply, recreation, flood control, and water quality. The FPA, along with its various amendments, sets the stage for shoreline management planning for licensed hydroelectric developments. Section 10(a)(1) of the FPA charges the Commission with ensuring that all licensed projects:

- Be best adapted to a comprehensive plan for improving or developing a waterway or waterways for the use or benefit of interstate or foreign commerce, for the improvement and utilization of waterpower development, for the adequate protection, mitigation, and enhancement of fish and wildlife (including related spawning grounds and habitat), and for other beneficial public uses, including irrigation, flood control, water supply, and recreational and other purposes referred to in section 4(e); and, if necessary, in order to secure such a plan, the Commission shall have authority to require the modification of any project and of the plans and specifications of the project works before approval.

In addition, section 4(e) of the FPA, as amended by the Electric Consumers Protection Act of 1986, requires that the Commission, when issuing a license, give "equal consideration to the purposes of energy conservation, the protection, mitigation of, damage to, and enhancement of, fish and wildlife (including related spawning grounds and habitat), the protection of recreational opportunities, and the preservation of other aspects of environmental quality."

1.2 Standard License Articles Related to Shoreline Management Plans

There are two standard license articles found in almost all major (i.e., projects with an installed capacity of greater than 5 megawatts) FERC project licenses that relate directly to shoreline management planning. Standard Article 5 requires a project licensee to acquire and retain fee title or the right to use in perpetuity all property necessary or appropriate to construct, maintain, and operate the project. In general, sufficient property and/or rights are needed to carry out project purposes. These purposes may include, but are not limited to, operation and maintenance, flowage, recreation, public access, protection of environmental resources, and shoreline control. Article 5 also states that licensees cannot dispose of these project interests without the Commission's approval, unless permitted under specific requirements of the license.

In an order issued in 1980 involving the Brazos River Authority (Project No. 1490) (11 FERC §61,162), FERC began including a new standard article in licenses. This new article (land use article) gives licensees much broader authority to act on relatively routine shoreline matters without FERC approval. This article gives licensees the authority to grant permission to applicants for specific non-project uses, subject to specific license conditions. Examples of relatively routine, non-project use applications that licensees may approve include non-commercial boating access facilities (boat docks and piers), erosion control structures, certain types of recreation development, bulkheading, and vegetative removal or trimming, and planting new vegetation.

To exercise these authorities, licensees must ensure that the proposed uses and occupancies are consistent with the purposes of protecting and enhancing the environmental values of the project, while safely operating and maintaining the project. Project environmental values that must be protected and enhanced include a number of natural resources (fish, vegetation, wildlife), public recreation access, scenic character, and cultural resources.

Paragraph B of the land use article includes a clause that states "the licensee may, among other things, establish a program for issuing permits for the specified types of use and occupancy of project lands and waters" to assist the licensee in managing project lands and waters. It goes on to say that "the Commission reserves the right to require the licensee to file a description of its standards, guidelines, and procedures for implementing this paragraph (b) and to require modification of those standards, guidelines, and procedures." Depending on how extensively the licensee exercises its authority under the standard land use article, most licensees do find a permitting program useful, if not necessary.

1.3 Evolving Management and Planning at Project Shorelines

Shoreline management is not a new FERC initiative. The need to protect a marginal strip of shoreline land around project reservoirs has long been recognized by the Commission. FERC's early attempts to encourage licensees to manage their shorelines came in the form of buffer zone management plans, resource plans, and even the exhibit R (which was essentially a recreation and public use plan). In most cases, buffers incorporated into resource plans during the licensing process were established to protect specific resources, such as wildlife, aesthetics, recreation, or cultural resources. Typically, these earlier resource plans did not consider multiple resources along the shoreline in a comprehensive manner, even though the management of individual resources often influenced how project shorelines were managed. Interest in multiple non-developmental resources such as recreation, cultural, aesthetic, fish, wildlife, and habitat resources, has increased over the years to the point where these resources are now given considerable attention by licensees and FERC.

As interest in non-developmental resources increased, so did applications to FERC for project shoreline permits, licenses, and amendments to licenses. Through the

issuance of the 1980 order involving the Brazos River Authority, the Commission responded to this increasing number of applications. The land use article addresses the licensee's authorization and management of specific shoreline uses and facilities.

The purpose for the article recommending permitting systems was not to manage shorelines comprehensively, but instead to allow the licensee to have basic oversight of the use of project shorelines. Because many licensees used permits as information bases, the permitting systems allowed many licensees to begin to track what was occurring on project shorelines.

As waterfront development at licensed projects increased, the Commission and many licensees realized that more comprehensive approaches to shoreline management were needed. Although permitting systems began to address and direct development, these systems, like the single-resource management plans, were not designed for comprehensive management. Some licensees have developed and are using comprehensive SMPs to manage their shorelines. FERC, licensees, and stakeholders alike have found that a comprehensive, resource-based planning approach is appropriate for most SMPs. Most, if not all, projects will experience conflicting demands on how to manage project shorelines. By developing and using an SMP at the earliest possible time, the licensee can make progress toward comprehensively managing the shorelines of their projects.

1.4 How FERC Reviews a Shoreline Management Plan

For licensees that are in the process of licensing their projects, the review of proposed comprehensive plans, such as an SMP, is completed as part of the licensing process. If an SMP is filed with FERC during the license term, the following process applies. Initially, staff reviews the plan to determine its adequacy. The document must be consistent with the overall requirements of the project's license and should address issues raised by interested entities. Any shoreline use regulations, permits, or guidelines that are part of an SMP must also be consistent with the project license.

In addition, the SMP must contain adequate information from which the Commission can base its decisions on the plan. If FERC determines that there is missing information or unresolved questions or issues, the Commission may request additional information from the licensee that may be necessary to properly analyze the effects of implementing the SMP.

Once the SMP is filed with FERC, there will likely be a public comment period. If the Commission determines that the SMP entails material changes in the terms and conditions of the license, or would adversely affect the rights of property owners in a manner not contemplated by the license, a public notice requesting comments is issued and published in a local newspaper. During the review and comment period, interested parties are given the opportunity to file comments and other information regarding the proposed SMP for FERC to review and consider.

The next steps of the typical SMP review process involves preparation of a National Environmental Policy Act (NEPA) document, under FERC's NEPA regulations (18 CFR Part 380). In most cases, FERC's staff will prepare an environmental assessment (EA) for the proposed SMP. Typically, the EA will address the potential environmental effects of implementing the plan on resources within the project area.

Resources that are generally examined include water use and quality, fisheries, wetlands, wildlife, threatened and endangered species, land use and aesthetics, recreation, cultural resources, and socioeconomics. Occasionally, individual development proposals do accompany an SMP, or are included as a part of a plan. Most commonly, these are recreational enhancements, and the effects of these individual proposals have to be considered along with the effects of the plan.

In deciding whether, or under what conditions to approve the plan, the Commission will consider the entire record of the proceeding, including the proposed plan, any comments filed on the plan, and the EA. The Commission will approve the plan if it determines that the plan is consistent with the requirements of the project license and adequately addresses issues raised during the proceeding.

CHAPTER 2—PRE-PLANNING ACTIVITIES

Prior to preparing an SMP, the licensee should undertake a number pre-planning activities. These activities will help the licensee guide, define, and establish the parameters of the plan. These pre-planning activities can be extremely valuable for the licensee for a number of reasons:

- To define what they hope to accomplish with an SMP by clarifying and developing goals and objectives
- To identify the issues that will need to be addressed in the SMP
- To assess how much existing information is available that relates to the SMP and how much information will need to be gathered
- To gather and organize enough background information to allow the licensee to meet with relevant agencies and stakeholders to determine the likely scope and complexity of the SMP.

For licensees that are in the process of licensing their projects, the efforts described in this chapter and Chapter 3 will likely be completed as part of the licensing process (18 CFR Part 4).

