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**Ensuring Durable Environmental
Benefits Through a Collaborative
Approach to Hydropower
Re-licensing: Case Studies**

*By Avinash Kar**

I. Introduction

The last century has seen the rise of environmental awareness from its nascent conservation-oriented beginnings to the multi-faceted, complex, ecological systems-based perspective that informs environmental activism today. We realize today the potential for environmental impacts in almost any human activity and that we must strive continually to balance the risks and benefits to ensure that our needs and wants are met while still protecting the environment upon which we depend. We continually become more aware of the ecological impacts of even the most well-meaning of human activities. Wind-farms which produce clean, renewable energy may harm endangered birds that fly into wind-turbine blades. Or emission- and smog-reducing gasoline additives may leach into groundwater, contaminating drinking sources. So it is with hydropower, the generation of electricity by damming rivers and waterways.

As the discussion below will show, hydropower facilities mushroomed in the middle of the 20th century, subject to remarkably little environmental oversight, a product of a less-environmentally aware time. Today, of course, we are aware not only of the benefits of hydropower, but also of its damaging impact on the environment if not properly managed. Many of the facilities granted federal licenses forty or fifty years ago have only now begun to come up

* J.D. candidate, U.C. Hastings College of the Law, 2005. The note is based in part on a project the author worked on with Kevin Mora while both were legal interns at the Natural Resources Defense Council during the summer of 2003. The author would also like to thank Ralph Cavanagh for his gracious advice and thoughtful comments throughout the process, and Meghan Byrne for her rigorous and insightful edits.

for license renewals in the past decade or so, finally providing an opportunity to incorporate environmental requirements into the permits. It is in this context that one of the more promising opportunities to develop long-term, environmentally sensitive planning in this arena presents itself.

As of 1996, there were approximately 2,358 hydroelectric plants operating in the United States.¹ Overall, hydroelectric projects provide 74,800 megawatts of generating capacity,² and a little over 7% of the electricity generated in the US.³ Hydropower offers environmental and economic benefits, but also inflicts serious environmental damage.⁴ Hydropower projects represent 96% of renewable energy production in the US, the equivalent of 531 million barrels of oil each year, while creating no air pollution.⁵ These projects provide electricity at a relatively low fiscal cost and, if a project has substantial water storage capacity, it can provide power “almost instantaneously at times of peak energy demand, helping prevent brownouts and power outages.”⁶

On the other hand, hydropower projects

have significant environmental effects. It goes almost without saying that dam and facilities construction and the various alterations in the natural patterns of rivers compromise aesthetic values.⁷ Hydropower facilities threaten the existence of species such as salmon and sturgeon: dams create barriers to fish migration; the obstructions cause siltation upstream, destroying habitat and killing fish; hydropower turbines draw in and kill fish; and reduced downstream flows lead to higher temperatures and lower oxygen levels, creating conditions inhospitable for some fish.⁸ Lower water levels also threaten water quality (by reducing dilution capacity) and make it more expensive to treat wastewater discharges.⁹ In addition, hydropower operations cause severe fluctuations in water levels as they withhold and then release water to generate power during peak periods, disrupting riparian ecosystems and the lifecycles of other wildlife inhabiting the area.¹⁰ Hydropower dams can also dry up or lower water levels in stretches of river so that downstream recreation is disrupted.¹¹ Thus, while hydropower offers some important benefits, it also inflicts serious environmental costs that need to be addressed.

1. Fed. Energy Regulatory Comm'n, *Water Power: Present Development of Conventional Hydroelectric Projects*, at <http://www.ferc.gov/industries/hydropower/gen-info/water-power/wp-present-dev.asp> (last updated June 13, 2003) [hereinafter *Water Power Present Development*].

2. Fed. Energy Regulatory Comm'n, *Water Power: Use and Regulation of a Renewable Resource*, at <http://www.ferc.gov/industries/hydropower/gen-info/water-power/wp-use.asp> (last updated June 13, 2003) [hereinafter *Water Power Use*].

3. See ENERGY INFORMATION ADMINISTRATION, SEPTEMBER 2004 MONTHLY ENERGY REVIEW, at Table 7.2a, available at <http://www.eia.doe.gov/emeu/mer/elect.html> (last modified Sept. 28, 2004). The Federal Energy Regulatory Commission (“FERC”) web site indicates that hydroelectricity represents “about 10 percent” of electricity produced in the US. *Water Power Use*, *supra* note 2. In addition to conventional hydroelectric power, pumped storage hydroelectric projects store water during times of low demand for generating electricity at times of peak demand. Fed. Energy Regu-

latory Comm'n, *Water Power: Pumped Storage Hydroelectric Projects*, at <http://www.ferc.gov/industries/hydropower/gen-info/water-power/wp-pump.asp> (last updated June 13, 2003). Pumped storage projects provide an additional 8,400 megawatts of generating capacity. *Water Power Present Development*, *supra* note 1.

4. See Kurt Stephenson, *Taking Nature into Account: Observations about the Changing Role of Analysis and Negotiation in Hydropower Re-licensing*, 25 WM. & MARY ENVTL. L. & POL'Y REV. 473, 474-77 (2000).

5. *Water Power Use*, *supra* note 2.

6. Stephenson, *supra* note 4, at 474-75.

7. See Sarah C. Richardson, *The Changing Political Landscape of Hydropower Project Relicensing*, 25 WM. & MARY ENVTL. L. & POL'Y REV. 499, 508 (2000).

8. *Id.*; Stephenson, *supra* note 4, at 475.

9. Stephenson, *supra* note 4, at 475.

10. *Id.*; Richardson, *supra* note 7, at 508.

11. Stephenson, *supra* note 4, at 475-76.

The critical question, then, is how to decide between the “competing ends, interests, and values”¹² at stake in hydropower licensing decisions. The Federal Energy Regulatory Commission (“FERC”), the federal agency responsible for licensing hydropower facilities, has approached the question in three different ways: (1) the traditional agency comment-based adversarial process (Traditional Licensing Process); (2) an alternative collaborative process (Alternative Licensing Process); and (3) a process that integrates the other two approaches and goes into full effect in July 2005 (Integrated Licensing Process).¹³ Both the traditional and collaborative approaches have their pros and cons.¹⁴ But the collaborative approach embodied in the Alternative and Integrated processes is an increasingly favored route to addressing the environmental concerns involved in the licensing of hydropower facilities.¹⁵

Hundreds of hydropower licenses will come up for re-licensing or renewal in the next few years.¹⁶ With that in mind, this note analyzes the development of the collaborative approach to licensing. To set the context, section II considers the stakes involved in re-licensing. Section III examines the particulars of the various re-licensing procedures and the trend towards a more col-

laborative model. And section IV looks at two case studies to assess the collaborative approach from an environmental perspective and to identify some of the practices being used in collaborative settlement agreements to implement robust and durable responses to environmental concerns.

II. The Re-licensing Stakes

FERC regulates the non-federal hydroelectric power projects that affect navigable waterways, are located on federal lands, use water or water-power at federal government dams, or otherwise affect interstate commerce.¹⁷ FERC oversees hydropower project licenses as part of its duties,¹⁸ and FERC-regulated facilities represent 56% of hydropower facilities in the US.¹⁹ There are currently more than 1,000 licensed facilities in the US,²⁰ with licenses lasting from thirty to fifty years.²¹ The majority of these FERC-regulated facilities are located in the western US, especially in Washington, Oregon, and California.²² In California alone, thirty-five hydropower project licenses are scheduled to expire between 2005 and 2025, representing almost a third of the licensed projects located in the state.²³ One hundred and sixty licenses affecting 262 dams on 105 rivers expired nationwide in

12. *Id.* at 477.

13. *Id.* at 484-88, 492-97; Fed. Energy Regulatory Comm’n, *Hydroelectric Licensing Rulemaking, Order 2002*, at <http://www.ferc.gov/industries/hydropower/indus-act/hl-over.asp> (last updated Aug. 16, 2004) [hereinafter *Hydroelectric Rulemaking Order*].

14. See Stephenson, *supra* note 4, at 478-484.

15. See, e.g., CALIFORNIA HYDROPOWER REFORM COALITION, *RECOMMENDATIONS FOR COOPERATIVE RELICENSING PROCEEDINGS I*, available at <http://www.calhrc.org/relicensing/toolkit.htm> (last visited Sept. 29, 2004).

16. See Fed. Energy Regulatory Comm’n, *Hydropower Projects Under Commission License*, at <http://www.ferc.gov/industries/hydropower/gen-info.asp> (scroll down to “List of Projects.”) (web-page last

updated Oct. 12, 2004; chart last updated Feb. 11, 2004) [hereinafter *Hydropower Projects List*].

17. Fed. Energy Regulatory Comm’n, *Origin of Hydroelectric Regulation*, at <http://www.ferc.gov/industries/hydropower/gen-info/origin.asp> (last updated June 13, 2003) [hereinafter *Regulatory Origins*].

