COMMENT

Small Hydro in the Forest: Interagency Conflict Over Environmental Regulation

Many suitable locations for small hydroelectric power plant development are situated in the national forests. Since small hydro development has environmental consequences, the necessity for federal regulation of small hydro has generated a jurisdictional conflict between the Federal Energy Regulatory Commission and the Forest Service. This Comment argues that the Forest Service has preemptive environmental regulatory jurisdiction over small hydro plants built within the national forest. This Comment proposes legislation to effectuate the Forest Service's regulatory power and urges the Forest Service to use its existing power to veto environmentally destructive small hydro projects.

INTRODUCTION

Congress enacted the Public Utility Regulatory Policies Act of 1978 (PURPA)[1] as part of a legislative package to promote development of alternative energy sources.[2] PURPA, administered by the Federal Energy Regulatory Commission (FERC),[3] simplified the licensing ap-

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[1] Public Utility Regulatory Policies Act of 1978, Pub. L. No. 95-617, 92 Stat. 3117 (codified in scattered sections of 5, 15, 16, 26, 30, 42, and 43 U.S.C.) [hereafter PURPA].

[2] The National Energy Act included five major statutes: PURPA, *supra* note 1; the Energy Tax Act of 1978, Pub. L. No. 95-618, 92 Stat. 3174; the National Energy Conservation Policy Act, Pub. L. No. 95-619, 92 Stat. 3206 (1978); the Powerplant and Industrial Fuel Use Act of 1978, Pub. L. No. 95-620, 92 Stat. 3289; and the Natural Gas Policy Act of 1978, Pub. L. No. 95-621, 92 Stat. 3350.

[3] The Federal Power Commission's functions with respect to the regulation of hydro development were transferred to the Federal Energy Regulatory Commission by the Department of Energy Organization Act, Pub. L. No. 95-91, 91 Stat. 565 (1977). Congress created the Federal Power Commission with the Federal Water Power Act of

plication procedure and provided financial incentives[4] to small hydroelectric power (small hydro)[5] plant developers. These incentives greatly increased license applications as investors discovered that small hydro

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1920, Pub. L. No. 280, 41 Stat. 1063. The Federal Water Power Act of 1920 was renamed and amended in the Federal Power Act of 1935, ch. 687, § 320, 49 Stat. 838, 863. *See also infra* note 4.

[4] 16 U.S.C. § 824a-3(b) (1982) provides that rates set by FERC must be reasonable to the consumer yet not discriminate against small power producers. The maximum rate chargeable by FERC, however, cannot exceed the "incremental cost to the electric utility of the alternative electric energy." *Id.*

FERC has the general authority to require utilities to sell and purchase electricity from small power producers. *Id.* § 824a-3(a). To be eligible for FERC's avoided cost and interconnection rule, a small hydro plant must comply with PURPA's definition of a small power production facility. *See infra* note 5. To qualify for PURPA's special loan program, a small hydroelectric power plant must have 30,000 kilowatts or less of installed capacity. 16 U.S.C. § 2708(a)(1) (1982). These loan programs allow developers whose projects qualify as small power plants to defray up to 90% of feasibility study costs incurred when preparing licensing applications. *Id.* § 2702(a). Additional loans may defray up to 75% of the actual projected costs. *Id.* § 2703.

Energy developers, including small hydro producers, can also receive federal tax investment credits. These tax credits can yield a 20% to 40% average annual capital return even on an unprofitable project. Friedman & Mayer, *Energy Tax Credits in the Energy Tax Act of 1978 and the Crude Oil Windfall Profits Act of 1980*, 17 HARV. J. ON LEGIS. 465, 494 (1980); *Small Hydro Projects Create River of Worries*, L.A. Times, Apr. 6, 1982, Pt. 1, at 3, col. 2. Since investors are financially subsidized, marginally productive sites can now be selected for hydro construction. *Small Hydro Projects Create River of Worries*, L.A. Times, Apr. 6, 1982, Pt. 1, at 3, col. 2. Congress awarded financial incentives to encourage hydro power development and combined them with beneficial tax treatment. This has fostered competition among developers for the rights to develop hydroelectric sites. Friedlander, *Energy and Environment: Selected Topics in a Period of Limited Loan Growth* in ENVIRONMENTAL COMPLIANCE IN A CHANGING LEGAL ENVIRONMENT 301, 304 (Comp. by J. Sachs, 1983).

[5] A small hydro plant has a power production capacity of 80 megawatts or less. 16 U.S.C. § 796(17)(A)(ii) (1982). One megawatt supplies the average domestic needs of 1000 people. A. EIPPER, HYDROPOWER EXPANSION IN NEW ENGLAND: THE FISH AND WILDLIFE SERVICE DILEMMA 2 n.1 (1979).

Water flows from the higher level (headwater) to the lower level (tailwater) through a turbine that converts the water pressure into mechanical energy. A generator changes the produced energy into electricity. To produce a continual turbine flow, headwater is either stored behind a dam or directly diverted from the natural water course in a run of the river form of facility. A run of the river system uses gravity to pull water down a mountain or other suitable slope and through the turbines. The mountainous topography found in the western states makes this region especially attractive for small hydro developers because dams are not needed to collect and channel water. A developer building a run of the river facility merely places the system in the water and lets nature produce the energy. McGuigan, *Legal Issues Affecting the Development of Low-Head Hydroelectric Power*, in SOLAR ENERGY RESEARCH INSTITUTE 3 (1980).

construction could profitably generate power from a renewable resource.[6]

As small hydro development increased, however, environmentalists discovered that small hydro was not environmentally benign. Rather, individual small hydro plants cause numerous adverse environmental impacts, including water quality changes and natural habitat disruption.[7] These impacts intensify and become cumulative when more than one plant is built on a river segment.[8] Without adequate environmental regulatory protection, small hydro's advantages as a renewable resource are outweighed by its detrimental environmental consequences.

Many suitable locations for small hydro development are situated on federal lands administered by the Forest Service.[9] Both FERC and the

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[6] The term "water gold rush," comparing the surge in small hydro interest with activity prompted by the 1849 gold discovery in California, has been frequently used to describe the dramatic increase in hydro power interest since PURPA's passage. Herron, *The Rush is on to Find New Gold in Falling Water*, SMITHSONIAN, Dec. 1982, at 87.

In 1978, the year before PURPA took effect, FERC received only 76 preliminary permit applications. In 1979, the number of applications increased to 1800. Letter from Gregory Thomas, National Resources Defense Council, Inc., to Michael Butler, FERC Chair (June 18, 1982) (asking FERC to review PURPA's environmental consequences) (copy on file with *U.C. Davis Law Review*). FERC documents that it has received 5967 hydro power project applications since fiscal year 1980 (including 1983 projections) and anticipates receiving 1500 more applications during 1984. FERC, OFFICE OF PROGRAM MANAGEMENT INFORMATION SYSTEM REPORT (1983). Half of the pending applications are for sites in the 11 western states, with the majority in California locations. Address by William Kopfler, FERC Regional Engineer, Forest Service Pacific Northwest Region Workshop on Small Scale Hydro (Mar. 29, 1983) (copy on file with *U.C. Davis Law Review*). FERC and state officials disagree on the number of pending applications for California sites. The California Department of Fish & Game estimates that, since 1980, there have been approximately 750 permit applications for 500 sites in California, but FERC maintains that only 307 applications are pending. *Hydro Projects to be Studied?*, Sacramento Bee, Dec. 2, 1983, at A11, col. 1. See *infra* notes 16-26 and accompanying text for a discussion of the economics behind the surge of interest in renewable resource power production.

[7] *See infra* notes 32-37.

[8] *See infra* notes 106-07 and accompanying text.

[9] The federal government controls one-third of the nation's land through the management agencies of the Bureau of Land Management (BLM) (417 million acres) and the Forest Service (188 million acres). [Fed. L.] ENV'T. REP. (BNA) 51:0201, 51:4251 (1981). For purposes of the Federal Power Act, federal lands are classified as either "reservations," including National Forests, Indian tribal lands and other lands withheld from private appropriation other than national monuments and parks, or "public lands" that are subject to disposal under the public land laws. 16 U.S.C. § 796 (1982). The federal government's large land holdings enable it indirectly to influence some state policies, particularly in the 11 arid western states where it owns 40% of the land

Forest Service regulate small hydro's environmental impacts on the national forest.[10] Although the agencies share regulating authority, they differ significantly in their interpretation of the environmental problem. FERC believes its licensing process adequately protects the environment, but the Forest Service disagrees.[11] This conflict is heightened be-

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and where 60% of the annual water yield originates on federal lands. *See, e.g.*, United States v. New Mexico, 438 U.S. 696, 699 n.3, 705 (1976) (considering the amount of land held by the federal government when deciding the amount of water reserved by the establishment of the Gila National Forest).

Although the BLM administers a greater percentage of federal lands than the Forest Service, BLM land is predominantly suited for mining and grazing. Thus, its topography is largely unsuited for hydro power plant locations. G. COGGINS & C. WILKERSEN, FEDERAL PUBLIC LAND RESOURCES LAW 141 (1981). The Forest Service land, selected for its timber producing potential, contains many water flows appropriate for a hydro plant. *See infra* note 90; *see also* U.S. DEP'T OF ENERGY, ASSESSMENT OF CHARGES UNDER THE HYDROPOWER LICENSING PROGRAM 11 (1981) (No. DOE/IG-0178) (discussing other federal agencies connected with administration of hydro plants and noting that the "Department of Agriculture's Forest Service appeared to be one of the most actively involved agencies because national forest land is used for many of the hydropower projects"). Many of the 600 California based applications currently before FERC are for sites within the national forest. Address by Carole Atherton, Deputy Chief, Water Rights Division, Cal. Water Resources Control Bd., U.C. Davis Law School Symposium on California Water Rights Law (Nov. 19, 1983). Although the Forest Service has some authority over activities occurring on neighboring parcels, *see infra* note 91, this Comment is concerned only with the proposals in which some part of the small hydro project is located on Forest Service land.

[10] The Federal Power Act, 16 U.S.C. §§ 791-825 (1982), establishes FERC as the licenser of projects devoted to the development, transmission, and utilization of hydro power. *See supra* note 4. FERC is prohibited from issuing permits for projects using federal reservation lands if the project interferes with the reservation's purpose. FERC must also accept the managing agency's proposals for conditioning the hydro license. 16 U.S.C. § 797(e) (1982).

The Forest Service manages the timber and watershed in designated public land areas. *See infra* notes 89-92 and accompanying text. The Forest Service may require an easement from any agency or citizen desiring to use its land for hydro power projects. 43 U.S.C. § 1761 (1982); *see also infra* notes 95-99 and accompanying text (explaining special use permit).

[11] FERC has approved over 900 power projects while denying only one application for environmental reasons. *Dams, Power Plants Gain on Tuolumne*, L.A. Times, Mar. 31, 1983, Pt. 1, at 3, col. 1; *see, e.g.*, North Carolina v. Federal Power Comm'n, 533 F.2d 702, 706 (D.C. Cir.), *vacated*, 429 U.S. 891 (1976) (Commission ordered to refrain from licensing hydro project until the Secretary of the Interior decided whether to include the site in the Scenic River system). FERC minimizes the importance of effective environmental review; it has issued several licenses without preparing an Environmental Impact Statement (EIS) even though these projects required a substantial amount of new construction. Friedlander, *supra* note 4, at 309.

