

APPENDIX E-6B

REGULATORY ANALYSIS OF ETHNOGRAPHIC RIVERSCAPE

ETHNOGRAPHIC RIVERSCAPE: REGULATORY ANALYSIS

(Contract #P13342 – FERC Project No. 2082)

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ETHNOGRAPHIC RIVERSCAPE: REGULATORY ANALYSIS

Abstract/Executive Summary¹

The Regulatory Analysis is a document that reviews culture landscape literature in general, reviews specific ethnographic landscape nominations, cultural landscape reports, cultural landscape eligibility determination documents, historic preservation treatment documents, and miscellaneous human ecology/landscape journal articles for general ideas, models, and methodology, addresses how a “riverscape” approach to ethnographic landscapes may be applied to the Klamath River by identifying contributing landscape elements, exploring how riverscape boundaries can be defined, and outlining how cultural resources, as defined through the “Ethnographic Riverscape” concept, overlap with natural resource assessments. This Analysis concludes with thoughts on how the Ethnographic Riverscape Concept bridges the gap between NHPA historic preservation, NEPA natural resources assessment while meeting the charge of Executive Order 12898 “Environmental Justice.” A comprehensive bibliography is attached and a literature summary, and riverscape thematic outline are appended.

¹ This document was prepared by the Yurok Tribe under PacifiCorp contract # P13342, FERC Project No. 2082. The Yurok Tribe is an occupant of the lower Klamath River and a stakeholder with representation at the PacifiCorp Hydroelectric Facility Re-licensing Plenary Committee and the Culture Resource Working Group.

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1. Introduction

FERC Re-licensing 7 PacifiCorp Hydroelectric Facilities Along Klamath River

PacifiCorp operates 7 dams and associated hydroelectric facilities along the upper Klamath River in Northeastern California and Southern Oregon per a license issued by the Federal Energy Regulatory Commission (FERC). That license will expire in 2005. PacifiCorp has initiated the re-licensing process by preparing a pre-application. The issuance of a re-licensing permit constitutes an action requiring an Environmental Impact Statement per the National Environmental Protection Act (NEPA). In considering the re-issuance of an operating license for the primary purpose of power generation, FERC must balance the need for electrical power generation against other environmental considerations such as improvement of the waterway, energy conservation, the protection, mitigation or damage to, and enhancement of fish and wildlife, (including habitat), the protection of recreational opportunities, and the preservation of other aspects of environmental quality including historic properties (FERC 2000). FERC is required to consider a range of alternatives including power generation, accumulative effects, and decommissioning particularly if the following are present:

- 1) listed threatened or endangered species
- 2) economic viability of a project, including costs of resource protective measures
- 3) river targeted for fish recovery
- 4) feasibility of fish passage
- 5) consistency with comprehensive plans
- 6) protected river status (e.g. scenic river, wilderness)
- 7) effectiveness of past mitigation measures and availability of future measures
- 8) support by applicant or other party for decommissioning
- 9) Tribal lands, resources, or interests
- 10) water quality issues, including presence of toxic sediments
- 11) potential opportunities for recreation
- 12) physical condition of the project
- 13) presence of existing project dependent development
- 14) other non-power project related benefits, e.g. municipal water supply, flood control, irrigation)
- 15) project dependent resource values (e.g. recreation, wetlands, wildlife, habitat)
- 16) need for power and ancillary services
- 17) historic properties**

The current project contains most if not all of the above listed elements.

FERC has the responsibility to assure adequate and meaningful consultation with affected Tribes, and analyze the environmental effects of each alternative on Indian Tribes and tribal lands, resources and interests. The analysis shall include a discussion of how effects to specific resources (e.g. water, fisheries, and cultural resources) will affect Tribes. FERC has developed guidelines for balancing dollar versus non-dollar values when making decisions across the range of alternatives (FERC 1991). In addition, FERC is subject to the United States' fiduciary responsibility towards Indian Tribes, which, in essence, requires FERC to act in the interests of the Tribes particularly when difficult

decisions are weighing in the balance. (U.S. 9th Circuit Court of Appeals: Skokomish Indians vs. FCC No. 9570884).

NEPA requires that the National Historic Preservation Act (NHPA) section 106 process be conducted to assess the undertaking's effects on historic properties. FERC has delegated lead agency responsibilities for some aspects of the NHPA Section 106 process to PacifiCorp (FERC 2002).

Bureau of Reclamation Flow Study

The Bureau of Reclamation (BOR) is responsible for preparing flow studies that, in part, inform PacifiCorp on the timing and amounts of water that are to be released through hydroelectric facilities insuring that hydroelectric generation and cropland irrigation needs are balanced with environmental protection needs (including cultural resources protection). The BOR is preparing a ten-year flow study for the Klamath River. The ten-year flow study will take into consideration activities as proposed in the PacifiCorp application for FERC re-licensing. The Flow Study will also be subject to NEPA and NHPA Section 106 processes. The BOR is participating in various work groups currently convened to assist PacifiCorp in developing a re-licensing application. The BOR's collaborative efforts with PacifiCorp, however will not be combined into one regulatory process. The BOR will undergo a separate NEPA and Section 106 process covering BOR related activities.

Cultural Resources Working Group and Activity Study Tasks

In order to facilitate the pre-application process, PacifiCorp has convened a stakeholder plenary committee and numerous working groups. Working groups are provided research and information gathering tasks by the Plenary Committee. The Culture Resources Working Group has been tasked with those research and study activities that will assist PacifiCorp and FERC through the NHPA Section 106 process. Studies currently completed or initiated are:

- Historic Buildings and Structures Assessments
- Pedestrian surveys
- Tribal Ethnographic literature studies
- Ethnographic synthesis of five tribal ethnographic literature studies
- Ethnographic Riverscape Regulatory Analysis

Findings of these studies may require additional studies to be conducted.