18. *Id.*

19. See Fed. Energy Regulatory Comm’n, *Water Power: Regulation of this Renewable Resource*, at <http://www.ferc.gov/industries/hydropower/gen-info/water-power/wp-reg.asp> (last updated June 13, 2003).

20. *Water Power Present Development*, *supra* note 1.

21. *Regulatory Origins*, *supra* note 17.

22. See *Hydropower Projects List*, *supra* note 16.

23. *Id.*

1993.²⁴ One hundred and eighteen projects were issued licenses between 2000 and 2003, and 202 licenses are scheduled to expire nationwide between 2005 and 2020,²⁵ with the majority of the licenses representing re-licensings.²⁶ FERC expects about 7,420 megawatts of generating capacity across the US to come up for re-licensing in 2007 alone.²⁷

Hundreds of hydropower licenses were granted during the “big dam era” of the 1930s, 40s, and 50s — before widespread awareness of the environmental damage that dams can cause.²⁸ Since then, court decisions and legislation have made consideration of environmental factors an explicit condition of granting licenses.²⁹ The Electric Consumers Protection Act of 1986 (“ECPA”) amended the Federal Power Act (“FPA”) to incorporate environmental considerations.³⁰ It amended section 4(e) of the FPA to require that FERC “give equal consideration to the purposes of energy conservation, the protection, mitigation of damage to, and enhancement of, fish and wildlife (including related spawning grounds and habitat), the protection of recreational opportunities, and the preservation of other aspects of environmental quality.”³¹ The

ECPA similarly amended section 10(a) of the FPA so that it now provides that licensed projects must be adapted to serve a comprehensive plan “for the adequate protection, mitigation, and enhancement of fish and wildlife,” and “for other beneficial public uses, including irrigation, flood control, water supply, and recreational, and other purposes referred to” in section 4(e).³² Finally, ECPA added section 10(j) to the FPA to require conditions in licenses to protect the environmental values identified above based on recommendations by the US Fish and Wildlife Service, the National Marine Fisheries Service, and state fish and wildlife agencies.³³

As large numbers of hydropower facilities come up for re-licensing, the legislative amendments offer opportunities to make environmental considerations an integral part of hydropower licenses. The California Hydropower Reform Coalition (“CHRC”), a coalition of environmental groups addressing riparian issues,³⁴ believes that the re-licensing context today presents “a rare opportunity for Californians to upgrade project operations and design to reduce impacts to our rivers, and restore fish and wildlife habitat and recreation

24. California Hydropower Reform Coalition, *About Relicensing*, at <http://www.calhrc.org/relicensing/about.htm> (last visited Sept. 30, 2004) [hereinafter *About Relicensing*].

25. See *Hydropower Projects List*, *supra* note 16.

26. See Fed. Energy Regulatory Comm’n, *Water Power: Re-licensing or Applications for New Licenses*, at <http://www.ferc.gov/industries/hydropower/gen-info/water-power/wp-licensing.asp> (last updated June 13, 2003) [hereinafter *Re-licensing Applications*].

27. *Id.*

28. Richardson, *supra* note 7, at 500.

29. See *id.* at 508-10.

30. Electric Consumers Protection Act of 1986 (ECPA), Pub. L. No. 99-495, 100 Stat. 1243 (codified as amended in scattered sections of 16 U.S.C.).

31. ECPA § 3(a), 100 Stat. at 1243 (amending § 4(e) of the Federal Power Act as codified at 16 U.S.C. § 797).

32. ECPA § 3(b), 100 Stat. at 1243-1244 (amending § 10(a) of the Federal Power Act as codified at 16 U.S.C. § 803).

33. ECPA § 3(c), 100 Stat. at 1244 (adding § 10(j) to the Federal Power Act as codified at 16 U.S.C. § 803).

34. California Hydropower Reform Coalition, *Coordination and Coalition Building*, at <http://www.calhrc.org/coordination/index.htm#steering> (last visited Oct. 31, 2004) (The coalition includes the following organizations: American Rivers, American Whitewater, California Outdoors, California Sportfishing Protection Alliance, California Trout, Foothill Conservancy, Friends of the River, National Heritage Institute, and Trout Unlimited).

opportunities.”³⁵ The same opportunity presents itself across the western states and the country.³⁶

III. License Application Alternatives and the Move Towards a Collaborative Model

To renew its license, a licensee must file a notice of intent indicating whether or not it intends to renew its project license at least five years before the license expires.³⁷ It must then file an application for the new license at least two years before the license expires.³⁸

In the past, under the Traditional Licensing Process, prior to filing an application, the applicant had to first go through a pre-filing consultation with affected resource agencies (federal, state, and interstate) and tribes, and some *very* limited consultation with the public, outlining the project and the re-licensing plans, including environmental effects and planned mitigation mea-

asures.³⁹ It also had to carry out necessary studies to inform the license application process.⁴⁰ Following the filing of the application, agencies and public groups could review the application and request any additional studies they thought might be required, and the licensee had to carry out these additional studies if FERC approved the request.⁴¹ Following completion of the studies, the application was deemed ready for review and interested parties could submit any additional comments regarding terms and conditions of the license or other matters.⁴² The environmental review was usually initiated at this time, consisting of an Environmental Impact Statement (“EIS”) or Environmental Assessment (“EA”) required by the National Environmental Policy Act (“NEPA”), followed by another round of comments on the document, by hearings on any remaining questions and, finally, the FERC decision on the license renewal.⁴³ As

35. California Hydropower Reform Coalition, *Hydropower Relicensing Projects*, at <http://www.calhrc.org/relicensing/index.asp> (last visited Nov. 22, 2004).

36. See *Water Power Development*, *supra* note 1 (“The leading states in hydroelectric power generation are Washington, California, and Oregon.”); *Re-licensing Applications*, *supra* note 26 (“Between 1993 and 2010, the top four states for number of licenses expiring are Wisconsin, Michigan, Maine, and California.”).

37. *Re-licensing Applications*, *supra* note 26.

38. *Id.*

39. Hydropower Licensing Under the Federal Power Act, 68 Fed. Reg. 13,988, 13,989 (proposed Feb. 20, 2003); CFR 18 PARTS 2, 4, 9, 16, 375, AND 385 (REDLINE/STRIKE-OUT VERSION) § 16.8(b) (pre-redline), at C-59 to C-60, and § 16.8(j) (as struck-out), at C-68 to C-69, available at <http://www.ferc.gov/industries/hydropower/indus-act/hl-over.asp> (last updated Aug. 16, 2004) [hereinafter REDLINED RULE]. See also AMERICAN RIVERS & THE NATIONAL PARK SERVICE, RIVER RENEWAL: RESTORING RIVERS THROUGH HYDROPOWER DAM RELICENSING, at Introduction § D, available at <http://www.amrivers.org/index.php?module=HyperContent&func=display&cid=1951> (click on “Introduction” and scroll down to identified sections on the new page) (last visited Oct. 7, 2004)

[hereinafter RIVER RENEWAL]. The *River Renewal* report states that “[t]he licensee must then consult with state and federal resource agencies (e.g., Fish and Wildlife Service, National Park Service, state fish and game departments) regarding the operations needed to protect fish and wildlife and provide recreation enhancements.” There is no mention of public involvement.

40. Hydropower Relicensing Under the Federal Power Act, 68 Fed. Reg. at 13,989; RIVER RENEWAL, *supra* note 39, at Introduction § D.

41. *Id.*

42. *Id.* The terms and conditions required by the federal agency administering the United States lands on which the project is located (in most cases the Department of Agriculture or Interior) were, and continue to be, mandatory and must be included in the license by FERC pursuant to section 4(e) of the FPA. 16 U.S.C. § 797(e) (2000); Hydropower Relicensing Under the Federal Power Act, 68 Fed. Reg. at 13,989. Furthermore, the conditions recommended by resource agencies pursuant to section 10(j) of the FPA, are owed deference by FERC and cannot be disregarded without adequate explanation. 16 U.S.C. § 803(j)(2).