FERC's ignorance of project locations further complicates the environmental con-

cause each agency operates under a different congressional mandate and possesses concurrent hydro regulatory power.[12] Although the Supreme Court, in *Escondido Mutual Water Co. v. La Jolla, Rincon, San Pasqual, Puma, and Pala Bands of Mission Indians,*[13] resolved one aspect of this conflict by holding that FERC must accept licensing conditions submitted by the Forest Service,[14] much of the conflict remains unresolved.[15]

This Comment addresses the interagency conflict over small hydro licensing between FERC and the Forest Service remaining after the *Escondido* decision. Failure to address these issues will have a detrimental consequence on the environment if left unresolved. Specifically, this Comment investigates the Forest Service's inability to promulgate meaningful licensing conditions under the existing statutory scheme. The Forest Service's power to veto FERC-approved projects within the national forest is also examined. This Comment concludes that the national forest environment will be protected only if FERC's statutes are amended to allow the Forest Service to require environmental studies and to submit its licensing conditions after those studies are completed. Finally, this Comment urges the Forest Service to use its easement pro-

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flicts. In assessing the proper charges made for site use, FERC discovered eight licensed projects in California that used Forest Service land but were not so identified by FERC. U.S. Dep't of Energy, *supra* note 9, at 20. *See, e.g.*, Lower Valley Power & Light Co. Project No. 1651 (synopsis of administrative case before the Forest Service) (copy on file with *U.C. Davis Law Review*). In *Lower Valley Power*, FERC granted the hydro license, but the Forest Service denied the accompanying special use permit since it felt that the project needed different mitigating conditions than FERC attached to the license.

The Forest Service and FERC also presently dispute the effects of a proposed project in the Plumas National Forest in California. FERC claims that the plans for a small diversion dam, buried pipes, and turbines housed in a structure that blends with the landscape will maintain the region's "natural qualities." However, the project also needs two sets of transmission lines and two roads that cut through the land. This will cause a one mile water backup and the removal of valuable timber. The Forest Service asserts that the facility will bring major changes to the area. *Small Hydro Projects Create River of Worries*, L.A. Times, Apr. 6, 1982, Pt. 1, at 3, col. 2.

In California, 97% of the small hydro applications are formally challenged. Gregory Thomas, Reconciling Conflicts over Competing Uses of River Resources 3 (1983) (unpublished manuscript prepared as part of a project to amend FERC procedures to incorporate state agency proposals such as state-sponsored basin studies) (copy on file with *U.C. Davis Law Review*).

[12] *See supra* note 10.

[13] 104 S. Ct. 2105 (1984).

[14] *Id.* at 2118.

[15] *See infra* notes 130-49 and accompanying text.

cess to reject any small hydro project whose licensing conditions do not sufficiently neutralize its negative environmental impacts on the national forest.

The history of small hydro development is explored in Part I. This part examines the statutory incentives for small hydro development and the potential adverse effects of this power source on the environment. Part II evaluates the conflicting federal regulation by both FERC and the Forest Service of small hydro development on national forest lands. This part concludes by analyzing the conflict between FERC and the Forest Service over the significance of small hydro's negative environmental impacts by focusing on the cumulative environmental effects controversy. Judicial attempts at resolving the conflicting authority problem are examined in Part III, particularly the implications of the *Escondido* decision on both agencies and the problems *Escondido* leaves unresolved. Finally, this Comment proposes statutory amendments to the Federal Power Act to give the Forest Service meaningful input into FERC's licensing procedure. These amendments will enable the Forest Service to intervene in the early stages of the licensing process to protect the environment at the least cost to the developer. However, if licensing conditions cannot adequately protect the national forest environment, this Comment concludes by urging the Forest Service to veto environmentally destructive small hydro projects.

I. SMALL HYDRO DEVELOPMENT

Although hydro power was a major energy source in the early 1900's,[16] its prominence declined as fossil fuels entered the United States' energy market in the 1930's.[17] It became more economical to use fossil fuels than to build and operate hydroelectric plants.[18] When the

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[16] Hydro power comprised one-third of the available power in the early 1900's. J. KERWIN, FEDERAL WATER-POWER LEGISLATION 39 (1926).

[17] As attention focused on oil as the major source of energy, small hydro plants lost their role as an attractive investment. By the 1970's, only 15% of the available power was derived from hydro facilities. McGuigan, *supra* note 5, at 1. Some commentators believe that no current need exists for hydro power and so development of hydro projects should proceed slowly. Testimony of Representative Richard Ottinger, Chair, House Subcomm. on Energy, and Keith Colbo, Chair, Northwest Power Planning Council, to the Subcomm. on Energy Conservation and Power (Sept. 11, 1984) (copy on file with *U.C. Davis Law Review*). Ottinger further stated that the development of hydro power in the face of a power surplus indicates that "the small hydro program is not being implemented consistently with protection of the public trust" which requires that the benefits of a project outweigh any environmental damage. *Id.*

[18] McGuigan, *supra* note 5, at 1; *see also* Friedlander, *supra* note 4, at 304, 329.

price of traditional energy sources increased in the 1970's, investors began to explore the possibilities of small scale hydro power production.[19] However, because utilities enjoyed monopsony power,[20] the construction of small hydro plants became economical only with PURPA's passage in 1978.[21] In *American Paper Institute, Inc. v. American Electric Paper Service Corp.*,[22] the United States Supreme Court upheld PURPA's regulations obligating utility companies to connect small hydro transmission lines to their electrical systems.[23] This allowed developers to transfer small hydro produced power to potential consumers. PURPA also requires utilities to purchase power produced by small hydro plants at a FERC-established rate schedule based on the developer's "avoided cost," an artificially set pricing mechanism.[24] Consequently, utilities can no longer use their monopsony power to coerce small hydro producers to negotiate an unreasonably low sale price for their electricity.[25] The combination of these provisions with PURPA's loan and tax incentive package[26] sparked interest in hydro development at almost every conceivable site.[27]

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[19] Smith, *Power from Yesterday's Dam*, 20 ENVIRONMENT 17 (1978).

[20] A monopsony market exists when there is only one buyer for a given product or service offered by a large number of sellers. This places considerable economic power in the buyer's hands. Thus, the utilities derived their power from the fact that they were the only available purchasers for the energy of small producers. This situation exists because electrical utilities are usually granted natural monopolies on distribution by the states, for economic efficiency. *See* Fanara, Suelflow & Draba, *Energy and Competition: The Saga of Electric Power*, 25 ANTITRUST BULL. 125, 134-37 (1980); Hamilton & Hamilton, *Duopoly in the Distribution of Electricity, a Policy Failure*, 28 ANTITRUST BULL. 281 (1983). *But see* Essay, *Efficiency and Competition in the Electric Power Industry*, 88 YALE L.J. 1511, 1534-49 (1978) (discussing the problems of electric monopolies and the benefits of competition). Some controls are provided because state utilities commissions oversee important utility functions such as ratemaking. *See* D. ZILLMAN & L. LATTMAN, ENERGY LAW 133-43 (1982) (discussing the rationale for and limits on state regulation).

[21] The dramatic increase in permits after 1978, *see supra* note 6, indicates that many developers began to consider small hydro plants a beneficial investment only after PURPA's passage.

[22] 103 S. Ct. 1921 (1983).

[23] *Id.* at 1930.

[24] In *American Paper*, the Court interpreted incremental cost to equal FERC's avoided cost rule. Avoided cost equals "the cost the utility would have incurred had it generated the electricity itself or purchased the electricity from another source." *Id.* at 1924.

[25] *Id.* at 1930; *see also* McGuigan, *supra* note 5.

[26] *See supra* note 4.

[27] One observer noted that developers viewed every stream and river as a potential site for hydro development. *Small Hydro Projects Create River of Worries*, L.A. Times,

In addition to financial benefits, small hydro has other benefits that make it an appealing alternative energy source.[28] Proponents assert that small hydro enhances use of renewable resources, helps conserve scarce gas and oil deposits, and efficiently produces energy.[29] Since smaller units produce the power, less capital investment is required and plants can be "on line" in a relatively short time.[30] Environmentalists also prefer small scale hydro plants because they produce fewer emissions and other negative ecological impacts than large hydro facilities or other methods such as nuclear power or coal burning.[31]

Small hydro plants, however, are not environmentally benign. Even small storage dams produce a number of water quality changes including oxygen depletion, dissolved mineral and nutrient increases, water temperature changes, sediment releases, and supersaturation.[32] Run of the river plants[33] also produce some environmental impacts. For example, fish may flow with the water into the generator and be caught in the turbines.[34] Environmental effects also extend beyond the hydro plant itself. The need for access roads and transmission lines[35] causes the effects of a small hydro plant to radiate throughout the forest.[36] Thus, as new intrusions on the watercourse, small hydro plants disturb

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Apr. 6, 1982, Pt. 1, at 3, col. 2.

[28] Lock, *Encouraging Decentralized Generation of Electricity: Implementation of the New Statutory Scheme*, 2 SOLAR L. REP. 705, 707 (1980).

[29] *Id.* at 711 (quoting FERC, Draft Environmental Impact Statement Rulemaking for Small Power Production and Cogeneration Facilities — Qualifying Status/Rates and Exemptions 1, 1-6 (June 1980)). Hydroelectric "facilities are nonpolluting in the conventional sense, *i.e.* no heat, air contaminants or water discharges are released to the environment." Friedlander, *supra* note 4, at 304. Hydroelectric units also have a long production life and can serve multiple purposes besides electricity production because the impounded water lends itself to construction of storage facilities and recreational uses. Statement of Rolf Wallenstrom, Acting Dir. U. S. Fish & Wildlife Service, to the Subcomm. on Energy Conservation and Power (Sept. 11, 1984) (copy on file with *U.C. Davis Law Review*).

[30] Lock, *supra* note 28, at 711.

[31] *Id.* at 708.

[32] McGuigan, *supra* note 5, at 10.

[33] *See supra* note 5.

[34] *See supra* note 32. Numerous studies have been conducted on how a hydro plant disturbs the ecological balance of fish habitats. *See, e.g.*, HOCUTT, POWER PLANTS EFFECTS ON FISH AND SHELLFISH BEHAVIOR (1980). Fish can be protected by screens and ladders to help them bypass a small hydro plant.

[35] *See supra* note 11.

[36] *Id.* Background information concerning the effect of small hydro plants and the Forest Service's concern over their proper placement was obtained from several telephone interviews with Forest Service officials in the Pacific Southwest Region.

the delicate ecological balances.[37]

The potential environmental damage from small hydro development seriously undermines small hydro's advantages as an alternative energy source. Congress enacted PURPA to promote an environmentally benign renewable resource.[38] Unless small hydro's adverse environmental effects are controlled, its financial and environmental benefits will evaporate.

Since the national forests contain many suitable small hydro locations,[39] the forest environment is significantly threatened by small hydro development. FERC and the Forest Service are responsible for regulating hydro development in the national forests and controlling its environmental impacts.[40] These agencies differ, however, on the appropriate emphasis to give the environment in the hydro licensing process. The following section examines FERC and the Forest Service's hydro licensing responsibilities and the effect of their interagency conflict on the environment.

II. Potential Restrictions on Small Hydro Development

Although FERC and the Forest Service both regulate hydro development in the national forests, they interpret small hydro's environmental threat differently. FERC and hydro developers believe that FERC's existing licensing process sufficiently protects the environment, but the Forest Service and environmentalists disagree.[41] This interagency con-

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[37] McGuigan, *supra* note 5, at 10. For example, chlorine is used in 90% of power plants in the United States to remove algae and bacteria from the machinery. When added to upstream waters, chlorine causes toxicity in plants and other waterlife. B. Finlayson & L. Hinkleman, Effects of Chlorinated Power Plant Cooling Water on Aquatic Biota (1977).

[38] *See* 1978 U.S. Code Cong. & Ad. News 7659 (summary of legislative history).

[39] *See supra* note 9.

[40] Note, *Small Scale Hydroelectric Development and Federal Environmental Law: A Guide for the Private Developer*, 9 B.C. Envtl. Aff. L. Rev. 815, 834-36 (1981) [hereafter Note, *Small Scale Hydroelectric Development*].