Ethnographic Literature Review Studies, Inter-tribal Synthesis as Historical Component and Regulatory Analysis

Each of five tribes (Klamath, Shasta Nation, Shasta, Karuk, Yurok) traditionally occupying a segment of the Klamath River will conduct a background ethnographic literature review and summary. Information collected will be augmented with information collected from oral history interviews. Together the five tribes have selected a subject or thematic outline. The thematic outline is attached as Appendix 2 to this document. Several inter-tribal meetings have occurred to assure that document consistency will be achieved across the five ethnographic studies. A separate document will synthesize the five studies into one summary compliance document. The

ethnographic summary document can be considered the historical component of the Klamath Riverscape Cultural Landscape Report.

Specific scope-of-work language from the Yurok-PacifiCorp Regulatory analysis contract is as follows:

1. Provide a definition of “Traditional Cultural Landscape” and/or “Traditional Cultural Riverscape.”
2. Provide an explanation of the concept of landscapes/Riverscapes and the regulatory and advisory apparatus available to support the identification and significance evaluation of landscapes/riverscapes.
3. Provide examples from other projects or other regions of the U.S. where TCLs or TCRs have been identified, recorded, evaluated for NRHP eligibility, and subsequently managed.
4. Provide an explanation of how a TCL or TCR would be established within the Klamath River corridor and the management implications for PacifiCorp.

2. Ethnographic Riverscape

Among others, five Tribes and one Inter-Tribal Fishing Commission participate on the Culture Resource Working Group. Through this forum the Tribes and the Commission have made it clear that:

1. Fish and water should be considered cultural resources (historic properties) as well as natural resources.
2. The entire river needs to be holistically considered for the multiple, complex, and intertwining cultural values that it conveys for Native people whose traditional riverine way of life depends upon adequate flows of clean water.

A cultural landscape approach to historic property identification, evaluation and treatment can address these two considerations.

1. Fish and water can be considered contributing elements to the landscape².
2. The landscape approach to culture resource identification moves beyond the dots-on-a-map approach to standard historic property identification³.

However, the cultural landscape approach to culture resource management generally, and historic properties identification, evaluation and treatment specifically, have yet to be applied to riverine bodies of water in routine and standardized ways. Perhaps this is because hundreds of miles of river with flowing water and migrating fish is an overwhelming landscape concept. However a recent article in a popular historic preservation journal, advocating that views of nightscape skies need to be considered in preservation planning, suggests that preservationists should not be afraid of large landscapes (Flanagan 2003). The specific challenge is that the historic preservation movement (laws, standards) has presupposed a fixed time and space environment of historic properties (albeit historically vulnerable to degradation). The current trend of historic preservation literature reflects the preconceived bias towards static models for defining, assessing and treating historic properties.

Indeed, the technical language used in cultural landscape preservation – especially in documents prepared by governmental agencies and organizations - often poses problems, since many terms and definitions are borrowed directly from architectural preservation. In addition, the very concept of cultural landscape preservation may sound like an oxymoron to some people; because cultural landscapes are composed of natural elements that grow, mature, erode, move, die and revive once again, how can they possibly be preserved? (Alanen 2000:3).

Rivers and traditional lifeways that have flourished about the river are by definition dynamic. By definition anadromous fish migrate and waters flow. The Cultural Resources Working Group has chose the newly coined term “Riverscape” to best capture the historic property type that it attempts to define for purposes of this and other studies.

² See NPS Preservation Brief #36 p2: “It is these interconnected systems of land, air and water, vegetation and wildlife which have dynamic qualities that differentiate cultural landscapes from other cultural resources such as historic structures.”

³ See Downer and Roberts 1993

Historic Properties – Riverscape Nomenclature

36 CFR Part 800 defines and guides cultural resource practitioners through the Historic Preservation process. § 800.4 *Identification of historic properties*, requires the lead agency in consultation with Tribes, SHPOs, THPOs and based upon information previously gathered, to identify historic properties within the Area of Potential Effects (APE). Upon determination that a historic property is eligible to the National Register the lead agency is required to assess effects leading to strategies and practices that avoid or minimize impacts to the property.

There are five types of Historic Properties: Buildings, Structures, Sites, Objects and Districts. There are five types of districts: Archaeological Districts, Residential Community Districts, Historic Landscapes, Rural Landscapes, and Cultural Landscapes. There are five types of Cultural landscapes: Historic Sites landscapes, Historic Designed Landscapes, Historic Vernacular Landscapes, and Ethnographic Landscapes. The Klamath Riverscape is a type of Ethnographic Landscape and hence it is a type of historic property.

Confusing the definitions is the decade-old category of Traditional Cultural Properties (TCPs). TCPs are defined in NPS Bulletin 38 as a property which is associated with: “Cultural practices or beliefs of a living community that a) are rooted in that community’s history, and b) are important in maintaining the continuing cultural identity of the community” (Parker and King 1992). TCPs are identifiable and locatable resources of which the evidence for existence is often intangible and often not readily apparent to non-members of the community. When the TCP definition is applied to larger geographical areas such as mountains and rivers, the concepts of ethnographic landscapes is more applicable. Because ethnographic landscapes are similar in regards to intangibles and the intimate knowledge of associated communities, the two labels have been confused through meaningless hybrids such as “Traditional Cultural Landscapes” or “Ethnographic Sites.”⁴

Per NHPA Section 101, the National Park Service is charged with providing guidelines, standards and technical assistance to other federal agencies concerning implementation of the National Historic Preservation Act.

National Park Service Policy defines an **ethnographic resource** as any historic property that is a:

Site, structure, object, landscape, or natural resource feature assigned traditional, legendary, religious, subsistence, or other significance in the cultural system of a group traditionally associated with it (NPS 1994).

A **cultural landscape** is defined in National Park/ Service policy as:

A reflection of human adaptation and use of natural resources and is often expressed in the way land is organized and divided, patterns of settlement, land use, systems of circulation, and the types of structures that are built. The character of the cultural landscape is defined both by physical materials, such as roads, buildings, walls, and vegetation, and by use reflecting cultural values and traditions (Ibid).

⁴ See King’s “Beyond TCPs”.

Combining the definition of ethnographic resource with cultural landscape allows for a **ethnographic landscape**; a landscape associated with a contemporary group because of the group's traditional relation to the landscape.

