



The Scientific Validity of Cultural Attachment as a Social Phenomenon and the
Basis for an “All Lands” Approach in NEPA Decision-making

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The Scientific Validity of Cultural Attachment as a Social Phenomenon and the Basis for an “All Lands” Approach in NEPA Decision-making

Summary

Cultural Attachment is a social phenomenon that ties people to their physical surroundings and to the landscape around them. The proposed Mountain Valley Pipeline (MVP) threatens to irreparably harm impacted communities that are “culturally attached.” The MVP is subject to environmental review which is required by the National Environmental Policy Act (NEPA) and which is proceeding under the leadership of the Federal Energy Regulatory Commission (FERC). Members of communities in the proposed MVP corridor have raised Cultural Attachment as a significant issue for analysis in the NEPA process.

There is concern, however, that a FERC staff member had initially rejected out-of-hand an assessment of Cultural Attachment in the Environmental Impact Statement because, reportedly, he had never heard about Cultural Attachment. Subsequently some type of concession was agreed to that FERC will require an analysis of Cultural Attachment, but only on lands within the National Forest boundaries. Nevertheless, it is impossible to separate the communities who live between and among the National Forest lands from the landscape that surrounds them. The EIS has the responsibility to conduct a cultural attachment assessment whether the community is on-site or off-site, to determine whether Cultural Attachment is present, and, if so, to recommend an alternative route.

This report documents the validity of Cultural Attachment as a social phenomenon that must be analyzed in the NEPA decision-making processes for the MVP. Equally important, this report identifies the administrative justification—and describes the rationale—for reaching beyond the National Forest in the conduct of a Cultural Attachment analysis.

Background of James Kent Associates on Cultural Attachment

James Kent Associates (JKA) was contacted in 1995 by the George Washington and Jefferson National Forests to undertake a study on an “issue of significance” called “cultural attachment” that emerged during the scoping part of the Draft Environmental Impact Statement (DEIS) for the Appalachian Power

Company's (APCo) 765 kV Transmission Line. The transmission line was to run 115 miles and extend from their Wyoming Station in Oceana, WV, to the Cloverdale Station in Cloverdale, Virginia.

Including the "cultural attachment issue" in the DEIS allowed public policy makers within the GW&JNF, the National Park Service and the U.S. Army Corps of Engineers to consider the economic, social, and cultural impacts that might occur from the several alternative routes under consideration by APCo.

JKA's cultural work was well known to the Forest Service. JKA did the first NEPA-based social impact study for the White River National Forest in Colorado, after the NEPA law was passed in 1969. In that first study, JKA examined the off-site community impacts related to the development of the Beaver Creek Ski area by Vail Associates.¹ This was followed with other social impact studies and FS training programs detailing the impacts on individuals and communities from FS actions and decisions.² The JKA work eventually evolved into a USFS program called "Social Responsive Management" for which the company was awarded the 75th Anniversary Gifford Pinchot Award in 1981 for outstanding service to the USFS. Our work is distinguished for bringing scientific understanding of social cultural issues to Federal Agencies in their use of NEPA. Other JKA projects that are related to NEPA or federal agency decision-making can be reviewed at JKA's website.³ As an organization that has done extensive work with NEPA since 1970, James Kent Associates is a recognized expert on the interpretation and application of NEPA.⁴

¹ This social impact study and mitigation program was included in the Meadow Mountain Environmental Impact Statement published in 1976 by the White River National Forest, Region 2, USDA-Forest Service in fulfillment of NEPA requirements for the Beaver Creek Ski Resort. The EIS contained detailed plans for mitigating the off-site impacts on the Hispanic communities of Minturn, Gilman and Red Cliff, Colorado. It became a model for other social impact mitigations and was adopted by the National Office of the FS. In recognition of this undertaking, *National Geographic* published a pictorial account of this process in their September, 1982 issue (pages 336-337, a subsection of the article titled: Our National Forests.) *National Geographic* introduced the article with the following statement: "Increasing demands on public land often cast the Forest Service in the role of referee. The agency approved development of Beaver Creek Resort in the Meadow Mountain area of Colorado's White River National Forest only after the developers agreed to several conditions. Residents of three nearby small towns-Redcliff, Gilman and Minturn-feared their communities would be swallowed up by the daily influx of skiers and resort employees. FUND (predecessor to JKA), a private consulting firm, prepared a legally required study of Beaver Creek's social impacts. Upon FUND's recommendation, the developers agreed to construct employee housing (at the Beaver Creek site) and assist in a manpower training program aimed at giving priority in employment to area residents, hit with the loss of 400 jobs by the closing of a zinc mine in 1977."

Beaver Creek opened in 1982 and has fulfilled the Forest Service requirements included in the Meadow Mountain EIS of multiple social/cultural mitigations including a family enterprise program, high school graduate enrollment in resource management colleges to come back and work in the resort, and more than 20 other programs incubated by this first-of-its-kind social impact assessment.

² Kent, James A., Richard J. Greiwe, James E. Freeman and John J. Ryan; [An Approach to Social Resource Management](#), USDA-Forest Service, Surface Environment and Mining Program (SEAM), Billings, Montana, 1979. See also: Kent, James A., Richard J. Greiwe and Linda Bacigalupi; [Identifying Natural Communication Networks Within a Social-Geographic Area](#), USDA-Forest Service, Inform and Involve National Workshops, 1977-1978, USDA-Forest Service.

³ www.jkagroup.com

⁴ Preister, Kevin and James A. Kent, "Using Social Ecology to Meet the Productive Harmony Intent of the National Environmental Policy Act (NEPA)," [Hastings West-Northwest Journal of Environmental Law and Policy](#), 2001, Volume 7, Issue 3, Spring, pp. 231-251, Berkeley, CA.: Hastings College of the Law.

Organization of this Report on Cultural Attachment

The major parts of this document are those that were agreed upon to be the research objectives by JKA and *Preserve Craig, Inc.* The sections are as follows:

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Objective One: Document the scientific validity of Cultural Attachment as a legitimate social phenomenon and its use as a rationale for analysis and decision-making

A. The story of Peters Mountain and the APCo Transmission Line Project

Cultural Attachment was found to be an Issue of Significance by the US Forest Service in defining which key issues should be included and addressed in the forthcoming Environmental Impact Statement of the proposed AEP transmission line in 1995 and 2002.⁵ Cultural Attachment had been included in the Forest Service’s Draft Environmental Impact Statement (DEIS), June, 1996, and six years later, in both the Supplemental DEIS, April, 2002, and the Final EIS, December, 2002, for the American Electric Power proposal (the APCo765 kV Transmission Line project) that affected the George-Washington & Jefferson National Forest.

⁵ Appalachian Power is now part of the American Electric Power system (AEP).

Based on our literature search and the application of the JKA Community Description process, the definition for “Cultural Attachment” developed during the contract period from June 22 to August 31, 1995 was as follows:

“Cultural Attachment is the cumulative effect over time of a collection of traditions, attitudes, practices, and stories that ties a person to the land, to physical place, and to kinship patterns.”

- **The cultural part** of the definition relates to: “...the cumulative effect over time of a collection of traditions, attitudes, practices, and stories.”
- **The attachment part** of the definition relates to “...that ties a person to the land, to physical place, and to kinship patterns.”

Unlike some other attachments, such as attachment to view or a particular lifestyle, cultural attachment is not transferable to another place. Therefore, if a culturally-attached resident is required to move to another place with similar physical characteristics they will lose their cultural attachment.⁶

In a culturally-attached area, land is not valued as a commodity or an investment. Where people are culturally attached to specific land or to a specific place, normal mitigation of the loss is impractical. Since cultural attachment is non-economic and non-transferable, its loss cannot be mitigated through monetization, or by the receipt of comparable land as determined by an appraiser. By definition, by usage, by meaning, there is only one “this place.”

Essentially, the interaction between cultural attachment and a pipeline corridor or transmission line (and associated rights of way) is generally one of intrusion on the cultural landscape. An intrusion is an outside force brought into an area that may create an adverse long-term change in the relationship between people and land that cannot be absorbed into the existing culture, thereby changing that culture. In areas where cultural attachment is strong, because individuals have consistently made choices over time that support their culture, an intrusion is a potential threat to the living culture.

The first Cultural Assessment study done for the DEIS found that in the corridor for the AEP power line, several communities were highly culturally attached. This was especially true in the Peters Mountain geographic area. In a letter dated June 18, 1996, Forest Supervisor of the GW&JNF, William F. Damon, Jr., made explicit to the Virginia State Corporation Commission and the West Virginia Public Service Commission that the off-site impacts were part of this DEIS process. Specifically, Supervisor Damon said:

“The federal agencies recognize that their decisions on the AEP proposal need to be made in the context of both federal and private land impacts, so the environmental effects of the entire 115 miles of the AEP proposal are considered by the federal agencies in this analysis.”

⁶ For a complete discussion on the Cultural Attachment study process see Appendix A. Methodology for Defining and Applying Cultural Attachment to the Study Area; and Appendix Two: Cultural Attachment Technical Report, SDEIS, AEP 765 kV Transmission Line, Volume N,” U.S. Forest Service, GW&JNF in Cooperation with the National Park Service and Army Corps of Engineers, April, 2002.

The Forest Service expressly included the impacts to the surrounding community on private lands in its analysis. He further stated that he identified the No Action Alternative as the Agency Preferred Alternative in the Draft EIS.⁷ On June 19, 1996, at a press conference in eastern Montgomery County, with Brush Mountain in the background, Damon announced the choice of the No Development Alternative. He specifically pointed out that the Cultural Attachment study had a major effect on his decision.⁸ He also reinforced his decision by stating in the final Record of Decision (ROD) that “Alternatives 1 through 6 would cross several areas where Cultural Attachment, or the way people relate to their surroundings and interact with each other within the community, was pronounced.”⁹

Supervisor Damon by his action created a decision making framework for addressing Cultural Attachment within the Forest Service, the National Park Service, and the U.S. Army Corps of Engineers. The framework recognized that because the project crossed the GW&JNF, the Forest had the responsibility to address the impacts on the total length of the 115 miles of the proposed corridor. This decision was consistent with the Forest Service traditions and regulations that compel the Forest Service to address “off-site” impacts in its analysis and decision-making, as documented in Objective 2 (below). Supervisor Damon acted consistently with the intent of NEPA and other federal regulations.

In August of 2001, the Notice of Intent was revised to announce the preparation of the SDEIS for the new corridor selected by AEP. The list of significant issues was updated and Cultural Attachment continued to be included in that list. JKA was retained again to conduct this second Cultural Attachment study along the new route that AEP has chosen in order to avoid geographic areas with high cultural attachment.

This study of Cultural Attachment took place between September 22, 2001, and January 24, 2002. The study focused on the Proposed Transmission Corridor on portions of Tazewell, Bland and Wythe counties in Virginia. None of the impacted areas scored in the High Range for cultural attachment. Therefore, there were no areas of cultural attachment for this new corridor to encounter.¹⁰ The FEIS was issued in December 2002, with the Cultural Attachment study included in the final documents.