[41] Many organized groups oppose what they perceive to be improper hydro development. Fourteen of these groups petitioned FERC to alter the exemption process. Petition for Amendment to 18 C.F.R. §§ 292.204, 292.207, Docket No. RM79-54 (copy on file with *U.C. Davis Law Review*). These groups, including the Sierra Club, the National Audubon Society, and Trout Unlimited, often intervene in hydro cases. *See, e.g.*, Swinomish Tribal Community v. FERC, 627 F.2d 499 (D.C. Cir. 1980) (10 groups challenged FERC's proposal to increase hydro plant's generating capacity). The Forest Service, though not a listed intervenor, did express concern over the project's effect on downstream flow. The area was under Forest Service review for inclusion in the Wild and Scenic River System. *Id.* at 522.

flict arises out of the different statutory mandates.[42] Although FERC administers hydro power development on a national level, it lacks the Forest Service's unique expertise to evaluate small hydro's environmental impacts on the national forests. This section analyzes the agencies' conflicting authority to regulate small hydro development and illustrates the potential environmental impacts created by this conflict by examining the cumulative effects controversy.

A. The Federal Energy Regulatory Commission

Congressional concern[43] over the inefficient development of hydro power led to the passage of the Federal Power Act in 1920.[44] The Act created the Federal Power Commission,[45] later renamed the Federal Energy Regulatory Commission.[46] FERC functions as both a planning

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At a citizens' meeting concerning applications filed for sites on area streams, many of the speakers stated that even minimal stream development could upset nature's balance. The citizens noted that the five miles of cable needed to transport the small hydro-produced energy to consumers would extend the plant's environmental impact throughout the forest. N. Fork J., May 11, 1985 (copy on file with *U.C. Davis Law Review*).

In answer to citizen accusations that the Whiskey project in the Sierra National Forest endangered the forest's ecological balance, the developer, Jack Hansen, replied "Hydropower fits into the picture . . . and is in keeping with the multi-use purpose of forest lands." Sierra Advertiser, May 10, 1983 (copy on file with *U.C. Davis Law Review*).

The proposed Tuolumne project, located in the Stanislaus National Forest in California, has been commented upon by both developers and environmentalists. Many observers feel that the hydro project's construction would practically eliminate white water rafting and fishing, the area's principal recreational uses. Last year over 6000 people received Forest Service permits to raft the river and another 4400 people fished the river. However, the project's proponents argue that the better access roads needed to accompany the project will make the Tuolumne available to a greater number of visitors. *Taming Tuolumne: River Users in a Power Struggle*, L.A. Times, July 28, 1983, Pt. 1, at 1, col. 1. Environmentalist groups are seeking wilderness or wild and scenic river designation for the area to prevent any further development. The Forest Service has criticized the Tuolumne project and is currently managing the area as if it were protected. *Id.*

[42] Congress created specific agencies to protect sensitive resources from harm in federally owned areas. The agency in charge of the area must be more familiar with its components than a nonmanagement agency. *Compare* FERC's purpose, *infra* note 48, *with* the Forest Service's duties, *infra* notes 91-92.

[43] *See generally* J. KERWIN, *supra* note 16 (detailing the congressional hearings leading to the passage of the Federal Power Act).

[44] 16 U.S.C. §§ 791-828(c) (1982).

[45] *Id.* § 792.

[46] Department of Energy Organization Act, Pub. L. No. 95-91, 91 Stat. 565 (1977). *See supra* note 3.

and licensing agency.[47] To formulate a national hydro power plan, the Federal Power Act empowers FERC to investigate both the water power industry and water resource use.[48] Additionally, the Act authorizes FERC to issue licenses for all hydro power projects constructed on navigable waters[49] or on federal public lands and reservations.[50]

To obtain a license for small hydro plant construction, FERC requires compliance with PURPA's expedited licensing procedure.[51] Before granting a license, FERC assesses the safety of existing structures in the proposed project and allows a developer to consult with other agencies regarding the project's environmental effects.[52]

FERC's licensing process begins with the preliminary permit application.[53] The preliminary permit protects the entrepreneur who is will-

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[47] *See* Chemehuevi Tribe of Indians v. Federal Power Comm'n, 420 U.S. 395, 400-10 (1975) (purpose of Federal Power Act is the comprehensive development of hydroelectric power); Northwest Paper Co. v. Federal Power Comm'n, 344 F.2d 47, 51 (8th Cir. 1965) (purpose of Federal Power Act is to centralize authority over water resources into one governmental agency).

[48] 16 U.S.C. § 797(a) (1982) authorizes FERC to record data concerning regional water resource use, the water power industry, the potential location and feasibility of power sites, and the extent to which government dams can be advantageously used for public purposes.

[49] The definition of "navigable waters" has been extensively litigated. *See generally* Johnson & Austin, *Recreational Rights and Titles to Beds of Western Lakes and Streams*, 7 NAT. RESOURCES J. 1 (1967); MacGrady, *The Navigability Concept in the Civil and Common Law: Historical Development, Current Importance, and Some Doctrines that Don't Hold Water*, 3 FLA. ST. U.L. REV. 511 (1975).

[50] 16 U.S.C. § 797(e) (1982).

[51] *Id.* § 2705.

[52] *Id.* § 2705(b).

[53] An applicant must first file a declaration of intent to construct a hydro plant. FERC uses this statement to determine its jurisdiction. *Id.* § 817. At this point, the applicant should begin to secure water rights from the appropriate agency.

If the project meets PURPA's statutory qualifications for a small power production facility, *supra* note 5, the applicant need not obtain a FERC license. 16 U.S.C. § 2705(d) (1982). However, all projects located on federal lands require a full FERC license. *Id.* § 823a(a). The holder of an exempt site must still submit the project for an environmental analysis, and FERC has the right to condition or deny the exemption. *Id.* If the project does not comply with the exemption criteria, an applicant should obtain a preliminary permit to conduct the in-depth studies necessary for the full license. *Id.* §§ 797(f), 798. This permit reserves the site for up to three years while the applicant completes the studies. *Id.* § 798. A developer need not obtain a preliminary permit to file for a license.

At this point, the applicant should have filed for a special use permit, *infra* notes 97-99. When the outside permit and environmental studies are completed, the applicant applies for the final license. 16 U.S.C. § 797(e) (1982). A "developer may well work with some 47 Federal, State and local agencies to arrive at a series of enabling permits,

ing to invest time and money by reserving the site for the developer's eventual use.[54] Under FERC's procedure, developers with a preliminary permit have the right to use the site when the final license is approved[55] and can invoke FERC's authority to institute any land condemnation procedures necessary to secure the chosen hydro location.[56] Additionally, a developer must prepare the project studies required under the National Environmental Policy Act (NEPA).[57] Before final approval, a developer must demonstrate compliance with other applicable federal laws[58] and agency regulations.[59] Thus, if a developer plans a

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licenses and hydraulic permits and water rights capabilities." Speech by Neil MacDonald, President, Northwest Small Hydroelectric Association, to the Association (Mar. 29, 1983) (copy on file with *U.C. Davis Law Review*).

[54] 16 U.S.C. §§ 797(f), 798 (1982).

[55] *Id.* § 818 provides that:

> Whenever the Commission shall determine that the value of any lands . . . will not be injured or destroyed for the purposes of power development by location, entry, or selection under the public land laws, the Secretary . . . shall declare such lands open to location, entry, or selection, for such purpose or purposes and under such restrictions as the Commission may determine . . . .

FERC cites this statute as authority to assign easements over Forest Service land.

Public lands included in the preliminary permit request can be reserved from entry. Washington Pub. Power Supply Sys. v. Federal Power Comm'n, 358 F.2d 840 (D.C. Cir. 1966), *rev'd on other grounds*, 387 U.S. 428 (1967).

[56] 16 U.S.C. § 818 (1982). Section 818 allows developers to reserve exclusively land designated on the developers' preliminary permit application and to condemn that land under the applicable eminent domain laws. Section 818 also gives developers, through FERC, the right to enter public lands. This authority conflicts with the Forest Service's power to issue easements for national forest land use. "The provision in the Federal Power Act for FERC dedication of public land for hydroelectric development appears to be inconsistent with section 501 of FLPMA [Federal Land Policy Management Act] which authorizes the Secretaries of Agriculture and Interior to issue rights of way over lands administered by them." Note, *Small Scale Hydroelectric Development*, *supra* note 40, at 835. FERC maintains that the congressional grant of exclusive hydro power regulatory authority means that section 501 does not apply to hydro projects. *Id.* (citing ENERGY LAW INSTITUTE, FEDERAL LEGAL OBSTACLES AND INCENTIVES TO THE DEVELOPMENT OF SMALL SCALE HYDROELECTRIC POTENTIAL OF THE NINETEEN NORTHEASTERN UNITED STATES, 139-47 (1980)). FERC raised this same "exclusivity" argument when it denied the Secretary of the Interior's attempt to condition a license under section 4(e) of the Federal Power Act. The argument was rejected by the Supreme Court in Escondido Mut. Water Co. v. La Jolla, Rincon, San Pasqual, Pauma, and Pala Bands of Mission Indians, 104 S. Ct. 2105 (1984).

[57] 42 U.S.C. § 4332 (1982).

[58] 16 U.S.C. § 2705(b) (1982).

[59] *See supra* note 10 and accompanying text.

small hydro project within the confines of the national forest, NEPA[60] and Forest Service regulations must be satisfied.[61]

1. The National Environmental Policy Act

In the late 1960's, public attention focused on the problem of dwindling natural resources.[62] Congress reacted by enacting the National Environmental Policy Act of 1969.[63] NEPA requires that each major federal action[64] significantly affecting the environment be preceded by an Environmental Impact Statement (EIS)[65] encompassing a detailed study of the resources involved, potentially adverse environmental effects, and alternatives to the proposed action.[66] NEPA requires only

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[60] *See infra* notes 63-64.

[61] *See supra* note 10 and accompanying text.

[62] *See, e.g.*, H.R. REP. 378, 91st Cong., 1st Sess. 3, *reprinted in* 1969 U.S. CODE CONG. & AD. NEWS 2751, 2753 (describing observed environmental degradation and congressional remedial action).

[63] Pub. L. 91-190, 83 Stat. 852 (codified as amended at 42 U.S.C. § 4332 (1976)). NEPA's general purpose is to "declare a national policy which will encourage productive and enjoyable harmony between man and his environment; to promote efforts which will prevent or eliminate damage to the environment." *Id.* § 4321. The Council on Environmental Quality (CEQ), the agency responsible for administering NEPA, hoped that NEPA would force agencies to investigate environmental factors early in the planning process. 40 C.F.R. § 6.100(a) (1982). *See generally* Note, *Small Scale Hydroelectric Development, supra* note 40 (discussing various steps needed to comply with NEPA and federal agencies' environmental demands).

Some commentators believe that, despite the NEPA disclosures, small hydro licenses are being issued at the expense of the environment. *See, e.g.*, Sax, *The (Unhappy) Truth About NEPA*, 26 OKLA. L. REV. 239 (1973) (doubting that environmental disclosure enhances the propriety of an administrative decision; laws like NEPA merely produce material for law review writers).

[64] Regulating agencies and the courts have had problems defining "major federal actions." *See* F. ANDERSON, NEPA IN THE COURTS: A LEGAL ANALYSIS OF THE NATIONAL ENVIRONMENTAL POLICY ACT 56-141 (1973); *see also* W. ROGERS, HANDBOOK ON ENVIRONMENTAL LAW § 7.6 (1977). However, the CEQ has declared that "major federal action" includes approval of a project by a federal regulatory agency. 40 C.F.R. § 1508.18a (1981).

[65] 42 U.S.C. § 4332(2)(C) (1982). This report resulted from the statutory requirement that a "detailed statement" accompany every federal agency recommendation. *Id.* The report requirements are the "action-forcing" provisions which ensure that agencies act according to the spirit of NEPA. 40 C.F.R. § 1500.1(a) (1983). Both FERC and the Forest Service require some form of environmental assessment before rendering a licensing decision.

[66] The responsible official must ensure that a report is completed containing the following items:

i) the environmental impact of the proposed action;

factfinding and disclosure of environmental effects.[67] NEPA does not require that the least environmentally offensive plan be implemented; an agency must only be aware of alternatives that are less environmentally offensive.[68] Consequently, if the evaluating agency finds construction more compelling than any possible environmental harm, the agency may license the project without violating NEPA's mandates.[69]

NEPA requires licensing agencies to examine every project's potential environmental consequences and determine whether the project warrants a full scale environmental investigation.[70] The agency makes

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ii) any adverse environmental effects which cannot be avoided should the proposal be implemented;
iii) alternatives to the proposed action;
iv) the relationship between local short-term uses of the environmental and the maintenance and enhancement of long-term productivity, and
v) any irreversible and irretrievable commitments of resources which would be involved in the proposed action should it be implemented.