National Park Service asserts that the primary purpose of researching cultural landscapes is to:

define the values and associations that make [landscapes] historically significant. Research findings provide information for management decisions and actions extending from the development of long-term plans to compliance with preservation law and maintenance, assist in determining appropriate treatment, and supportive interpretive programs (Ibid).

The National Register (a division of the National Park Service) has produced guidelines for identifying, evaluating, nominating and treating cultural landscapes (Goetcheus 2002). Two important publications are:

1. Preservation Brief 36: Protecting Cultural landscapes: Planning, Treatment and Management of Historic landscapes (Birnbaum 1994)
2. The Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for the Treatment of Cultural landscapes (Birnbaum 1996)

Preservation Brief 36 defines a cultural landscape as “a geographic area, **including both cultural and natural resources and the wildlife or domesticated animals therein**, associated with a historic event, activity, or person or exhibiting other cultural or aesthetic values (emphasis added).” An ethnographic landscape is defined as “a landscape containing a variety of natural and cultural resources that associated people define as heritage resources. Examples are contemporary settlements, religious sacred sites, and massive geological structures. Small **plant communities, animals, subsistence** and ceremonial grounds are often components (emphasis added).”

The National Park Service has also established or is otherwise affiliated with programs for assisting in the preservation of cultural landscapes. All three programs and the National Register maintain listings, inventories and bibliographies of landscapes and associated preservation documents.

- Historic Landscape Initiative Program (HLI) was established to assist federal agencies, state agencies, non-profits and individuals in identifying, assessing, treating and preserving cultural landscapes.
- National Park Cultural Landscapes Program (CLP) was established to promote the preservation of landscapes within the National Park units.
- These two programs are assisted by the Olmstead Center for Landscape Preservation (OCLP).

The primary landscape preservation document is called a Cultural Landscape Report. Such a report summarizes 1) historical research, 2) existing conditions, 3) integrity and significance evaluation and 4) historic preservation approach and treatment plan. Per the Secretary of Interior's Standards there are generally four treatment types: Preservation, Rehabilitation, Restoration, and Reconstruction. In cases of smaller landscapes, culture

landscape reports may combine the Cultural landscape Report with recommendations for treatment. For more complex landscapes or when a Section 106 undertaking is multi-year (as in the case of FERC re-licensing of hydroelectric facilities), each phase of preservation can be contained in separate documents compiled over the course of several years. In addition and after effective treatments have been identified, a cultural landscape's on-going preservation can be guided by a Maintenance or Management Plan.

The Guidelines for the Treatment of Cultural Landscapes covers examples illustrating the four general types of treatment: preservation, rehabilitation, restoration and reconstruction. This document will be used in this report to explain possible management implications for PacifiCorp should the Klamath River be found eligible to the National Register as an ethnographic riverscape.

While a number of National Park Service cultural landscape programs and related literature exists; specific responsibilities for landscape identification, consultation, documentation and treatment rest with federal agencies fulfilling NHPA Section 106 and 110 responsibilities. In cases of large acreage, multi-phased and otherwise complex undertakings, it is often the case that multiple agencies are involved. Successful historic preservation requires that each agency be identified with responsibilities, roles, and timelines. Success also requires agency commitment of qualified staff and proper funding. While there are many qualified historic preservation consultants available to assist agency preservation staff, very few have expertise in cultural landscape preservation, and even less have experience in applying cultural landscape concepts to bodies of water and Native American ethnographic values.

3. Cultural Landscape Literature Review Summary

A central task of this regulatory analysis is to identify relevant literature/documents that provide clues on how the Cultural Landscape concept was or can be applied to riverine environments (i.e. riverscapes). Information from five sources was identified, retrieved, and reviewed. Relevant information is summarized in the following section. Specific document reviews are provided in Appendix 1. The five information sources from which documents were retrieved are:

- The National Register,
- The National Park Cultural Landscape Program,
- Determination Of Eligibility documents provided by cultural resource consultants,
- Internet search for the combined keywords: ‘cultural landscape’ ‘preservation’ and ‘river’, and
- Cultural landscape and human ecology literature search (books and journal articles) conducted at the Oregon State University World Catalog at Corvallis Oregon and Humboldt State University at Arcata, California.

National Register Search

A data base search, intended to gather sample cultural and ethnographic landscape documents was conducted at the National Register of Historic Places. Paul Lusignan of the National Register was of great assistance. The following table provides a listing of query words, number of total hits of query word appearing in the title, number of titles appearing to be relevant from reading the complete title, number of titles determine relevant enough to obtain a copy of the entire nomination document. The wide difference between total hits and relevant hits is due to the query words being part of a document title of which the document has nothing to do with the query relevance. For example titles such as *Smith River Bridge*, *Smith River Dam* or *Smith River Town Historic District* are unlikely to provide information on the Smith River as a riverscape. The last table column reflects the number of nomination documents actually copied.⁵ A listing of nomination documents desired copied but not obtained is also provided in the appendix.

Query Word	# Total Hits	# Relevant Hits	# Desired Copy	# Copied
river	661	16	16	4
landscape	10	3	1	1
Culture	7	0	0	0
traditional	2	2	2	2
conservation	16	0	0	0
Canyon	137	24	2	0
Fish	10	0	0	0
Island	105	4	1	1

⁵ At the time of visitation, the National Register files were in the process of being moved and consequently some reports were not available for copy.

In summary, three points are emphasized:

- No cultural landscape document has been done in, along, or across the Klamath River. Seven cultural landscape documents have been prepared that circle the Klamath River Basin. (De No to, Mus Yet Sait Neh, Medicine Lake, Mt. Shasta, Bald Hills, Helkau Culture District, Crater Lake).
- One TCP study document focused on an entire watershed as the boundary within which sites were located, generally documented tribal relations to the watershed including the river, but did not focus on the riverscape in any specific way (Cedar River Watershed TCP Study).
- Several documents provide good examples of traditional practices and landscapes but did not focus on rivers as part of the landscape (Kalo Kana O Ka 'Aina Cultural Landscape).