The following sections describe the components of the pre-planning phase of the development of an SMP.

2.1 Goals and Objectives

Goals are statements that help define what the licensee wants to accomplish with an SMP. Goals can be fairly general policy statements or very specific. Objectives are action items that, when completed, help to achieve the goal and/or measure the goal's success. Examining the project license will help the licensee establish goals and objectives for the SMP. In general, a licensee's overall goal for an SMP is to develop a tool that will help it fulfill its license responsibilities and obligations for the project, including protecting and enhancing the project's environmental, scenic, and recreation values.

Developing goals and objectives during the pre-planning phase will help determine the form and level of complexity that will be required for the SMP. For example, at a project where the primary goal of the planning effort would simply be to develop a permitting system for shoreline structures, the SMP would be relatively simple, whereas, for a project where there were multiple goals dealing with multiple issues and resources, the SMP could be quite complex. Examples of goals that might be developed for a complex project might include: (1) retaining sport fish habitat, (2) concentrating new shoreline development in areas that have already been developed, (3) stabilizing erosion, (4) improving water quality by reducing the amount of runoff of contaminants from neighboring properties, (5) cooperating with the multiple governing entities that surround the project to coordinate adjacent land uses with shoreline uses, (6) working with the same entities to "piggyback" permitting efforts, and (7) preserving the natural aesthetic quality of the shoreline for both boaters and shore viewers.

Example Goals and Objectives for a Shoreline Management Plan

Goal 1: Improve public access to the south half of the project.

Objective 1: Cooperate with the Forest Service in identifying one new boat ramp site in this area

Objective 2: Determine how a boat ramp in a given area can be rehabilitated

Objective 3: Provide a fishing pier at the project picnic area next to a particular highway

Goal 2: Protect shoreline wildlife habitat

Objective 1: Assign a shoreline classification of "Protected" to 25 percent of project shoreline

Objective 2: Accurately locate and classify undeveloped shoreline areas on a geographic information system(GIS)

Objective 3: Accurately locate all heron rookeries and osprey nests

Goal 3: Create a public education program to encourage plan compliance

Objective 1: Write and distribute a semi-annual newsletter

Objective 2: Establish a "model" shoreline area with plantings from a suggested plant list

Objective 3: Meet with public service and community groups once a year to update them on progress and changes and to get feedback

Objective 4: Use website and e-mail as tool to communicate with interested party.

Objective 5: Develop and implement an educational program for contractors who want to be on the approved contractor list

The goals and objectives that are developed during the pre-planning phase may evolve or change during the development of the SMP as various stakeholder groups become involved. However, it is important for the licensee to have a clear set of goals and objectives early in the development process prior to stakeholder involvement. A clear set of goals and objectives will help ensure that the SMP meets the needs and capabilities of the licensee, while allowing the licensee to work with stakeholder groups.

2.2 Gathering Information

Because it is likely that multiple resource concerns and interests will be taken into account when developing an SMP, it is critical for the licensee to have a thorough understanding of existing shoreline conditions. Gathering shoreline information will help identify issues early and allow the licensee to have meaningful discussions with stakeholders about the project. These discussions will help determine the issues to be addressed in the SMP and give an early indication of the necessary level of complexity for the SMP.

If the licensee is preparing or has recently prepared a relicense application, data appropriate for the SMP may already be available. Existing project records, such as permit inventories or FERC Form 80 (Licensed Hydropower Development Recreation Report, 18 CFR §8.11), may also be excellent sources of information. Federal, state, and local resource agencies can also provide data, including National Wetlands Inventory maps, aerial photos, threatened and endangered species habitat maps, zoning and critical areas maps, state comprehensive outdoor recreation plans (SCORPs), U.S. Geological Survey maps, and real estate platting maps. Other data sources could include non-governmental organizations such as environmental groups, chambers of commerce, and homeowners' associations.

It is important to note that the Commission does not expect licensees to perform extensive existing conditions surveys for the development of an SMP. FERC encourages the use of existing relevant data as a way to keep costs down. However, as circumstances dictate, issues that must be addressed in the SMP may require the licensee to perform some existing conditions surveys.

When data are obtained, licensees that have a geographic information system (GIS) are encouraged to use it to store and use shoreline data. Using a GIS application for projects with large land bases and long shorelines will allow licensees to perform a number of functions relevant to shoreline management, ranging from mapping to quantitative analysis. A GIS system will also allow the licensee to easily input new data, and share data (if desired) with stakeholders and the general public. Those licensees that do not have GIS systems should consider developing an appropriate system to make

data retrieval and compilation as efficient as possible. The appropriate system, of course, will depend on the specific needs and financial capabilities of the licensee.

The following is a brief discussion regarding the type of information that may be useful to obtain in the pre-planning phase of the SMP development. Collecting this kind of information prior to meeting with agencies and other stakeholders would encourage relevant discussions between all interested entities at the very start of the process.

2.2.1 Lands

The licensee must have an understanding, not only of project lands, but also of lands adjacent to the project boundary because development activities on these lands can affect lands within the project boundary. Therefore, it is important to be familiar with ownership patterns and land uses on adjacent lands. Information regarding land ownership and use should be available from local or regional entities such as planning, zoning, and building departments and agencies.

Land ownership can also be an indication of potential future uses. All public lands (and the managing agency) should be identified. It is not necessary to identify individual, small private land owners, but private owners controlling significant amounts of land adjacent to the project should be identified. Generally, licensees already know who owns large tracts of lands adjacent to their projects.

It is also important to have a clear understanding of project boundaries and the extent of licensee-owned lands. Because adjacent land owners may have unique access or use easements, it is important to find out as much information as possible regarding this subject during the pre-planning phase.

As with land ownership, the licensee should have an understanding of current land uses on adjacent properties. Typical adjacent land uses include residential (primary and second home/vacation), industrial, recreation, conservation, agriculture, and forestry. Development density on adjacent lands is useful to understand development patterns, distribution, and trends near the project.

Adjacent lands at many projects will likely have been assigned land use designations and/or zoning designations by city, county, or perhaps state entities. These designations influence the type and intensity of development that has, and could, occur on adjacent lands.

2.2.2 Natural Resources

Agencies and other interested entities are frequently concerned about the potential effect of shoreline development on natural resources such as vegetation, wildlife, and aquatic species. Natural resource issues related to project shorelines will almost certainly play a major role in the development of land use classifications for an SMP. It is therefore important that the licensee have information regarding shoreline natural resources, particularly prior to any discussions with agencies or stakeholder groups.

The vegetation found along project shorelines and adjacent uplands is frequently habitat for terrestrial and aquatic wildlife species. Removal of native shoreline and aquatic vegetation can result in a loss of terrestrial and aquatic habitat used by fish and wildlife for cover, food, nesting areas, and rearing areas for young. Even seemingly minor activities, such as clearing underbrush or building piers can affect some species.

Because different types of habitat have different values for wildlife and aquatic species, it is important to understand the relative value of the habitat found along project shorelines. Areas of undisturbed vegetation, wetlands, riparian areas, and certain types of aquatic vegetation typically have high value as habitat. Existing information may be adequate, but in many cases, an inventory of some sort is required. The level of effort for the inventory will depend upon available information, input from agencies, the complexity of the project's shoreline vegetation and plant communities, and cost.

In addition to having and understanding the project's existing habitat, the licensee should be aware of the presence, or potential presence, of plant, animal, and fish species that are listed as threatened or endangered species, or are considered species of concern by federal or state agencies. The presence, or potential presence, of these species could have shoreline management implications.