The Record of Decision (ROD) approving the second route for the AEP power line was issued by the GW&JNF, National Park Service and U.S. Corps of Engineers in December of 2002. The ROD dealt directly with Wythe, Pulaski, Bland, and Tazewell Counties, Virginia, as well as Wyoming and McDowell Counties, West Virginia. In the ROD, Supervisor Damon, in keeping with his recognition of Cultural Attachment as an Issue of Significance, brought forth the “Rationale in Relation to Alternatives Described in the Draft EIS.”¹¹ It is rare for the findings in the DEIS to be brought forward into a ROD, unless they have special significance in the decision. Cultural Attachment maintained its special significance through all of these studies from 1995 to 2002 and occupied a central place in the ROD.

⁷ See Damon letter in Appendix C.

⁸ To quote from the Roanoke Times article Cathryn McCue and Greg Edwards, “Forest Rejects Power Line,” The Roanoke Times, June 19, 1996, pages 1-2 June 19, 1996: “Damon said one of the key factors in his decision was how the line would affect people living in certain remote, rural communities such as Walker Creek Valley in Giles County and the West Virginia side of Peters Mountain, where the ‘cultural attachment’ to land and lifestyle are strong.”

⁹ Damon, William E., Forest Supervisor, GW&JNF; Record of Decision: AEP 765 kV Transmission Line, USFS, National Park Service, U.S. Army Corps of Engineers, “Rational in Relation to Alternatives in Draft EIS”, page ROD-5.

¹⁰ Supplemental Draft Environmental Impact Statement, AEP 765 kV Transmission Line, , GW&JNF, National Park Service, U.S. Army Corps of Engineers, Chapter 3-15 Cultural Attachment, pages 3.15-6 Assessment of Cultural Attachment Areas and Table 3.15.1 Existing Conditions of Cultural Attachment Indicators page 3.15-7, 2002.

¹¹ Damon, page ROD-5.

In an article published in the Points West Chronicle, Rhey Solomon, Deputy Director for Ecosystem Management Coordination at the National USFS Headquarters, stated:

“The GW&JNF ‘no action’ alternative for the AEP DEIS reflects a relatively new and growing trend in federal decision-making: to give more consideration to community, people and place issues in addition to economic and environmental or biological considerations—it’s the third leg of the stool.”

Frank Bergman, a special projects coordinator for the GW&JNF, stated:

“Some people there (Peters Mountain) talked about how they interacted with the mountain. Others talked about the mountain in a spiritual sense, almost giving it a persona. We’d never dealt with this before--this attachment to place.”¹²

B. Other Applications of Cultural Attachment and Trends in the Adoption of New Practices by the Federal Government

1. The State of Hawai‘i.

While this federal agency EIS work was taking place over this seven-year period, Cultural Attachment began to be picked up by other individuals, governments and agencies. In Hawai‘i in 2001, Kepā Maly, a respected cultural historian, wrote:

“In the Hawaiian context, these values—the ‘sense of place’—have developed over hundreds of generations of evolving ‘cultural attachment’ to the natural, physical, and spiritual environment. This attachment to environment bears direct relationship to the beliefs, practices, cultural evolution, and identity of a people. In Hawai‘i, cultural attachment is manifest in the very core of Hawaiian spirituality and attachment to landscape. The creative forces of nature which gave birth to the islands (e.g., Hawai‘i), mountains (e.g., Mauna Kea) and all forms of nature, also gave birth to *nā kânaka* (the people), thus in Hawaiian tradition, island and humankind share the same genealogy.”¹³

The most recent Hawaiian reference that JKA is aware of is a policy paper written in 2013 for the Office of Hawai‘i Affairs (OHA), by Group 70 International, titled: “Strategic Management Framework Kaka’ako Makai” (an older, mixed-use neighborhood very near downtown Honolulu). The significance of this use of Cultural Attachment is that the OHA is considered a fourth arm of Hawaii State Government, in addition to the executive, legislative and judicial, dealing directly with the health, welfare and well-being of the native Hawaiian population. The document states:

“According to James Kent, noted social ecologist, the concept of cultural attachment can be defined as follows: ‘Cultural Attachment’ embodies the tangible and intangible values of a culture—how a people identify with, and personify the environment around them. It is the intimate relationship (developed over generations of experiences) that people of a particular culture feel for the sites, features, land, kinship, and natural resources that surround them—their sense of place. This attachment is

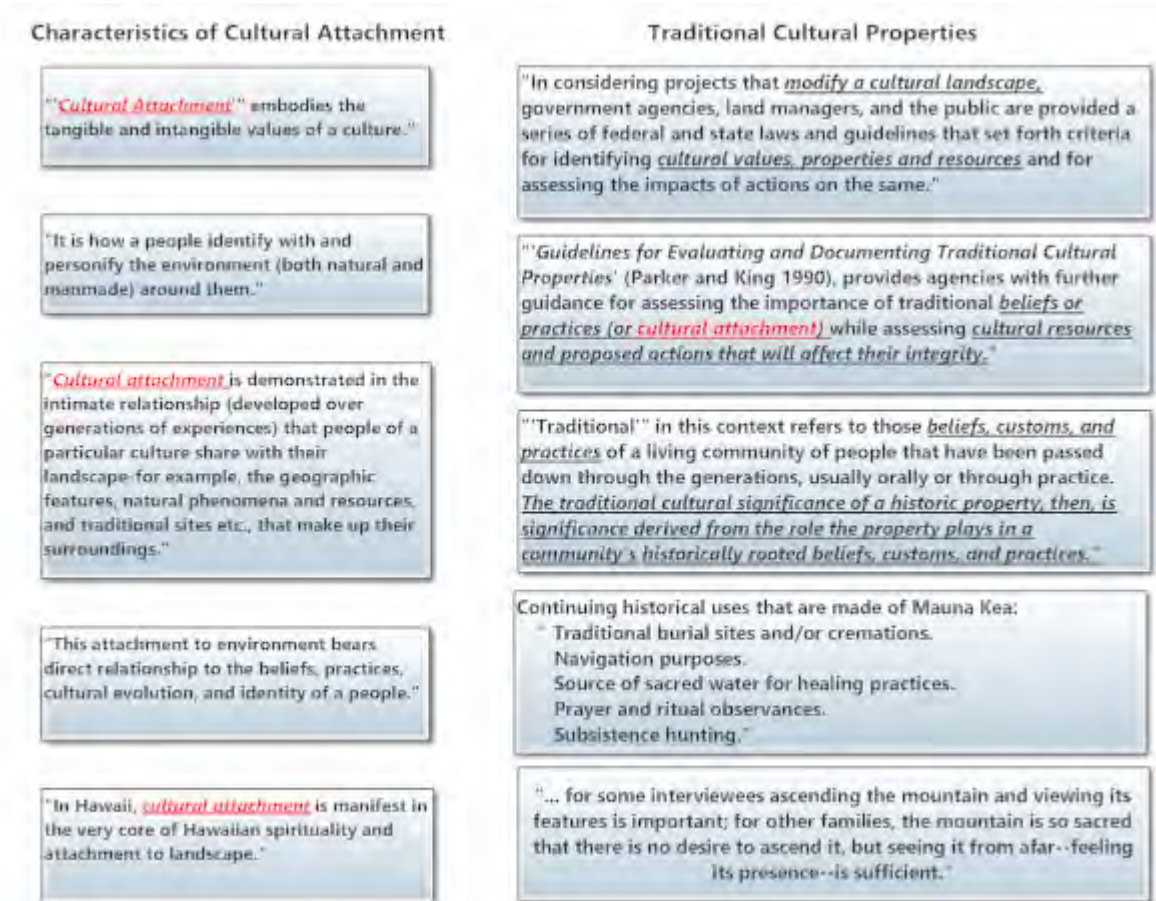
¹² Wurmstedt, Robert C., Editor, Points West Chronicle; “Protecting Living Cultures: The Songs and Stories of Peters Mountain,” Center for the New West, Denver, Colorado, February, 1997.

¹³ “Mālama Pono I Ka `Āina—An Overview of the Hawaiian Cultural Landscape,” Kepā Maly, Kumu Pono Associates, LLC. Available at: <http://www.malamamaunakea.org/>.

deeply rooted in the beliefs, practices, cultural evolution, and identity of a people. The significance of cultural attachment in a given culture is often overlooked by others whose beliefs and values evolved under a different set of circumstances.”¹⁴

The OHA report represents an effort by a government unit to create a policy framework that extends assessment of “Traditional Cultural Properties” (TCP) to Cultural Attachment as a means to protect Hawaiians from development intrusions (see Figure One). TCP assessments are required by the National

Figure One
Example of the Link Between the Cultural Part and the Attachment Part of Cultural Attachment¹⁵



Source: J. Overton, Group 70 International, in a personal communication, January 26, 1999, on a report in progress regarding the cultural properties and practices in conformance with Federal and State criteria for the State Historic Preservation Division of the Division of Land and Natural Resources, State of Hawai'i.

¹⁴ Group 70 International: "Strategic Management Framework Kaka'ako Makai: Cultural Landscape & Ancestral Connectivity Analysis," Office of Hawaiian Affairs, 2013 page 10.

¹⁵ Figure One was created by John Ryan, Senior Associate for Economics, James Kent Associates. He has been instrumental in the development of this document, bringing the original experience of participating in creating the definition of cultural attachment and applying the definition in the field studies. He was on both the DEIS and the SDEIS Cultural Assessment teams along with James Kent. John has extensive experience over three decades in working with the cultures in Hawaii through several of our projects. He directed the first of its kind Social Impact Management System for Honolulu between 1979 and 1981.

Historic Preservation Act (1966) and are used to document traditional uses of the land and to protect historical and archeological features. As shown in Figure One, Cultural Attachment for the Office of Hawaiian Affairs extends Traditional Cultural Properties to include living culture and the intertwining aspects of the vast social research that links attachment to land, place and kinship in a necessary, integrated fashion, as shown further in sections below. The contents in Figure One were referencing a proposed project on the Hawaiian mountain, Mauna Kea, located in Hawai'i County, State of Hawai'i.¹⁶

It is not the intent of Figure One to imply that cultural attachment in Hawai'i is the same as in parts of Appalachia, but it is noted that analyzing cultural attachment was recognized and being utilized by Group 70 International, a prominent architectural/planning/engineering firm in Honolulu, in 1999. Further, when analyzing cultural attachment, there are similar roles played by the local people's traditions, attitudes, practices, and beliefs in both Hawai'i and in parts of Appalachia.

2. The National Historic Preservation Act (NHPA)

NHPA was established (in 1966) to protect historical and archeological resources.¹⁷ Over time, through interpretation and case law, it has been extended as a tool to assist living culture as well. By documenting their Traditional Cultural Practices (TCP), people have been able to offer a defense of cultural practices that has led to curtailing destructive development or the mitigation of its impacts. The term "traditional," for the **National Park Service (NPS)**, refers to "those beliefs, customs and practices of a living community that have been passed down through the generations, usually orally or through practice."¹⁸

When Congress passed NHPA in 1966, it included funding for the National Trust for Historic Preservation, which was initially part of the NHPA but has since become totally privately funded. The National Register relates primarily to the National Historic Preservation Act (NHPA) and is also applicable to NEPA. Under Section 106 of NHPA, agencies must consider the effects of their actions. Effects can only occur on National Register properties (aka "Historic Properties") so if advocates get a property or landscape registered with the National Trust, or at least have it designated as "eligible", Section 106 is triggered. Adverse effects to Historic Properties must be mitigated. The mitigation is identified in a Memorandum of Agreement (MOA) that is signed by the agency and the State Historic Preservation Office, and sometimes the federal Advisory Council on Historic Preservation and the affected group.