42 U.S.C. § 4332(2)(C) (1982).

[67] NEPA requires an agency to evaluate a project according to statutory standards of environmental quality. *Id.* § 4334. However, once the evaluation is made, the agency may still approve an environmentally destructive project.

[68] "[E]nvironmental amenities and values may be given appropriate consideration in decisionmaking along with economic and technical considerations." 42 U.S.C. § 4332(B) (1982).

[69] For example, in Trout Unlimited v. Morton, 509 F.2d 1276, 1280 (9th Cir. 1974), excerpts from the draft EIS coupled with reports from several agencies disclosed potential weaknesses in the dam's structure that would lead to environmental risks, yet nevertheless the court found that NEPA was fully complied with and allowed the agency to license the project. However, an environmental issue does not become moot once construction begins; environmentalists can still challenge the project and halt construction. Columbia Basin Land Protection Ass'n v. Schlesinger, 643 F.2d 585, 591, 591 n.1 (9th Cir. 1981) (operation of a project does not mean project was not arbitrarily located or even should be operating).

[70] Only projects meeting the "major federal actions significantly affecting the human environment" criteria must undergo the detailed review of the EIS. 42 U.S.C. § 4332(2)(C) (1982). The CEQ reviews each agency's definitions and issues regulations guiding agencies through the NEPA process. 40 C.F.R. §§ 1500-1517 (1983). Each agency has some latitude in determining the threshold for triggering a full review. 42 U.S.C. § 4332(2)(B) (1982); 18 C.F.R. § 2.80 (1984) (FERC's procedures). Under the above procedures a hydroelectric project falls within the "federal action" category mandating an EIS if the agency finds there will be significant environmental impacts associated with the project.

NEPA requires reviewing agencies to be given proper notice and a forum in which to disseminate information. 5 U.S.C. § 553 (1982). Other than the above constraints, the agencies are free to use their own procedures. Vermont Yankee Nuclear Power Corp. v. National Resources Defense Council, 435 U.S. 519, 543 (1978) (administrative agencies "should be free to fashion their own rules of procedure," quoting from

this determination by preparing an environmental assessment based on information in the developer's licensing application.[71] If the project's environmental assessment indicates only minor environmental impacts, the agency issues a Finding of No Significant Impact (FONSI) report.[72] The FONSI is then circulated for public comment and other agency review.[73]

If the licensing agency determines that a project will significantly affect the environment, NEPA requires that the agency prepare a two stage EIS.[74] First, the agency prepares a draft EIS that identifies and

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FCC v. Schreiber, 381 U.S. 279, 290 (1965)). The courts may not review either the actual findings of fact or the components of the decision. Stryker's Bay Neighborhood Council v. Karlen, 444 U.S. 223, 227 (1980) (NEPA duties are essentially procedural and judicial review is limited to whether or not the agency considered the environmental aspects before rendering a decision in a neighbor's suit to delay construction of low-income housing); Kleppe v. Sierra Club, 427 U.S. 390, 410 n.21 (1976) (court cannot "interject itself within the area of the executive as to the choice of action to be taken"); North Slope Borough v. Andrus, 642 F.2d 589, 599 (D.C. Cir. 1980) (environmental assessments ensure that an agency takes a "hard look" at environmental questions; court's review limited to whether or not the agency considered the environmental factors); Lathan v. Brinegar, 506 F.2d 677, 693 (9th Cir. 1974) (court's sole duty is to determine if agency's acts were arbitrary or capricious). For an analysis of NEPA's purpose and role, the circumstances triggering a NEPA assessment, and a summary of the major environmental cases, see generally F. ANDERSON, *supra* note 64.

It would be difficult for a court to fully inquire into an agency's process and motivations even if it had the authority. Many hydro projects do not merit a full-scale inquiry. The smaller project's environmental disclosures are often done with as many standard forms as allowable under the adequacy standards. R. ELLICKSON & A. TARLOCK, LAND USE CONTROLS 324 (1981). On the other hand, the amount of information gathered in a larger project is almost overwhelming. When the Forest Service issued a draft EIS evaluating the possible uses for 62 million acres, the agency had to respond to and incorporate 265,093 public comments in the final statement. *Id.*

[71] 40 C.F.R. § 1508.9 (1983). An Environmental Assessment is a concise public document providing a basis for the decision whether to require further studies. The Environmental Assessment should briefly discuss the need for the proposal and possible alternatives.

[72] *Id.* § 1508.13.

[73] A FONSI is issued in document form and includes a summary of the Environmental Assessment and presents the reasons why the project causes no significant effect on the environment. *Id.* Disagreements as to the propriety of issuing a FONSI may only be appealed in federal court under the Administrative Procedure Act, which provides that courts should set aside any agency action found to be arbitrary, capricious, or an abuse of discretion. 5 U.S.C. § 706(2)(A) (1982). The agency publishes a "Notice of Intent" to prepare an EIS in the Federal Register to solicit public and outside agency views on the proposal's effects. At this point, "scoping" begins in which interested agencies determine the issues to be addressed in the EIS. 40 C.F.R. § 1508.22 (1983).

[74] 40 C.F.R. § 1502.9 (1983).

discusses both the proposed project's environmental impact and the environmental impact of any alternative proposals.[75] The agency must circulate the draft EIS for public and other agency comment.[76] Second, the agency prepares a final EIS incorporating comments received during the draft's circulation and addressing concerns that were raised.[77] The agency then uses the environmental information contained in the final EIS to make its licensing decision.[78]

Most hydroelectric projects fall under the jurisdiction of several governmental agencies, each requiring some environmental assessment. To avoid duplication, NEPA's administrative guidelines[79] specify that one agency is to be designated "lead agency."[80] The lead agency produces one environmental report that is used by all the participating agencies.[81] The lead agency must identify other agencies that may be in-

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[75] *Id.* § 1502.9(a).

[76] *Id.* § 1502.19. All interested individuals and federal agencies may request a copy of the statement. The comments received by the lead agency are attached to the back of the final EIS for reference. The comments are not part of the final report. *Id.*

[77] *Id.* § 1502.9(b).

[78] NEPA requires all agencies to review environmental data before undertaking a major federal action such as approving a project for construction. *See supra* notes 64-69 and accompanying text.

[79] Congress established the CEQ to interpret NEPA's provisions. 42 U.S.C. § 4342 (1982).

[80] 40 C.F.R. § 1501.5 (1983). When more than one agency needs the same report, one agency is designated the "lead agency." *Id.* The lead agency coordinates the preparation of a NEPA statement with the help and input of the other agency. To avoid duplication of resources, agencies must defer to the federal agency with the ultimate licensing jurisdiction. *Id.* § 1500.5. The applicant pays for an independent organization to conduct the study and for the lead agency to supervise. FERC takes the lead agency status over the Forest Service. *See infra* notes 85-87 and accompanying text. Potential lead agencies determine among themselves which should be the lead without delay. The council may step in and designate a lead if the agencies are unable to agree. The following factors (listed in order of importance) determine the lead designation:

1) Magnitude of agency's involvement;
2) Project approval/disapproval authority;
3) Expertise concerning the action's environmental effects;
4) Duration of agency's involvement; and
5) Sequence of agency's involvement.

40 C.F.R. § 1500.5 (1983).

Historically, FERC has served as lead agency in all hydroelectric projects because of its primary role in the licensing process. This status gives FERC tremendous control over the NEPA process because it carries with it supervisory and final decisionmaking power.

[81] CEQ, Draft Memorandum for Federal Agency NEPA Liaisons (May 1983), *reprinted in* Strohbehn, *CEQ's Proposed New NEPA Guidance*, in ENVIRONMENTAL COMPLIANCE IN A CHANGING LEGAL ENVIRONMENT 537, 539 (comp. by J. Sachs

volved with the project and invite them to participate as "cooperating agencies."[82] The goal behind this combined effort is to produce an EIS that encompasses all the necessary environmental assessments.[83] However, although the cooperating agencies may suggest the type of information they want included in the report, the lead agency controls the process. Consequently, the cooperating agency's influence on the final contents of the EIS depends on the lead agency's receptiveness to the cooperating agency's suggestions.[84]

FERC, rather than the Forest Service, is the lead agency for hydro projects built in the national forest.[85] FERC derives its lead agency status from its general licensing authority over all hydro projects.[86] The Forest Service is relegated to the cooperating agency role because the Forest Service's licensing authority is limited to projects built within the national forest that affect the forest environment.[87] As a cooperating agency, the Forest Service can only suggest areas of environmental concern that it believes the EIS should address.[88] Although the Forest Service is required to use the FERC-sponsored EIS to determine a project's environmental impacts, the Forest Service lacks the power to demand that studies be completed when the lead agency believes they are unnecessary.

1983). If an agency declines cooperating status, it has no further input into the project under NEPA. *Id.* at 540.

[82] No other agency is automatically involved in the NEPA process. "[U]pon request of the lead agency" other agencies with special expertise or jurisdiction are invited to participate as a cooperating agency. 40 C.F.R. § 1501.6 (1983). The cooperating agency participates in the scoping process at the earliest possible time. *Id.* § 1501.6(b)(1). The lead agency's only duty is to use the other agency's proposals "to the maximum extent possible consistent with its responsibility as lead agency." *Id.* § 1501.6(a)(2). The lead agency may fulfill this duty by delegating responsibility for selected portions to a cooperating agency with special expertise. *Id.* § 1501.6(b)(3).

[83] *Id.* § 1502.1.

[84] The lead agency format was instituted to avoid duplication of resources and to allow the applicant to deal with one agency throughout the environmental analysis. *Id.* § 1500.5.

[85] Telephone conversation with Tom Schmitt, Hydro Coordinator for the El Dorado National Forest (Sept. 27, 1984).

[86] See *supra* note 80 for a discussion of the factors determining lead agency status. FERC's role as issuer of the operating license gives it more authority over the total project than the Forest Service, which is only concerned with the project's effect on its lands.

[87] 43 U.S.C. § 1761(a) (1982) limits the Forest Service's authority to "lands within the National Forest System."

[88] *See supra* note 82.

B. The Forest Service

Congress established the national forest system to prevent depletion of the nation's natural resources[89] by managing the national forests.[90]

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[89] Originally, the lands were in the public domain and were open to the public without restriction. The national forest was created to remedy these "overly generous land use policies," by regulating the use of the nation's forested lands. Rights-of-Way Across National Forests, 43 Op. Att'y Gen. No. 26, at 6 (June 23, 1980). "[T]he Congressmen were also concerned about preserving existing uses of the forest reserves." *Id.* at 8 (citing 30 CONG. REC. 1007-13 (May 17, 1897) (remarks of Representatives Castle, Knowles, Lacy, and DeVries)).

Before FLPMA's enactment, the Forest Service was authorized to issue rights of way through the national forest under Act of June 4, 1897 (previously codified at 16 U.S.C. §§ 478, 551) (repealed 1976). These statutes gave the Forest Service the power to establish rules to preserve the land from destruction and harmful uses. United States v. Grimaud, 220 U.S. 506, 509, 515, 511 (1911). In *Grimaud*, the defendants were fined for grazing sheep without a permit on reservation lands. In upholding the fine and the Secretary of Agriculture's right to issue easements, the Court noted that unlimited grazing in that case might not have been inconsistent with the reservation purposes. However, since unlimited grazing might be harmful in another forest or at another time, the Court held that the Secretary retained the administrative power to decide the proper land uses on the basis of individual fact situations. *Id.* at 516.

The rights granted by FLPMA duplicate the Forest Service's previous statutory authority to issue rights of way. *Public Land Policy and Management Act of 1975: Hearings on H.R. 5224 and H.R. 5622 Before the Subcomm. on Public Lands of the House Comm. on Interior and Insular Affairs*, 94th Cong., 1st Sess. 246-47 (1975) (statement of John McGuire, Chief, Forest Service).