2.2.3 Public and Private Shoreline Facilities

Because the SMP will guide the management of the project shoreline for multiple resource objectives, it is critical that the licensee know the types and numbers of facilities located on project shorelines, the conditions of the facilities, and the entity that manages the facilities. Facilities to inventory include both private and public piers, docks, boat ramps, marinas, water intakes and discharges, bulkheads, riprapped shoreline

(or other areas of artificial shoreline protection), developed beaches, and portages. The licensee should also know where dispersed or non-designated recreational areas (i.e., fishing, swimming, and camping areas) are located. An accurate inventory of developed facilities and dispersed areas will eventually need to be completed for the SMP. If the information is available during the pre-planning phase, it will be very valuable. If it is not, the licensee should at least have an understanding of the general location, condition, and management of most of these types of facilities.

2.2.4 Recreational Use

In addition to having an understanding of the project-area recreation facilities, the licensee should have an understanding of other recreation issues that might be relevant. For example, increases in certain types of recreational activities such as jet skiing, overcrowding in certain parts of a project reservoir as a result of adjacent development, or fishing closures at nearby reservoirs that result in displaced anglers using the licensee's project. The licensee should also be aware of plans for potential future recreation developments or changes to existing facilities that may need to be addressed in an SMP. Other recreation-oriented issues that could influence an SMP include determining the carrying capacity of the project, perceptions of overcrowding, competition between different kinds of users, local and regional recreation trends, and changes in recreational use patterns.

2.2.5 Socioeconomics

A general understanding of the social and economic conditions of the area around a project is important for licensees. Changing demographic and economic conditions can influence demands on projects and on adjacent lands. For example, projects that are located in rural areas that may not be economically robust are sometimes seen as important income generators for the local economy. Projects with recreation opportunities can bring tourist dollars into the local economy and attract real estate development, both of which provide jobs and increase tax bases. Many areas near projects are experiencing second-home development, as well as primary home development for retirees and urban refugees. An understanding of these social

and economic trends and factors can give the licensee an indication of how local jurisdictions and interest groups may view shoreline management planning and what issues may be important to these groups.

2.2.6 Aesthetic Resources

The licensee should have an idea of what the project's aesthetic resources are, areas of the project that are considered to have high aesthetic value, why those areas have high values, and who values the aesthetic resources. Aesthetic attributes that are commonly valued include vegetated shorelines, clean water, the presence of wildlife, and views of water. Conversely, licensees should have an idea of highly valued shoreline views that are threatened or have been degraded by past development.

2.2.7 Cultural Resources

The presence of cultural resources at a project can significantly influence shoreline management decisions. The Commission has specific requirements under Section 106 of the National Historic Preservation Act that address cultural resources. It is advisable for the licensee to have an understanding of whether or not there are likely to be cultural resources present near project shorelines. State Historic Preservation Officers (SHPOs) are good sources of information or advice. SHPOs may recommend that the licensee conduct detailed cultural resource surveys, but generally only for areas where there are known concentrations of cultural resources that could be disturbed by management decisions (for example, areas where shoreline development might be permitted).

2.2.8 Soils/Erosion

At many projects, erosion is a concern for many stakeholders involved with the development of an SMP. Erosion can affect water quality and cultural resource sites, and can generally cause property damage. If erosion that may result from SMP decisions is an issue, the licensee may want to conduct a shoreline inventory to determine the location and condition of areas that are eroding (or have erosion potential) and consider ways to address this in the SMP.

2.3 Identifying Preliminary Stakeholder Concerns, Goals, and Issues

Plans such as SMPs are not "made in vacuums." Although the licensee will be the primary entity responsible for formulating, developing, implementing, and monitoring the plan, other entities will have input throughout the planning process. These other entities, or stakeholders, will influence the form of the plan, possibly have a part in implementing the plan, and may be involved in plan monitoring and modification. It is important to identify potential stakeholders and their concerns, goals, and issues as early as possible so that the licensee has a better idea of where there may be agreement or disagreement among stakeholders and with the licensee. This early identification or scoping process should not be confused with the more formal public involvement process that occurs during the development of the SMP. Preliminary scoping efforts of stakeholders will allow the licensee to formulate ways to address their concerns, goals, and issues of stakeholders during the more formal planning process.

Potential Stakeholder Issues

- Increasing public access to project waters on the north shore of project.
- Establishing a designated waterfowl hunting area.
- Preventing construction of new docks in water willow beds.
- Preserving all known striped bass spawning areas uplake of X Creek
- Developing a lakeside trail on private and project land between X and Y points
- Allowing continued shoreline development to increase the local tax base of X County.

Identifying stakeholders and issues during the pre-planning phase can be done in a number ways. Informal telephone conversations or meetings with federal, state, and local agencies can help identify agency concerns and identify other potential stakeholders. Likewise, informal conversations and meetings with non-governmental organizations (NGOs), such as homeowners' associations, environmental groups, and chambers of commerce can also help identify stakeholders and their issues.

Potential Resource Agency Issues or Preferences

Resource agencies may:

- Prefer to maintain shorelines in as natural a state as possible to preserve fish and wildlife habitat
- Advocate establishing a shoreline buffer zone of limited or no development to protect habitat
- Propose restricting or prohibiting vegetation clearing within the buffers or near the water's edge
- Propose to restrict or prohibit building "hard" shoreline erosion control facilities such as bulkheads, embankments, and retaining walls
- Propose development of "fish friendly" design standards for docks and piers
- Prefer "soft" erosion control techniques, such as planting vegetation (bio-engineering techniques)
- Request inventories of existing vegetated and unvegetated shoreline
- Require locations of shallow-water fish spawning and nursery habitats to be identified.

Chapter 3—Preparing a Shoreline Management Plan

In most cases, there will not be a clean break between the pre-planning phase and the actual preparation of the SMP. The pre-planning work will help identify conditions, situations, and trends that will determine the level of complexity that will be required for an SMP. Before starting the preparation phase in earnest, the licensee should have: (1) defined goals and objectives, (2) an understanding of the sufficiency of existing data and data that need to be obtained, and (3) an understanding of the issues that will likely have to be addressed in preparing the SMP. The following sections discuss the components of preparing an SMP.

3.1 Stakeholder Involvement in the Planning and Development Process

As mentioned briefly in Chapter 2, stakeholder involvement in the development of comprehensive plans is needed to ensure that all relevant issues are raised and addressed. The level of stakeholder involvement will vary from project to project. However, it is in the licensee's own interest to include stakeholders in the SMP preparation process for a number of reasons. If stakeholders are given the opportunity to comment or offer input on the SMP only during the final stages of preparation, they may not have an understanding or appreciation of the issues that were involved and considered in the development of the SMP. Also, their issues may not be adequately addressed. By including them early in the process, they will have a more meaningful part in the process. A well-crafted SMP does result in a stakeholder and licensee partnership. This can have many positive benefits, including reducing potential resistance to the SMP and having the stakeholders serve as information liaisons and project advocates with the general public. In addition, stakeholders (particularly agencies) will likely have information that is useful in the SMP development process.

3.1.1 Types of Stakeholder Groups

The stakeholders who are likely to be involved in the development of an SMP are generally government agencies, Indian Tribes, NGOs, and individuals. All of these stakeholders will have a desire to influence the management direction of the SMP, and frequently stakeholders have differing interests. Because the level of stakeholder participation in the SMP process can often vary, it is important that both the licensee and the stakeholders to have an understanding of roles and responsibilities.

Federal Agencies and Tribes - Federal agencies often represent the general public. Their involvement in the development of an SMP varies depending upon the project and the potential effect of the SMP on agency

interests or lands. The U.S. Fish and Wildlife Service, which is responsible for, among other things, federally listed fish and wildlife species, is often a participant in the development of SMPs. The U.S. Forest Service, the National Park Service, the Bureau of Land Management, and the Bureau of Indian Affairs may be involved, but generally only if the lands they manage might be affected by the provisions of the SMP. In addition to federal agencies, federally recognized Indian Tribes may also need to be consulted if the SMP could affect their lands, treaty rights, or traditional cultural properties.