The National Park Service Cultural Landscape Program

A meeting was held between the author and Charles Birnbaum, FASLA. Mr. Birnbaum is the National Park Service's lead landscape program staff. While enthusiastically received, the meeting confirmed that the "Riverscape" concept has never been attempted. Mr. Birnbaum provided several key documents germane to developing the riverscape concept:

- NPS Preservation Brief #36: Protecting Cultural Landscapes
- Secretary of the Interior's Guidelines for the Treatment of Cultural Landscapes
- NPS Cultural Landscape Bibliography

The Brief, Guidelines and Bibliography provided references to numerous cultural landscape reports. Approximately two-dozen cultural landscape reports were obtained and reviewed for relevance to rivers and traditional cultural properties. Selections were especially made based upon landscapes involving water (i.e. river, ocean, lake, island etc). Two documents came the closest to the riverscape concept: Buffalo National River Cultural Landscape Report and Saint Croix National Scenic Riverway General Management Plan. While both documents had a lot to say about the importance of a river for human life-ways, neither document focused exclusively on the river and its preservation as a riverscape.⁶ Instead, focus was on the adjacent landscapes and the infrastructure that aided river access. Both documents stated that water quality and fish resources were important to the landscape and should be qualitatively managed. Relevant reports are summarized in an appendix.

Determination of Eligibility Documents Provided by Cultural Resource Consultants

CRM consultant Janet Eidsness provided a copy of two documents that identify, evaluate and articulate Determinations of Eligibility for TCPs affiliated with the Esselen Tribe and people and located in the Carmel River Basin, California (New Los Padres Dam and Reservoir Project). These two documents provide a template for how an Army Corps of Engineers and State Water Quality Control Board reservoir and dam project addressed TCPs (including a TCP District) within a river basin. The methodology involved 1)

⁶ The Saint Croix National Scenic Riverway General Management Plan (1997) mentions that a Cultural Landscape document is under preparation. Such a document was not located.

review of the literature including previous survey efforts, 2) intensive oral history interviews, and 3) surveys where Esselen informants had indicated that TCPs existed. Surveys were conducted with Esselen people as guides. A 100% pedestrian survey was not required.

CRM consultant Dr. Thomas King provided the author with an article that summarizes a larger document, *The Mushgigagamongsebe District: A Traditional Cultural Landscape of the Sokaogon Ojibwe Community* (King 2003). The article articulates how and why a cultural landscape approach to National Historic Preservation Act Section 106 compliance was relevant to Ojibwe faced with an Army Corp of Engineers permitted project that would allow a mining company to fill wetlands. The wetlands area supports a wide array of plants and animals vital to Ojibwe traditional lifeways. A standard archeological survey approach would have identified very few historic properties eligible to the National Register, yet would have missed what is most important to the Ojibwe, the cultural landscape. This landscape was a system of lakes, creeks, and wetlands.

The author also relied upon knowledge gained in preparing two cultural landscape studies that identified and evaluated the ethnographic landscape of a prairie oak woodland in Redwood National State Parks (Gates et.al 2000, 2002). The reports conducted oral histories and site visitation to 17 TCPs. In addition basketry material gathering areas were identified and management strategies developed.

Internet search for words: ‘cultural landscape’ ‘preservation’ and ‘river’, and Cultural Landscape and Human Ecology Literature Search (books and journal articles) conducted at Oregon State University at Corvallis and Humboldt State University in Arcata, California.

Internet and library searches produce extensive lists, winnowed down to twenty-nine journal articles, and five books that were copied or purchased and reviewed in relation to the production of this riverscape regulatory analysis.

All five books provided relevant theoretical underpinnings to the linkage between Native American communities and broad landscape areas requiring preservation (Hufford 1994, Jackson 1994, Groth 1997, Alanen 2000, and Shakel 2001). Each book (and especially Shakel) suggests that American cultural landscape preservation is biased with historic landscapes commemorating fixed periods of resource extraction (agriculture, timber, mines) and environmental conquest (roads, bridges, dams).⁷ This is because Western cultural ideology and consciousness is framed in terms of the Western expansion movements from the Puritans to the present. The Puritans and their successors brought their own land survey and ownership concepts to bear across the land. They also introduced the enduring concept of individual private rights and the right of individuals, (and by default) the rights of the government to alter the environment in the course of resource extraction. Preservation theory and practices, geared towards the particular cultural ethos of expansion, does not work well with landscapes associated with ethnographic groups. Particularly within Native American groups, the issues concern

⁷ See Kramer 2003 for an historic context statement related to 7 Klamath River dams and associated hydroelectric facilities

interdependency and proximity to cultural resources rather than preservation to a distant place encapsulated in a static time period. Obviously management decisions involving criteria of eligibility, significance and value with specific regard to ethnographic landscapes must take cross-cultural values into consideration.

Two journal articles, *Water We Believed Could Never Belong to Anyone: The San Luis Rey River and the Pala Indians of Southern California* (Karr 2000) and *Power and Dignity: The Social Consequences of Hydroelectric Development For the James Bay Cree* (Niezen 1993), directly link, on the one hand, traditional Native American cultural practices and identity with water and, on the other hand, social and economic impacts to indigenous communities faced with hydroelectric and municipal water development. Both articles, however do not mention the use of ethnographic landscapes as a planning and management tool for considering and possibly mitigating said impacts.

Of all of the diverse journal articles, *Cultural Landscapes and Traditional Cultural Properties: a Southern Paiute View of the Grand Canyon and Colorado River* provides an interesting framework for assessing various properties and contributing elements that make up an Ethnographic Landscapes (Stoffle 1997). It is suggested that Native American Ethnographic Landscapes be broken into five hierarchical categories: Holy landscapes, Story/Song scapes, Regional Scapes, Ecoscapes, and Landmarks.