43. Hydropower Relicensing Under the Federal Power Act, 68 Fed. Reg. at 13,989; RIVER RENEWAL, *supra* note 39, at Introduction § D.

the process suggests, the Traditional Licensing Process followed a notice and comment hearing procedure and allowed little opportunity for public involvement until after the application was filed.⁴⁴

FERC has also developed an Alternative Licensing Process which, by contrast, employs a collaborative approach aimed at crafting a settlement agreement among all the stakeholders, which allows for public participation from the very beginning of the process. One of the goals of the Alternative process is to “combine into a single process the pre-filing consultation process, the environmental review process under [NEPA] and administrative processes associated with the Clean Water Act and other statutes.”⁴⁵ The Alternative process aims to “promote cooperative efforts,” sharing of information, and the narrowing of areas of disagreement to reach agreement or settlement of issues raised by the re-licensing.⁴⁶ A report issued by American Rivers, a non-profit group, and the National Park Service explains as follows:

[S]ettlements can occur at any time in the relicensing process. However, the trend has been to develop settlement agreements before the environmental review has been conducted. In this way, FERC can evaluate the proposed settlement terms and conditions as possible alternatives in the EA or EIS. Once a settlement has been successfully negotiated and signed, it is submitted to FERC with the request that all settlement terms and conditions be included

as part of the official license. However, because FERC sometimes omits or alters terms of the settlement agreement which are not “conventional” FERC license provisions, many settlement parties have included a clause in the settlement making all settlement terms legally binding regardless of whether FERC includes them in the license.⁴⁷

In July 2003, FERC announced yet another approach to re-licensing called the Integrated Licensing Process.⁴⁸ Until July 2005, license applicants are able to choose between the Traditional and Integrated processes or can request authorization to use the Alternative process.⁴⁹ Starting July 2005, the Integrated Licensing Process will be the default and FERC approval will be required to use either the Traditional or Alternative processes.⁵⁰

True to its name, the new approach integrates the Traditional and Alternative processes. Under the new process, the applicant’s pre-filing consultation and FERC’s determination of the scope of review required by NEPA are conducted concurrently to identify issues early in the process, in contrast to the sequential method used in both the Traditional and Alternative processes.⁵¹ To achieve that integration, the process calls for the following: increased public participation at the pre-filing consultation stage; better coordination between FERC’s NEPA preparation and other state and federal agencies’ processes; development of a FERC-approved study plan by the applicant (instead of an applicant-proposed

44. *Id.*

45. 18 C.F.R. § 4.34(i)(2)(i) (2004).

46. *Id.* § 4.34(i)(2)(iv).

47. RIVER RENEWAL, *supra* note 39, at Introduction § F.

48. *See* Hydroelectric Licensing Under the Federal

Power Act, 68 Fed. Reg. 51,069, 51,070 (Aug. 25, 2003) (to be codified at 18 C.F.R. pts. 2, 4, 5, 9, 16, 375, and 385).

49. *Id.*

50. *Id.*

51. *Id.*; *Hydroelectric Rulemaking Order*, *supra* note 13.

plan that is later modified through a comment process as outlined above); encouragement to engage in informal resolution of disagreements about studies to be conducted, followed by dispute resolution if necessary, thus limiting the need for post-application study requests; early, increased, and more sustained FERC involvement; and more defined deadlines for all participants, including FERC.⁵² FERC foresees a continuing and significant role for collaborative settlement agreements in the Integrated process. Many of the above measures are designed to foster and encourage settlement, even going so far as to change the proposed regulation to allow for short “time-outs” from the strict schedule of the Integrated process when a settlement agreement seems likely and the parties are in need of further time to resolve negotiations.⁵³ The Integrated process can be characterized as a collaborative approach with more structure.

Even the Traditional process has been modified during the course of the Integrated process rulemaking in response to success with the Alternative process. Until changes were proposed in 2003, the Traditional process allowed for almost no public participation prior to the filing of the application, by which time environmental studies had already been completed.⁵⁴ Now, public participation

in the Traditional process starts at the pre-filing consultation stage and public comments are considered along with the comments of resource agencies and tribes; however, the pre-filing consultation and the environmental review process remain separate.⁵⁵

While this updated Traditional process does not involve settlement agreements, the Integrated process, which will be the default process starting in July 2005, has embraced the idea of settlement agreements nursed in the Alternative process. As this suggests, the re-licensing process has increasingly gravitated towards the collaborative approach embodied in the Integrated and Alternative processes. This trend is a response to several factors. A Traditional re-licensing that took nine months to process before the ECPA was passed in 1986, took three years to process in 1987 and required more than four years by the period between 1994 and 1996.⁵⁶ As the American Rivers/National Park Service report points out, Alternative process re-licensings have “have generally yielded faster and more creative improvements for rivers than those achieved in traditional relicensings.”⁵⁷ The final rule instituting the Integrated process notes that the Alternative process has a “demonstrated track record of reducing license application processing times and fostering settlement agreements.”⁵⁸ While the changes to the

52. Hydroelectric Licensing Under the Federal Power Act, 68 Fed. Reg. at 51,071; *Hydroelectric Rulemaking Order*, *supra* note 13; *see also* Fed. Energy Regulatory Comm’n, *Hydroelectric Licensing Rulemaking, Order 2002 - Matrix Comparing Three Processes*, at <http://www.ferc.gov/industries/hydropower/indus-act/hl-matrix.asp> (last updated Oct. 16, 2003).

53. Hydroelectric Licensing Under the Federal Power Act, 68 Fed. Reg. at 51,103; 18 C.F.R. § 5.29(g).

54. *See supra* text accompanying notes 39-41.

55. 18 C.F.R. §§ 16.8(a)(2), (b)(2), (b)(5). *See* Hydroelectric Licensing Under the Federal Power Act, 68 Fed. Reg. at 51,071.

56. Stephenson, *supra* note 4, at 489.

57. RIVER RENEWAL, *supra* note 39, at Introduction § F.

58. Hydroelectric Licensing Under the Federal Power Act, 68 Fed. Reg. at 51,072. It should be noted here that the process is still expensive. At least in the case of PG&E’s Land Conservation Commitment (discussed *infra* Section IVA), the environmental improvements, with a cost of \$100 million, are funded by small increases in the bills of electric ratepayers. *See* Opinion Modifying the Proposed Settlement Agreement of Pacific Gas & Electric Company, PG&E Corporation and the Commission Staff, and Approving the Modified Settlement Agreement, Investigation 02-04-026, at 62, 66 (California Public Utilities Commission Dec. 18, 2003), *available at* http://www.cpuc.ca.gov/word_pdf/FINAL_DECISION/32684.doc (last visited Oct. 7, 2004) [hereinafter CPUC Opinion].

Traditional process make that process more efficient, the Integrated process continues to save time by combining the pre-filing and environmental review processes. Additionally, both processes utilizing collaborative approaches — the Integrated and Alternative processes — still offer the full benefits of fostering settlement negotiations. Negotiations can serve “a valuable role in utilizing diverse and diffuse knowledge,” allowing parties to “revise and discover their preferences, discover and create alternatives, and better understand the outcome of alternative policies,” thus “making use of dispersed, fragmented knowledge and accommodating diverse sets of interests,” often saving time by avoiding the formal process.⁵⁹

From the environmentalist’s perspective, at the very least, the collaborative approach offers the prospect of less environmental harm through shorter delays: the collaborative approach not only avoids procedural delays, “mitigation provided for in settlements can often be implemented with less delay, curtailing further resource degradation.”⁶⁰ For licensees, in addition to the potential time-saving benefits, at a minimum, the collaborative approach provides an opportunity for good public relations.⁶¹ The early public participation that is a feature of the collaborative approach, and has now been folded into the Traditional process, often also helps avoid expensive studies as issues are identified early.⁶² Given these potential mutual benefits for environmentalists and licensees, as well as the time-

saving benefits for regulators, working on settlement negotiations can often help establish “a framework for long-term cooperation” and reduce the adversarial tensions that can develop under the Traditional process.⁶³ Through FERC’s incorporation of settlement agreements into the Integrated process and retention of the Alternative process as an option for re-licensing, the collaborative model continues to be an integral part of the re-licensing process. The case studies that follow are an attempt to better understand the strengths and weaknesses of the collaborative approach from an environmental perspective, and to identify settlement strategies that ensure effective and lasting solutions to the environmental problems faced by watershed lands.

IV. Case Studies

This note considers two examples of collaborative agreements to protect environmental resources: Pacific Gas & Electric’s (“PG&E”) Land Conservation Commitment (“Conservation Commitment”) as part of its bankruptcy proceedings and Avista Corporation’s Clark Fork Settlement Agreement (“Clark Fork Agreement”) in the context of FERC re-licensing. PG&E’s Conservation Commitment is not made in the FERC context. However, it has many similarities to the FERC collaborative process, which make it a useful case study. PG&E is also a utility with significant stakes in the outcome of the agreement, and the agreement — like agreements in the FERC con-

59. Stephenson, *supra* note 4, at 482-83. See RIVER RENEWAL, *supra* note 39, at Introduction § F.

60. RIVER RENEWAL, *supra* note 39, at Introduction § F.

61. See, e.g., Fenton Roskelley, *Avista Recognized for Dam Relicensing Efforts*, SPOKANE SPOKESMAN REVIEW, June 1, 2003, at H2 (“Power companies don’t often receive kudos in fish and game agency magazines. But Avista Corp. is lavishly praised

in a recent issue of *Montana Outdoors . . .*”); Paul McHugh, *Monumental Deal for PG&E Land: 140,000 Acres of Utility’s Upper Watershed to be Protected for Wildlife*, *Outdoor Enthusiasts*, S.F. CHRON., Apr. 2, 2004, at A1.