State Agencies - Each state is unique in regard to the statutory roles and responsibilities of its agencies. In general, state agencies responsible for parks and recreation, fish and wildlife, water quality, and historic preservation are most likely to be involved in the SMP planning process. For some projects, the participation of state agencies that are responsible for forestry, transportation, and economic development is also warranted.

Local Jurisdictions and Agencies - Local jurisdictions and agencies may have an interest in working with licensees on SMP-related issues. These entities may include regional councils, county agencies, and/or municipal departments that are responsible for planning, zoning, building inspection, parks and recreation, environmental and water quality, economic development, and law enforcement.

Non-Governmental Organizations and Interest Groups - There are a wide variety of NGOs and other interest groups that could become involved in the development and/or review of an SMP. NGOs could be local, state, or national interest groups, and their perspectives could vary greatly. Local interest groups can add valuable local expertise and interest, and can represent local perspectives.

Types of NGOs and Interest Groups That Might be Involved in the SMP Process

- Homeowners' associations
- Environmental groups
- Business interests (chambers of commerce, builders, real estate agents, marine construction and dredging contractors, lakeside business owners, resort owners, non-profit camps)
- Sporting clubs (with interests in fishing, hunting, and/or flatwater-related activities, such as motor boating and water skiing)
- Individual lakeside property owners (of undeveloped land, primary homes, and second homes)

Individuals - Individuals may be interested in becoming involved in the development of an SMP for a number of reasons. Adjacent landowners would be among the individuals potentially most affected by an SMP. Licensees should attempt to inform these individuals of opportunities to become involved in the SMP planning process and of any changes being considered that could affect them. Other individuals that live in the vicinity of the project and use it for recreation, commerce, or simply enjoy the project's aesthetic qualities may also become involved in the development of an SMP. In addition, the licensee's public outreach program should make information available to interested members of the general public.

3.1.2 Opportunities for Stakeholder Involvement

There are various ways in which stakeholders can become involved in the planning and development of an SMP. Several of the more formal public involvement techniques are discussed below.

Public Meetings and Other Public Involvement Vehicles - There are a variety of options for involving stakeholders in the development of an SMP and receiving public comments. Public involvement can happen at numerous planning stages and through a variety of formal and informal interactions and relationships.

During the development of an SMP, the licensee may choose to hold a series of informal public meetings. Such informal meetings promote interaction among the participants and can range in size from a few individuals to hundreds of people.

Public Involvement Techniques and Options

- Public hearings—Formal meetings with the public at various stages of the SMP process
- Informal meetings—Informal meetings with high amounts of interaction between participants
- Surveys—Mail, telephone, or in-person surveys of stakeholder groups or individuals
- Focus groups—Key individuals are included as members of an advisory group to assist in SMP development
- Key interview—Extended discussion with opinion leaders
- Field office—Onsite office staffed with individuals to disseminate and gather information
- Newsletter—Disseminates information at various stages; opportunity for feedback ("letters to the editor")
- Event—Special activity to draw attention to the project
- Mediation—Working with the help of a professional facilitator

In addition to regular public meetings, it may be appropriate to develop focus groups or create working groups consisting of interested parties that concentrate on specific issues. The use of regularly scheduled focus group or working group meetings can be extremely useful. A diverse group of individuals that represent a variety of interests can provide valuable information and assistance in the development of the SMP. However, it is important that the role of the groups is clear from the beginning. Licensees may choose to give groups certain roles in decision making or may choose to use groups solely in an advisory role.

FERC's Process - As described in section 1.4, stakeholders such as government agencies, NGOs, organized groups, and interested individuals have the opportunity to formally participate in FERC proceedings. Comments and other information that are filed during the comment period are considered by the Commission when taking action on a proposed SMP.

3.2 Items Typically Included in Shoreline Management Plans

Although there is no set format for an SMP, certain items should be considered for inclusion in the document. An executive summary can be valuable. It generally consists of several paragraphs summarizing the purpose of the SMP, goals and objectives of the SMP, some of the main issues involved in developing and implementing the SMP, how issues were resolved, a brief description of shoreline use classifications, where the classifications generally occur (including reference to the project land use classification map that is included later in the SMP), and a brief description of all types of permitted uses. A summary of other relevant project-related information, such as project purpose, history, and operations may also be appropriate to include.

The licensee may also consider including a description of the entities that were involved in developing the SMP. This can illustrate to the reader the collaborative process involved in developing the SMP and may give many of the stakeholders that participated in the process an acknowledgment for their effort.

SMPs may also include descriptions of the planned land use classifications, maps identifying the locations of the land use classifications, how these use classifications were defined and delineated, and descriptions of activities and uses that would be allowed in those classifications. In addition to land use classifications, SMPs contain sections on management policies, permits, and guidelines. Samples of permits and required drawings are often included to give the reader an idea of the level of detail that is necessary for permit approval.

Descriptions of monitoring programs, schedules, and enforcement provisions are frequently part of the SMP. This allows the reader to understand ways in which they can participate in monitoring and enforcement activities, and the scope of the activities. Descriptions of enforcement provisions can also educate the public about the ramifications of not following provisions established in the SMP.

3.3 Shoreline Use Classification Strategies

Shoreline use classifications are areas within the project boundary designated for certain existing and future uses consistent with the goals and objectives of the SMP. These classifications are not assigned to lands outside the project boundary, but instead refer to the use of project shoreline property.

The assignment of use classifications to project shorelines is often the cornerstone of an SMP. In many cases, the process of developing shoreline use classifications will be the most scrutinized aspect of the SMP. By using sound information to help make resource-based decisions, and by including stakeholders in the SMP process, the eventual designation of shoreline use classifications will hopefully be acceptable to most, if not all, parties involved in the development of the SMP.

Because of the amount of development that has occurred along the shores of many projects, natural resource agencies and environmental groups often want to restrict or control shoreline development. At the same time, parties interested in business and economic growth development may desire the ability to continue to develop project shorelines. Developing and assigning shoreline use classifications often requires balancing demands for preserving shoreline habitat with pressures to allow shoreline development. Licensees preparing SMPs for projects that have seen significant shoreline development are often under pressure from resource agencies to restrict or not allow new shoreline development. No two projects are the same, but it is safe to say that at most projects, balancing conflicting desires will be a challenge.

Currently, there are no standard descriptions for shoreline use classification systems used by licensees at FERC-regulated projects. These systems can be called shoreline management zones, shoreline use designations, or another appropriate descriptor. However, despite an array of titles, there are three general types of shoreline use classifications:

- A classification oriented towards preserving natural resources and minimizing or prohibiting shoreline development
- A classification that allows limited development along the shoreline
- A classification that allows more intense levels of development within the project shoreline.

Within these three broad classifications are other sub-classifications, which vary from project to project. Some projects may only have a few shoreline use classifications and others may have many classifications. The number of classifications can depend upon factors such as shoreline complexity, levels of existing development, future development pressures, the presence of sensitive fish and wildlife species or habitats.

Making a decision about what to call the classification system and developing the actual shoreline classifications or designations may be a difficult process. For example, in some parts of the country, the term "zone" would be acceptable to most local stakeholders. In other areas, the use of the word zone would be reacted to negatively because it would imply land use

controls. Also, we suggest an SMP not use a shoreline use classification called "undeveloped." This is a misleading classification and in most cases the land is designated, zoned, or even under contract for some
foreseeable use, especially at or near projects for which an SMP is being prepared. This guidebook offers suggestions on terminology in an effort to promote consistency.

Suggested Shoreline Use Classification System Categories and Sub-Categories

The classifications listed below are for lands and waters within the project boundary only, and are not referring to the construction of residences or commercial buildings within the project boundary. They refer to the use of project shoreline property for structures (e.g., docks, ramps, bulkheads) associated with uses of land adjacent to the project.