4. Applicability to Klamath River

This section applies the broader Riverscape concept, as defined in previous sections, to the Klamath River by applying the *Secretary of Interior's Standards for the Treatment of Historic Properties with Guidelines for the Treatment of Cultural Landscapes* to the Klamath Riverscape. This application stretches the limits of "The Guidelines" beyond its intended purview of cultural landscapes as lands (not rivers) managed to highlight a specific static historic theme and period (not adaptive continuum). Instead, the Regulatory Analysis author assumes that management themes would be determined in relation to the following criteria:

- The Klamath River is a dynamic and fluctuating ecosystem seeking equilibrium.
- Native American Cultural relations to the river have adapted to a fluctuating ecosystem seeking equilibrium.
- Many other non-indian cultural and technological intrusions have not adapted to a fluctuating ecosystem seeking equilibrium.
- Native Americans have adopted some non-indian technological intrusions into an Indian way of life. Motorboats and nylon mesh fishing nets are such examples.

Ethnographic Riverscape Report and Riverscape Management/Treatment Plan

In order to implement and complete the "Ethnographic Riverscape" concept, two types of documents are required: an Ethnographic Riverscape Report and a Riverscape Management or Treatment Plan.

An Ethnographic Riverscape Report is developed in order to articulate the riverscape as eligible or ineligible to the National Register. In general the steps to take to define an ethnographic riverscape for the purposes of an Ethnographic Riverscape Report are:

1. Research to identify the continuum of historic period(s) (Ethnographic Overviews and synthesis).
2. Research to identify historic period(s) associations that contribute to understanding the riverscape's significance (Oral Histories).
3. Survey/Inventory contributing elements of historic period associations (Survey).
4. Write an existing conditions statement(s) for the landscape as a whole and for contributing elements.
5. Identify those contributing elements that are less than adequate for contributing to the integrity (location, setting, design, materials, workmanship, feeling, and association) of the landscape as a whole.

Larger and more complex riverscapes (i.e. an entire river as compared to one section of river) may require that the above steps are phased. Steps 1 and 2 logically go together; step 3 could be a separate document and steps 4 and 5 are logically compatible.

An Ethnographic Riverscape Management/Treatment Plan is developed to articulate how the eligible Ethnographic Riverscape will be managed or treated in relation to Preservation, Rehabilitation, Restoration and Reconstruction. By comparing between the desired historic period context(s) (and taking into account that the Ethnographic Riverscape is a dynamic fluctuating ecosystem seeking equilibrium and that Native American lifeways adapt to these dynamics) and the existing conditions, managers utilize

plans to route a course of action to bring existing conditions into conformance with the desired continuum of historic period context(s). Where there is a close fit between historic period contexts and existing conditions “Preservation” becomes the management or treatment guideline. For example the mouth of the Klamath River has never been artificially breached; therefore preservation involves assuring that the mouth is not breached. Where there is a significant difference between historic period contexts and existing conditions, and it is desired to bring the two into conformance, then reconstruction becomes the management or treatment guideline. For example where a dam has placed a section of river under a reservoir, then removal of the dam and restoration of the original riverbed becomes the management or treatment guideline (FERC 2002).

Contributing Elements

Identification, Evaluation, Management and Treatment focus on seven types of contributing elements (Birnbaum 1996)⁸:

1. Spatial organization and patterns
2. Topography
3. Vegetation
4. Wildlife (including fish)
5. Circulation
6. Water features
7. Sites, structures and Objects

Spatial Organization and Patterns

Spatial organization and patterns is different from the other elements in that it provides context or framework for the other elements and is more difficult to manage once lost. While from bend to bend of a river there may be little perceptible difference, comparing the mouth of the river to the headwaters (lakes) makes for a huge contrast. These systemic differences must be identified. There are also places within the river system where dramatic differences occur in short or bounded sections of the river. For example the mouth of the river, Ishipishi Falls, the Klamath-Shasta confluence, and the Link River confluence with upper Klamath Lake provide acute emphasis to the Riverscape. Native American interests keenly focus on these dramatic riverscape changes. Each perceptible stretch of a riverscape also has unique spatial organization that patterns traditional practices. For example, each natural turn of the river has its ideal places for various types of fishing, an ideal place where a village or camp is located, a characteristic place that has a higher degree of flooding, a place where certain types and sizes of rock are distributed across gravel bars, and ideal places where boats can be put in and taken out of the river. The river as it flows through various turns of the canyon has a natural rhythm of swiftness, slowness, back-eddy, shallowness and depth. Riverscape spatial organization and patterns are impaired when the course of the river is bulldozed, excavated, dammed, rip-rapped or breached.

⁸ Stoffle’s (1997) Grand Canyon and Colorado River landscape categories (Holy, Story/Song, Regional, Ecological and Landmarks) may provide a classification for understanding contributing elements and groupings according to uniform treatments.

Topography

This element, while character defining, is also different from the other elements in that once impaired is difficult to restore. Topography of the riverscape, beside the physical fact of land rising on either side of the river to define the river (whether steep canyon wall, gently sloping valley floor or adjacent wetland), is also defined by the micro-topography of particular stretches of river, (what can be seen from a particular river vantage point). Micro-topography is comprised of riverbars, confluences, rock outcroppings, islands, slicks, riffles and pools, waterfalls, and secondary channels. For example fishing holes or pools where nets are set can fill with sediment due to poor water quality or become unavailable because water flow rates are so severely reduced that pools dry up or the riverbed and river course change.

Vegetation

Character defining vegetation associated with the Klamath Riverscape are those plant communities that exist along the sides of the river and within the flood plain. These plant communities provide habitat for wildlife, gathering sources for the continuance of Native American life-ways, and effect micro-topography. In addition plant communities provide an integral aesthetic to the riverscape. Plant communities can be native, non-native but purposely introduced by Native Americans (e.g. tobacco), or be naturally introduced as invasive species. For example a population of willow, rooted in the middle of the river, creates a unique place that periodically builds up as an island and thereby creates a secondary channel, influences how the water flows into, through and downstream of the willow (and thereby also how gravel is distributed and hence where to find porch rocks and acorn cooking rocks), provides roots utilized for basketry material, provides songbird habitat in the summer months, a place to gather willow sprigs for the summertime brush dance ceremony (of which while gathering such sprigs a songbird may inspire a new brush dance song), and deer coverage (and a place to hunt) in the fall.