These MOAs are legal documents; they require the Agency to do certain things; they enable the Agency to expend federal funds on certain activities. Local people and their representatives can expect that agencies must be responsive to terms of the MOA. If it is determined that certain properties are eligible for the National Register, the agency would fund additional studies of those areas. If an agency promised consultation, it is accountable for the appropriate follow through. Or, an MOA may call for the agency to

¹⁶ "Mauna Kea Science Reserve Master Plan, Draft Environmental Impact Statement, Group 70 International and the University of Hawai'i, 1999.

¹⁷ This is clearly represented in the category of historic vernacular landscapes included in the National Trust for Historic Preservation, a part of the National Historic Preservation Act. Historic vernacular landscapes have evolved through use by the people whose activities or occupancy shaped that landscape. For example: The 17,400 acre rural landscape of Ebey's Landing National Historical Reserve represents a continuum of land use spanning more than a century. It has been continually reshaped by its inhabitants, yet the historic mix of farm, forest, village, and shoreline have remained intact since the period of significance (the period for which the landscape is historically significant).

¹⁸ "Guidelines for Evaluating and Documenting Traditional Cultural Properties," Parker, Patricia L., Thomas F. King, U.S. Department of the Interior, National Park Service, 1990, revised 1998.

develop a revegetation plan in consultation with the tribe for the entire TCP (personal communication, Dr. Darby Stapp, Northwest Anthropology LLC, September 11, 2015).

The NHPA and the traditions within the National Trust used the term “historic vernacular landscapes” to reflect the unique ways that people over time shape the landscape on which they live. Congress’s intent was to encourage individual Americans to defend and champion historic resources as part of the social fabric of the nation. It states:

“Historic vernacular landscapes have evolved through use by the people whose activities or occupancy shaped that landscape. Through social or cultural attitudes of an individual, family or a community, the landscape reflects the physical, biological, and cultural character of those everyday lives. Function plays a significant role in vernacular landscapes. They can be a single property such as a farm or a collection of properties such as a district of historic farms along a river valley. Examples include rural villages, industrial complexes, and agricultural landscapes.”¹⁹

The importance of the National Historic Preservation Act, and its interpretation and evolution over time, is that “historic vernacular landscapes” have been given legal weight and agency responsibility for sustaining “living cultural landscapes”, (aka, “cultural attachment”). There is weight as well with the term “traditional cultural landscape,” for which a case can be made in areas with high cultural attachment. If local residents use these terms to document their concerns about proposed federal actions, federal agencies, by virtue of the NHPA, must pay attention.

The use of the concept of Cultural Attachment in Hawai‘i is given added impetus by the National Park Service in addressing Traditional Cultural Properties (TCPs). In considering their importance in meeting indigenous needs, one researcher for NPS states:

“The importance of Traditional Cultural Properties (TCPs) is evident in the strong cultural attachment Native Hawaiians maintain with their natural, physical, and spiritual surroundings. The values and beliefs associated with these places, or a “sense of place”, have been passed on through the generations and continue to root Native Hawaiians to their ‘āina (land) and ‘ohana (family), both living and departed.” (pg. 1)²⁰

3. Australia

Australia is the third example of a non-Appalachian application of Cultural Attachment. Government units and non-profit agencies have been researching the concept of cultural attachment as it relates to the well-being of indigenous people. The **Australian government’s Department of Education, Employment, and Workforce Relations** reported on research into cultural attachment that “was gauged by each person’s sense of their own identity and their connection with, and participation in, traditional activities (such as ceremonies and dances, rituals, art, stories, and customs).”²¹ While traditional wisdom would hold that

¹⁹ <http://www.nps.gov/tps/how-to-preserve/briefs/36-cultural-landscapes.htm>; See Section 106, National Historic Preservation Act and Samuel N. Stokes, A Elizabeth Watson and Shelly Mastron; *Saving Americas Countryside: A Guide to Rural Conservation*, National Trust for Historic Preservation, University of California Press, 1989.

²⁰ Uyeoka, Kelley L., “Comments on Identifying, Evaluating, & Documenting Traditional Cultural Properties for NPS,” Principal, Kumupa‘a Cultural Resource Consultants, LLC, No date. http://www.nps.gov/nr/publications/guidance/TCP_PublicComments/TCP_Comments_Uyeoka.pdf.

²¹ “Cultural Dimensions of Indigenous Participation in Education and Training,” Research Overview, Department of Education, Employment, and Workforce Relations, Commonwealth of Australia, Monograph Series 02, 2009.

attachment to culture would lead to lower educational achievement, the research showed that those with strong attachments to their culture did better in the educational system.

In 2011, the NSW Parliamentary Library Research Service in Australia contained an article by Lenny Roth posing the question of whether fostering strong cultural attachment would “close the gap” of indigenous disadvantage.²² In reporting on the 2008 National Aboriginal and Torres Strait Islander Social Survey (NATSISS), Mr. Roth summarized research that showed a strong correlation between indigenous cultural attachment and socio-economic outcomes such as educational achievement, mental health and physical health. He cited Canadian research that showed that strong “cultural continuity” was associated with lower rates of youth suicide.

A primary researcher on the question in Australia has been Michael Dockery. In an article entitled, “Traditional Culture and the Wellbeing of Indigenous Australians: An Analysis of the 2008 NATSISS,” Dockery reviews the NATSISS survey data described above and takes four behavioral measures as proxy for cultural attachment--participation in cultural events and activities, cultural identity, language and participation in traditional economic activities. He confirmed the strong relationship between cultural attachment and a range of mainstream socio-economic indicators. He concludes:

“The findings suggest that traditional cultures should be preserved and strengthened as a means to both improving the wellbeing of Indigenous Australians and to ‘closing the gap’ on mainstream socio-economic indicators.” (pg. 2)²³

4. The U.S. Geologic Services (USGS)

USGS is the fourth instance of other applications of the concept Cultural Attachment. In November of 1995, about the time JKA’s first Cultural Attachment work was being published in the DEIS, the **US Geological Survey (USGS)** issued a statement on cultural attachment in reference to USGS Programs in Hawaii, “Beach Loss in the Hawaiian Islands.” Quoting from the article:

“Island beach systems are important because the people of Hawaii have a very strong cultural attachment to the beaches. Loss of beaches through erosion has a very adverse effect on the Hawaiian culture and the economy.”²⁴

While the JKA work was much more detailed, the fact that more government agencies with the status of the NPS and the USGS, as well as governments (the State of Hawaii, Australia) have recognized Cultural Attachment as a viable concept in dealing with social, cultural, economic and well-being of people is significant.

²² Roth, Lenny, “Indigenous Disadvantage: Can Strengthening Cultural Attachment Help to Close the Gap?” e-brief 13/2011, NSW Parliamentary Library Research Service, October 2011.

²³ Dockery, Dr. A.M., “Traditional Culture and the Wellbeing of Indigenous Australians: An analysis of the 2008 NATSISS,” Centre for Labour Market Research, Curtin University, CLMR DISCUSSION PAPER SERIES 2011/01, May 2011.

²⁴ “USGS: Programs in Hawaii, Beach Loss in the Hawaiian Islands,” from U.S. Department of the Interior, U.S. Geological Survey, Fact Sheet FS-011-95, page 6.

C. The Intertwining Aspects of Attachment to Land, Place and Kinship—the Cultural Element

Each of the three elements of Cultural Attachment, land, place and kinship, can be seen to have its own literature and research tradition. Each can be said to represent a fundamental aspect of the human experience that has rightly attracted ongoing research attention. This section summarizes the conclusions of researchers who believe that these elements of attachment are difficult to treat separately—that subjectively, people identify several inter-related traits that make up attachment, and that objectively, researchers have a hard time measuring each of the three elements as stand-alone items as well.

In short, we conclude that a cultural orientation to human attachment to land, place and kinship is a sensible way to conceive of the subject. The intertwining and inter-connected nature of these phenomena, which are so central to human experience, make a cultural orientation appropriate and useful. Indeed, use of the term “cultural” for generations has academically been used to infer a holistic, multi-dimensional quality to the various features of human society.

An example of the intertwining aspects of cultural attachment is provided by Snyder et.al. in examining culture loss from the Exxon-Valdez oil spill in Alaska in 1989:

“The term culture loss addresses two broad but interrelated categories of loss, loss of possession and loss of kinship or belonging (Kirsch 2001). In the former category culture loss includes the loss of possessions such as natural resources and customs such as livelihood practices for which one might claim rights or ownership. As such these losses imply value and property relations that are alienable or more or less amenable to economic compensation in some form. In the latter category, however, relationship to land or resource involves an intimate bond or sense of place, that take on the characteristics of kinship ties and belongingness, which are inalienable. Both possession and belonging, when applied to property, are grounded in the assumption that property is a manifestation of social relations” (Snyder et.al. 2003, pg. 1).

The article calls for a more holistic (that is, cultural) approach to resource valuation of indigenous people regarding their subsistence activities, moving beyond attempts at simply financial compensation for loss, but addressing the identity and social meanings embedded in their culture.

As another example, a leading research in this field, Beckley, and his associates conducted research on forest management related to understanding sense of place in Canada in six different communities. They asked subjects to photograph 12 special places and then interviewed them about their choice of photo subjects and why they selected them. They determined that attachment to place is a multi-dimensional phenomenon. Their research subjects found it difficult to identify a single element associated with attachment to place. Rather, a special place related not only to its aesthetics, but also because of an important event, association with family and loved ones, and particular activities that occurred at the site (2003, 2004, pg.4).

1. Attachment to Land

Attachment to land is one of the most fundamental experiences of the human enterprise. The topic has a voluminous literature which will not be reviewed here. Instead, we will summarize the major features of the research literature.

One observer points to the ubiquitous tradition of individuals introducing themselves at public events by saying, “I’m from . . .” In some places, such as Australia and New Zealand, it is now common to provide a “welcome to country” introduction to national political events to recognize the custodians of the land where the events occur.²⁵

A foray into this literature brings forward several dimensions that are examined by researchers:

- The time dimension: Has the land been occupied for 20 years or 20,000 years?
- The scale dimension: Is this a family farm or a large-scale tract that makes up a nation-state?
- The social dimension: Is the land occupied by a people with a single identity or ethnic origin, or is the land a cross-roads area, subject to a constant mingling of different peoples?

Rozin and Wolf point out that: “Land is often thought of as untradeable, which would not be the case if it was just a source of resources. The French word *terroir* captures a broader perspective, and refers to the land including its human capital and cultural history” (2008, pg. 325). They also write of the concept of “protected values” and discuss “taboo tradeoffs” involving sacred values common around the world, such as one does not trade one’s children, religion or land. They review literature in which in many areas of the globe, land is considered an extension of self, and further, that land is an important expression of the symbolic value of property in reinforcing group identity.