Categories	Sub-Categories
Conservation (no development except for conservation purposes)	
Limited Development/Sensitive Areas	Public Recreation - Limited Development
	Single Family Residential - Limited Development - (e.g., boat docks/shoreline stabilization)
General Development	Recreation Development - (e.g., public marinas and campgrounds)
	Multi-Unit Residential and Vacation Development - (e.g., cluster docks and shoreline stabilization)
	Commercial Development - (e.g., private marinas and community docks)

3.4 Shoreline Management Policies, Permits, and Guidelines

Because most or all shoreline is owned by licensees and is usually open for public recreational access, developing shoreline management policies, permitting systems, and development guidelines is an important part of the SMP development process. A strong set of shoreline policies is the foundation upon which management of project shorelines rests. The policy development process requires that the licensee clarify their positions regarding management of the project's shorelines. The policies will serve as the basis upon which permits and guidelines are developed, and will help interested parties understand why the permits and guidelines are written as they are. The policies should be consistent with, and help reinforce, the licensee's goals and objectives for the SMP.

After the licensee's policies have been established, permitting systems and development guidelines are generally developed. These are the primary tools that are used to control the type, location, design, and material of shoreline development projects. Permits and guidelines may vary considerably, depending on the specific characteristics and requirements of a project. Projects that are experiencing less development pressure may only require a permitting program with a simple set of guidelines to address a relatively small number of common issues, such as the development of docks and/or erosion control. Projects that are more complex, and/or have a number of different shoreline use classifications, may require the development of both permits and guidelines.

Licensee-issued permits are typically revokable privileges that adjacent landowners must apply to the licensee to obtain if they wish to develop a facility on project lands owned or managed by the licensee. The permit application typically requires information that the licensee uses to determine the potential effect of the proposed facility on the environment and its consistency with the SMP. Permits often include specifications that regulate the size and location of the proposed shoreline facility along with the type of materials that can be used for its construction. Construction method and timing requirements can also be included in the permit. The SMP's permit requirements and standards for construction may be more stringent than or may be the same as those of local governments.

Guidelines typically prescribe construction methodologies, protection measures, and maintenance practices that would be consistent with the goals of the SMP and individual permits. Guidelines can also identify the various types of permits needed and the application process. Sometimes these guidelines can be generic enough that they can be used by adjacent land owners to manage their own properties in ways that will help meet the intent of the SMP. One type of guideline that is often developed by licensees describes the kind of development activities that are allowed and not allowed at the project. By describing the types of permitted and prohibited facilities and activities, adjacent property owners and the public will know the kinds of shoreline uses that are allowed at the project before they

approach the licensee about their particular proposal.

Examples of Facilities for Which Shoreline Development Permits Are Issued

- Individual docks and piers (private and commercial)
- Common (or group) docks and piers
- Boat houses
- Excavation and dredging
- Erosion control
- Riprapping
- Water removal from reservoir
- Effluent discharge
- Retaining walls, bulkheads
- Fences
- Walkways
- Landscape plantings
- Hunting blinds

A permit and guideline component of the SMP should be specific enough to be easily understood and implemented, while being flexible enough to allow for a variety of proposals. It should clearly explain the process for applying for and obtaining permits. It has proven helpful for permitting information be made available to applicants as a stand-alone information piece, such as a booklet and/or website. The information piece should include tips, suggestions, and/or examples of how to fill out applications, and should clearly describe the process and expected length of time to get a permit. Information regarding permits required by other entities (e.g., the U.S. Army Corps of Engineers and local building departments) should also be included in the information package, as should contact numbers for the other entities. Typically, licensees do assist development proponents in the application process.

It is common for licensees to require fees for processing permits. The licensee may also wish to consider requiring a construction deposit from the adjacent land owner or contractor before work is allowed to proceed. Typically, licensees require their personnel to inspect the site prior to allowing construction to begin. It is also common to have an inspection at the end of the construction period before final approval of the project. If a new development does not meet the requirements set forth in the permit, the licensee has several options to ensure compliance. Those are discussed in Chapter 4 under Enforcement. The length of time that an issued permit is valid varies. Some licensees require annual renewal fees and some not as often. In some cases, permits can be transferred to new property owners and in other cases (generally with non-conforming uses that were grandfathered in) a transfer can not be made.

Chapter 4—Implementing the Shoreline Management Plan

An SMP may be implemented upon completion as long as it is fully consistent with the project license (including the general scheme of development, license requirements, and existing Commission-approved plans). If there are inconsistencies with the project license, the plan must be filed for Commission approval as an amendment to the license before being implemented. In most instances, an SMP does require Commission approval prior to implementation. If the plan is prepared as a part of a license application, it will be reviewed and considered for approval as a part of the licensing process.

One example of a plan that may not require Commission approval is when the licensee, along with stakeholders, have prepared a plan that is fully consistent with the license. This can be accomplished by combining existing license requirements (found in the various approved plans) and those found in license articles to establish the plan. In some cases, the licensee may choose to file their plan for Commission review and approval even if they believe it is fully consistent with the license.

In any event, the SMP is a valuable tool for carrying out many aspects of the license under an "umbrella program," which otherwise may be handled separately. The following sections describe how a carefully crafted SMP can be implemented in a way that streamlines various license responsibilities.

4.1 Using the Shoreline Management Plan to Carry Out the Intent of the Standard Land Use Article and Other License Requirements

A well-prepared SMP goes hand-in-hand with the standard land use article. The standard land use article allows licensees to grant permission for certain types of use and occupancies of project lands and waters without prior Commission approval. These land and water uses are typically referred to as "non-project uses." The land use article says that the licensee may exercise the authority provided to it by this article only if the proposed use (or occupancy) of project lands and waters is consistent with the purposes of protecting and enhancing the scenic, recreational, and other environmental values of the project. The licensee also has a continuing responsibility under the article to supervise and control the use and occupancies for which it grants permission, and to ensure compliance with the permits and instruments of conveyance that it executed under the article.

Non-Project Uses of Project Lands and Waters

One of the most prevalent uses of an SMP is to oversee and guide non-project uses of project land (whether the uses are developmental or non-developmental). The term "non-project uses" is used by the Commission to describe uses of project lands and waters that are not necessarily related to hydroelectric power production. Under the land use article, many non-project uses are permitted by the licensee without Commission approval. Non-project uses outside the scope of the land use article require Commission approval. Those that need Commission approval must be filed with the Commission in the form of an application. These applications are treated as amendments to the license. The proposals are typically larger and more involved than anything that the licensee may permit on its own under the land use article. Commercial marina applications that involve dredging and associated shoreline amenities and services, such as marine gas-filling stations, human waste pumpout stations, and boat ramps are examples of non-project use proposals filed with the Commission.

The applications for non-project uses include information regarding the affected environment, the environmental impacts associated with the proposal, and documentation of consultation with the resource agencies (refer to the appendices of the document for a more complete itemized list of the contents of these applications). The Commission uses this information to approve (possibly with conditions) or disapprove the proposal. When appropriate, the Commission issues a public notice of the proposal in a local newspaper and prepares an EA as required under NEPA. If the Commission approves the proposal, it issues an Order Approving Non-Project Uses of Project Lands. Once Approved, the licensee may issue the necessary permit or conveyance instrument for that use. The licensee is responsible for overseeing and monitoring the ensuing construction related to this approved action and future use and maintenance of the facilities within the project boundary.

While an SMP is typically more comprehensive than the standard land use article, the article can be considered a subpart or underlying component of the SMP. The SMP, in and of itself, does not supercede or change the land use article. Implementation of the SMP can help the licensee carry out the intent of the standard land use article and other license requirements in the following ways:

- The SMP will help the licensee, the Commission, and the stakeholders to view individual shoreline development proposals in a project-wide or even regional perspective, rather than as individual, isolated actions.
- The SMP will help track trends of developmental activities.
- The SMP will allow for consistent review and approval of the various developmental proposals.