62. See RIVER RENEWAL, *supra* note 39, at Introduction § F.

63. RIVER RENEWAL, *supra* note 39, at Introduction § F.

text — is aimed at ensuring environmental protections in exchange for a facilitated process for the utility's objectives. The Conservation Commitment also serves as a useful model to examine the structure, effectiveness, and long-term potential of settlement agreements aimed at protecting environmental values in the context of hydropower utility operations. The various stages involved in finalizing the PG&E Conservation Commitment also mirror aspects of the Traditional, Alternative, and Integrated processes in the course of the same proceeding. This provides a useful platform to study the differences between the processes and the advantages of each approach in ensuring protection for the environment.

A. PG&E's Land Conservation Commitment

The PG&E Bankruptcy Settlement Agreement between PG&E, PG&E's parent corporation, and the California Public Utilities Commission ("CPUC"), included the Conservation Commitment. This Conservation Commitment provides improved opportunities for environmental benefits and public access in 140,000 acres of PG&E watershed lands associated with its hydroelectric facilities, while maintaining PG&E's ability to generate electricity from the facilities.⁶⁴ The Conservation Commitment aims at the preservation and environmental enhancement of these 140,000 acres, as well as the 655-acre Carizzo Plain property in San Luis Obispo County.⁶⁵ (Ninety-five thousand of these acres are subject to FERC jurisdic-

tion.⁶⁶) PG&E had previously proposed to auction off its watershed lands.⁶⁷ The Conservation Commitment in the Settlement Agreement "would remove forever that possibility, and replace the spectre [sic] of loss of public control with the promise of perpetual public access."⁶⁸ Considering the Conservation Commitment, the CPUC declared that "the people of California can look to a partnership of the environmental community, state and local governments, and environmental stewardship organizations to preserve the lands and improve public access where desirable."⁶⁹

The Conservation Commitment details were developed in three stages: (1) the proposed settlement, which included the initial Conservation Commitment; (2) the Conservation Commitment Stipulation ("Stipulation"), which was subsequently negotiated between PG&E and various parties representing environmental interests; and (3) the final disposition made by the CPUC.⁷⁰ The initial Conservation Commitment set up the general framework and broad parameters, the Stipulation interpreted the initial Conservation Commitment and filled in details, and the CPUC decision added some final details to form the complete Conservation Commitment currently in effect.⁷¹ Each stage is instructive in the process of constructing an agreement with durable environmental benefits.

64. CPUC Opinion, *supra* note 58, at 61-62.

65. *Id.* app. C at 16. Appendix C is the final Approved Settlement Agreement.

66. *Id.*

67. CPUC Opinion, *supra* note 58, at 62; McHugh, *supra* note 61, at A17 ("Even before the bankruptcy, it looked as if the rest of [PG&E's] land would be sold"; the article reports PG&E

spokesman John Tremayne as saying that "[t]he next step was, we had to put [the hydropower lands] up for auction.").

68. CPUC Opinion, *supra* note 58, at 62.

69. *Id.*

70. *See id.* at 61-67.

71. *Id.*

i. The Initial Conservation Commitment

In the initial Conservation Commitment Statement of Purpose, PG&E states that it shall ensure that the lands “are conserved for a broad range of beneficial public values, including the protection of the natural habitat of fish, wildlife and plants, the preservation of open space, outdoor recreation by the general public, sustainable forestry, agricultural uses, and historic values.”⁷² The initial Conservation Commitment states that PG&E will protect these values from uses that would conflict with their conservation.⁷³ To do so, PG&E agreed to subject the watershed lands and Carizzo Plain acreage to conservation easements or to donate them in fee simple to public agencies or nonprofit conservation organizations.⁷⁴ PG&E also agreed to set up a nonprofit corporation, called the Environmental Enhancement Corporation (“Environmental Enhancement Corporation” or “Corporation”), to oversee the commitment, and it agreed to fund the corporation with \$70 million to be paid in equal installments over ten years.⁷⁵

If the initial Conservation Commitment had remained in its original state, and had not been supplemented by the Stipulation, serious questions as to its durability and environmental benefits would remain. The shortcomings are worth examining to understand potential problems with collaborative arrangements aimed at preserving or protecting environmental resources and to learn how to better structure effective agreements.⁷⁶ The board of the Environmental Enhancement Corporation (“Board”) was originally to be composed of representatives from PG&E, the CPUC, the California Department of Fish and Game (“DFG”), the State Water Resources Control Board (“SWRCB”), the California Farm Bureau Federation (“CFBF”), and three members of the public to be appointed by the CPUC.⁷⁷ For an ostensibly environmental commitment, to have no explicit reference to substantial environmental expertise and experience on its board was a significant oversight. While representatives of the SWRCB, the DFG, and the CPUC would count environmental con-

72. CPUC Opinion, *supra* note 58, app. A at 38. Appendix A of the CPUC Opinion is the Proposed Settlement Agreement Between PG&E and CPUC (July 25, 2003). The Proposed Settlement Agreement has its own appendices. The citation to page 38 is to the initial Conservation Commitment at Appendix E of the Proposed Settlement Agreement.

73. *Id.*

74. *Id.* at 38, ¶ 1.

75. *See id.* at 23-24, ¶ 17. The Environmental Enhancement Corporation has since been renamed the Pacific Forest and Watershed Lands Stewardship Council. Amended and Restated Bylaws of PG&E Environmental Enhancement Corporation art. 1, *available at* http://www.pge.com/about_us/environmental_enhancement_corp/ (last visited Nov. 22, 2004). However, this article will continue to refer to it as the Corporation or Environmental Corporation for ease of use.

76. *See* Stephenson, *supra* note 4, at 481 (“Advocates for the rational analytic approach fear that deci-

sions made in a political process are subject to capture by narrow interest-group politics. The political system is subject to control and disproportionate influence by the economically powerful parties. In hydropower relicensing, this sentiment may be reflected in a general feeling that nature cannot compete against financially powerful hydropower interests in the political arena.”); *see also* Handout, Session on Hydroelectric Relicensing at the 2004 Public Interest Environmental Lawyers Conference (on file with author). The handout warns environmental participants to “beware the hybrid licensing approach adopted by many licensees. They decline to opt in to the alternative approach, yet still hold ‘collaborative’ meetings with stakeholders. Frequently used as window dressing to appear collaborative while retaining more control over the process.” Given the different circumstances of the PG&E Bankruptcy Settlement Agreement, the handout’s criticisms may not apply. However, a similar agreement in the re-licensing context may give rise to some of the handout’s concerns.

77. CPUC Opinion, *supra* note 58, app. A at 23-24, ¶ 17.

cerns as part of their missions, the initial Conservation Commitment does not require that these representatives have environmental qualifications. Given the potential, even the likelihood, of the involvement of hundreds of parcels of land, covering a wide area and reflecting diverse conditions,⁷⁸ a substantial background in preservation and knowledge of the relevant ecological values and challenges associated with those lands seems essential. Under the initial Conservation Commitment plan, the government agencies could certainly pick appointees with environmental experience, but it does not ensure such appointments.

Even if the government agencies chose appointees with environmental experience, more political considerations could intrude. The appointees could be subjected to political pressures (e.g., from an administration favoring competing interests) and would not necessarily represent an environmental perspective. An organization charged with protecting environmental values could find itself without a single environmental advocate on its Board. Furthermore, even if the governmental representatives from DFG and the SWRCB were strong environmental advocates, the arrangement does little to ensure the environmental effectiveness or durability of the Conservation Commitment, since the decision-making process for the Board is not defined at all.⁷⁹ For instance, a simple majority vote would do little to ensure consideration of the environmental perspective if those espousing that perspective are outnumbered. (A combination of PG&E, the CPUC appointees, and the CFBF could outnumber the other members of the

Board.) Finally, excluding environmental group stakeholders from the decision-making process would almost certainly lead to opposition and delays, and would diminish the legitimacy of the Board. Combined, these factors would threaten the long-term effectiveness of the Board in carrying out its environmental mandate.