Among the variety of applications related to attachment to land are these:

- In Appalachia, Radford University professors have studied land attachment in Appalachia, documenting the Scotch-Irish heritage dating from the 1700s (Wagner 2001).
- In addressing suicide risk and health issues for older African-American farmers, researchers found that farmers have positive perspectives on work and strong attachment to the land (Macuiba et.al. 2013).
- Land attachment is a frequent topic in the arts. Sally Nemeth's "Holy Days" is a stage poem about farm families clinging to their farms on the dying plains of Kansas in 1936, with one character commenting, “It never occurred to us to leave” (Drake 1990).
- Setha Low (1992) studied the formation of group identity in Costa Rica and analyzed attachment to the public plaza. She explored the symbolic linkages of people and the land, almost all suggesting long experiences and deeply-rooted feelings.
- Australia has tied social security benefits to the long-term (20 years) “attachment to land” (<http://guides.dss.gov.au/guide-social-security-law/4/6/8/60>).

2. Attachment to Place

“Attachment to Place” and “Sense of Place” are treated synonymously in the research. The terms primarily refer to where people live, but include where they visit and where they recreate as well. The literature on attachment to place is more than three decades old and has been diverse and interdisciplinary, involving psychological, social, cultural, and ecological dimensions. Tuan (1977) is often cited in the literature for an early seminal work exploring the meaning of place. Tuan claimed that the concept of homeland was especially appropriate for examination. Experience and cultural transmission of meanings, in his view, are central ways in which humans develop attachment to place. Beckley (2003) states, “The early innovators in the place attachment literature eloquently described the ‘why’ of attachment, and how places help to forge self-identity and social meaning” (2003, pg. 106)

²⁵ <http://www.theaustralian.com.au/arts/patterns-of-attachment-to-the-land/story-e6frg8n6-1226653248475>.

In 1992, an edited volume was published entitled, Place Attachment, which proved to be seminal and influenced the field since that time (Altman and Low 1992). The authors wanted to move beyond the “commodity metaphor” of the idea that a price tag could somehow be attached to sense of place, and instead, one of the first psychological scales for measuring place attachment as an affective bond was introduced.

According to Dan Williams, social science researcher for the U.S. Forest Service, “Place represents a basic subject matter of interest to virtually all the social sciences, humanities, and even the natural sciences” (personal communication, September 10, 2015). He and his co-authors observe the trend in sense of place research in recognizing that attachment to place is now recognized and valued in decision-making in evaluating local effects of natural resource decision-making:

“The concept of ‘sense of place’ is increasingly being employed as both an academic and popular way to represent the idea that there are aspects of human relationships to nature that legal, political, and market institutions under-represent in economic and other social transactions...

“In particular we draw on this concept to characterize the idea that individuals and communities possess some ‘endowment’ of natural, cultural, and economic goods. In modern market economies a large portion of this endowment can be accounted in monetary terms and calculated as net worth, thus making economic approaches to environmental valuation a reasonable, though still incomplete, method for assessing damage. Still, as individuals, we recognize that much of what we own -- our property, possessions, natural gifts and talents, and our relationships to family and community -- is not entirely represented in such accounts. Possessions have sentimental value unique to their owner. And more to the point, nature, natural resources, and local place as repositories of memories, relationships and the daily routines have meaning and significance in our personal and collective lives that cannot be reduced adequately to monetary value” (Snyder et al. 2003, p.3)

Community well-being is a concept related to sense of place that researchers examine in relation to natural resource decision-making. The Forest Service has a long history in the use of this and similar concepts. Kusel cites the work of Wilkinson et al. (1988) in stating, “Geographical space is only one facet of the sociological definition of community, other facets being shared social space (and formal and informal networks, institutions), and shared or common values.” Kusel calls for recognition of sense of place and community well-being in Forest Service decision-making. (2003, pg. 90)

Blahna et al. (2003) consider that the mapping of social, and geographically-based, communities is one of the most useful units for Forest Service planning. “Thus, another advantage of using community as ... a basic measurement unit is its relevance for U.S. Forest Service planning, which is specifically mandated for all national forests.” This point is important because the JKA work on cultural attachment in Virginia and West Virginia related to a Forest Service decision on a powerline was based on Human Geographic Mapping. In fact, Blahna and colleagues identify this mapping as a key resource for the Forest Service in evaluating community impacts. They cite work done by JKA’s predecessor organization, The Foundation for Urban and Neighborhood Development (1978) and recently by a colleague (Preston 1999) to describe and critique Human Geographic Mapping.²⁶ The Human Geographic Mapping process was a key aspect in the Cultural

²⁶ The first Human Geographic Maps were created for the Rocky Mountain Region (Region 2), Forest Plan, between 1976 and 1981. They were published as Social Resource Units in the Region 2 Forest Plan in 1981 with instructions for the individual District Ranger Offices to use in managing and assisting communities in addressing off-site impacts of forest uses. The

Attachment analysis in 1995 and 2002. This time-tested method for determining the natural, culturally-based boundaries residents make use of in their daily routines was critical to understanding the geographic areas where Cultural Attachment was present.

3. Attachment to Kinship

The study of kinship is one of the most important and central areas of study within anthropology. Early work focused on distinguishing kinship as an integral structure of human society whose features could be described and analyzed. The variations in the ways that humans develop systems to define social relations with each other formed the core of kinship studies. Over time, kinship studies evolved to the cross-cultural study of child-rearing practices and their associated psychological and social effects.²⁷

“Attachment theory” is most often associated with the bond between babies and children with their mothers and other caregivers. The pioneer in the field was John Bowlby who is considered the father of attachment theory. Bowlby was one of the most influential psychologists of the 20th Century. In his early work, he noted that a significant number of thieves he examined had periods of early and sustained separation from their primary caregivers. He was enormously effective in changing attitudes toward parenting and maternal care.

When applied cross-culturally, attachment research remains primarily concerned with the nurturing relationships associated with raising young children and, more broadly, with emotional attachments and social relations in society. As research progressed, it became clear to investigators that it wasn’t “blood ties” in the common imagination as some immutable DNA that formed the ties of human relationships but the nurturing act itself in a reciprocal milieu. In a real way, you became related to those you did favors for, and who did favors for you. The idea that it is the nurturing act themselves that create social relations has gained ascendancy since the 1970s.

As a typical example, Lowe (2002) examined kinship relations in Chuuk Lagoon (formerly Truk) and described the “reciprocal needs fulfillment” extant in any human society. Lowe asserted the development of social relationships are both personally meaningful and socially legitimate, and they intertwine to produce healthy relationships that sustain a society. He ascribes “idealized cultural models” to his subjects which are reinforced in daily life as the “right” way to do things and which shape behavior that support the models.

These findings over several decades of research played out in real time in the Cultural Attachment areas in Virginia and West Virginia described by JKA in 1995 and 2002. Kinship, as was discovered in this Cultural Attachment work, was the glue that held the other two attachments together—i.e. attachment to land and

Human Geographic Maps determine natural cultural boundaries the people use in their everyday lives. These maps have been adopted for use in other National Forests from 1981 to the present. This includes the Cultural Attachment studies for the DEIS and SDEIS done for the George Washington & Jefferson National Forest between the dates of 1995 and 2002. In 1989 James Kent Associates, received a grant from the USDA and Small Business Innovative Research Project (SBIR) to explore the expansion of the concept to wider markets. A paper was published by the Research Team titled: Technical Basis for Delineation of Human Geographic Units, SBIRP, Washington, DC. 1989 (Available online at: <http://www.jkagroup.com/Docs/Technical-Basis-for-Delineation-of-Human-Geographic.pdf>). In 1998, JKA signed a 30-year agreement with the Bureau of Land Management for the use of its Human Geographic Maps. The Spokane, Couer d’Alene, Baker City, Prineville, and Phoenix District Offices signed license agreements with JKA for their use. In addition to private companies, the following National Forests signed JKA license agreements for its Human Geographic Maps: Wallowa-Whitman NF, Willamette NF, Siuslaw NF, Ochoco NF, and Dixie NF. The maps are used for planning and management purposes as well as NEPA-related documentation.

²⁷ A good example is Jack Goody’s edited volume, The Character of Kinship, Cambridge: Cambridge University Press, 1973.

place. Kinship as discovered in this process was life-being-lived that formed a network of bonds of varying intensity across time and across members. The concept of “linked lives” describes the ways in which decisions taken by a kin network member or events taking place in the life of a kin network member have repercussions for others. It is a conscious effort for every one’s benefit to have predictability, participation in and control of one’s environment in order to have strong kinship reliability. Kinship therefore is a predictable web of social relationships that maintains harmony and good will among the members. This was especially true in the social ecosystems within which cultural attachment exists in the study area for the issue of significance put forth by the GW&JNF.

Kinship is inherently a process of informal network relationships that people rely on to survive and to sustain themselves in healthy ways. Within kinship networks that are culturally attached are four archetypes that exist in every circumstance. The archetypes that make up informal kinship networks are: Caretakers, Communicators, Story Tellers and Historians.

1. Caretakers are the glue that holds the kinship networks together. They are routinely accessible to people of the networks when people need assistance or advice. This assistance or advice is freely given. They are trusted. The assistance is based on interest and predictability, i.e that the person will use it wisely because of who gives it.
2. Communicators move information effectively and efficiently through the kinship networks. They are generally in places where they come into contact with people from various networks and their information is reliable and respected.
3. Storytellers carry the culture through their stories. They provide the culture benchmarks that are essential to understand how a community can maintain the valuable parts of its culture. Their stories embody the key values in the community and reinforce a common way of looking at the world. Their stories often go back hundreds of years and are repeated often to each new and old generation.
4. Historians know the history of their geographic place and are the carriers of the events that have happened over the lifetime of the community. They know critical information about events and people that have influenced their community over time. The Historian benchmarks certain times in the community when events were in harmony or disharmony and what was happening at those times.

Kinship was found to be the most powerful of cohesive forces binding the people of Peters Mountain together. It enabled people of the area to function at a trust level that used little if any negative energy to maintain.

Many communities that are nestled within the ridge and valley landscape of the southeastern Appalachian, and in some cases isolated by the surrounding National Forest lands, are culturally attached to their landscapes. The cumulative effect over time of the traditions, attitudes and practices has tied the residents of these rurally isolated communities to the land, to their physical space, and to kinship patterns that can transcend family bonds across the community. Each community is woven together with the surrounding landscape, including the National Forest. The National Forests and the communities that live between and among the forest lands are intertwined ecosystems.

Objective Two: Document the history of the Forest Service requirements to include off-site considerations in its decision-making.

The National Environmental Policy Act (NEPA, 1969) is this country's overarching policy on environmental protection.²⁸ Through case law, it has been established that the two primary purposes of NEPA are to require federal agencies to consider the environmental effects of their decisions and to provide a way to inform and involve the public in federal decision-making.²⁹ Although social and economic factors are listed in the definition of effects in the Council of Environmental Quality's (CEQ) NEPA regulations (40CFR 1508.8), the definition of human environment states that "economic and social effects are not intended by themselves to require preparation of an EIS." "However, an EIS [Environmental Impact Statement], and by implication an EA [Environmental Assessment], must include a discussion of a proposed action's economic and social effects when these effects are related to effects on the natural or physical environments" (Bass et.al. 2001: p. 57, citing 40 CFR 1508.14).