The repeal of the original enabling acts, 16 U.S.C. § 475 (1982), Creative Act of March 3, 1891, § 24, ch. 561, 26 Stat. 1103, 16 U.S.C. § 471 (repealed 1976), by Act of Oct. 21, 1976, Pub. L. No. 94-579, 90 Stat. 2792 (1976), ends Congress' practice of converting open lands into national forest. The current emphasis is on administering and preserving the national forest, especially in terms of reclassifying land within the system. Under the Roadless Area Review and Evaluation (RARE) program, the Forest Service is attempting to identify segments of the forest for wilderness protection. 16 U.S.C. § 1132(b)(c) (1982). Challenges to the RARE program are underway. *See, e.g.*, California v. Bergland, 483 F. Supp. 465 (E.D. Cal. 1980) (wilderness classification of land precludes hydro plant installation), *modified on other grounds*, 690 F.2d 753 (9th Cir. 1982).

[90] The Forest Service's function is to provide overall leadership and to make recommendations for keeping the nation's forests fully productive. 36 C.F.R. § 200.3 (1982); *see* Sierra Club v. Hardin, 325 F. Supp. 99, 123 (D. Alaska 1971) (proper combination of uses left to the discretion and expertise of the Forest Service; alternative chosen need not be the most financially remunerative).

Congress serves as the trustee of the public lands for all people. *See, e.g.*, Kleppe v. New Mexico, 426 U.S. 529 (1976) (property clause in constitution gives Congress right to protect wildlife on public lands); United States v. City & County of San Francisco, 310 U.S. 16 (1940) (enjoining San Francisco from improperly using lands granted to it by an Act of Congress for hydro power generation). As owner of the lands, the govern-

Only land with timber producing potential and favorable water flows is included in the system.[91] The Forest Service is specifically authorized to regulate hydro plant construction within the national forest because of hydro developments' environmental impact on the forest's natural resources.[92]

The Forest Service, as trustee, administers public use of the national forest according to the principles of multiple use and sustained yield.[93] These principles require the agency to balance the current need for forest resources with the goal of preserving the forest's natural condition for the enjoyment of future generations.[94] The 1976 Federal Land Policy Management Act[95] authorizes the Forest Service to implement the multiple use and sustained yield principles by controlling access to the national forest.[96]

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ment may exert a proprietary interest that includes the ability to delegate administrative power. *See, e.g.*, Minnesota v. Block, 660 F.2d 1240, 1249 (8th Cir. 1981), *cert. denied*, 455 U.S. 1007 (1982). The court held that the property clause allows land management agencies to regulate conduct both on and off public lands that would threaten the designated purpose of federal lands. Forest Service officials were thus able to ban motorboats operating on state lands that surrounded federal lands because they upset the forest's environmental balance. *Id.*

[91] The original enabling acts defined the type of land to be included in the national forest. Statutory language requires that the land should be suitable for timber supplies and favorable water flows. Land that is more valuable for mining or agricultural purposes is placed under BLM management. 16 U.S.C. § 475 (1982).

[92] The requirement to maintain favorable water flow conditions allows the Forest Service to exert full jurisdiction over hydro plants because plant operation disturbs the flow of water. The Forest Service must consider the entire hydro operation during the license evaluation process. 36 C.F.R. § 251.53(L) (1983) (permits are needed for hydro systems and all related facilities).

[93] 16 U.S.C. § 529 (1982). "Multiple use" means that the land is managed and its resources used in the combination that best meets the public's present and future needs. *Id.* § 531(a). The sustained yield principle permits harvesting the highest output possible that does not impair the land's productivity and is consistent with the multiple use principle. *Id.*

[94] Multiple use and sustained yield are the guiding principles of the renewable resource program. This program is designed to help fulfill the principles set forth in the Forest Service enabling acts. 16 U.S.C. §§ 1600-1602 (1982). For a discussion of the multiple use and sustained yield standards, see Coggins, *Of Succotash Syndromes and Vacuous Platitudes: the Meaning of "Multiple Use and Sustained Yield" for Public Land Management*, 53 U. COLO. L. REV. 229 (1982). *See generally A Symposium on Federal Lands Forest Policy*, 8 ENV'T L. 239 (1978) (discussion of how public lands are administered to comply with legislation).

[95] The Federal Land Policy and Management Act of 1976, 43 U.S.C. §§ 1701-1784 (1982), requires the Forest Service to establish a process and issue rights of way to temporarily use the land in defined situations. *Id.* § 1761.

[96] *Id.* § 1765 (each right of way shall contain conditions designed to minimize dam-

The Forest Service regulates national forest access through its easement process.[97] Persons seeking the profitable use of resources located on Forest Service land must apply for a right of way easement called a special use permit.[98] In evaluating a special use permit application, the Forest Service examines the project's potential environmental impacts disclosed by the required NEPA study.[99] The Forest Service can protect the environment by either placing conditions on the permit or refusing to issue a permit altogether.[100] If granted, the special use permit should signify that the proposed project is consistent with the multiple use and sustained yield principles.

C. Conflict Between FERC and the Forest Service Over Environmental Conditions for Small Hydro Licenses

Although FERC and the Forest Service operate under different congressional mandates and priorities, they both regulate hydro development in the national forest.[101] The agencies' differing environmental priorities have created hydro licensing conflicts. Both FERC and the Forest Service have wide discretion to weigh the findings embodied in an EIS.[102] Since the Forest Service is charged with preserving national forests, it places great weight on the environmental consequences of a proposed project.[103] In contrast, FERC's goal is hydro power development and thus it is more reluctant to deny a hydro license solely on environmental grounds.[104] Given their varying policy orientations, FERC and the Forest Service inevitably interpret an environmental re-

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age and otherwise protect the environment); *see also* 1976 U.S. CODE CONG. & AD. NEWS 6175, 6196.

[97] "All uses of National Forest System land, improvements and resources, except . . . the disposal of timber (§ 223), minerals, and mineral materials (§ 228) and the grazing of livestock (§ 222) are designated 'special uses,' and must be authorized by an authorized officer." 36 C.F.R. § 251.50 (1983).

[98] *Id.*

[99] 42 U.S.C. § 4332 (1982); *see also supra* notes 63-69.

[100] 36 C.F.R. § 251.54(h) (1983) (application may be denied if the proposed use is not in the public interest, "inconsistent or incompatible with the purposes for which the lands are managed," or proposed by unqualified applicant).

[101] *See supra* notes 10, 48, 91, 92 and accompanying text (describing both agencies' congressional mandates).

[102] *See supra* notes 70-73.

[103] The Forest Service was created to preserve land containing specified natural qualities. 16 U.S.C. § 475 (1982). Consequently, environmental protection is the predominant criterion it employs to judge prospective uses. 36 C.F.R. § 251.51 (1983).

[104] *See supra* note 11.

port differently.[105] Consequently, the agencies advocate different types of licensing conditions. Each agency promotes its own priorities and may impose small hydro licensing conditions designed to achieve diverse regulatory goals. Even if both agencies approve a project, they may vary the project's licensing terms, thereby creating a contradictory result. Developers might be forced to restructure a project to reconcile the licensing conflict or cancel the project altogether. Either alternative costs developers money and time, and may ultimately discourage environmentally responsible development of small hydro projects. An examination of the conflict between FERC and the Forest Service over small hydro's potential cumulative effects illustrates the problem.

1. The Cumulative Effects Controversy

When more than one hydro plant is built on a river system, cumulative or enhanced environmental effects in addition to those produced by each individual plant result.[106] Environmental reports that analyze only a proposed project's isolated impacts necessarily omit the potential cumulative effects caused by the project's interaction with other hydro plants in the vicinity.[107] The recognition of the cumulative effects prob-

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[105] *Id.*

[106] Michael Paparian, Sierra Club energy representative, in discussing the set of four proposals on Sierra County Hay Press Creek, noted that "while the project by itself might not produce alarming changes in the creek, the four together will inevitably multiply the effect." *Small Hydro Projects Create River of Worries*, L.A. Times, Apr. 6, 1983, Pt. 1, at 3, col. 2; *see Hydro Projects to be Studied?*, Sacramento Bee, Dec. 2, 1983, at A11, col. 1 (noting that project may cause little harm but that all 27 projects proposed for one river basin, if built, could destroy the watershed and riparian habitat). A bill to halt all hydro development in California's Sierra foothills region until completion of the needed cumulative effects studies and the modification of any FERC licenses was introduced in the 98th Congress. H.R. 2132, 98th Cong., 1st Sess. (June 1983).

When several projects are constructed on one river segment, the first plant's emissions adversely affect the next plant's operation. For example, many environmentalists are concerned with depletion of oxygen levels caused by forcing water through the turbines. If one plant recycled the water, the small decrease in oxygen might be acceptable. However, if several plants successively drain the oxygen, the water could be rendered unsuitable for fish. *See, e.g.*, National Wildlife Fed'n v. Gorsuch, 693 F.2d 156, 161 (D.C. Cir. 1982) (suit under Clean Water Act).

In California, the State Water Resources Control Board has identified four mountain clusters of proposed hydro projects warranting a detailed cumulative effects assessment. The applicants must pay for the study. *State to Probe Hydroelectric Plants Effect on Environment*, San Francisco Chron., Mar. 18, 1983, at 3, col. 2. The lack of investigation into secondary effects was one of petitioner's complaints in Trout Unlimited v. Morton, 509 F.2d 1276, 1283 (9th Cir. 1974). *See supra* note 69.

[107] NEPA planners were aware that a direct examination of the effects caused by a

lem is a clear example of the conflicting approach taken by FERC and the Forest Service. The Forest Service considers cumulative effects to be a serious environmental threat.[108] FERC, however, ignores the exponential effects caused by several closely located hydro plants and does not require applicants to complete cumulative effects studies as part of the NEPA report.[109]

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project would not encompass all environmental impacts because each plant produces several types of effects described in 40 C.F.R. § 1508.25 (1983). Primary (or direct) impacts flow from the project's presence on the watercourse. Secondary (or indirect) impacts are not as easily ascertained because they are caused by the project's primary effects or other related problems. For example, the construction of an access road to service the hydro plant during its operation is a secondary effect. The effects produced by the individual hydro plant's operation are considered primary effects. The third form of impact is cumulative effects. Cumulative effect studies give an overall view of several projects (constructed and proposed) and their impact on the region. Planners use cumulative effect studies to look at the long range effect of development on a particular basin. R. MALLORY, THE LEGALLY REQUIRED CONTENTS OF A NEPA ENVIRONMENTAL IMPACT STATEMENT 32-33, 37 (1976).

[108] Telephone conversation with Tom Schmitt, Hydroelectric Coordinator for the El Dorado National Forest (Sept. 28, 1984).

[109] FERC believes it already has sufficient "mechanisms for identifying any significant cumulative environmental effects resulting from its rules for small power production." Letter from Rachelle Patterson, FERC Dir. of Public Information, to Gregory Thomas, National Resources Defense Council, Inc. (Jan. 3, 1983) (responding to a June 1983 request by the National Resources Defense Council for documentation relating to new hydro projects) (copy on file with *U.C. Davis Law Review*).

FERC "has refused to be guided by these [comprehensive plans], even though it is under the mandate to issue hydro licenses only where the license is 'best adapted to a comprehensive plan,' taking into account development as well as conservation." Statement of Hon. Richard Ottinger, Chair, to the House Subcomm. on Energy Conservation and Power (Sept. 11, 1984) (copy on file with *U.C. Davis Law Review*). FERC has refused to analyze cumulative effects associated with Columbia River System projects, even at the licensing stage. Testimony of Keith Colbo, Chair, Northwest Power Planning Council, before the House Subcomm. on Energy Conservation and Power (Sept. 11, 1984) (copy on file with *U.C. Davis Law Review*); *see also On Capitol Hill*, HYDRO WIRE, Sept. 1984, at 5, 6 (copy on file with *U.C. Davis Law Review*).