Wildlife (including fish)

Various birds, mammals, and fish have their places in and along the river, the accompanying topography and vegetation, and in the Native American culture. There is a simple, fundamental and clear relationship between Native Americans, rivers, fish and adjacent plants and animals. For example, it is not mere coincidence that a stand of young fir trees grow near a river rock outcropping, and is harvested for the purpose of building a scaffold on the rock outcrop from which to set a trigger net for the purpose of fishing. Additionally it is not coincidence that iris stands grow in abundance near these fishing places as the iris fibers were used to make rope used to make nets. It is also not coincidence that villages or fish camps are located near fishing places so that fish can be processed into food. And it is not coincidence that the seasonal return of the buzzard marks the approach of the spring salmon fishery, signaling a time to get spring fishing gear prepared. It is not coincidence that as the fishermen are preparing gear in wait of the spring run that they watch and admire the Great Blue Heron's stealth in plucking small fish from the back-eddies of the river. This all happens within, and is supported by, the riverscape.

Circulation

Circulation features include the quantitative and qualitative flow of water for support of the river, as water is a transportation thoroughfare, a ceremonial route, a place of fish, wildlife and vegetative passage. In addition, parallel land routes provide passage as a compliment to the river (water) transportation corridor.

Water features

Water features are aesthetic as well as functional components that define the character of the riverscape. Riverscape water features are linked to the natural hydrological system; their associated water supply and drainage are important components. Water features include backeddies, pools, slicks, riffles, falls, lakes, mouths and confluencing streams and rivers. The characteristics of water features, including reflective qualities, associated and dependent plant and animal life, as well as water quality are important to consider in understanding the preservation or restoration of Riverscapes.

Sites, Structures and Objects

These character defining features are all of the various built environment apparatuses that are traditionally related to the riverscape and may include the following: Fishing scaffolding, net hanging rack, fish smoke house, eel basket anchor bolt, fish dam prayer seat, death rock access trail marker, boat put-in place, cooking rock pile, basketry pictographs, prayer coin offerings, etc.

Boundaries

Cogent arguments for avoiding debate on establishing boundaries for particularly large historic properties and historic properties with intangible attributes have recently been made (King 2002). Despite the precaution and in light of the above interrelated ecology and culture, should boundaries be desired, the following concepts can guide boundary establishment.

- **Watershed** – An entire watershed, from ridge crest to ridge crest and headwaters to mouth can easily provide boundaries. This may be too large of a reasonable management unit, and particularly if the watershed is comprised of several rivers.
- **Viewshed** – Boundaries can be drawn based upon perceived ridgeline as viewed continuously from the river. GIS spatial analysis software can generate maps depicting such boundaries. This approach should be considered if viewshed (in conjunction with wild, scenic and recreational designations) is an identified value.
- **Contributing element habitat** – After defining contributing elements, boundaries can be drawn to encompass all elements or all elements that will be selected for management. This approach may also provide an unreasonably large management unit but may be used in conjunction with a more narrow approach.
- **Flood event** – A more narrow approach would to draw boundary lines based upon flood events (100 or 500 year flood event). Many land managing agencies, Federal Emergency Management Agency (FEMA) and Insurance Companies have maps that indicate flood extent.
- **River under reservoir** – Boundaries of rivers that have been artificially flooded can be narrowly drawn. However if reservoir removal is a desired management

tool the management plan may need to consider the entire drained reservoir area due to effects to a more narrowly defined riverscape boundary.

- **Land trails** – Particularly if the riverscape has overriding values and contributing elements as a transportation corridor then boundaries can be drawn up from the river to the downhill side or riverside of a paralleling road, trail or railway.
- **Arbitrary political** – Boundaries can be drawn along political boundaries such as Indian reservation or federal, state or private land-ownership boundaries. Many National Park cultural landscape boundaries simply conform to the park boundary.
- **Arbitrary negotiated** – A boundary can be determined based upon negotiation of various parties that each relies on various types of reasoning that combines the above rationales or other arbitrary measures such as the boundary will be drawn randomly within 100 feet elevation up or out from the average water surface or water edge depending on adjacent topography.

Estimating Types and Survey Methodologies

Depending on the parameters of the Riverscape boundaries the relevant things inside the boundaries could be infinite or at least so numerous as to not be identifiable or counted in entirety. The 100 percent survey criterion has recently been identified as an impossible standard to insist upon (King 2002:124). Based upon previous historic property and other environmental surveys (and those surveys stated or assumed methodologies), previous and current oral history, predictive modeling, specific interests of consulting parties and identified areas of potential effect, a survey strategy should be defined and agreed upon. Where possible, amounts of types of historic properties, and contributing elements should be estimated. Field sampling should be strategically conducted to verify if the estimates are accurate in quality and quantity. Where specific sites or contributing elements are known to be at risk then such places and things need to be prioritized for evaluation.

For example, assume that there are approximately 250 Native American habitation sites along the Klamath River comprised of roughly 150 village sites, 75 fish camps and 25 river ceremonial sites. Also pretend that it is known that 5 village sites are currently eroding and that tribal elders insist about complete protection of all ceremonial sites. Knowing this combination of general estimates, some specific site conditions and a general community treatment preference, a survey strategy could then plan for identification and evaluation of ten percent of each type. However, all eroding sites would be visited and all ceremonial sites would be visited. Further that the ten percent of each type would be selected based upon the general goal to represent all segments of the river.

Where survey involves identification and evaluation of natural resource contributing elements (water, soil, rock, and plant and wildlife populations) then survey strategy should be planned with the best data currently available. This data will undoubtedly be in the control of geologists, hydrologists, biologists and botanists; not archeologists or anthropologists. CRM professionals can identify where natural resources data is lacking and work with the appropriate natural resource professionals to gather such data.