The Forest Service has a long history of assessing the impact of its management activities on nearby communities and for generations has been concerned with its effects beyond national forest boundaries. Both the Forest Service and the Bureau of Land Management, as the primary federal land management agencies, have routinely considered the community effects of their decisions. "Off-site" impacts, including socioeconomic impacts, are generally considered indirect effects as defined in the NEPA regulations (40 CFR 1508.8) as follows:

Effects include:

- (a) Direct effects, which are caused by the action and occur at the same time and place.
 - (b) Indirect effects, which are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable. Indirect effects may include growth inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems, including ecosystems.
- Effects and impacts as used in these regulations are synonymous. Effects includes ecological (such as the effects on natural resources and on the components, structures, and functioning of affected ecosystems), aesthetic, historic, cultural, economic, social, or health, whether direct, indirect, or cumulative. Effects may also include those resulting from actions which may have both beneficial and detrimental effects, even if on balance the agency believes that the effect will be beneficial.³⁰

In addition, federal agencies developing an EIS must consider cumulative impacts. Section 1508.7 of the Code of Federal Regulations (CFR) defines cumulative impact as follows:

§ 1508.7 Cumulative impact.

Cumulative impact is the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.

Therefore, all impacting forces impinging negatively on community life at the time of a proposed project implementation are subject to consideration under the cumulative impact regulation. If local residents bring forward knowledge of cumulative impacts, the responsible agency is under pressure to respond.

²⁸ National Environmental Policy Act of 1969, 42 U.S.C. §§ 4321–4347 (2006).

²⁹ See *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 349 (1989) (establishing these as the two primary purposes of the Act). Cited in Schultz (2012)

³⁰ <http://www.gpo.gov/fdsys/granule/CFR-2011-title40-vol33/CFR-2011-title40-vol33-sec1508-8>.

The new Forest Planning Rule, adopted in 2012, is a land management planning rule which “guides the development, amendment, and revision of land management plans for all units of the National Forest System (NFS), consisting of 155 national forests, 20 grasslands, and 1 prairie.”³¹ In addition to fulfilling its legal mandate for sustaining ecosystem integrity, the agency is responsible for “providing a sustainable flow of benefits, services, and uses of NFS lands that provide jobs and contribute to the economic and social sustainability of communities” (p. 21162). Indeed, one of the eight purposes of the new planning rule is to “contribute to ecological, social, and economic sustainability by ensuring that all plans will be responsive and can adapt to issues such as the challenges of climate change; the need for forest restoration and conservation, watershed protection, and species conservation; and the sustainable use of public lands to support vibrant communities.” A further purpose of the new plan is to “ensure planning takes place in the context of the larger landscape by taking an ‘all-lands approach’” (p. 21164).

This purpose is consistent with Forest Service direction over the last several years. In the myriad examples of community-based collaboration projects undertaken by the agency in the last 25 years, many if not most of them are oriented to an “all-lands approach” which reflects the ecological reality that private and public lands are a seamless whole. Great gains have been made in forest restoration efforts in these 25 years because Forest Service procedures have evolved to include nearby landowners and their lands to achieve a landscape-level scale. One of the eight issues selected for analysis by the interdisciplinary team which headed the Planning Rule effort was “Coordination and Cooperation beyond NFS Boundaries” (p. 21165). In fact, under the selected alternative for the new Planning Rule, “the responsible official will consider the landscape-scale context for management and will look across boundaries throughout the assessment, plan development/revision, and monitoring phases of the planning process” (p. 21178).

The language, intent and experience could not be clearer. The Forest Service must take a large landscape-scale, “all-lands approach” in considering the effects of its decisions. Furthermore, sustainability is defined according to three dimensions, ecological, economic and social. “The plan must include plan components, including standards or guidelines, to guide the plan area’s contribution to social and economic sustainability” (p. 21265).

The new Forest Service Planning Rule does not apply to a project—that is covered under the land allocations contained in the Forest Plan. However, if a proposed project cannot be considered under the existing Forest Plan and an amendment is required, it must use the new Planning Rule. In any case, the new rule shows the continued and expanding Forest Service commitment to addressing off-site, community and social/economic effects of its decisions.

In addition, social and economic effects consideration must accommodate customary and historic uses. 36 CFR 242.24 calls for “customary and traditional use determinations” by which native and non-native people can assert ongoing use of subsistence resources. Any activity involving people interacting with land over a period of time is subject to this regulation, including activities such as berry picking, mushroom gathering, sacred sites, shooting ranges, and use of off-highway vehicles. Moreover, historic uses must be considered. These are often related to extractive activities like logging and mining. If the project may open an old mine, for example, these effects must be examined.

Finally, the attention of federal agencies, and particularly the U.S. Forest Service, to community impacts was given a significant boost by the Executive Order of President Obama on September 15, 2015 (Appendix D).

³¹ 36 CFR, Part 219, Federal Register / Vol. 77, No. 68 / Monday, April 9, 2012 / Rules and Regulations

Entitled, “Using Behavioral Science Insights to Better Serve the American People,” the order requires federal agencies to make use of behavioral sciences in its decision-making processes. Signed only a few weeks ago, we cannot know the manner in which this EO will be applied. However, the Executive Order is fully consistent with the findings of this report in terms of the behavioral observations that determined the level of Cultural Attachment in the case of the Peters Mountain Transmission Line in 1995 and 2002, as well as the consideration of an “all lands” approach to community impacts in federal decision-making.

Conclusions

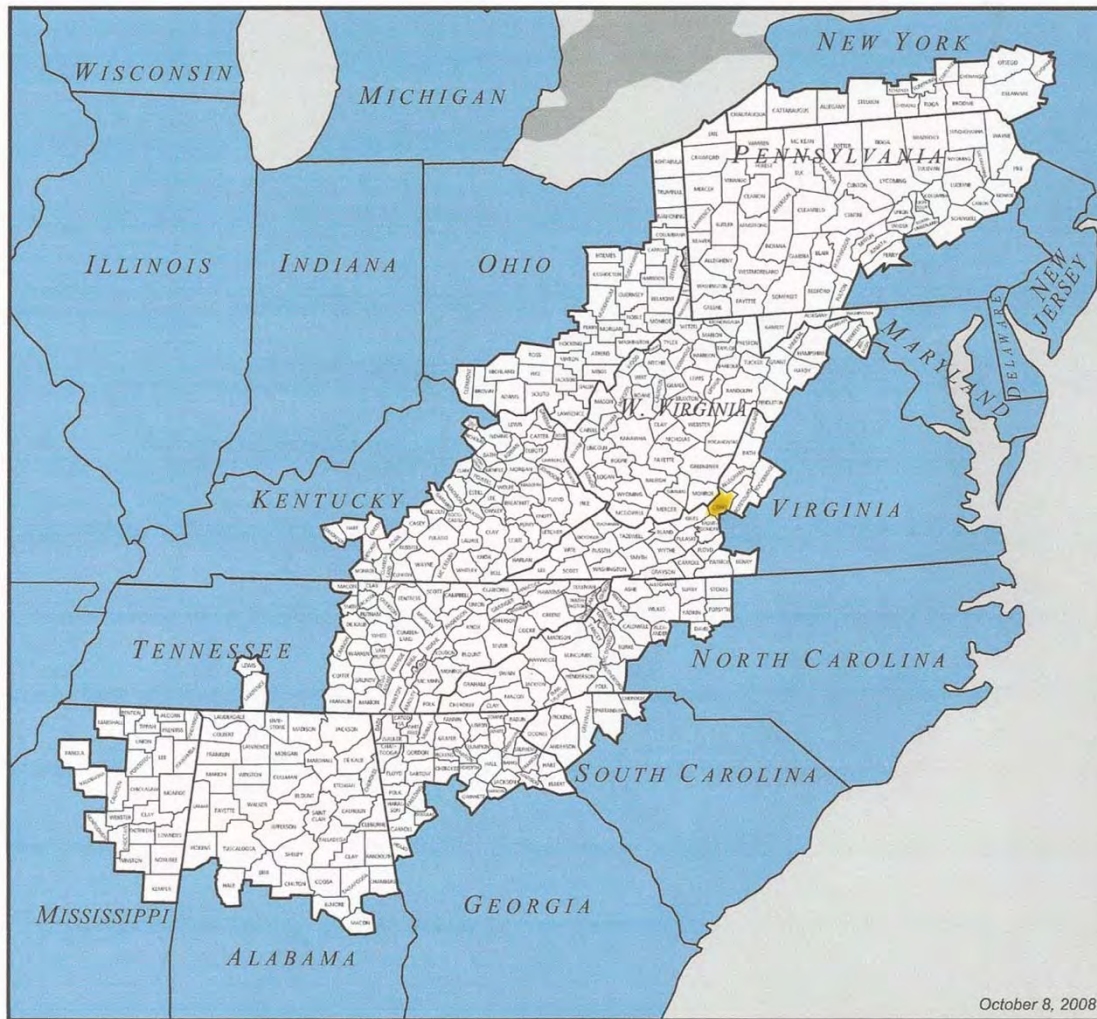
In the two studies of Cultural Attachment performed by James Kent Associates in West Virginia and Virginia for Forest Service decision-making purposes (1995; 2002), it was determined that in areas of high cultural attachment, negative effects are not subject to mitigation. The elements that comprise Cultural Attachment cannot be traded away, replaced or compensated for. They reflect cultural knowledge passed down through time about how to make a living off the land, adapt to changing circumstances, and sustain families and communities. In areas of high cultural attachment, this knowledge is irreplaceable.

The Appalachian Region has multiple possibilities for Cultural Attachment to exist. The Figure below shows the official map of the Appalachian region developed by the Appalachia Regional Commission (ARC). The ARC was established in 1965³² and has been in continuous operation since that time. Within the white area on the map (note the location of Craig County) there is an expectation that a high level of Cultural Attachment might exist in different geographic areas according to the definition discussed earlier in this report. Although not present everywhere, the state of the science indicates that the presence of the interweaving aspects of attachment to land, to place and to kinship should create in project proponents attention to and concern for the possible existence of Cultural Attachment along their corridor routes that pass through this Appalachian geographic area.

Cultural Attachment does not imply that project effects are fatal for a people. It does suggest that change has to be absorbed into the community. If change cannot be absorbed it destroys cultural attachment because the change is imposed from outside in a manner that cannot be managed within the culture. The proposed project has to become an extension of the community, and become part of the web of relations by which local people sustain their lifestyles, in order to create a benefit to culturally-attached communities.

³² In 1963 President Kennedy formed the President's Appalachian Regional Commission to assist in advancing legislation to bring federal dollars to Appalachia. This legislation, the Appalachian Redevelopment Act, was enacted by Congress in 1965, creating the ARC as a federal agency.