FERC reviews a small hydro project in isolation from other proposals, possibly because FERC is used to dealing with large projects encompassing large river segments. *Small Hydro Projects Create River of Worries*, L.A. Times, Apr. 6, 1983, Pt. 1, at 3, col. 2. In September 1983, FERC again rejected proposals for cumulative impact studies on four California river basins. California state officials noted that FERC representatives "have dragged their feet" in responding to official inquiries, often leaving the requests unanswered for months. *Hydro Projects to be Studied?*, Sacramento Bee, Dec. 2, 1983, at A11, col. 1.

FERC does not develop its own comprehensive plans, nor does it defer to plans developed by other agencies. Rather, it maintains that cumulative effects plans are unnecessary. National Resources Defense Council, Inc., Reconciling Conflicts Over Com-

The language in NEPA does not define the parameters of an EIS, and thus does not provide an answer to this problem.[110] FERC, as lead agency, has the power to select the components needed to fulfill a hydro project's EIS.[111] Although the Forest Service as a cooperating agency may ask FERC to include a cumulative effects study in a project's NEPA report, the Forest Service is powerless to require one.[112]

Since the method of administering NEPA precludes the Forest Service from compelling developers to complete cumulative effects studies,[113] the agency's ability to protect the forest environment is severely curtailed. The Forest Service cannot promulgate licensing conditions that mitigate cumulative environmental effects without having a cumulative effects study. Consequently, the Forest Service's only recourse is to regulate small hydro development's cumulative effects by refusing to grant a special use permit and thus deny developers access to the national forest.[114]

The problem is exacerbated because FERC disputes the Forest Service's ability to veto hydro projects by refusing to grant easements to developers. FERC contends that Congress empowered it to approve hydro project rights of way on land managed by the federal govern-

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peting Uses of River Resources (unpublished manuscript) (copy on file with *U.C. Davis Law Review*).

[110] NEPA requires the "environmental impact of the proposed action" to be investigated, leaving the agencies to decide what constitutes an environmental impact, 42 U.S.C. § 4332(c)(i) (1982). *See also* National Resources Defense Council, Inc. v. Calloway, 389 F. Supp. 1263 (D.C. Conn. 1974) (environmental impact statement need not consider cumulative impact of dumping of dredged materials), *rev'd on other grounds*, 524 F.2d 79 (2d Cir. 1975). Administrative agencies must balance the importance of a project's progress with the danger of improperly "piggybacking" several projects that were approved after an isolated review. One court noted that the agency must take into account other planned projects; otherwise the agency may "later discover that the overall combination of projects may do more harm than good." Greene County Planning Bd. v. Federal Power Comm'n, 559 F.2d 1227, 1232 (2d Cir. 1976), *cert. denied*, 434 U.S. 1086 (1977).

[111] The lead agency must discuss impacts "in proportion to their significance." 40 C.F.R. § 15002.2(b) (1983).

[112] The Guidelines only require that the lead agency "use the environmental analysis and proposals of cooperating agencies . . . to the maximum extent possible consistent with its responsibility as lead agency." *Id.* § 1501.6(a)(2).

[113] *See supra* notes 85-88 (FERC takes lead agency status and controls production of the environmental analysis).

[114] 43 U.S.C. § 1761(a)(4) (1982) authorizes land management agencies to require a permit before hydro development can begin. A special use permit's denial prevents a developer from satisfying this right of way requirement.

ment.[115] The Forest Service claims that Congress gave it exclusive authority to issue easements in the National Forest by establishing the Special Use Permit system.[116] Although some legislative basis supports each agency's claim,[117] the statutory language does not conclusively delegate preemptive authority to either agency. Both environmentalists' and developers' interests are poorly served by the confusion created by these ambiguities.[118] The next section discusses legislative and judicial interpretations of the enabling statutes of each agency in an attempt to resolve this conflict.

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[115] *See* H.R. REP. NO. 539, 95th Cong., 1st Sess. 75, *reprinted in* 1977 U.S. CODE CONG. & AD. NEWS 925, 926 (discussing transfer of the Federal Power Commission's exclusive licensing power to FERC). In a 1975 appellate case, one judge felt that in section 4(e) of the Federal Power Act, Congress intended to prohibit any use of reservation land that would substantially interfere with the reservation's purpose in order to block the assertion of total sovereignty by those charged with administering the reservation. Lac Courte Oreilles Band of Lake Superior Chippewa Indians v. Federal Power Comm'n, 510 F.2d 198, 212 (D.C. Cir. 1975) (Mackinnon, J., concurring and dissenting). *See also infra* notes 130-49 and accompanying text (*Escondido* discussion).

[116] Before the FLPMA gave the Forest Service the right to issue special use permits, the Federal Power Commission had exclusive hydro licensing power. However, the Forest Service has been issuing right of way permits for hydro developments touching its reservation ever since its creation in 1905. Even though these permits were routinely awarded, developers still had to formally obtain a right of way. Chemehuevi Tribe of Indians v. Federal Power Comm'n, 489 F.2d 1207, 1217 (D.C. Cir. 1973). The special use permit statute requires the applicant to satisfy both the Forest Service's and FERC's requirements, and thus does not indicate whether either agency preempts the other. 43 U.S.C. § 1761 (1982). The FLPMA's legislative history states that Congress enacted the Act as a comprehensive set of statutes designed to update obsolete legislation. 1976 U.S. CODE CONG. & AD. NEWS 6175, 6175. The fact that Congress specifically granted the Forest Service power to oversee rights of way for hydro projects indicates that Congress did not want FERC to exercise exclusive jurisdiction in this matter. *See infra* notes 153-59 (*Scenic Hudson* discussion of FERC's jurisdictional assertion).

[117] *See supra* notes 10, 48, 91, 92 and accompanying text.

[118] Environmentalists are concerned that small hydro plants produce adverse environmental effects that may be overlooked in the expedited licensing process. *See supra* notes 32-37 and accompanying text. Developers are concerned about the amount of environmental analysis required because they pay for the studies. Although the agencies technically sponsor the NEPA reports, developers desiring action on their application within two years are "encouraged" to volunteer fees to fund the NEPA administration and review. Letter from Richard Stauber, Sierra National Forest Supervisor, to All Applicants for a Special Use Permit for Exempt Hydroelectric Projects (June 29, 1982) (copy on file with *U.C. Davis Law Review*).

III. Legislative and Judicial Resolution of the Agencies' Small Hydro Regulatory Conflict

A. The Legislative History Behind the Interagency Conflict

FERC operates under a congressional grant[119] of exclusive jurisdiction to develop water power facilities.[120] One of its governing statutes, section 4(e) of the Federal Power Act,[121] however, contravenes that broad assertion of jurisdictional power. Under this section, licenses issued within any Indian- or federally-managed reservation must not interfere with the reservation's purpose 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."[122] Thus, section 4(e) repudiates FERC's claim of complete authority since its terms require FERC to share administrative powers with other federal agencies that oversee reservations.

The Forest Service manages its reservation, the national forests, under the easement system established in the Federal Land Policy and Management Act.[123] The statute specifically authorizes the Secretary of Agriculture to grant conditional rights of way within the national forests for electrical projects.[124] However, it also requires applicants to "comply with all applicable requirements of the Federal Power Commission."[125] The Act's legislative history emphasizes that a developer must comply with both agencies' requirements.[126] Read together, both the Federal Power Act and the Federal Land Policy and Management Act mandate a circular grant of authority allowing the Forest

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[119] When Congress created FERC, after disbanding the Federal Power Commission, it explicitly noted that all of the Federal Power Commission's prior rulings and authority would be attributable to the reorganized commission. H.R. Rep. No. 539, 95th Cong., 1st Sess. 75, *reprinted in* 1977 U.S. Code Cong. & Ad. News 854, 946.

[120] 42 U.S.C. § 7172 (1982); H.R. Rep. No. 61, 66th Cong., 1st Sess. 5 (1919) (purpose of the Water Power Act was to coordinate the exercise of federal jurisdiction). When the Water Power Act was passed, the Attorney General viewed the Act as a complete and detailed scheme for the development of all water power resources in the public domain. 32 Op. Att'y Gen. 525, 528 (1921).

[121] 16 U.S.C. § 797(e) (1982). This section was last amended in 1935.

[122] *Id.* § 797(e).

[123] Pub. L. No. 94-579, 90 Stat. 2744 (codified at 43 U.S.C. §§ 1701-1784 (1982)).

[124] 43 U.S.C. § 1761(a)(4) (1982).

[125] *Id.*

[126] 1976 U.S. Code Cong. & Ad. News 6175, 6194 (legislative history emphasizes that both agencies must be consulted, noting that the applicant must meet the Forest Service's criteria "in addition" to the FERC requirements).

Service to intervene in FERC's licensing procedure and FERC to block hydro plant construction on Forest Service land.[127] Neither statute establishes one agency as the final authority should jurisdictional conflicts occur.

The courts have not directly considered the Forest Service's easement process in light of FERC's assertions of exclusive hydro licensing authority.[128] Although the United States Supreme Court in *Escondido* [129] indirectly solved the conflict over the Forest Service's power to condition hydro licenses, that decision did not answer the ultimate question of preemptive licensing authority. The next section examines judicial delineations of hydro power licensing jurisdiction.

B. Judicial Delegation of Hydro Licensing Authority Between FERC and the Forest Service

1. *Escondido Mutual Water Co. v. La Jolla, Rincon, San Pasqual, Pauma, and Pala Bands of Mission Indians*[130]

The United States Supreme Court partially resolved the jurisdictional dispute between FERC and the other land management agencies in *Escondido Mutual Water Co. v. La Jolla, Rincon, San Pasqual, Pauma, and Pala Bands of Mission Indians.*[131] The Mission Indians, through their representative, the Secretary of the Interior, attempted to impose licensing conditions on an existing hydro facility partially falling within the Indians' reservation.[132] FERC, however, claimed the dis-

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[127] Both agencies' statutes require a developer to satisfy some other agency's rules without providing a method for reconciling different decisions.

[128] There is a pronounced lack of public issue litigation involving the Forest Service. The Forest Service was not a named party to any major policy issue Supreme Court case between 1928 and 1970. Wilkerson, *The Field of Public Land Law: Some Connecting Threads and Future Directions*, 1 PUBLIC LAND L. REV. 1, 3 (1980). The Forest Service has rarely appeared as a named party to a Supreme Court case thereafter. In addition, the Supreme Court has not authoritatively interpreted the FLPMA since its enactment. *Id.* at 23.

[129] Escondido Mut. Water Co. v. La Jolla, Rincon, San Pasqual, Pauma, and Pala Bands of Mission Indians, 104 S. Ct. 2105 (1984). *See infra* notes 131-36.

[130] *Id.*

[131] *Id.* The case was initially considered by the Ninth Circuit. Escondido Mut. Water Co. v. FERC, 692 F.2d 1223 (9th Cir. 1982), *as amended in denial of reh'g*, 701 F.2d 826 (9th Cir. 1983), *rev'd sub nom.* Escondido Mutual Water Co. v. La Jolla, Rincon, San Pasqual, Pauma and Pala Bands of Mission Indians, 104 S. Ct. 2105 (1983).

[132] The Mission Indian Relief Act (MIRA), 26 Stat. 712 (1891), allows the Indians

cretion to accept or deny conditions proposed in the Indians' section 4(e) report.[133] The Court held that section 4(e) required a hydro power operator to obtain FERC licensing subject to all conditions proposed by the Secretary of the Interior.[134] "The mandatory nature of the language chosen by Congress appears to require that the Commission include the Secretary's conditions in the license even if it disagrees with them."[135] In addition to the statutes' plain language, the Court noted that the Federal Power Act's legislative history shows Congress intended to establish a centralized licensing system safeguarded by the land management Secretaries' duty to protect the reservations under their supervision.[136]

The Supreme Court's section 4(e) holding applies to the hydro licensing conditions controversy between FERC and the Forest Service.