- Developmental proposals (requiring Commission approval) that are inconsistent with the SMP will be either modified and conditioned in their early stages to comply with the SMP or not allowed to proceed by not forwarding them for Commission action. This results in the early dismissal of inadequate proposals at the earliest stages.

4.2 Using the Shoreline Management Plan to Guide Future Development

SMPs can be used in a number of ways, including helping to guide future development of project lands. Measures, such as assigning shoreline use classifications and establishing development standards, guide future development and set development parameters. With a strong SMP, licensees alone or with other interested stakeholders can develop comprehensive strategies for project shorelines. Potential future uses can be assigned to project areas where those uses would be encouraged. An example might be a cove at a project where the shoreline had been assigned a classification that recognizes its current undisturbed, natural state. If the licensee and stakeholders agreed and existing information showed that the cove was not a good location for future development, such as a marina, it could be indicated in the SMP. Such an indication would alert the development community that the licensee and interested stakeholders would not support future development at that location.

In addition, an SMP can be used to monitor cumulative or project-wide impacts that can result from the incremental impacts associated with individual shoreline facilities that occur over time. By closely monitoring shoreline conditions, a licensee can recognize potential cumulative effects and take appropriate management actions for future development at the project.

4.3 Enforcement of the Shoreline Management Plan

The project license, particularly the land use articles, directs licensees to oversee shoreline activities and take action to prevent unauthorized uses of project shorelines. Examples of enforcement tools that licensees have used are to revoke or suspend existing permits, remove non-conforming facilities, deny applications for permits, and keep deposits. Permits have been suspended or revoked for any number of infractions, including failure to maintain facilities, unauthorized additions to existing facilities, unauthorized development of new facilities, and unauthorized changes to project shorelines (such as removing vegetation). Other enforcement measures that licensees can use include removing contractors that fail to conform to permit conditions from a list of licensee-suggested contractors, issuing stop work orders (which can result in unwanted construction delays), and increasing application fees. It is also possible to require modification or removal of non-conforming structures and restoration of disturbed shoreline at the owner's expense.

4.4 Monitoring, Reviewing, and Updating the Shoreline Management Plan

SMPs are evolving documents that need to be flexible. The SMP should be monitored and reviewed on a regular basis to determine how effective it is in accomplishing the licensee's goals, and to respond to new or evolving situations or conditions. As conditions change, it may be necessary to make changes to the SMP. Stakeholders that are involved in helping to develop an SMP may very well want to stay involved in monitoring and reviewing activities. Their knowledge of the project and experience with the development of the SMP is often valuable. The licensee will likely want to include them in regular discussions involving the effectiveness of the SMP and possible changes to it. Establishing a formal review and advisory committee composed of members representing a variety of interests and resources would prove to be beneficial to licensees.

To determine if changes to the SMP are necessary over time, a monitoring and review process should be established. Some SMPs will be simple and will likely have no monitoring actions associated with them. SMPs developed for more complex projects may have a significant monitoring component. What is monitored and how often it is monitored will depend in large part upon agreements that were made during the SMP development process between the licensee and stakeholders. The purpose of a monitoring program is to track specific shoreline management-related conditions and situations to determine the level of change that takes place over time. If a changing condition crosses a certain threshold, certain actions may be required. For example, when the number of docks in a specific area of a reservoir reaches a certain number, no more docks would be permitted.

Data to Track in an SMP Monitoring Program

- Amount of undisturbed shoreline
- Undisturbed shoreline that is developed
- Number of new docks constructed
- Number of boats launched at specific project ramps
- Number of permit violations
- Changes in land uses adjacent to or near the project

Depending on the monitoring program used, the effort requires an investment of time and money by the licensee. For some monitoring activities, such as keeping track of illegal shoreline development, personnel in motorboats may be required. For other situations, such as tracking the spread of shoreline development, aerial photography and building permit data from local building departments may be appropriate. The licensee should consider sharing monitoring duties with other stakeholders to defray expenses and to keep the stakeholders that are participating in the review process involved.

SMPs, in whole or in part, need to be reviewed periodically. The frequency with which SMPs should be reviewed depends upon several factors. One factor to consider is the rate of change at a project and on lands adjacent to the projects. SMPs for projects that are located in areas that are receiving heavy development pressures and/or other changes will need to be reviewed and upgraded more often than those at projects located in areas that are not experiencing rapid change. Another factor to consider is the amount of stakeholder concern. For projects that are located in areas that are not rapidly changing and are not of particular concern to stakeholders, SMP review could occur less frequently.

Conclusion

An SMP can assist a licensee in meeting its responsibilities and obligations under the project license. It can be extremely valuable and useful for managing project resources and in addressing multiple demands for various stakeholder groups. The process of developing the goals and objectives for the SMP should result in the licensee thinking comprehensively about how they want to manage their project's shorelines. Developing the SMP can bring to light many issues and concerns that stakeholders have, and can result in new ways of addressing those concerns. It can also help licensees when conflicting demands are placed on the project's resources. An effective SMP can help the licensee control and direct shoreline development in a way that meets project license obligation and generally satisfies stakeholders.

Further information regarding shoreline management planning or other Commission-related matters may be found at the FERC website (www.ferc.fed.us). Please note that the CIPS portion of the website can be used to search for FERC documents related to shoreline management planning.

Appendix A: Federal Power Act

Section 10. (a) (1)

That the project adopted, including the maps, plans, and specifications, shall be such as in the judgment of the Commission will be best adapted to a comprehensive plan for improving or developing a waterway or waterways for the use or benefit of interstate or foreign commerce, for the improvement and utilization of water-power development, for the adequate protection, mitigation, and enhancement of fish and wildlife (including related spawning grounds and habitat), and for other beneficial public uses, including irrigation, flood control, water supply, and recreational and other purposes referred to in section 4(e); and if necessary in order to secure such plan the Commission shall have authority to require the modification of any project and of the plans and specifications of the project works before approval.

Section 4. (e)

To issue licenses to citizens of the United States, or to any association of such citizens, or to any corporation organized under the laws of the United States or any State thereof, or to any State or municipality for the purpose of constructing, operating, and maintaining dams, water conduits, reservoirs, power houses, transmission lines, or other project works necessary or convenient for the development and improvement of navigation and for the development, transmission, and utilization of power across, along, from, or in any of the streams or other bodies of water over which Congress has jurisdiction under its authority to regulate commerce with foreign nations and among the several States, or upon any part of the public lands and reservations of the United States (including the Territories), or for the purpose of utilizing the surplus water or water power from any Government dam, except as herein provided: Provided, That licenses shall be issued within any reservation only after a finding by the Commission that the license will not interfere or be inconsistent with the purpose for which such reservation was created or acquired, and shall be subject to and contain such conditions as the Secretary of the department under whose supervision such reservation falls shall deem necessary for the adequate protection and utilization of such reservations: Provided further, That no license affecting the navigable capacity of any navigable waters of the United States shall be issued until the plans of the dam or other structures affecting the navigation have been approved by the Chief of Engineers and the Secretary of the Army. Whenever the contemplated improvement is, in the judgment of the Commission, desirable and justified in the public interest for the purpose of improving or developing a waterway or waterways for the use or benefit of interstate or foreign commerce, a finding to that effect shall be made by the Commission and shall become a part of the records of the Commission: Provided further, That in case the Commission shall find that any Government dam may be advantageously used by the United States for public

purposes in addition to navigation, no license therefor shall be issued until two years after it shall have reported to Congress the facts and conditions relating thereto, except that this provision shall not apply to any Government dam constructed prior to June 10, 1920: And provided further, That upon the filing of any application for a license which has not been preceded by a preliminary permit under subsection (f) of this section, notice shall be given and published as required by the proviso of said subsection. In deciding whether to issue any license under this Part for any project, the Commission, in addition to the power and development purposes for which licenses are issued, shall give equal consideration to the purposes of energy conservation, the protection, mitigation of damage to, and enhancement of, fish and wildlife (including related spawning grounds and habitat), the protection of recreational opportunities, and the preservation of other aspects of environmental quality.