The ambiguity of some of the language in the initial Conservation Commitment compounded the problem: With the lack of an unambiguous environmental advocate on the Board, clearly defined terms designed to ensure the achievement of the environmental objectives of the Conservation Commitment become even more crucial, but the initial Conservation Commitment does not contain such definitions. For instance, it allows PG&E to sell some of the protected land without restrictions to private entities if the land is determined to be “without significant public interest value.”⁸⁰ But what does “significant public interest value” mean? Who would make that determination? And what review process would be available? Likewise, the initial Conservation Commitment Statement of Purpose lists “a broad range of beneficial public values,” but the initial Conservation Commitment contains no definitions of the protected values or of their prioritization.⁸¹ Does “outdoor recreational use”⁸² mean simply hunting and fishing? Or does it extend to the use of snowmobiles and off-road vehicles? Does “sustainable forestry”⁸³ require adherence to the requirements of a recognized sustainable forestry certification, or are the indicia of sustainability left up to the Board? Would protection of the beneficial values⁸⁴ mean

78. See CALIFORNIA HYDROPOWER REFORM COALITION, OVERVIEW OF PG&E WATERSHED LANDS 1-3, available at http://www.calhrc.org/PG&E_bankruptcy/PG&E_land_descriptions.doc (last visited Oct. 8, 2004).

79. See CPUC Opinion, *supra* note 58, app. A at 38-39.

80. *Id.* at 38, ¶ 1.

81. *Id.* at 38, Statement of Purpose.

82. *Id.*

83. *Id.*

84. *Id.*

reducing current uses, maintaining existing uses, or allowing for the expansion of uses? Normally, such details could be left to the decisions of the Board. However, when the Board's composition does not ensure an environmental advocate, the ambiguity of these terms takes on great importance.

Another problem with the initial Conservation Commitment is in its delineation of the nonprofit Corporation's role. The Conservation Commitment refers to a process for the development of the conservation easements and the land donation plan.⁸⁵ The process calls for the Environmental Enhancement Corporation only to *recommend* to PG&E the conservation objectives, criteria and plans for the disposition of lands, and conservation easement guidelines.⁸⁶ If that process were followed, final decisions would remain in PG&E's hands, where business concerns may intrude. Such an arrangement raises questions of improper influence and consequent delays from the debates likely to ensue and about the robustness and durability of the environmental commitment.

The initial Conservation Commitment does not clearly outline the corporation's duties in creating easements or donating land; it only refers to developing a plan for protection of these lands and advisory and reporting responsibilities, without providing any details.⁸⁷ Without the advantage of the subsequent Stipulation, it remains unclear what other duties the Corporation would have. What would developing a plan to protect these lands entail? And would the Corporation retain oversight of the lands once the lands have been transferred to other parties? It also remains unclear when the

Corporation's work would have to be completed by or what would follow if the work was not completed within the allotted time.

Additionally, the initial Conservation Commitment (before being supplemented by the Stipulation) did not take sufficient note of the effects of the Corporation's work on the communities in which the land is located.⁸⁸ Under that original scheme, as property values declined as a result of restrictions on the property, or as property was donated to tax-exempt organizations, local governments could lose property tax revenue and, consequently, might resist the setting aside of lands for predominantly environmental purposes.

Many of the parties to the CPUC proceeding that considered the Proposed Settlement Agreement raised objections in their comments.⁸⁹ The presiding Administrative Law Judge encouraged the parties to resolve their differences through a stipulation.⁹⁰ In order to get final CPUC approval for the Settlement Agreement, PG&E had to satisfy the environmental constituency that was a party to the CPUC proceeding. This led to the Land Conservation Commitment Stipulation, the final agreement that included input from the various environmental stakeholders involved and addressed many of the shortcomings of the original commitment.⁹¹

ii. The Land Conservation Commitment Stipulation

The process of drafting the initial Conservation Commitment is analogous to the Traditional FERC re-licensing process: the agency articulates a proposed course of action on the regulated entity's application, which is then subsequently modified by the agency in response to comments from in-

85. *Id.* at 38, ¶ 2.

86. *Id.*

87. *See id.* at 38-39, ¶¶ 1-3.

88. *See id.*

89. CPUC Opinion, *supra* note 58, at 62-63.

90. *Id.*

91. *See id.*

terested parties. The process of drafting the Stipulation, in turn, is analogous to the collaborative re-licensing process, based on a mutual agreement between the parties, following negotiation. The improvements that the collaborative Stipulation made to the initial Conservation Commitment suggest that, in the re-licensing context, the collaborative process is more likely to lead to better environmental results than FERC's traditional regulatory model, even though collaborative processes can sometimes lead to poor results.⁹² The analysis that follows will show that the process of drafting the Stipulation allowed the various interested parties to reach an agreement that best meets their needs independent of the regulatory agency. Thus, the Stipulation experience suggests that collaborative agreements are likely to yield better environmental results than the traditional model and to avoid the cumbersome regulatory process.

The Stipulation addresses most of the potential problems with the initial Conservation Commitment. While it does not amend the Conservation Commitment, the Stipulation "interprets" it,⁹³ adding important details that ensure that the agreement works to protect environmental values. Perhaps the most important improvement is that the Stipulation reflects an agreement between a wide array of public agencies, local governments, ratepayer advocates, and recreation and environmental organizations. The Stipulation was signed by PG&E, the Association of California Water Agencies, the California Farm Bureau Federation, the

California Hydropower Reform Coalition, the Office of Ratepayer Advocates, the California Resources Agency, the State Water Resources Control Board, the Tuolumne Utility District, and the U.S. Forest Service.⁹⁴ Many non-parties to the CPUC proceeding also signed the agreement, including the Sierra Club California, the Natural Resources Defense Council, the Trust for Public Land, the Northern California Council Federation of Fly Fishers, and the U.S. Bureau of Land Management.⁹⁵ By letting the various stakeholders negotiate for the terms they considered most important, the Stipulation process understandably led to more balanced results.

The Stipulation takes the important step of ensuring that the Board of the Environmental Enhancement Corporation reflects the diversity of interests of the parties who signed the Stipulation. The Stipulation provides that after the formation of the Corporation, the by-laws of the Corporation will be amended to add several additional members to the eight members provided for in the Settlement Agreement; one representative each from the following agencies will be added: the California Resources Agency, the Central Valley Regional Water Control Board, Regional Council of Rural Counties, the California Hydropower Reform Coalition, the Trust for Public Land, the Office of Ratepayer Advocates, and the California Forestry Association.⁹⁶ By including the Regional Council of Rural Counties and considering its concerns, the Stipulation heads off future resistance that could follow from

92. This may happen, for instance, if there is a great disparity in the sophistication of the parties (see the reference to Handout, *supra* note 76) or if one of the parties has little at stake in the negotiations (e.g., if the hydropower operators faced no regulatory pressure). Also, see the discussion at "Update," *infra*.

93. Stipulation Resolving Issues Regarding the Land Conservation Commitment, Investigation 02-04-026, at

4 (September 25, 2003, California Public Utilities Commission), available at http://www.pge.com/docs/pdfs/about_us/environmental_enhancement_corp/land-conservation-stipulation.pdf (last visited Oct. 5, 2004) [hereinafter Stipulation].

94. *Id.* at 2.

95. *Id.* (list is not exhaustive).

96. *Id.* at 5.

a failure to consider the economic implications of the Corporation's work.

The Stipulation also takes several other steps that ensure a durable and effective arrangement to protect the environmental values of the watershed lands. The Stipulation institutes a consensus-based process for the Board's decisionmaking, with a non-binding dispute resolution procedure available to help get past any gridlock.⁹⁷ It also requires the Board to have open meetings and to provide notice to the leadership of any affected localities or entities and to any landowners located within one mile of the parcel to be disposed.⁹⁸ Furthermore, the Stipulation outlines the role of the Board⁹⁹ and the requirements of the Land Conservation Plan that the Environmental Enhancement Corporation is supposed to develop — including timelines, regular reporting requirements, and provisions for consideration of the economic impact on local governments.¹⁰⁰ The parties to the Stipulation also explicitly provided that the CPUC retains the authority to review land disposition decisions under section 851 of the Public Utilities Code.¹⁰¹ The Stipulation also provided that PG&E will not oppose a proposed disposition on the basis that it has not been adequately compensated for the value of the parcel.¹⁰² This minimizes the danger represented by the Board's advisory role to PG&E, where it makes non-binding recommendations to PG&E.¹⁰³ Finally, the parties stipulated that the agreement would be a contract enforceable in any court

of competent jurisdiction,¹⁰⁴ ensuring that the balance struck would survive any exclusion of terms in the agency proceedings.

By taking all of these steps, the signatories to the Stipulation avoided what could have been a contentious, time-intensive process of developing definitions for ambiguous terms to protect against potentially harmful actions to the environment. The parties agreed that the Stipulation resolves all issues directly related to the initial Conservation Commitment except the definition of "beneficial public values," which the SWRCB thought should be modified to specify that agricultural, sustainable forestry, and outdoor recreational uses should not be allowed on the lands unless environmentally sensitive.¹⁰⁵ Definitional issues still persist in the Stipulation, but are much less problematic because, as the CPUC suggested in responding to the SWRCB's recommendation, "[t]he combination of state agency representation on the governing board with consensus voting, as well as the Commission's § 851 approval process and CEQA review, will ensure that recreational uses that unduly harm the environment are not permitted."¹⁰⁶ The presence of environmental advocates on the Board, the clear delineation of responsibilities and timelines, and consideration of the impacts on the various affected parties helped ensure that result. The Conservation Commitment, after being strengthened by the Stipulation, moved to the next stage — the CPUC's final determination on the PG&E Settlement Agreement.