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to regulate any intrusion onto their land by a canal or ditch of water that impairs their water flow. In *Escondido*, the tribe contended that the water's diversion through the hydro plant diminished the recharge of the groundwater basins used by the tribe. 692 F.2d at 1226. As trustee and pursuant to § 4(e) of the Federal Power Act, the Secretary of the Interior proposed additional conditions for the FERC license that were rejected by FERC. FERC did, however, place conditions on the license that it felt assured an adequate reservation water supply because FERC believed that the Secretary's conditions would effectively stop the project. *Escondido*, 104 S. Ct. at 2108-09.

[133] *Escondido*, 104 S. Ct. at 2109. FERC concluded that the Secretary's suggestions should be given "great weight," but that it "retained ultimate authority for determining 'the extent to which such conditions will in fact be included in particular licenses.' " *Id.* at 2109 n.8 (citing from Appendix to Petition for Certiorari, at 146); *see also Escondido*, 692 F.2d at 1231, 1237 (FERC claims that MIRA was not the only means for obtaining an Indian reservation easement).

[134] *Escondido*, 104 S. Ct. at 2114. The Supreme Court affirmed the Ninth Circuit's holding that FERC's "vigorous historical argument cannot move us (the Ninth Circuit) to ignore the fact that section 4(e) says, quite simply, that the license shall include the conditions which the Secretary deems necessary." *Escondido*, 692 F.2d at 1234. The Ninth Circuit concluded that the Secretary could condition the hydro license even after according FERC's interpretation of § 4(e) great deference. *Id.* at 1230. In reaching its conclusion, the Ninth Circuit emphasized the incongruities in FERC's jurisdictional stance and noted that the language in § 4(e) would be meaningless if Congress intended to extinguish others' rights whenever those rights conflicted with FERC's jurisdictional claims. *Id.* at 1233.

[135] *Escondido*, 104 S. Ct. at 2110. The Supreme Court stressed that in the absence of clear congressional intent for an alternative statutory interpretation, the statutory language in § 4(e) is conclusive. *Id.*

[136] The Secretary's licensing ability is checked by the limitation imposing only conditions directed toward protecting the reservation. *Id.* at 2111. The appeals court found FERC's fears of unconditional veto power held by the Secretary to be illusory. *Escondido*, 692 F.2d at 1235. Once the Secretary propounds the conditions deemed necessary for the reservation's protection and utilization, FERC retains the freedom to modify the Secretary's proposal if the conditions are not impaired. *Id.*

The Federal Power Act's section 4(e) report refers to licensing conditions imposed by land management Secretaries for hydro plants built on "reservation" land,[137] a term that encompasses both Indian reservations and the national forest system.[138] Since the Forest Service administers the national forests for the Secretary of Agriculture, *Escondido* clearly requires FERC to accept hydro licensing conditions proposed by the Forest Service. Therefore, the Forest Service can attach conditions to licenses to protect the forest reservation.

In addition to imposing licensing conditions, the Indians tried to protect their reservation by claiming the right, under section 8 of the Mission Indian Relief Act (MIRA),[139] to grant or deny right of way easements for hydro projects built on their land.[140] However, the Court rejected that claim, holding that MIRA's section 8 merely increased the Indians' land management authority to give them rights similar to those of private landowners.[141] The Court stated "there is no indication that once Congress exercised its sovereign authority to use the land for such purposes the Bands were to have more power to stop such action than would a private landowner in the same situation — both are required to permit such uses upon payment of just compensation."[142] Additionally, the Court pointed out that, under the Federal Power Act, the Secretary of the Interior may condition, but not veto, FERC-licensed hydro projects on Indian reservation land.[143] Since Congress did not give the Secretary of the Interior hydro project veto power under the Federal Power Act, the Court stated that it "cannot believe that Congress nevertheless intended to leave a veto power with the concerned tribe or tribes."[144]

The Court's rejection of the Indian's right of way claim does not affect the Forest Service's Special Use Permit system because the Forest Service derives its easement power from the Federal Land Policy and

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[137] 16 U.S.C. § 797(e) (1982).

[138] *Id.* § 796(2).

[139] 26 Stat. 712 (1891). Section 8 provides in pertinent part:

> [T]he Secretary of the Interior may authorize any citizen of the United States, firm, or corporation to construct a flume, ditch, canal, pipe, or other appliances for the conveyance of water over, across, or through such reservation for agricultural, manufacturing, or other purposes, . . . upon such terms as shall be prescribed in writing by the Secretary of the Interior . . . .

[140] *Escondido*, 104 S. Ct. at 2108-10.

[141] *Id.* at 2117.

[142] *Id.*

[143] *Id.* at 2118.

[144] *Id.*

Management Act (FLPMA),[145] a different statutory source than that of the Indians.[146] Specifically, FLPMA authorizes the Secretary of Agriculture, through the Forest Service, to grant conditional rights of way within the national forest for electrical projects.[147] The Forest Service uses the Special Use Permit to regulate hydro development's environmental impacts on the national forest.[148] In contrast to the Indian's private landowner easement process, the Forest Service's special use permit system is a land management tool used to implement FLPMA's multiple use and sustained yield principles.[149] Furthermore, the Forest Service is not simply asserting rights of a "private landowner" as were the Indians in *Escondido*. Unlike the Indians, the Forest Service has an "agency" status. Consequently, the Court's rejection of the Indian's veto power claim is distinguishable from the Forest Service's special use permit veto power. Therefore, *Escondido* does not resolve the preemptive licensing conflict between FERC and the Forest Service.

Another federal agency, the Army Corps of Engineers, has challenged FERC's exclusivity claim based on a statute similar to that establishing the Forest Service's right of way process.[150] Although the cases do not conclusively determine the Army Corp's role in the hydro licensing process, the courts' reasoning is instructive because it analyzes the scope of FERC's authority.

2. The Army Corps of Engineers Challenge to FERC's Exclusive Hydro Licensing Jurisdictional Claim

The Army Corps of Engineers administers a permit system that regulates the discharge of material into federal waters.[151] Section 404 of the Clean Water Act requires hydro developers to obtain Army Corps' approval before starting hydro plant construction.[152] Although both agencies agree that normal hydro operation creates a discharge, FERC

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[145] Pub. L. No. 94-579, 90 Stat. 2744 (codified at 43 U.S.C. §§ 1701-1784 (1982)). *See supra* text accompanying note 123.

[146] *See supra* note 132.

[147] 43 U.S.C. § 1761(a)(4) (1982). *See supra* text accompanying notes 95-100.

[148] *See supra* note 99 and accompanying text.

[149] *Id. See supra* notes 93, 94.

[150] The Water Pollution Control Act, as amended by the Clean Water Act, 33 U.S.C. §§ 1251-1376 (1982), authorizes the Army Corps of Engineers to regulate the discharge of dredge or fill materials in United States waters. The Corps is empowered to issue necessary permits. 33 U.S.C. § 1344 (1982). The statute does not exempt hydroelectric facilities.

[151] 33 U.S.C. § 1344 (1982).

[152] *Id.*

maintains that its exclusive licensing statutes preclude Army Corps' regulation of hydro power plants.[153] One court has rejected FERC's claim of sole licensing power.[154]

In *Scenic Hudson Preservation Conference v. Calloway*,[155] the court held that the Army Corps of Engineers retained the right to restrict dredging and filling operations through the issuance of permits[156] despite FERC's mandate to promote a uniform licensing scheme.[157] The court reasoned that without a specific hydro plant exemption in the Water Pollution Control Act, the Army Corps' review power did not duplicate FERC's role and therefore Congress must have intended that both agencies assume administrative control over hydro licensing facilities.[158] Consequently, the court required a prospective hydro developer to obtain both a FERC license and a separate Army Corps permit.[159]

By contrast, in *Monongahela Power Co. v. Alexander*,[160] the court upheld FERC's exclusive licensing claim by allowing a developer to bypass the Army Corps of Engineers' permit process.[161] The court noted that Congress, in its recent reorganization of the Energy Department,[162] had emphasized FERC's exclusive jurisdiction over hydro

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[153] *See* Scenic Hudson Preservation Conference v. Callaway, 370 F. Supp. 162, 165-67 (S.D.N.Y. 1973), *aff'd per curiam*, 499 F.2d 127 (2d Cir. 1974). The court noted that the Water Pollution Control Act on its face gave Army Corps' jurisdiction over discharges created by hydro plants. *Id.* at 169.

[154] *Id.* at 171-72.

[155] 370 F. Supp. 162 (S.D.N.Y. 1973), *aff'd per curiam*, 499 F.2d 127 (2d Cir. 1974).

[156] *Id.* at 171-72.

[157] 16 U.S.C. §§ 797(e), 817 (1982). The developer in *Scenic Hudson* cited these statutes as authority that FERC retained exclusive jurisdiction over hydro licensing. *Scenic Hudson*, 370 F. Supp. at 164-66. The court also looked at the legislative history behind the Federal Power Act. *Id.*

[158] The court held that if Congress had meant to exempt all hydro plants from the Army Corps' supervision it should have included hydro power under the listed exemptions in the Water Pollution Control Act. The two acts are not duplicative because "no power provision exists that would require the FPC to satisfy literally or even substantially the demands of § 404" of the Water Pollution Control Act. *Scenic Hudson*, 370 F. Supp. at 170.

[159] *Id.* at 172. The court held that the Federal Power Commission's jurisdiction preempted the Army Corps' authority under the Rivers and Harbors Act of 1899, 33 U.S.C. § 403 (1982), because the acts duplicated each other in scope and purpose. The Water Pollution Control Act was held to be more than a pure licensing statute because it gave the Corps a different responsibility from FERC's over a natural resource. *Scenic Hudson*, 370 F. Supp. at 170.

[160] 507 F. Supp. 385 (D.D.C. 1980).

[161] *Id.* at 392.

[162] Energy Organizational Act, 42 U.S.C. § 7172 (1982).

power licensing decisions.[163] Although environmental effects were given more deference during the Army Corps review than during the FERC procedure,[164] the court disagreed with the *Scenic Hudson* finding and held that the agency's role was sufficiently similar to justify FERC's exercise of exclusive jurisdiction.[165]

The *Scenic Hudson*[166] and *Monongahela Power*[167] decisions indicate that FERC's exclusivity claim remains viable only if FERC's licensing process duplicates the challenging agency's role. FERC's licensing process does not duplicate the Forest Service's hydro licensing role. The Forest Service has different environmental responsibilities and priorities than FERC.[168] The agencies' dispute over the significance of cumulative environmental impacts on the national forest highlights these differences.[169] Consequently, current case law supports the Forest Service's special use permit veto power claim.

Although the cases partially delineate the scope of FERC's and the Forest Service's hydro licensing power, significant problems remain. The next section identifies hydro regulatory conflicts that remain in the

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[163] *Monongahela*, 507 F. Supp. at 389-90. Although the specific statutory exemption of hydro projects from the Army Corps' supervision required by *Scenic Hudson* was not included, *see supra* note 157 and accompanying text, the reorganization strengthened FERC's exclusive jurisdictional stance because the legislative history indicated Congress intended FERC to have exclusive jurisdiction. *Monongahela*, 507 F. Supp. at 389. The *Monongahela* court noted that Congress did not overrule *Scenic Hudson*; rather the reorganization undermined the precedential value of *Scenic Hudson*'s contrary conclusion. *Id.*

[164] *Monongahela*, 507 F. Supp. at 391. In *Monongahela*, the court looked at the legislative materials supporting the Army Corps' and FERC's assertion of exclusive jurisdiction and upheld FERC's contention that, despite the differing approaches between the Federal Power Act and the Water Pollution Control Act, the Army Corps duplicated the investigation performed by FERC. *Id.* at 387, 391. The *Monongahela* court relied on the *Scenic Hudson* reasoning, yet reached a contrary result.