Figure Two
The Appalachian Region as Determined by the Appalachia Regional Commission



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Appendix A:

The Methodology for Defining and Applying
Cultural Attachment to the Study Area,
DEIS AEP 765 kV Transmission Line, Appendix M

U.S. Forest Service, GW&JNF in Cooperation with the National Park Service
and Army Corps of Engineers

April, 1995.

Cultural Attachment:
Assessment of Impacts to Living Culture

This report was prepared in response to an issue of significance raised by area residents regarding a proposal for a 765 kV transmission line from the Wyoming substation in West Virginia, to Cloverdale, Virginia. This study of "cultural attachment" took place between June 22 and August 31, 1995. The study focused on Peters Mountain, West Virginia, and adjacent territory in Virginia as the primary study area. To the authors knowledge this is the first Environmental Impact Study conducted under the National Environmental Policy Act to treat living culture as an "endangered Species".

Authored by JKA Associates: *James A Kent; John Ryan; Carolyn Hunka and Robert Schultz*

APPENDIX M:

APCo 765 kV **Transmission Line**

Environmental Impact Statement

Culture Attachment:

Assessment of Impacts to Living Culture

-Prepared for-
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National Forest
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Woodward-Clyde Consultants

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SECTION 1: INTRODUCTION

This report was prepared in response to an issue of significance raised by area residents regarding a proposal for a 765 kV transmission line from the Wyoming substation in West Virginia, to Cloverdale, Virginia. This study of “cultural attachment” took place between June 22 and August 31, 1995. The study focused on Peters Mountain, West Virginia, and adjacent territory in Virginia as the primary study area. In addition, secondary areas were identified for limited study. For the boundaries of the study area, see Map 1.

The report is organized to follow our study process. First, the Discovery Process was employed to assess the current conditions of culture in the study area and delineate human geographic boundaries. Second, cultural attachment was defined and indicators for assessing the strength of cultural attachment were identified. Third, site-specific assessments were made regarding the current strength of cultural attachment. Finally, the potential impact to cultural attachment by Alternative was assessed.

The Discovery Process¹ methodology used to study cultural attachment was developed by James Kent Associates (JKA). It closely resembles the concept social psychologist, W.I. Thomas called ethnomethodology². Ethnomethodology is a qualitative process that is concerned with the common practices people employ to create a sense of order in their daily lives. Field workers listen to the conversation and stories of people in their own environment, where they are most comfortable and powerful. From these conversations, an understanding of how people participate in, value, and manage their environment is developed. The Discovery Process is used to examine cultural systems within a geographic context.

The phrase cultural attachment was not defined as a working concept in the sociological or anthropological literature reviewed. Therefore a working definition had to be created as part of the study process. The definition of cultural attachment used in this study was developed based on fieldwork in the study area and JKA’s experience in other cultural studies.

Definition. Cultural attachment is the cumulative effect over time of a collection of traditions, attitudes, practices, and stories that tie a person to the land, to physical place, and to kinship patterns.

It is critical that the reader understand the constraints of this report. Only findings and recommendations that relate to cultural attachment, as defined, are reported. Other types of attachments, such as attachment to views, rural lifestyle, property values, or other such phenomena are not included.

The study team found a distinction between cultural attachment and other attachments-cultural attachment is non-transferable. By definition, this phenomenon is linked to specific land, physical place and kinship patterns. Therefore it cannot be transferred to another location with a similar view, rural lifestyle, or property value. As a final note, the fieldwork that supports this document is not based on a survey of public opinion about the subject.

¹ Kent, James A., Richard J. Greiwe, James E. Freeman and John J. Ryan. Social Resource Management Guidelines: A Ten-Step Process for a Social Impact Assessment, USDA – Forest Service Surface Environment and Mining Division (SEAM), Ogden, Utah 1979.

² Turner, Jonathan H. The Structure of Sociological Theory, The Dorset Press, 1978.

SECTION 2: METHODOLOGY FOR DEFINING AND APPLYING CULTURAL ATTACHMENT TO THE STUDY AREA

JKA has developed methods (Discovery Process) for interacting with the formal and informal social systems in communities to access the social and cultural infrastructure of a geographic area. Discovery is a descriptive process for identifying various elements of a community. A describer's information comes from listening to people, not interviewing them, as they describe the community's geographic area, its networks, issues, history, and lifestyle. An outline of the methodology used for this project is presented to facilitate the understanding of project findings. Figure 1 on the following page depicts the study process from discovery to environmental consequences of alternatives.

The findings for this report are based on physical descriptions, citizen contacts, and reference materials.

Physical descriptions are site-specific observations of geographic and man-made physical attributes of an area.

Citizen contacts are interactions with individuals or families in the study area or people outside the study area who have important information about the project. Citizen contacts include direct communication with individuals and anonymous interaction with individuals in gathering places. For this project, physical descriptions were obtained throughout the study area and a total of approximately 175 citizen contacts were made within the study area.

Reference materials included Appalachian studies books and articles, local history books, reports from area educational institutions, census and economic data. Books, publications and other written materials that were used are listed in Section 5 Bibliography.

Attempts were made to contact individuals in a community who serve one of the following informal roles: caretakers, communicators, and historians. These individuals are identified through a "nomination" process, whereby individuals direct field workers to persons who fulfill the roles described.

Caretakers are individuals within a community who implicitly or explicitly take care of people, help others take care of themselves, or have skills or knowledge that others seek out. Caretakers also serve as verifiers of information and issues in their networks. Communicators are individuals within informal networks who actively possess, express and share information. Historians are individuals who can paraphrase or record the history of an area.

Culture Descriptors Used To Define The Study Area

In the interest of streamlining data gathering, JKA describers concentrate on identifying certain classes of information. Seven cultural descriptors are use: **settlement patterns, work routines, support services, publics, networks, recreation activities, and geographic features** within human geographic boundaries established during the discovery phase.

A **settlement pattern** is the distribution of a population in a geographic area, including the historical cycles of development. Settlement patterns identify where a population resides and the type of settlement categorized by its land use style, permanence, and seasonal characteristics. It also describes the major historical growth/no growth cycles or benchmarks in settlement.

A **work routine** is the way in which people earn a living, including where, when, and how. The types of employment, skills needed, wage levels, and natural resources required in the process are used to generate a profile of a community's work routines. The opportunities for advancement, the business/land ownership patterns and stability of employment activities are also elements of workroutines.

A **support service** is any arrangement people use for taking care of each other. Support services include institutions serving a community (formal) and people's individual caretaking activities (informal). Formal support services include commercial businesses, religious institutions, social welfare agencies, governmental, organizations, and educational, medical, and municipal facilities. Informal support services center on the family, the neighborhood, and/or friendships. People use these informal support services on a day-to-day basis to satisfy their caretaking needs.

A **public** is a segment of the population or group of people having common characteristics, interests, lifestyle, or some recognized demographic feature (e.g. average age, income, or ethnicity). A public identifies a group of people who influence resource use locally or who live elsewhere and have an interest in the way resources are managed.

A **network** is made of people who support each other in predictable ways because of their commitment to a common purpose, their shared activities, or similar attitudes. Networks share information and ideas. Networks function at different levels: within a neighborhood or community, across several different communities, or throughout a region. There are two types of networks: formal and informal. A formal network is a group of people committed to an activity or purpose. Usually these groups are identified by the vertical structure of their organization and management systems. However, formal networks also refer to situations where several formal groups have banded together for a common goal or purpose. Informal networks are horizontal organizations of individuals operating without written operating rules or formal roles towards common social, family, or other goals.

A **recreation activity** is the way in which people spend their leisure time. Recreational activities include what recreational opportunities are available, the seasonability of these activities, the specialized equipment or resources used, and the money and time required to pursue the activities. The frequency of local/non-local users of recreational resources, the preferences of local/non-local users, and the location of the activities are also included.

A **geographic feature** is any significant physical or cultural feature that defines the extent of a community. Cultural and physical features generally separate the cultural identity and daily activities of a community from those living in other geographic areas. Cultural features are usually established by people or agencies over time and are based on historical, ethnic, or social events. Physical features include geologic, biologic, and climatic features, distances, or any other characteristics that distinguish one area from another. Examples include watershed, soil composition, and mountains.

Human Geographic Boundaries

Information from the cultural descriptors discussed in the previous section was organized into Human Resource Units (HRUs) that are displayed graphically on a map of the study area (see Map 2). This HRU map displays the cultural boundaries that distinguish the various human habitat areas. The names of the HRUs are as follows: (1) Narrows, (2) New Castle, (3) Newport, (4) Pearisburg/Walker Valley, (5) Zenith/Gap Mills, (6) Peterstown/Lindside, and (7) Waiteville/Paint Bank. Each of these areas is characterized by unique relationships to the seven cultural descriptors discussed above.

The HRU boundaries indicate how culture is not constrained by county or other political boundaries. They are naturally occurring boundaries within which people who share similar values, attitudes and lifestyles have their greatest strength and concern. This mapping of the social ecosystem provides the context within which the

definition and assessment of the concept of cultural attachment took place.³ Narrative describing each HRU is not included in this document. The HRU designation is the method used by JKA to gain a comprehensive understanding of the culture in a specific geographic area. For the purpose of this report, the HRU designation serves as an interim step in the process to identify cultural areas of special concern.

Based upon the information obtained from the cultural descriptors and the insights gained from mapping the HRUs seven areas of special concern showed cultural characteristics for further study. The geographic areas of special concern were: (1) Peters Mountain; (2) Waiteville; (3) Sinking Creek Valley; (4) Clover Hollow; (5) Paint Bank; (6) Ballard-Bozoo; (7) Walker Valley.

Defining Cultural Attachment

Anthropologists have defined **culture** as a system of behaviors, values, ideologies and social arrangements that help human beings interpret their universe as well as deal with features of their environments-- both natural and social.⁴

Similarly, in this study **cultural attachment** has been defined as the cumulative effect over time of a collection of traditions, attitudes, practices, and stories that ties a person to the land, to physical place, and to kinship patterns. This definition evolved out of the fieldwork where stories were gathered from local people about their lives, from a review of the literature about Appalachia, and from discussions with academicians, and other professionals who are familiar with the study area.

Cultural attachment is the result of having lived in an area - and having had your ancestors live in that area. Cultural attachment is the result of having made many everyday decisions within the context of **land, place, and kinship**. Cultural attachment requires the active (rather than passive) process of people attempting to preserve their natural and social environment.

During the fieldwork for this study, three elements of attachment became prominent; they were attachment to land, to physical place, and to kinship patterns.

People talked about their relationship to land in terms of self-sufficiency (“the land will provide-water, food, fuel - a home”⁵), and stewardship (“This land isn’t mine, I am just taking care of it for the next generation.”⁶) In cultural attachment, land is not seen as a commodity but as a part of the family system that has a sacred quality.⁷ Production on the land is geared to family use, sharing and other culturally appropriate activities.

³ Kent, James A. and Anthony K. Quinkert. The Technical Basis for Delineation of Human Geographic Units, Small Business Innovative Research Project, Grant Number: 85-SBIR-8-0069, United States Department of Agriculture, 1986.