97. *Id.* at 6.

98. *Id.* at 7.

99. *Id.* at 5, 9-10.

100. *Id.* at 7-11, 12.

101. *Id.* at 9, 14.

102. *Id.* at 9-10.

103. See *supra* text accompanying note 86. Also, under the CPUC's reading, the Commitment's allowance for the sale of land

"without significant public interest value" would also be subject to the section 851 authority and would be presented to the CPUC for public notice, hearing, and approval, further minimizing the possibility of PG&E's business concerns overriding environmental considerations. CPUC Opinion, *supra* note 58, at 65.

104. Stipulation, *supra* note 93, at 13.

105. *Id.* at 4.

106. CPUC Opinion, *supra* note 58, at 66.

iii. CPUC's Final Determination

The CPUC decision added one more element to PG&E's Land Conservation Commitment upon the request of the Greenlining Institute ("Greenlining"). Greenlining describes itself as a "multi-ethnic public policy and advocacy institute," whose mission is to "empower communities of color and other disadvantaged groups."¹⁰⁷ After the Stipulation was presented to the CPUC, Greenlining asked the CPUC to expand the Conservation Commitment to address the needs of low-income urban PG&E ratepayers who do not live near the Sierra Nevada foothills where the vast majority of the protected land is located.¹⁰⁸ The CPUC agreed to Greenlining's request and ordered an additional \$30 million to provide a wilderness experience for urban youth — particularly disadvantaged urban youth — and to acquire and maintain urban parks and recreation areas.¹⁰⁹ The CPUC also pledged to make it a duty for its nominees to the Board to champion this allocation.¹¹⁰

The incorporation of Greenlining's requests into the final decision can be looked at from a couple of perspectives, each high-

lighting a potential weakness of the collaborative approach in the re-licensing context. The first perspective focuses on the negotiation process and the relative power of the parties involved. One commenter on the CPUC's decision, Peninsula Ratepayers' Association, characterizes the negotiations about the Stipulation as having "excluded Peninsula, Aglet, and Greenlining."¹¹¹ If the characterization is accurate, such exclusion suggests that the collaborative approach is only as good as the parties to the agreement. It also suggests that an unsupervised collaborative approach has the potential to overlook the concerns of less politically powerful groups, thus raising environmental justice concerns.¹¹² From this perspective, more formal, structured environments (such as the Integrated licensing process, with increased involvement and oversight by FERC) allow more opportunities to identify and balance such potentially overlooked concerns.¹¹³ The ability to ensure that such concerns are not overlooked, and to balance those concerns against others, would be one of the strengths of the new Integrated re-licensing process.¹¹⁴

107. The Greenlining Institute, *Welcome to the Greenlining Institute*, at <http://www.greenlining.org/> (last updated Sept. 28, 2004).

108. CPUC Opinion, *supra* note 58, at 66.

109. *Id.*

110. *Id.*

111. Comments of the Peninsula Ratepayers' Association on Proposed Decision and Alternatives, Investigation 02-04-026, at 7 (December 8, 2003, California Public Utilities Commission), *available at* http://www.angene.net/rates/Pen_In_PD.pdf (last visited Oct. 5, 2004). Peninsula Ratepayers invites people to join "a no-dues organization that Scott Rafferty has organized to advocate for improvements to the PG&E settlement before the California Public Utility Commission (PUC)." Peninsula Ratepayers, *Peninsula Ratepayers*, at <http://www.angene.net/rates/rates.html> (last visited Oct. 5, 2004).

112. *See* Stephenson, *supra* note 4, at 480-83.

113. *Id.*

114. The CPUC provides for the compensation of intervenors who contribute significantly to the proceeding. *See* Draft Decision of ALJ Cooke, Opinion Granting Intervenor Compensation, Investigation 02-04-026 (July 23, 2004, California Public Utilities Commission), *available at* http://www.cpuc.ca.gov/word_pdf/COMMENT_DECISION/38325.doc (last visited Oct. 5, 2004.) However, FERC makes no such provision. *See* 18 C.F.R. § 385.214; FED. ENERGY REGULATORY COMM'N, CITIZEN'S GUIDE TO HYDROPOWER RELICENSING, *available at* <http://www.ferc.gov/for-citizens/my-rights/citizen-guides/citz-guide-hydro.pdf> (last updated June 8, 2004). The absence of such compensation and the higher transaction costs often associated with formal procedures (need for lawyers, for instance) may mean that the more formal aspects of the Integrated Process may in fact pose a greater barrier to marginalized groups than the collaborative process. Conversation with Ralph Cavanagh, Senior Attorney, NRDC. Conversations with Mr. Cavanagh were also instrumental in alerting the author to Greenlining's influence.

Greenlining's involvement could be viewed from another perspective. Greenlining is not an unsophisticated player in the political landscape. For instance, in 2000, Greenlining announced a three-year, \$159-million initiative in partnership with Merrill Lynch, one of the world's leading financial service firms.¹¹⁵ More recently, its representatives met not only with 15 financial institutions on the subject of adjustable rate mortgages, but also with various banking regulators, including Federal Reserve Chairman Alan Greenspan, himself.¹¹⁶ This suggests that Greenlining may not have been excluded from the PG&E negotiations and may, in fact, have chosen to pursue its goals outside the negotiations process. If this characterization is correct, it suggests another potential weakness of the collaborative approach in the re-licensing context: the possibility that agreements reached by detailed and time-consuming negotiations could be altered by parties that choose not to participate in the negotiations but, instead, wait and then bring their concerns directly to the regulatory table. In some circumstances, such alterations to completed negotiations may undermine the value of collaborative endeavors. Greater FERC involvement through the Integrated process, prodding parties during the negotiations process, could help to avoid situations where completed negotiations are jeopardized.

However, it does not eliminate opportunities for circumvention of collaborative efforts and could potentially create more opportunities for such circumvention.

That said, however, these potential weaknesses do not seem to have undermined the value of the PG&E negotiations; the exercise in collaborative problem-solving already appears to have been successful in facilitating further collaboration. Several of the parties involved in the Land Conservation Commitment Stipulation recently concluded another agreement, this time in the re-licensing context, to protect and restore the Stanislaus River.¹¹⁷

B. Avista Corporation's Clark Fork Settlement Agreement

Avista took advantage of the collaborative Alternative Licensing Process for two hydroelectric projects on the Clark Fork River covering territory in Idaho and Montana.¹¹⁸ Though Avista's project does not cover as much land area as the PG&E Agreement, it still affects a significant area of land, as the two projects combined cover 1,269 acres of federal land alone.¹¹⁹ The reservoirs at the two dams cover 11,140 acres together and the dams represent 697 megawatts of operating capacity, which is almost 1% of hydro-power capacity in the US.¹²⁰ The reservoirs have a storage capacity of 505,000 acre-

115. Press Release, Merrill Lynch, Merrill Lynch, Greenlining Institute Announce New \$159 Million Economic Partnership for Southern California, San Francisco Bay Area, (May 11, 2000), available at http://www.ml.com/about/press_release/20000510.htm (last visited Oct. 5, 2004).

116. Robert L. Gnaizda & John Bryant, *How Big Players Can Protect Public in Coming ARMs Race*, AMERICAN BANKER (July 30, 2004), Viewpoints, Vol. 169, No. 146. (ARMs are adjustable rate mortgages.)

117. See Press Release, Trout Unlimited, American Whitewater, Pacific Gas & Electric Co., CSERC & Friends of the River, Public Collaborative Group Suc-

cessfully Completes 4 Year Effort to Protect and Restore Stanislaus River, (Mar. 1, 2004), available at <http://www.calhrc.org/conferences,articlesandreports/StanPressRelease3.2.04.doc> (last visited Oct. 5, 2004).

118. Avista Corp., 90 FERC ¶ 61,167, at 61,508 (2000) (order issuing new license). A differently-paginated version of the order is available at <http://elibrary.ferc.gov/idmws/search/fercadvsearch.asp> (via search function, enter citation at Numbers: FERC Cite) (last visited Oct. 6, 2004).

119. See *id.*

120. See *id.* at 61,509.

feet.¹²¹ Moreover, like other dams, the Clark Fork dams have significant downstream effects and any mitigation measures negotiated pursuant to the FPA could thus have wide-ranging consequences. Therefore, the Clark Fork Agreement serves as another valuable case study for the application of the collaborative process.