[165] *Id.* at 391-92. The court also found that an exception to the Water Pollution Control Act's coverage could be inferred from the legislative materials. *Id.* at 388 (citing an atomic energy case, Train v. Colorado Pub. Interest Research Group, 426 U.S. 1 (1976)). Although the two agencies had a different purpose (power development versus water resource preservation) and the Army Corps was required to weigh environmental issues more heavily than FERC, the operation of the two statutes contained similarities that were more persuasive than those differences. The *Monongahela* court observed that both agencies are required to solicit basic environmental cost and planning information from the applicant and evaluate the overall project before issuing a license. *Monongahela*, 507 F. Supp. at 391-92.

[166] 370 F. Supp. 162 (S.D.N.Y. 1973).

[167] 507 F. Supp. 385 (D.D.C. 1980).

[168] *See supra* notes 11, 103.

[169] *See supra* notes 106-09 and accompanying text.

post-*Escondido* era.

C. *Remaining Areas of Statutory Conflict*

Escondido establishes the Forest Service's authority under the Federal Power Act to place environmental conditions on hydro projects built within the national forest.[170] To formulate hydro licensing conditions, the Forest Service needs information about a proposed project's environmental impacts.[171] However, NEPA provisions[172] and FERC procedures conflict with the Forest Service's newly recognized hydro regulatory power.[173] These statutory conflicts seriously undermine the Forest Service's ability to promulgate meaningful hydro licensing conditions.

Under NEPA, FERC is the lead agency for compiling hydro project environmental reports, while the Forest Service is merely a cooperating agency.[174] Thus FERC, rather than the Forest Service, determines the scope and content of the environmental report that the Forest Service must use when formulating its licensing conditions.[175] For example, FERC initially assesses a proposed project's impacts and either issues a FONSI report, which signifies that no further environmental studies are required,[176] or requires additional studies to be completed in an EIS.[177] If FERC issues a FONSI report, the Forest Service has only the information submitted in the developer's application from which to derive its licensing conditions.[178] If FERC requires completion of an

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[170] *See supra* notes 137-38 and accompanying text.

[171] Telephone conversation with Tom Schmitt, Hydroelectric Coordinator for the El Dorado National Forest (Sept. 28, 1984).

[172] 42 U.S.C. § 4332 (1982).

[173] The Forest Service's role as a coordinating agency prevents it from ordering the developer to perform environmental studies it believes are necessary. *See supra* notes 79-83. Currently, FERC must accept the § 4(e) report, but can still modify the project by attaching alternative conditions under its § 10 authority, 16 U.S.C. § 803(a) (1982), after receiving the Forest Service's § 4(e) report. *See infra* notes 180-81 and accompanying text.

[174] *See supra* notes 86, 87.

[175] *See supra* note 88.

[176] *See supra* note 72.

[177] *See supra* notes 72-74.

[178] A FONSI briefly describes why an action will not have a "significant effect on the human environment" and is supported by an environmental assessment. 40 C.F.R. § 1508.13 (1983). *See supra* notes 71-73.

Additional evaluation of the information presented on the application does not occur until an agency determines the need for an EIS. *Id.* § 1501.7. Agency decisions before that point are necessarily based on the license application. *See, e.g.*, 36 C.F.R. §

EIS, the Forest Service must formulate its conditions from the studies mandated by FERC. Under either scenario, the Forest Service is powerless to compel developers to complete environmental studies deemed unnecessary by FERC.

The Forest Service's ability to condition hydro licenses effectively is also hindered by FERC procedures. Under FERC's current timeline, the Forest Service must submit its section 4(e) licensing conditions before FERC completes the final environmental report.[179] Since FERC historically considered the Forest Service's conditions to be advisory only, early submission of the conditions enabled FERC to decide which conditions to accept and which to reject.[180] Now that FERC must accept the Forest Service's licensing conditions,[181] the rationale behind the early submission rule disappears. Instead, requiring the section 4(e) conditions to be submitted before the final EIS is released forces the Forest Service to base its licensing conditions on inadequate environmental information.

Although the Forest Service's ability to condition hydro licenses is thwarted by NEPA provisions and FERC procedures, the Forest Service can still regulate hydro projects through its easement process.[182] However, the Forest Service bases its easement conditions on the same FERC-produced NEPA study that it uses for its section 4(e) report.[183]

252.54(e) (1983) (special use permit applications must contain basic environmental information).

[179] Before the license is formally granted, FERC evaluates the project and often negotiates changes in the project's design to conform with FERC's plans for the waterways. Telephone conversation with Linda Lee, FERC Staff Attorney (Sept. 28, 1984). FERC requests the § 4(e) report at an early stage in the licensing process, often before the project specifications are formalized. In *Escondido*, the Ninth Circuit discussed this procedure by observing that "once the Secretary of the Interior has propounded those conditions . . ., the Commission is free to modify the proposal in other ways." Escondido Mut. Water Co. v. FERC, 692 F.2d 1223, 1235 (9th Cir. 1982), *rev'd sub nom.* Escondido Mut. Water Co. v. La Jolla, Rincon, San Pasqual, Pauma, and Pala Bands of Mission Indians, 104 S. Ct. 2105 (1984).

[180] Before *Escondido*, FERC incorporated the submitted § 4(e) conditions into the license only when FERC determined that the conditions were consistent with FERC's licensing obligations. *Escondido*, 692 F.2d at 1228.

[181] *See supra* notes 133-37 and accompanying text.

[182] *See supra* notes 97, 98.

[183] NEPA's underlying policy requires agencies to reduce paperwork and delay. All NEPA investigations run concurrently with any other planning and environmental review process. 40 C.F.R. § 1500.2 (1983). The CEQ "encourages" agencies desiring a project's environmental review either to adopt completed studies or work with other agencies to produce one document if the proposal is substantially the same. *Id.* § 1506.3.

Thus, the special use permit conditions suffer from the same effectiveness problem. Consequently, the only truly adequate use of the Forest Service's special use permit is as a veto power over environmentally destructive hydro projects. Unfortunately, the Forest Service refuses to use its special use permit to veto projects because it claims that its authority to do so is not clearly defined.[184]

The Forest Service can protect the national forest from hydro development's environmental side effects by using two regulatory methods. First, the Forest Service can place mitigating environmental conditions on the hydro license itself.[185] Second, the Forest Service can limit or deny access to its land through its easement process.[186] Both systems, however, seriously compromise the Forest Service's ability to protect the national forest environment. Consequently, the next section proposes that Congress amend the Federal Power Act to allow the Forest Service to safeguard the national forest effectively.

IV. Proposed Allocation of Licensing Authority

The responsibilities of FERC and the Forest Service must be integrated into a licensing process that encourages hydro power development without jeopardizing the national forest environment. Under the existing hydro licensing system, the Forest Service's environmental responsibilities are being subordinated to FERC's hydro development goals.[187] This Comment proposes a two part regulatory system to remedy this environmental regulatory problem. First, the Federal Power Act must be amended to strengthen the Forest Service's hydro conditioning authority within FERC's overall hydro licensing process. Second, the Forest Service's independent hydro project veto power must be maintained and utilized. This procedure will guarantee that hydro projects proposed within the national forest are either conditioned to be environmentally benign or are vetoed altogether.

The Forest Service is currently unable to require developers to complete environmental studies that it believes are necessary for effective environmental licensing conditions.[188] The Federal Power Act must be amended to allow the Forest Service to require studies so that the Forest Service can fulfill its duty, under the Act, to condition hydro li-

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[184] Telephone Conversation with Tom Schmitt, Hydroelectric Coordinator for the El Dorado National Forest (Sept. 28, 1984).

[185] *See supra* notes 137-38 and accompanying text.

[186] *See supra* notes 98-100 and accompanying text.

[187] *See supra* notes 101-05 and accompanying text.

[188] *See supra* notes 85-88 and accompanying text.

censes. Section 797(f) of the Act should be amended as follows:

> § 797. General Powers of Commission
> The Commission is authorized and empowered . . .
>
> . . . .
>
> (f) To issue preliminary permits for the purpose of enabling applicants for a license hereunder to secure the data and to perform the acts required by section 802 of this title: *Provided, That preliminary permits issued within any reservation be subject to and contain such conditions as the Secretary of the department under whose supervision such reservation falls shall deem necessary to secure the data needed to perform the Secretary's duties under section 797(e) of this title; Provided, however,* That upon the filing of any application for a preliminary permit by any person, association, or corporation the Commission, before granting such application, shall at once give notice of such application in writing to any State or municipality likely to be interested in or affected by such application; and shall also publish notice of such application once each week for four weeks in a daily or weekly newspaper published in the county or counties in which the project or any part hereof or the lands affected thereby are situated.[189]

This amendment authorizes the Forest Service to require the needed studies for the developer's preliminary permit. Since FERC usually specifies on the preliminary permit the studies it wants completed,[190] this amendment simply incorporates the Forest Service's informational needs into FERC's existing process. By amending the Federal Power Act rather than NEPA, this solution gives the Forest Service input into the NEPA report without disrupting FERC's legitimate lead agency status. Additionally, this amendment protects developers' interests by limiting the Forest Service's power to require only those environmental studies necessary to frame conditions to protect the national forest.

Once the Forest Service obtains the environmental information necessary to draft effective hydro regulatory conditions, it should submit a draft report of those conditions to be circulated with FERC's draft EIS. By paralleling FERC's environmental procedure, the Forest Service will be able to receive other agency comment on its conditions. Additionally, FERC will be able to identify any conditions it believes are unreasonable while they are still in draft form. FERC can then negotiate with the Forest Service about those conditions before they become final. By integrating the Forest Service's hydro regulatory authority into FERC's licensing process, both agencies will be better able to fulfill their statutory obligations.

Although the Forest Service should be able to mitigate the environmental effects of most hydro projects by conditioning their licenses, the

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[189] 16 U.S.C. § 797(f) (1982). The proposed amendment is italicized.

[190] Telephone conversation with Linda Lee, FERC Staff Attorney (Oct. 1, 1984).

environmental consequences of some projects will be so severe that conditioning the licenses will be ineffective. When a project's small energy benefits are significantly outweighed by the unmitigable environmental damage that the project will cause, the Forest Service must veto the project by refusing to grant a right of way easement. Unlike the Indian's easement in *Escondido*, the Forest Service's special use permit is not a codification of individual land owner rights. Rather, the special use permit is a statutorily created land management tool designed to control national forest land use. Therefore, *Escondido* has not precluded veto power via the denial of an easement. As the cumulative effects controversy shows, FERC's licensing concerns do not parallel those of the Forest Service. The cases indicate that the Forest Service's veto power will be upheld because of the different objectives accomplished by the two procedures.[191] Consequently, the Forest Service must use its preemptive power to protect the national forests by vetoing environmentally destructive small hydro projects.

CONCLUSION

To alleviate the burgeoning problem caused by the rush to construct small hydro generators on almost every conceivable site, Congress should further delineate the areas of control to be administered by the federal hydro licensing agencies. By amending the Federal Power Act to permit the Forest Service to require environmental studies, Congress could give the Forest Service the power to implement its hydro conditioning responsibilities under the Act. Congressional action alone, however, will not sufficiently protect the national forest. The Forest Service itself must act to protect its reservation by vetoing proposed hydro projects whose negative environmental effects can not be mitigated through license conditions. By implementing this solution, FERC will retain the discretion to promote hydro power development, tempered only by the Forest Service's authority to protect the national forest environment.

Small hydro power remains an appealing alternative energy source. But, although small hydro plants efficiently produce energy, they also disturb the forest's delicate ecological balance. The allocation of hydro regulatory power proposed by this Comment will protect the environment while encouraging responsible hydro power development. FERC,

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[191] The *Scenic Hudson* and *Monongahela* courts looked for a difference between each agency's scope of review before determining whether FERC's regulatory power usurped the other agency's jurisdiction. *See supra* notes 166-69 and accompanying text.

while continuing to promote the development of hydroelectric energy, should retain its lead agency status. However, the Forest Service should have the uncontroverted authority to impose meaningful hydro licensing conditions based on a full environmental assessment. Further, the Forest Service should exercise its hydro project veto power in the rare instances when licensing conditions are insufficient to protect the forest environment. This balance of power will help preserve the environment while encouraging the responsible development of hydroelectric power.

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