⁴ Wagner, Melinda Bollar, et.al., “Documentation of Certain Intangible Elements of Cultural Heritage, Folklife, and

Living Culture: Cultural Attachment to Land in Craig County, Virginia”, Appalachian Regional Studies Center and Department of Sociology and Anthropology, Radford University, March 1995, page 2.

⁵ Quote from field notes.

⁶ Quote from field notes.

⁷ For a thorough discussion on the concept of Appalachian space see Hill, David, “Appalachian Heroes as an Indicator of Appalachian Space: Changes in the meaning of Appalachian Space and Time, 1858-1985”, Proceedings of the Second Biennial Linear Parks Conference 1987, Appalachian Consortium Press, Boone, North Carolina, 1987.

For instance, on the non-federal portion of Peters Mountain timber companies have learned how to work with the local culture. There is no clear cutting. Trees of a certain size are taken out one at a time and the land looks the same as before-the canopy was not broken. Many of these lands in the culturally attached areas have been in the same family for hundreds of years, while other families try to reassemble land parcels that their ancestors had as original holdings.

Talk about physical place related to geographic space, special areas with names such as Peters Mountain or Sinking Creek. Connected to these places are stories and values that create a bond with one's home. "Our people are attached to the valleys and mountains all around us. It's been our home for generations. They have the land, the place...people offer us money for our land but we don't sell it. You just don't want to be cut off from the sacredness of your land"⁸.

Place was also defined as intimate knowledge of the landscape, what happens in the landscape, what the landscape provides ("During the depression, the mountain took care of us", "if you take care of this place it will take care of you", "Those springs are our life line, they keep us healthy"⁹). In culturally attached areas, place was spoken of as having a living interactive quality that preserved the relationship between people and their landscape.

The third element, kinship patterns, was commonly expressed in conversation with study area residents. In culturally attached areas, the household was the basic unit of production. Families had decided physical place and land were their dominant values and the family and kin work to support those values. Mutual cooperation, kinship gatherings, discussions of the genealogy of family and place were prominent.

In his book, Appalachian Valley, George Hicks focuses on kinship as the central organizing principle of social life.¹⁰ Dwight Billings in a paper on pre-industrial Appalachia states "exchange between families reveals a deep cultural attachment to kinship and neighborhood ties and to a spirit of mutual cooperation"¹¹. It was in this element that the resilience of the culture could be seen. Family mechanisms were used to maintain participation and control over their environment. Minor changes that confront the family are often adsorbed and brought into the culture. This absorption mechanism allows for people to accommodate change without losing their culture. Major impacts from the outside disrupt these kinship patterns leading to the demise of cultural attachment.

While the reviewed literature had discussed these three elements as separate entities, it became apparent that they were intricately tied together in a dynamic ecosystem where cultural attachment existed. Where cultural attachment was weakened one or more of these elements had been intruded upon and participation and control over them had been eroded. If one of the elements such as place (outsiders buying property) is impacted or affected the other two elements are also affected (kinship patterns broken, land shifts from use to commodity). It was found, in people's talk, that there was constant attention to keeping these three elements in harmony. Figure 2 displays the functioning parts of this culturally attached ecosystem model.

⁸ Ibid. Page 104

⁹ Quotes from field notes

¹⁰ Hicks, George L, Appalachian Valley. Holt, Rinehart, and Winston, New York, 1976

¹¹ Billings, Dwight, et.al.; "Culture, Family, and Community in Pre-industrial Appalachia", Appalachian Journal, Winter 1986, pages 154 to 170.

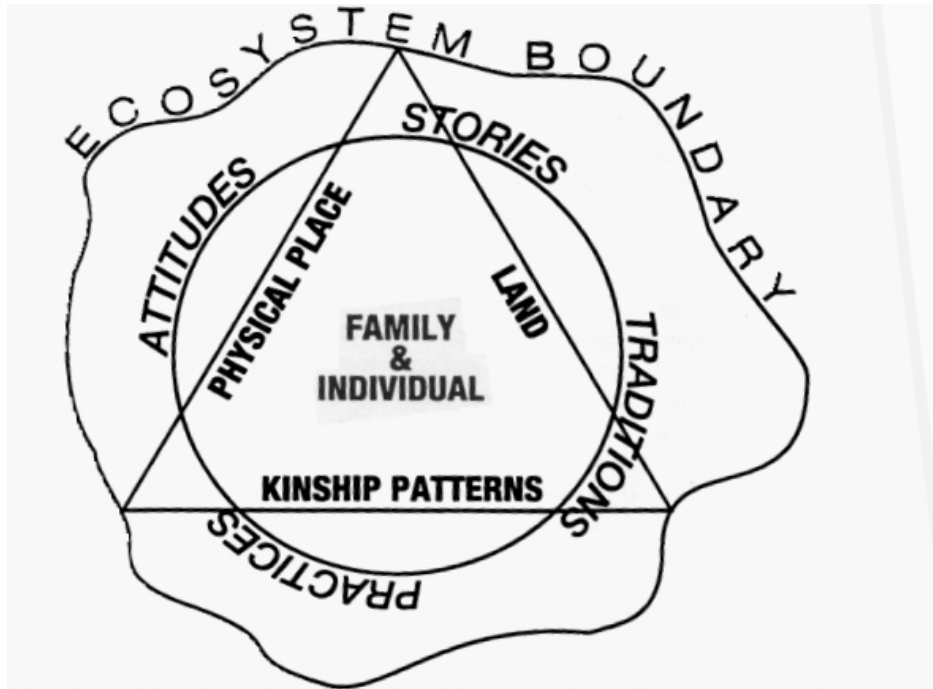


FIGURE 2: CULTURAL ATTACHMENT MODEL

The triangle represents the dynamic interaction of the three elements of land, physical place and kinship. In the middle of the triangle are the individual and family. In the circle are the cumulative affects over time of the traditions, attitudes, practices and stories.¹² The outer boundary represents the ecosystem within which cultural attachment occurs.

Some of the most important characteristics of cultural attachment imply a long relation± to the land, a set of work routines and support mechanisms that rely on the help neighbors and kin, and a common understanding within the community of the genealogy neighbors and places. One must have other people like oneself to continue to practice daily living in a way that supports cultural attachment. That is not to say that cultural attachment is so fragile that newcomers cannot be absorbed.

This active rather than passive definition of culture attachment was used in the field 1 determine where different geographic areas would be placed on a continuum from low cultural attachment to high cultural attachment.

Cultural Indicators Used To Assess Areas of Culture Attachment

“Cultural attachment indicators” were developed by JKA to identify areas where cultural attachment exists and to allow for a comparative assessment of cultural attachment in different geographic areas. Indicators are selected from within the study environment in order to provide a culturally sensitive measure of culture attachment. The indicators chosen for this project were developed as a result of describing the study area with the seven cultural descriptors. The most significant cultural descriptors in defining cultural attachment indicators were “settlement patterns” and “work routines”.

Five cultural attachment indicators were developed to identify the areas in which cultural attachment was practiced and to assess its extent:

¹² Jones, Loyal, Appalachian Values, The Jesse Stewart Foundation, Ashland, Kentucky, 1994.

Kinship -- A person who is culturally attached has a primary commitment to his/her kin. This expresses itself through mutual support to provide needed services such as child care, agricultural support, and entertainment/recreation. This occurs within the context of a commitment to place. A person who is not culturally attached is more likely to purchase services and seek entertainment/recreation outside of their place. They are also likely to define their family as those with whom they share a residence.

Place/work orientation -- A person who is culturally attached has a primary commitment to place. The choice of employment is secondary and is often a method of supporting the primary commitment to place. In contrast people who are not culturally attached place primary emphasis on the choice of work and then select a place to live.

Relationship to land -- A person who is culturally attached has a relationship to land, which is primarily based in non-economic values. Land is recognized as having intrinsic value, which is more important than its economic value. A person who is not culturally attached has a relationship to land, which is primarily based on its extrinsic or economic value.

Genealogy of homeplace -- A person who is culturally attached has an understanding and makes choices in his/her daily lives based on the genealogy of their homeplace. If one is a newcomer, he/she will have learned of the genealogy of the homeplace and adopted it.

Absorption -- People in areas which practice cultural attachment have developed a process for absorbing change in their environment. This informal system provides the basis for sustaining culture while dealing with new influences. In places where cultural attachment is not practiced, changes are based on whatever choices individuals or political bodies make since there is little or no culture left into which change can be absorbed.

Identified areas of cultural attachment studied are shown on Map 3. In some areas, the extent of cultural attachment is greater than in others. Areas were rated and placed in one of five categories: high, high/medium, medium, medium/low, or low. Areas with low cultural attachment, such as Pearisburg, Narrows, Glen Lyn, et. al. were not reported out

High -- cultural attachment is the dominant culture. All five indicators show that without intrusion, the culture will have a long-term sustainability.

High/medium -- cultural attachment is the dominant culture, however the culture has begun to face intrusion from internal or external forces. One or more indicators are showing a weakness that could affect sustainability.

Medium -- cultural attachment coexists with other cultures and is not the dominant culture. It might exist in clusters of families but overall indicator strength is degenerating due to intrusions. Sustainability is in doubt.

Medium/low -- cultural attachment exists in clusters that are not sustainable.

Low -- cultural attachment is virtually non-existent.

Table 1 shows the rating by indicators and the cumulative rating for each area of cultural attachment studied.

Area of Study	Peters Mountain	Walker valley	Waiteville	Sinking Creek	Clover Hollow	Bozoo/ Ballard	Paint Bank
Kinship	High	High	High/Med	Medium	Medium	Medium	Med./Low
Place/work	High	High	High	High/Med	Medium	Medium	Med/Low
Relation to Land	High	High	Medium	Medium	Medium	Medium	Low
Genealogy	High	High/Med	High/Med	High	Medium	Medium	Med/Low
Absorption	High	High	Medium	Medium	Medium	Medium	Low
Overall	High	High	High/Med	High/Med	Medium	Medium	Med/Low

Table 1: Rating of Cultural Indicator Attachment Study Areas by Cultural Attachment

SECTION 3: AFFECTED ENVIRONMENT

The study area covers a broad range of human and physical geography including parts of two states (West Virginia and Virginia) and all or portions of seven counties (Giles, Monroe, Craig, Montgomery, Mercer, Roanoke, and Summers). Parts of the study area are within growth corridors of urban areas such as Roanoke and Blacksburg. These corridors correspond with Highway 460 and Route 311 in Virginia.

Previous alterations to the landscape have included the construction of major roadways railroad lines, and numerous powerlines, which connect to the Glen Lyn power plant. Most of these changes have been in the urban growth corridor.

There are also areas, which are relatively remote with limited alterations to the physical and social environment over the last fifty years. There is a rich history to the entire study area which has included: the migration of early European settlers in the late 1700's, Civil War activities, the healing water spas at the end of the 19th century, the short-lived introduction of railroads for mining and logging, and the emigration to factory towns during the depression, and the military exodus during World War II. Culturally, the close family relationships and mutual support which characterized mountain living for the last two hundred years are still common in parts of the study area.