The Clark Fork Agreement exemplifies the advantages of the collaborative approach, reaching results similar to the PG&E Agreement but without the time, resources, and effort spent developing an original agreement which is then subsequently debated, added to, and modified within the formal confines of a proceeding. Moreover, the Clark Fork Agreement has been in place since 1999,¹²² and its results can be examined as a useful indicator of the longevity and effectiveness of a collaborative agreement.

Many of the elements of the PG&E Stipulation are also present in the Clark Fork Agreement. Like the PG&E Stipulation, the Clark Fork Agreement was the result of negotiations representing a diversity of interests; twenty-seven different parties signed the agreement, including Indian tribes, sport fishermen, federal agencies, various environmental agencies from Idaho and Montana, local governments, and several environmental groups.¹²³ Also, like the PG&E Stipulation, the Clark Fork Agreement established a Management Committee reflecting those diverse interests — in this case by simply agreeing to have one representative from each signing party compose the Committee.¹²⁴ In doing so, the Clark Fork Agreement guaranteed environmental perspectives and advocates

on the Committee. Just as importantly, like the PG&E Stipulation, it outlined the responsibilities of the Committee,¹²⁵ allowing the Committee to focus on the task at hand instead of trying to outline its role. As did the PG&E Stipulation, the Clark Fork Agreement established an open meeting requirement, reporting responsibilities, and a consensus-based decision-making structure.¹²⁶ And similar to the PG&E Stipulation, the Clark Fork Agreement also guaranteed the survival of the balances struck by including a stipulation that even if FERC omitted from the license any of the conditions that the parties had agreed upon, Avista would continue to be bound by the agreement's terms, enforceable in a court of competent jurisdiction.¹²⁷

In the event of a failure to reach consensus, the Management Committee decision-making structure put in place by the Clark Fork Agreement offers a few differences from PG&E's. The consensus requirement could lead to gridlock with twenty-seven committee members. Also, dispute resolution potentially could be lengthy and resource-intensive. Apparently, in an effort to avoid both scenarios, the Clark Fork Agreement instituted an intermediate procedure more streamlined than consensus, yet still requiring substantial agreement among the parties. This alternate voting procedure requires a unanimous vote by the utility, Montana and Idaho (one vote each, regardless of the number of state agencies represented on the Management Committee), the U.S. Fish and Wildlife Service, and the U.S. Forest Service, as well as a majority vote of the other Committee members present.¹²⁸

121. *See id.* One acre foot is 325,851 gallons.

122. *See* Clark Fork Settlement Agreement ¶ A, available at http://www.avistautilities.com/resources/hydro/clarkfork/assets/02-1999_Clark_Fork_Settlement_Agreement.pdf (last visited Sept. 14, 2004).

123. *Id.*

124. *Id.* ¶ 26.

125. *Id.*

126. *Id.* ¶ 28.

127. *Id.* ¶ 5.

128. *Id.* ¶ 28.

Should this voting procedure also fail to produce a decision, the decision-making process finally resorts to dispute resolution overseen by FERC.¹²⁹ While this alternate voting procedure may undermine the consensus requirement to some extent, it still places significant emphasis on collective decisionmaking.

In another notable variation from the PG&E Conservation Commitment, the Clark Fork Agreement gave the Management Committee, and not the utility, final approval on the actions to be taken,¹³⁰ thus avoiding even the slimmest possibility that one party could disproportionately influence decisions. While the PG&E Stipulation added terms to assuage some of the concerns raised by the Conservation Commitment in providing for the Corporation only to make recommendations to PG&E, it did not entirely dispense with the possibility.¹³¹

Another significant difference follows directly from the FERC licensing context in which this settlement was negotiated. Since the Avista license was to be issued for a 45-year term, the parties agreed to adaptive management practices, allowing for the modification of the protection, mitigation, and enhancement measures (“PMEs”) included in the license (subject to FERC approval) in response to new information, technologies, and changing environmental and social needs.¹³² This “living license,” as

termed by Avista, reflects a powerful change from the traditional paradigm where licenses once issued were virtually untouchable.¹³³

Finally, one of the biggest differences between the PG&E Conservation Commitment and the Clark Fork Agreement is in the scope and detail of the projects contemplated. Whereas the PG&E Commitment is aimed primarily at putting in place conservation easements and fee simple donations to environmentally minded organizations, the Clark Fork Agreement commits Avista to active stewardship of its watershed lands outlined in twenty-one separate PMEs with specific objectives — ranging from mitigation of shoreline erosion to fisheries enhancements and protection of terrestrial, riparian, wildlife, aesthetic, and recreational resources.¹³⁴ These PMEs are detailed in appendices and supporting material covering more than 166 pages;¹³⁵ some of the PMEs even have submeasures that are separately detailed.¹³⁶ For example, just the Idaho Trout Habitat Acquisition and Fishery Enhancement Program covers more than six pages of programmatic content, detailing the purpose and goal of the program, the concerns to be addressed, the studies and analysis providing the basis for the measure, the proposed measures themselves, and the funding set aside for the measure.¹³⁷ Mitigation measures cover a wide variety of environmental approaches, from acquiring habitat,¹³⁸ to monitoring

129. *Id.* ¶ 29.

130. *Id.* ¶ 26.

131. See *supra* text accompanying notes 86 and 101-03.

132. 90 FERC ¶ 61,167, at 61,511; see Clark Fork Settlement Agreement, *supra* note 122, ¶¶ 7, 26.

133. See Richardson, *supra* note 7, at 530.

134. Clark Fork Settlement Agreement, *supra* note 122, ¶ 21; 90 FERC ¶ 61,167, at 61,511.

135. See Appendices to the Clark Fork Settlement Agreement, available at <http://www.avistautilities.com/resources/hydro/>

[clarkfork/assets/PME.pdf](http://www.avistautilities.com/resources/hydro/clarkfork/assets/PME.pdf) (last visited Sept. 14, 2004) [hereinafter CFSA Appendices].

136. See, e.g., Clark Fork Settlement Agreement, *supra* note 122, ¶ 21(f) (the Water Resources Program PM&E has five separate submeasures detailed in the Appendices).

137. These details are discussed in Appendix A of the CFSA Appendices, *supra* note 135.

138. Appendix B of the CFSA Appendices, *supra* note 135, is aimed at habitat acquisition and recreational fishery enhancement.

studies,¹³⁹ to increasing minimum flows from the dam.¹⁴⁰ In return for its commitments, Avista received its new license two years before its license would have expired and for a term of forty-five years,¹⁴¹ just short of the fifty-year maximum, providing continuity and certainty in its business operations. In reaching agreement on such a large number of specific commitments, the Clark Fork Agreement illustrates that not only can collaborative arrangements offer advantages and improvements over the traditional model (as shown by the PG&E example), but also that such arrangements can cover a broad range of issues.

More importantly perhaps, the Clark Fork Agreement demonstrates that such agreements can be durable and successful: not only does the flexibility of the living license arrangement help ensure that the collaboration will continue through changing circumstances, the agreement has already made significant progress in protecting the environment. For instance, the Clark Fork Project has restored more than a mile of an important Bull trout spawning stream back to its historical channel.¹⁴² The project has also transported Bull trout over the hydropower dam in an effort to reestablish historic migration routes for the first time in more than fifty years.¹⁴³ Among its other successes, the project counts the purchase for preservation of 871 acres of wetland and riparian habitat.¹⁴⁴ And of course, the commitment to increased minimum flows produces continuing environmental benefits.

V. Conclusion

As more and more hydropower facilities come up for re-licensing in the upcoming years, the FERC re-licensing process offers a unique opportunity to inject environmental considerations into a resource-use that, although beneficial in many ways, has also caused significant environmental harm in the past. The collaborative approach embodied in the Alternative Licensing Process and incorporated into the Integrated Licensing Process, is an increasingly favored route to re-licensing and has the potential to produce less expensive, less time- and resource-intensive, and more productive arrangements to protect the environment while preserving the hydropower facilities' ability to carry out their business. The PG&E and Avista agreements illustrate the potential advantages of the collaborative approach:

- the greater likelihood of addressing the concerns of the various constituencies since the confrontational ethos of the formal process is avoided;
- the input of all the interested parties from the nascent stages of the licensing process, increasing the chances of producing better structured and more relevant environmental studies;
- an attendant decrease in the amount of time involved as, instead of fighting each other at cross-purposes, parties try to find areas of agreement, leading to faster responses to environmental problems;
- the potential for long-term and future collaboration; and
- more informed choices in general.

139. Appendix F1 of the CFSA Appendices, *supra* note 135, proposes a water quality monitoring program.

140. CFSA Appendices, *supra* note 135, at T-5.

141. Clark Fork Settlement Agreement, *supra* note 122, ¶ 3.

142. Avista Utilities, *Clark Fork Project*, at <http://www.avistautilities.com/resources/hydro/clarkfork/default.asp> (last visited Oct. 5, 2004).