Treatment of Contributing Elements in Relation to EIS identification and Management of Natural resources

Where contributing elements are being considered as natural resources and addressed through the NEPA process then there may be less of a cultural management role. However it should not be assumed that there is no cultural role. For example the amount of water needed in order to keep fish populations alive may not be the same amount of water needed to conduct a boat ceremony that, from a Native American understanding, is also required in order to keep fish alive. Fish survival may be assured but not enough to assure that a particular fishing family's one and only traditional fishing hole will have fish. The water quality needed in order to assure that fish survive and that people do not become diseased by being in contact with water may be a much lower standard than what is required to prevent moss build-up on fishing nets and for purposes of ceremonial bathing. Suspended sediment standards set by State water quality control boards may be lower than accumulated affects to the sedimentation of fishing holes. Water flow regimes may be enough to maintain minimal meander requirements but not enough to scour willow root for purposes of traditional gathering. Endangered species may be considered in the NEPA process through the Endangered Species Act but many culturally important species are not listed and therefore are not considered; yet projects may have adverse effects on such local populations.

5. Executive Order 12898 "Environmental Justice"

The NHPA historic preservation process has limits to the protection of large-scale resources important to the vitality of Native American life-ways. The cultural landscape approach to Tribal historic preservation has not been aggressively explored and successfully applied in ways that have yielded standard treatments enhancing Native American life-ways. The Riverscape approach to historic preservation has not yet been applied to Native American or other cultural life-ways. The NEPA process, particularly at Section 102(2)(C), is not utilized enough to consider Tribal life-way preservation because EAs and EISs routinely defer to NHPA Section 106 for a process that considers such lifeways as those lifeways are defined within the narrow confines of historic preservation. There is clearly a gap.

Executive Order 12898 articulates the need to consider disproportionate environmental risk burden placed upon any population group. American Indian Tribes are identified as one population group that has routinely received an inequitable brunt of environmental risk and damage resulting from the execution of federal programs and policies (Danielson 2003). Section 4, Subsistence Consumption Of Fish and Wildlife, of Executive Order 12898 specifically states:

In order to assist in identifying the need for ensuring protection of populations with differential patterns of subsistence consumption of fish and wildlife, Federal agencies whenever practicable and appropriate, shall collect, maintain, and analyze information on the consumption patterns of populations who principally rely on fish and/or wildlife for subsistence. Federal agencies shall communicate to the public the risks of those consumption patterns.

An implemented ethnographic riverscape concept can bridge the gap between the limits of both NEPA and NHPA, while addressing the charge of Environmental Justice.

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APPENDIX

I. Cultural Landscape Literature Review

The following is a list of desired but not copied nomination documents.

Medicine Lake Area Traditional Cultural Places District
Badger – Two Medicine Blackfoot Traditional Cultural District
De-No-To Cultural District
Mus-yeh-sait-neh Village and Cultural landscape
Aniakchak Bay Historic Landscape District
Yamsey Mountain
Little Rocky Mountains Traditional Cultural Property
Sweet Grass Hills Historic District
Mount Shasta
Crater Lake

Review of Applicable Landscape Nomination Documents

Kalo Kanu O Ka ‘Aina: A Cultural landscape Study of Ke’anae and Wailuanui, Island of Maui

This study focuses on the land management and utilization systems for traditional taro plants of native Hawaiian peoples of two isolated communities on the island of Maui. Specifically the scope of the study included: identification of the historic context of the traditional landscape through a literature search, identified and mapped boundaries of the landscape, Community history documentation through interviews with traditional practitioners, description of trends and existing conditions, assessment of integrity and significance and recommendations for preservation management. This document provides an excellent example of a complex landscape that combines sites, structures, objects into one holistic place.

Cedar River Watershed Cultural landscape

This study focuses on seven tribes’ traditional use, (hunting, gathering, fishing and ceremonial) of the Cedar River watershed. The 50 mile river runs from the crest of the Cascade Range to the Puget Sound in the State of Washington. The scope of study involved identifying the location and range of traditional cultural properties, documenting contemporary Native American TCP utilization, Compiling a comprehensive list of Native American place names, conducting tribal consultation concerning significance, integrity and protective measures of historic properties. The nomination to the National Register states that the main contributing element (attribute) is the river based upon concentration of sites being located within the corridor. However the nomination does not articulate how the river is a unifying factor beyond the clustering effect. The cultural landscape nomination combines three previously determined eligible districts (two historic and one archeological) and 69 archeological sites, one traditional cultural property and multiple hunting and gathering areas. The study does provide an excellent interview questionnaire for querying Native Americans about traditional hunting, gathering, fishing and ceremonial practices. [Nomination returned, further studies requested by Muk]

Safely Moored at Last: Cultural Landscape Report for New Bedford Whaling National Historical Park

The landscape boundary was determined by the boundaries of the existing 34-acre park. The Park primarily protects and interprets a historic buildings district associated with early American whaling history made famous by Herman Melville's classic "Moby Dick". While the study includes information on a Wharf that interfaces with a river outlet to the Ocean and whales, Ocean and Whales are not considered contributing elements to the landscape. Indeed, Whales were brought to near extinction as a result of early over-harvesting. Volume I covers: History, Existing Conditions, Analysis of Integrity and Significance and a preliminary overview of preservation issues. Concurrent with Volume I are Volume II, a historic structure assessment and Volume III an archeological assessment. These studies identify issues for developing a park Historic Preservation management plan.

Fairsted: A Cultural Landscape Report for the Frederick Law Olmsted National Historic Site (Volume I: Site History)

This report provides seven eras (1878-1994) of site history for the 1.76 acre landscape. Frederick Law Olmsted Sr., considered the father of American landscape architecture, and later his two sons (also architects), and more recently the National Park Service landscape program, have occupied the residence and meticulously maintained the landscape with an eye towards preserving the grounds as originally designed. The site history is very comprehensive due to the successive occupants profession. While this Cultural Landscape Report is a must for all landscape enthusiasts it has little bearing on how to document large tracts of landscapes

Cultural Landscape Report: Dumbarton Oak Park, Rock Creek Park (Part I: Site History, Existing Conditions, and Analysis and Evaluation)

This report documents four centuries of history associated with a popular 27 acre NPS park originally designed by the mother of American Landscape architecture, Beatrix Jones Farrand. The report provides sections including: existing conditions, and an analysis and evaluation of the contributing elements: land use, circulation (trails) views and vistas, vegetation, water features, structures and small scale features. A subsequent Part II presents a treatment plan based upon the analysis and evaluation provided in part I.