Standard Article 5

The Licensee, within five years from the date of issuance of the license, shall acquire title in fee or the right to use in perpetuity all lands, other than lands of the United States, necessary or appropriate for the construction maintenance, and operation of the project. The Licensee or its successors and assigns shall, during the period of the license, retain the possession of all project property covered by the license as issued or as later amended, including the project area, the project works, and all franchises, easements, water rights, and rights or occupancy and use; and none of such properties shall be voluntarily sold, leased, transferred, abandoned, or otherwise disposed of without the prior written approval of the Commission, except that the Licensee may lease or otherwise dispose of interests in project lands or property without specific written approval of the Commission pursuant to the then current regulations of the Commission. The provisions of this article are not intended to prevent the abandonment or the retirement from service of structures, equipment, or other project works in connection with replacements thereof when they become obsolete, inadequate, or inefficient for further service due to wear and tear; and mortgage or trust deeds or judicial sales made thereunder, or tax sales, shall not be deemed voluntary transfers within the meaning of this article.

Appendix B: Standard Land Use Article

Article (a)

In accordance with the provisions of this article, the Licensee shall have the authority to grant permission for certain types of use and occupancy of project lands and waters and to convey certain interests in project lands and waters for certain other types of use and occupancy, without prior Commission approval. The Licensee may exercise the authority only if the proposed use and occupancy is consistent with the purposes of protecting and enhancing the scenic, recreational, and other environmental values of the project. For those purposes, the Licensee shall also have continuing responsibility to supervise and control the use and occupancies for which it grants permission, and to monitor the use of, ensure compliance with the covenants of the instrument of conveyance for, any interests that it has conveyed under this article. If a permitted use and occupancy violates any condition of this article or any other condition imposed by the Licensee for protection and enhancement of the project's scenic, recreational, or other environmental values, or, if a covenant of a conveyance made under the authority of this article is violated, the Licensee shall take any lawful action necessary to correct the violation. For a permitted use or occupancy, that action includes, if necessary, canceling the permission to use and occupy the project lands and waters and requiring the removal of any noncomplying structures and facilities.

(b)

The type of use and occupancy of project lands and waters for which the Licensee may grant permission without prior Commission approval are: (1) landscape plantings; (2) noncommercial piers, landings, boat docks, or similar structures and facilities that can accommodate no more than 10 watercraft at a time where said facility is intended to serve single-family type dwellings; (3) embankments, bulkheads, retaining walls, or similar structures for erosion control to protect the existing shoreline (4); food plots and other wildlife enhancements. To the extent feasible and desirable to protect and enhance the project's scenic, recreational, and other environmental values, the Licensee shall require multiple use and occupancy of facilities for access to project lands or waters. The Licensee shall also ensure, to the satisfaction of the Commission's authorized representative, that the uses and occupancies for which it grants permission are maintained in good repair and comply with applicable state and local health and safety requirements. Before granting permission for construction of bulkheads or retaining walls, the Licensee shall: (1) inspect the site of the proposed construction; (2) consider whether the planting of vegetation or the use of riprap would be adequate to control erosion at the site; and (3) determine that the proposed construction is needed and would not change the basic contour of the reservoir shoreline. To implement this paragraph (b), the Licensee may, among other things, establish a program for issuing permits for the specified types of use and occupancy of project lands and waters, which may be subject to the payment of a reasonable fee to cover the Licensee's costs of

administering the permit program. The Commission reserves the right to require the Licensee to file a description of its standards, guidelines, and procedures for implementing this paragraph (b) and to require modification of those standards, guidelines, or procedures.

(c)

The Licensee may convey easements or rights-of-way across, or leases of, project lands for: (1) replacement, expansion, realignment, or maintenance of bridges or roads where all necessary state and Federal approvals have been obtained; (2) storm drains and water mains; (3) sewers that do not discharge into project waters; (4) minor access roads; (5) telephone, gas, and electric utility distribution lines; (6) non-project overhead electric transmission lines that do not require erection of support structures within the project boundary; (7) submarine, overhead, or underground major telephone distribution cables or major electric distribution lines (69 kV or less); and (8) water intake or pumping facilities that do not extract more than one million gallons per day from a project reservoir. No later than January 31 of each year, the Licensee shall file three copies of a report briefly describing for each conveyance made under this paragraph (c) during the prior calendar year, the type of interest conveyed, the location of the lands subject to the conveyance, and the nature of the use for which the interest was conveyed.

(d)

The Licensee may convey fee title to, easements or rights-of-way across, or leases of project lands for: (1) construction of new bridges or roads for which all necessary state and Federal approvals have been obtained; (2) sewer or effluent lines that discharge into project waters, for which all necessary Federal and state water quality certificates or permits have been obtained; (3) other pipelines that cross project lands or waters but do not discharge into project waters; (4) non-project overhead electric transmission lines that require erection of support structures within the project boundary, for which all necessary Federal and state approvals have been obtained; (5) private or public marinas that can accommodate no more than 10 watercraft at a time and are located at least one-half mile (measured over project waters) from any other private or public marina; (6) recreational development consistent with an approved Exhibit R or approved report on recreational resources of an Exhibit E; and (7) other uses, if: (i) the amount of land conveyed for a particular use is five acres or less; (ii) all of the land conveyed is located at least 75 feet, measured horizontally, from the edge of the project reservoir at normal maximum surface elevation; and (iii) no more than 50 total acres of project lands for each project development are conveyed under this clause (d)(7) in any calendar year. At least 60 days before conveying any interest in project lands under this paragraph (d), the Licensee must submit a letter to the Director, Office of Hydropower Licensing, stating its intent to convey the interest and briefly describing the type of interest and location of the lands to be conveyed (a marked Exhibit G or K map may be used), the nature of the proposed use, the identity of any Federal or state agency official consulted, and any Federal or state approvals required for the proposed use. Unless the Director, within 45 days from the filing date, requires the

Licensee to file an application for prior approval, the Licensee may convey the intended interest at the end of that period.

(e)

The following additional conditions apply to any intended conveyance under paragraphs (c) or (d) of this article:

(1) Before conveying the interest, the Licensee shall consult with Federal and state fish and wildlife or recreation agencies, as appropriate, and the State Historic Preservation Officer.

(2) Before conveying the interest, the Licensee shall determine that the proposed use of the lands to be conveyed is not inconsistent with any approved Exhibit R or approved report on recreational resources of an Exhibit E; or, if the project does not have an approved Exhibit R or approved report on recreational resources, that the lands to be conveyed do not have recreational value.

(3) The instrument of conveyance must include the following covenants running with the land: (I) the use of the lands conveyed shall not endanger health, create a nuisance, or otherwise be incompatible with overall project recreational use; (ii) the grantee shall take all reasonable precautions to ensure that the construction, operation, and maintenance of structures or facilities on the conveyed lands will occur in a manner that will protect the scenic, recreational, and environmental values of the project; and (iii) the grantee shall not unduly restrict public access to project waters.

(4) The Commission reserves the right to require the Licensee to take reasonable remedial action to correct any violation of the terms and conditions of this article, for the protection and enhancement of the project's scenic, recreational, and other environmental values.

(f)

The conveyance of an interest in project lands under this article does not in itself change the project boundaries. The project boundaries may be changed to exclude land conveyed under this article only upon approval of revised Exhibit G or K drawings (project boundary maps) reflecting exclusion of that land. Lands conveyed under this article will be excluded from the project only upon a determination that the lands are not necessary for project purposes, such as operation and maintenance, flowage, recreation, public access, protection of environmental resources, and shoreline control, including shoreline aesthetic values. Absent extraordinary circumstances, proposals to exclude lands conveyed under this article from the project shall be consolidated for consideration when revised Exhibit G or K drawings would be filed for approval for other purposes.