143. *Id.*

144. *Id.*

The PG&E example also illustrates flaws in the collaborative approach. The collaborative approach could potentially lead to the exclusion of already marginalized voices. Alternatively, it could lead to resource inefficiency if parties attempt to force concessions at the end of a long process after significant amounts of time and money have been invested in negotiations. Continued vigilance will be necessary to ensure an inclusive process and to protect against end-runs of the collaborative process.

As the collaborative approach and settlement agreements become more common, techniques to ensure effective, durable agreements become increasingly important. The PG&E and Avista agreements in their final forms illustrate a few of the strategies and tools that may prove useful in creating such agreements.

For example, one of the tools that helps make sure that the balances struck in agreements are not undermined is adopting adaptive management practices, as in the Clark Fork Agreement, which allow for changes to the agreement in response to changing situations and information. Also, characterizing the agreement as a contract is a useful approach which ensures that any terms that cannot be enforced by FERC, or are not included in the license, continue to be enforceable obligations for the parties.¹⁴⁵

Strategies for creating long-term protections for environmental values include focusing on the composition and decision-making process of the body implementing the agreement, instead of defining terms to be eco-protective. Focusing on the relatively objective issues of fair processes in negotiations avoids the disagreements that are likely to follow from trying to address the relatively subjective topic of what particular terms such

as “public interest” mean. And the compositional protections and the decision-making processes ensure that environmental perspectives are properly considered in governing body decisionmaking even if terms become outdated. If all else fails, it is always possible to revert to defining terms.

Both the agreements studied in this article illustrate some of the compositional and decisionmaking process elements that are likely to result in protection of environmental values. Compositionally, it is important to provide for a meaningful environmental presence on the decision-making body and to combine it with a consensus-based decisionmaking process to minimize any imbalance in the numbers. This ensures that environmental perspectives cannot be ignored.

From a decision-making process perspective, both agreements appear to have found it important to delineate the responsibilities of the governing body so that its decision-making is focused on the objective task at hand and not on the more open-ended task of defining the scope of its work. Also, as both agreements suggest, a dispute-resolution process can address the potential intransigence in the consensus model. Interposing an intermediate step to avoid expensive arbitration to the extent possible, as in the Clark Fork Agreement, is also an option — albeit one that may undermine the consensus-process to some degree.

Some other considerations addressed by the PG&E and Avista agreements may also be worth keeping in mind. Anticipating nonenvironmental issues that may impact the process and including potential opponents on those issues in settlement discussions is likely to preempt problems. The participants in the PG&E process

145. RIVER RENEWAL, *supra* note 39, at Introduction § E; Hydroelectric Licensing Under the

Federal Power Act, 68 Fed. Reg. at 51,104, ¶ 342 (citing the Clark Fork Agreement at n.323).

headed off a potential impediment by including the Regional Council of Rural Counties in discussions and addressing concerns about property tax losses.

It also may be important to impose deadlines and timeframes to keep the process moving along, and to impose reporting requirements to ensure transparency, adherence to the established guidelines, and an opportunity to correct problems. FERC's Integrated Licensing Process (which becomes the default in July 2005) imposes timelines and reporting requirements. However, it may also be necessary to include such terms in the settlement agreement itself if the Alternate Licensing Process is used,¹⁴⁶ or if the timelines and reporting requirements concern issues not within FERC's jurisdiction and therefore are not included in the license.

Finally, it may be necessary to clarify the governing body's role and to limit the utility's influence, as the PG&E example suggests. Whether the Board or Management Committee makes recommendations to the licensee or directly implements its responsibilities may be an important distinction in agreements which involve issues that are not subject to FERC oversight, and where final decisions on the issues could end up resting in the hands of the applicant alone.

Keeping these considerations in mind and using some of the tools discussed above, collaborative re-licensing agreements under the Integrated and Alternative Licensing Processes offer the possibility of durable and effective solutions to the environmental problems faced by so many watershed lands while still allowing society to reap the

benefits of hydropower. As numerous hydropower facilities come up for re-licensing in the next few years, such agreements present a unique opportunity to better protect, rehabilitate, and enjoy our rivers and riparian ecology.

Update

Recent events may have serious implications for the collaborative approach to re-licensing. The Bush administration recently "proposed [a rule] giving dam owners the *exclusive* right to appeal Interior Department rulings about how dams should be licensed and operated on American rivers" to senior political appointees in the Interior Department.¹⁴⁷ Currently, the re-licensing process requires hydropower applicants to consult with various units of the Interior Department, including the U.S. Fish and Wildlife Service, regarding conditions that should be imposed on licenses to protect environmental and recreational values.¹⁴⁸ The Fish and Wildlife Service's recommendations on appropriate conditions are owed deference by FERC pursuant to section 10(j) of the FPA.¹⁴⁹ In addition, Interior is often responsible for imposing mandatory conditions on re-licensed projects pursuant to section 4(e) of the FPA.¹⁵⁰ Interior's recommendations and mandatory conditions are subject to public comment, and final decisions as to the content of the conditions are made by mid-level Interior Department officials.¹⁵¹ If the hydropower companies are allowed an exclusive appeal, other stakeholders are excluded from the process, and environmental and recreational considerations that would otherwise have been recommended or mandated on the basis of science may be left

146. See *supra* note 47 and accompanying text.

147. Blaine Harden, *Proposal Restricts Appeals on Dams; Administration Plan Could Help Hydropower Firms Avoid Costs*, WASH. POST, Oct. 28, 2004, at A1 (emphasis added).

148. 18 C.F.R. § 16.8(a)(1).

149. See *supra* note 42.

150. *Id.*

151. Editorial, *Damming Dissent*, S.F. CHRON.,

out.¹⁵² The resource agencies normally participate in the collaborative process negotiations, and the threat of restrictive conditions that they may eventually impose is part of the calculus driving the negotiations in the collaborative process.¹⁵³ The more business-friendly conditions likely to result from the process of exclusive appeals¹⁵⁴ will probably reduce the pressure on hydropower companies to make concessions. Additionally, conditions once imposed because of Interior Department recommendations or mandatory conditions would then have to be negotiated via the collaborative process. This would likely reduce the scope of the

agreements since environmentalists would probably have to compromise on or leave out other issues in order to get these concessions. Finally, for any agreements that continue to be negotiated, the policy greatly increases the importance of characterizing the agreements as contracts enforceable in court outside the re-licensing process, since some of these conditions may no longer be “mandatory” conditions. The legality of the rule is far from certain¹⁵⁵ however, and there is still a good chance that the collaborative process will escape unscathed to help protect environmental values in the hydropower re-licensing process.

Nov. 18, 2004, at B8 (“The conditions for a new dam license are set by mid-level Interior Department officials, who hold hearings, sift through the testimony and ship the final agreement to Washington. The new proposal dumps this ground-up approach in favor of a straight pitch at the deputy-secretary level, which is populated with Bush appointees.”).

152. *See id.* (“Additional fish ladders to preserve salmon runs? Steady water flows to preserve other wildlife or public use? Recreation access and water standards? Private dam operators want a chance to debate their obligations on such points in direct talks with a business-friendly administration. The public could be left out.”); Press Release, California Hydropower Reform Coalition, Proposed Hydro Rules Enshrines Energy Industry Access (Sept. 9, 2004), available at <http://www.calhrc.org> (last visited Nov. 22, 2004) (“‘This policy will ensure that decisions are made on the basis of politics rather than science,’ said Steve Moyer, Vice President of Government Affairs and Volunteer Operations for Trout Unlimited.”).

153. *See, e.g.*, Clark Fork Settlement Agreement, *supra* note 122, ¶¶ 17-19, esp. ¶ 18 (“[The United States Forest Service (“USFS”), a part of the Interior Department] does represent that, given the measures that Avista is required to implement under this Agreement, including Avista’s commit-

ment to spend operation and maintenance dollars as estimated by USFS for their recreation facilities within the project, . . . it is presently unaware of any reason which would require it to submit any mandatory conditions for the Clark Fork Projects pursuant to Section 4(e) of the [Federal Power Act] which would be materially inconsistent with the terms of this Agreement. Should USFS, for whatever reason, submit mandatory Section 4(e) conditions to FERC which are materially inconsistent with this Agreement, any Party may withdraw from this Agreement.”).

154. *See supra* note 151.

155. *See* Harden, *supra* note 147. The article states as follows:

Inside the Interior Department, some lawyers have argued that the appeals proposal—three years in the making before being published last month in the Federal Register—is unconstitutional because it violates due process and equal protection guarantees.

“It is not legal because one party is being treated very differently than another, and that is very much the opposite of what we have been trying to do for years,” said one senior Interior Department official who is involved in the dispute and who requested anonymity for fear of retaliation. “Suddenly, a licensee can walk away from everybody else and have a private meeting with the assistant secretary and bring in new conditions that haven’t been reviewed by anybody before.”