Cultural Landscape Report: Bremner Historic District, Wrangell-St. Elias National Park

This report covers a 20,000 acre historic mining district in the Chugach Mountains of Alaska. Documenting a century of gold mining history, the report covers existing conditions of buildings, structures, objects and sites affiliated with each of the gold claims. The document also provides recommendations for treatment of the various categories of historic properties dotted across the vast mountain landscape. This report provides an excellent example of how a large tract of land, albeit focusing on one historic theme (gold mining), does not require all sites, objects, structures and buildings to be inventoried in order for treatment objectives to be determined.

Determination of Eligibility Documents (see Section 3 for document reviews)

Identification and Evaluation of Traditional Esselen Cultural Properties, New Los padres (Carmel River) Dam and Reservoir Project and Summary Report on the Cultural Properties Inventory and Determination of Eligibility for Listing on the National Register of Historic places For the New Los Padres Dam and Reservoir Project, Monterey County, California.

The Mushgigamongsebe District: A Traditional Cultural Landscape of the Sokaogon Ojibwe Community (copy not obtained)

Bald Hills Phase I and Phase II Reports

Cultural Landscape and Human Ecology Literature Search

Preserving Cultural landscapes in America

The book was reviewed for an overview of the cultural landscape preservation movement. The book consists of history of the discipline, its various applications in American land management policy and practice, and cogent discussion on cultural landscape preservation problems, solutions and dilemmas. Specifically informative are the introductory chapter, Chapter 2 discussions on the false dichotomy of Nature – Culture, Chapter 7 concerns Ethnographic Landscapes and the final Chapter Eight provides an in depth review of the concepts of value and integrity as applied to assessing significance of cultural landscapes.

Myth, Memory and the Making of the American landscape

The Cultural Landscape discipline's relevance to current trends in human cultural identity, the land and human relations thereof was further pursued in this book. The book suggests that American Cultural Landscape Preservation is biased with historic landscapes commemorating fixed periods of resource extraction (agriculture, timber, mines) and environmental conquest (roads, bridges, dams).

Cultural Landscapes and Traditional Cultural Properties: a Southern Paiute View of the Grand Canyon and Colorado River

This Journal article provides an excellent framework for assessing the boundaries and leveling concepts of Ethnographic Landscapes. The authors suggest that Native American Ethnographic Landscapes be broken into five hierarchical categories: Holy landscapes, Story/Song scapes, Regional Scapes, Ecoscapes, and landmarks.

Other journal articles inform the reader of issues concerning:

- the relation of economy and ecology to cultural landscape boundaries and human value (Mathewson 1998, 1999, Navehhis 2000, Hong 1999, Niezen 1993)
- intrinsic, extrinsic, and instrumental cultural landscape values and historic interpretation (Nordstrom 1993, Niezen 1993, Mignolo 1996, Snead 2002)
- measurements and calculations of patch, grain, calories, populations, bio-diversity, space and time and the boundedness of landscapes (Hong 1999, Power 2002) and in relation to dam removal (Poiani 2000) and water quality (Turner 2003)

- land settlement, property survey techniques, land ethos and boundaries of landscapes (Lehr 1994, Karr 2000, Mitchell 2002, Niezen 1993, Snead 2002)
- common field agriculture and the tragedy of the commons (Zimmerer 2002, Nordstrom 1993)
- private lands, public lands and the merging of the two through land trust cultural landscape conservation easements (Geisler 2000, Lehr 1994)
- the importance of preserving seed banks related to cultural landscapes (Gillis 1993)
- The Klamath River irrigators, hydroelectric generation, federal agency water management and tribal fisheries (Levy 2003, Barcott 2003, Barnard 2003, Easthouse 2003)

II. Riverscape Thematic Outline

1.0 Nomenclature

1.1 Types of Historic Properties

Buildings, Structures, Sites, Objects, Districts

1.2 Types of Districts

Archeological Districts, Residential Communities, Rural Landscapes, Historic Landscapes, Cultural Landscapes

1.3 Types of Cultural Landscapes

Historic Sites Landscape, Historic Designed Landscape, Historic Vernacular Landscapes, Ethnographic landscapes

2.0 River Ethnographic Landscape (Riverscape)

2.1 Natural Features

2.1.1 Water

2.1.2 Fish

2.1.3 gravel bars

2.1.4 rock promontories/rock canyon walls

2.1.5 Willow/Riparian

2.1.6 Riverside vegetation

2.1.7 Upslope vegetation

2.2 Cultural Features

2.2.1 Ceremonial

2.2.1.1 grounds

2.2.1.2 boat ceremony

2.2.1.3 first fish

2.2.1.4 fish gate

2.2.1.5 bathing

2.2.1.6 visual

2.2.2 Fishing places

2.2.2.1 Net setting

2.2.2.2 Scaffolding

2.2.2.3 Eel Basket

- 2.2.3 Gravel
 - 2.2.3.1 cooking rocks
 - 2.2.3.2 porch rocks
- 2.2.4 Rock Promontories/Rock canyon walls
 - 2.2.4.1 death rocks
 - 2.2.4.2 rock art
- 2.2.5 Gathering/Botanical
 - 2.2.5.1 willow
 - 2.2.5.2 spruce roots
 - 2.2.5.3 tobacco
- 2.2.6 Habitation
 - 2.2.6.1 village sites
 - 2.2.6.2 fish camps
 - 2.2.6.3 cemeteries

2.3 Other Features

- 2.3.1 **Up-slope**
 - 2.3.1.1 View shed/Coverage
 - 2.3.1.2 Botanical gathering, subsistence and medicinal
- 2.3.2 **Transportation**
 - 2.3.2.1 River - boat
 - 2.3.2.2 Riverside trails
- 2.3.3 **Communication**
- 2.3.4 **River Morphology**
- 2.3.5 **Oral History**
 - 2.3.5.1 How the river (or associated features) came to be
 - 2.3.5.2 Traditional etiquette/river (or associated features) management
- 2.3.6 **Relations with up or –down river neighbors**
- 2.3.7 **River language**