(g)

The authority granted to the licensee under this article, shall not apply to any part of the public land and reservation of the United States included within the project boundaries.

Appendix C: Suggested Contents of Applications for Non-project Uses and Occupancies of Project Lands or Waters

The following is a general list of the information that should be included in applications for proposed non-project uses or facilities. Applications containing this information allows Commission staff to review and process them in a more efficient and timely manner and is less likely to result the Commission requests for additional information in order to prepare environmental assessments on such proposals. While the information below applies to most applications, it is not an inclusive list and not all the individual items may apply to every proposed facility or use. As necessary, please contact Commission staff if you have questions about the application contents or consultation needs for your specific proposal.

1) Description of proposed non-project use or facility

- location, quantity, type of conveyance (i.e. lease, right-of-way, easement, fee-title, etc.)
- major components, materials, and layout or design
- construction and operation methods, construction duration and approximate start and completion dates
- purpose of proposed use
- description of any Federal, state, and local permits or approvals required or obtained for proposed use
- if available, copies of any government agency permits or agency review documents obtained for the proposed use
- maps or drawings showing the location and/or layout of the proposed facility

2) Description of Affected Environment (the immediate area surrounding the site of the proposed facility or use)

- common fish and wildlife species
- threatened and endangered species
- wetlands, critical habitats, or significant features
- cultural resources
- common vegetation and trees
- soils and lakebed material
- water quality and approximate depth
- scenic quality
- existing recreation facilities and uses

- existing land and water uses and structures

3) Evaluation of how the proposed use is compatible with:

- Commission approved management plans (i.e. recreation, shoreline or land use, dredging, cultural resource, wildlife protection, etc.)
- project operations and purposes and applicable license requirements
- licensee's own project management guidelines or requirements

4) Documentation of consultation (copies of correspondence) with appropriate Federal, state, and local government agencies and interested non-governmental organizations (NGOs) including:

- government agencies or NGOs that own or manage lands or facilities in the immediate area
- government agencies that would likely need to authorize or approve the proposed use
- government agencies that have jurisdiction over resources that may be affected by the proposed use (i.e. T & E species or habitats, wetlands, dredging activities, cultural resources, etc.) These agencies typically include the U.S. Fish and Wildlife Service, the State Historic Preservation Officer, the U.S. Army Corps of Engineers, and state fish, wildlife, recreation and environmental protection agencies.

In addition, please note the following:

- a minimum of 30 days should be provided for consulted parties to reply to requests for comments on a proposed use
- if no reply is received, the filing should include a copy of written request for comments
- filing should include responses to any specific agency or NGO comments or recommendations. If recommendations are rejected, include site specific reasons for the rejection.
- following a Commission public notice period for the application, please file responses to any specific comments or recommendations provided on the proposed use
- if it is generally known that local property owners or entities are opposed to the proposed use, the filing should identify the nature of this opposition and include general responses to the concerns raised.

5) A description of the proposed use's potential impact on each resource area identified under item (2) above. For example, impacts may include:

- vegetation removal

- shoreline erosion or turbidity
- dredging and lakebed disturbance
- disturbance of significant resources, species, or habitats
- specific impacts on existing land uses or structures
- cumulative effects on water quality or shoreline resources
- potential discharge of pollutants

6) A description of any proposed construction, design, and/ or operation practices or measures to minimize or mitigate for any specific impacts identified under item (5) above. For example, measures may include:

- erosion control measures
- avoidance of affected resources
- changes in design or location of a proposed facility
- close oversight to ensure compliance with licensee mandated permitting programs or land use regulations, Commission approved plans, or agency permit requirements

Appendix D: Sample List of Commission Orders On Shoreline Management Plans

The following Commission orders represent a partial list of orders related to shoreline management plans at licensed hydropower projects. The plans identified in these orders apply only to the subject projects and address project-specific conditions and issues. To obtain copies of these and other Commission orders, please refer to the FERC website or contact the Commission's Public Reference Room at (202) 208-1371.

P-516-016
Order Approving Land Use Plan issued 9/18/81
16 FERC ¶ 62,479

P-2232-303
Order Approving and Modifying Shoreline Management Plan issued 2/2/96
74 FERC ¶ 62,047

P-2448-050
Order Modifying and Approving Land Management Plan issued 03/05/97
78 FERC ¶ 62,160

P-2232-393
Order Modifying and Approving Revised Shoreline Management Classification Maps issued 12/01/00
93 FERC ¶ 62,159

P-2572-023
Order Approving Shoreline Buffer Zone Management Plan issued 01/04/99
86 FERC ¶ 62,004

P-2458-023
Order Approving Shoreline Management Plan issued 01/04/99
86 FERC ¶ 62,003

P-2552-036
Order Approving Shoreline Management Plan issued 11/2/99
89 FERC ¶ 62,091

P-2197-035
Order Amending License issued 11/9/00
93 FERC ¶ 61,152

APPENDIX E— FREQUENTLY ASKED QUESTIONS

1. Is FERC now requiring all projects to have an SMP?

At this time FERC does not require all licensees to prepare SMPs. FERC does strongly encourage licensees that have projects that are experiencing shoreline development pressure to develop tools to manage project shorelines whether the project is up for relicensing in the near future or not. At some projects a permitting system may be all that is required, whereas at projects experiencing development pressure, an SMP may be necessary.

2. Who has the final say in assigning shoreline use classifications to shorelines?

Shoreline use classifications are developed after careful consideration of project requirements, project natural resources, development trends, and non-project demands. Most shoreline use classifications will have been developed through a collaborative process that will have included numerous stakeholders. In many cases, there will be agreement or acceptance of these classifications among the stakeholders that participated the development of the SMP. If all parties do not agree, it is up to the licensee and possibly the Commission to assign shoreline use classifications that best meet the needs of the project and fulfill license obligations.

3. Do shoreline use classifications have to be consistent with adjacent zoning by other jurisdictions?

First, it is important to note that these classifications are specific to project land, independent of any adjacent county land use designations or zoning. During the SMP development process, local entities with zoning authority will have been involved in the development of the SMP and the assignment of shoreline use classifications. Because shoreline use classifications are resource driven, it may be possible that the shoreline use classifications are not always consistent with adjacent zoning classifications. By working closely with the local entities, it is hoped that shoreline classifications that are mutually acceptable can be assigned to project shorelines.

4. How often should an SMP be reviewed for currency and relevance?

The frequency with which an SMP should be reviewed depends primarily upon factors such as the complexity of the SMP, the rate at which development is occurring in the vicinity of the project, and the size of the project. Only portions of the SMP may need periodic review. Generally, a review every 5 to 10 years is considered appropriate for the full SMP, depending upon the factors previously mentioned. During the development of the SMP, the licensee and the participating stakeholders will get a sense of how frequently and to what extent the SMP should be reviewed. It may be prudent to review certain aspects of the SMP more frequently than other aspects.

5. As a licensee, if I prepare an SMP for my licensed hydropower project, do I need to file it with FERC for approval?

If an SMP is developed in response to a license article, the article will say whether or not the SMP is to be filed for FERC approval. If an SMP is developed but not required by FERC, it must be filed for FERC approval only if it involves a substantial modification of the project's license requirements or in effect amends the license.

6. As a property owner who owns land adjacent to a project reservoir shoreline, do I have a right to prohibit public access on the project property between my land and the project reservoir?

No, as a general policy at FERC licensed hydropower projects, the interests of private property owners are not allowed to override the public's use and enjoyment of project lands and waters. However, a private residential dock that has been authorized by the licensee is not considered a public use facility.