Knowledge gained about the study area and areas of special concern is presented in the context of consequences of the chosen alignment. JKA presents key findings from the study and then describes the alternatives as they relate to enhancing or impacting cultural attachment

Intrusion

The link between cultural attachment and powerline corridors becomes operative when assessing the impact of an intrusion (powerline) on the cultural landscape of an area. An intrusion is an outside force brought into an area, which will create a significant long-term change in the relationship between people, and land, which cannot be absorbed into the existing culture, thereby changing that culture. In areas where cultural attachment is strong, because individuals have consistently made choices over time, which support their culture, an intrusion is a threat to the living culture.

Intrusion as a process that disrupts and destroys culture is discussed by many authors who write about changes in Appalachia.¹³¹⁴ David Hill was a poignant commentator.¹⁵ He discussed assaults on established culture in the form of “technological advances developed outside the region, penetrating and saturating” the region. Hill identifies two intrusions, the railroad of the 1850’s and the United States highway system of the 1900’s that set the stage for exploiting the mountain environment. As Hill states the “new exploitive systems undercut the cultural patterns” which had developed through people’s relation to the land, physical place and kin.

Any outside-generated intrusion that breaches the boundary of a culturally attached area will be destructive to the human habitat. Change that comes in through the culture has a better chance of being accommodated and is therefore non-intrusive. A biological metaphor to explain intrusion is the cell. A cell is a self-contained living unit of matter that has a membrane that allows certain substances into the cell and prevents other substances from entering. The cell will absorb what it can and fight off what cannot be absorbed through osmosis. When the cell is breached internally by a mutation or by an external intrusion, the cell loses its ability to control osmosis. Once osmosis is lost, anything can enter the cell.

Healthy cultures have a similar ability to absorb some changes and reject others that threaten their ability to remain intact. An intrusion weakens and potentially destroys the relationship between people and land, place, and kinship patterns by disrupting the cultural “membrane” which protects these relationships. Since one is never sure which intrusion will rupture the membrane, one must assume it will be the next one if a community with strong cultural attachment is recognized as worth saving.

Specifically, loss of land to powerlines and roads are threats to cultural attachment. Some of the farms that are marginal now will be sold off and farming families will move. The loss of a family in a culturally attached area diminishes the support systems that are necessary for survivors to keep making commitment to the land. In addition, the “eminent domain” process to acquire right-of-way land would intrude on the relationship between land and people by allowing the land value to be measured in economic rather than cultural terms. It also involves forcing the sale of land, which has genealogical and cultural meaning. A community that functions well, through cultural attachment, will be destroyed--even if it takes years.

Identified Areas of Cultural Attachment

Identified areas of high, high/medium, and medium cultural attachment by alternative/segment are displayed in Graphic 1 on the following page. Alternatives that pass through one or more areas of high or high/medium cultural attachment are considered to be highly intrusive and will be destructive to the cultural attachment in the area. Alternatives that pass through one or more areas of medium cultural attachment are considered to be moderately intrusive unless there is an existing intrusion that is similar. For example, the Transmission Line Parallel 1 and 2 alternatives are proposed to parallel the path of an existing powerline intrusion. Because of the existing intrusion, impact of a new intrusion on a medium area of cultural attachment is reduced to a low impact.

SECTION 4: FINDINGS AND ENVIRONMENTAL CONSEQUENCES

In order to assess the impact of the 13 alternatives to cultural attachment, the relationship between powerlines

¹³ Eller, Ronald D., “Industrialism and Social Change in Appalachia, 1880-1930: A Look at Static Image”, In Colonialism in Modern America-The Appalachian Case, Boone: Appalachian Consortium, 1978.

¹⁴ Stein, Maurice, The Eclipse of Community, Princeton: Princeton University Press, 1960

¹⁵ Hill, pages 100-104.

and cultural attachment was determined, areas of cultural attachment were identified, and the extent of cultural attachment by area was assessed. This section contains the findings from that analysis.

Findings and environmental consequences are based on the rating of cultural attachment in a specific area and whether it will be an intrusion on the relationship between people and the land, place, and kinship patterns. In areas of high cultural attachment, a relatively undisturbed area where people actively support their culture through daily choices, an intrusion such as a powerline, four-lane road, or other major project which would be highly intrusive. In areas of low cultural attachment, intrusions and daily choices have already diminished cultural attachment to the point that it is on an unsustainable path.

Environmental Consequences by Alternative

Identified areas of high, high/medium, and medium cultural attachment by alternative/segment are displayed in Graphic 1 on the previous page. Alternatives which pass through one or more areas of high or high/medium cultural attachment are considered to be highly intrusive and a threat to the cultural attachment in the area. Alternatives that pass through one or more areas of medium cultural attachment are considered to be moderately intrusive unless there is an existing intrusion that is similar. For example, the Transmission Line Parallel 1 and 2 alternatives are proposed to parallel the path of an existing powerline intrusion. Because of the existing intrusion, impact of a new intrusion on a medium area of cultural attachment is reduced to a low impact.

Alternative 1: Proposed Action (with L and M Segments)

Federal Lands. The alternatives that cross the Peters Mountain area of cultural attachment are the only ones that will receive comment on the federal lands portion. These comments are based on a shared sense of cultural attachment that exists in the Peters Mountain area. Relationships to land, place, and kinship patterns include the federal lands in the Peters Mountain area. The relationship to place is focused on Peters Mountain, with poems and stories that establish the mountain as hero. Intrusions upon federal lands in the Peters Mountain area will damage the cultural infrastructure that ties people and land together.

There is a striking similarity between this phenomenon and the description of traditional cultural property that is often used in discussing Native American's cultural and spiritual relationship to land and place. Identification of this cultural phenomenon can be established through: active rituals on the land, burials of family members, family history rooted in stories about the land, and intimate understanding of the resources which the land provides for sustenance. All of these apply to the federal lands in the Peters Mountain area.

Non-federal Lands. Segments D, E, and F cross the Peters Mountain area of high cultural attachment. G and H cross the Waiteville area and K crosses the Sinking Creek area of high/medium cultural attachment.

This alternative would have high intrusive impacts on cultural attachment in the study area.

Alternative 2: Proposed Action (with S and T Segments)

Same as alternative 1.

This alternative would have high intrusive impacts on cultural attachment in the study area.

Alternative 3: Proposed Action Modified 1

Federal Lands. Same as alternative 1.

Non-federal lands. Segments NA, NC and AC-15 cross the Peters Mountain area of high cultural attachment. NMI and NN cross the Waiteville and K crosses the Sinking Creek areas of high/medium cultural attachment.

This alternative would have high intrusive impacts on cultural attachment in the study area.

Alternative 4: Proposed Action Modified 2

Federal lands. Same as Alternative

Non-federal lands. Same as alternative 3

This alternative would have high intrusive impacts on cultural attachment in the study area.

Alternative 5: Northern Link Modified 1

Non-federal lands. Segments NA, NC, and AC-15 cross the Peters Mountain area of high cultural attachment. This alternative would have high intrusive impacts on cultural attachment in the study area.

Alternative 6: Northern Link Modified 2

Federal lands. Same as alternative 1.

Non-federal lands. Same as alternative

5.

This alternative would have high intrusive impacts on cultural attachment in the area.

Alternative 7: Transmission Line Parallel 1

Federal lands. No cultural attachment impact

Non-federal lands. Segment SS crosses the Clover Hollow area of medium cultural attachment in which a powerline intrusion currently exists.

This alternative would have low intrusive impacts on cultural attachment in the area.

Alternative 8: Transmission Line

Parallel 2 Federal lands. No cultural attachment impact Non-federal lands. Same as alternative 7.

This alternative would have low intrusive impacts on cultural attachment in the area.

Alternative 9: Dismal Creek Crossing 1

Federal lands. No cultural attachment impact

Non-federal lands. Segment SSS crosses the Walker Valley area of high cultural attachment. This alternative would have high intrusive impacts on cultural attachment in the area.

Alternative 10: Dismal Creek Crossing 2

Federal lands. No cultural attachment impact.

Non-federal lands. Same as alternative 9.

This alternative would have high intrusive impacts on cultural attachment in the study area.

Alternative 11: Southern Corridor 1

Federal lands. No cultural attachment impact.

Non-federal lands. No identified areas of medium or greater cultural attachment have been identified in the study area along this alternative.

This alternative would have no identified intrusive impacts on cultural attachment in the study area.

Alternative 12: Southern Corridor 2 Federal

lands. No cultural attachment impact. Non-

federal lands. Same as alternative

This alternative would have no identified intrusive impacts on cultural attachment in the study area.

Alternative 13: Non-GW&JNF

Federal lands. No cultural attachment impact. Non-

federal lands. No cultural attachment impact

This alternative would have no identified intrusive impacts on cultural attachment in the study area.

Cumulative Impacts

The primary cumulative issues of potential concern with regard to cultural attachment are: past roadway/linear projects, past transmission line projects, and foreseeable roadway/linear projects. The past roadway/linear and transmission line projects were used in our analysis of previous intrusions and their impact on cultural attachment. Previous expansion of US 460, railroad lines, and transmission lines have all influenced Relationship To Land, Absorption, and Kinship in the areas in which they exist.

Numerous developments, including manufacturing facilities, a power plant, commercial and light

industrial development along the US 460 corridor, and the impacts of urban growth and migration outside of Blacksburg have all contributed to the establishment of an urban corridor along US 460 through the study area. In general, cultural impacts are minimized by locating additional intrusions along urban corridors or paralleling existing intrusions.

Based on the list of foreseeable projects and the approved level of analysis, upgrading of Route 219 is the primary cumulative issue of potential concern. The proposed upgrade from 2 to 4 lanes would change the nature of impacts of the existing roadway in the Peters Mountain cultural attachment area. The potential for significant impacts exists due to the Route 219 upgrade. Alternatives 1, 2, 3, 4, 5, and 6, all cross Route 219 approximately 8 miles northeast of Peterstown. The combination of elongated, linear bifurcation could increase the impacts to the Peters Mountain cultural attachment area.

Mitigations

Cultural attachment does not lend itself to mitigation. Since cultural attachment is non-economic and non-transferable, it cannot be mitigated through reimbursement or relocation of individuals. For alternatives with high intrusive impacts on cultural attachment, where intrusions have been minimal and individuals make daily choices based upon their culture, avoidance is the most culturally appropriate action. For alternatives with low intrusive impacts on cultural attachment, special attention could be given to disruption of agricultural production. Examples of mitigation would include: working with farmers to site towers and rights-of-way, manual clearing of underbrush along the route instead of chemical application, and minimization of new road construction. For alternatives with no identified impacts, no mitigation is proposed.

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Several local publications, newsletters, letters, data books, etc., have been used which are not listed.

Appendix B:

“Cultural Attachment Technical Report, SDEIS
AEP 765kVTransmissionLine, Appendix I”

U.S. Forest Service, GW&JNF in Cooperation with the National Park Service
and Army Corps of Engineers

April, 2002

APPENDIX I
CULTURAL ATTACHMENT TECHNICAL REPORT

SDEIS
2002

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APPENDIX I
CULTURAL ATTACHMENT TECHNICAL REPORT

SDEIS
2002

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SECTION 1: INTRODUCTION

This report was prepared in response to an issue of significance raised by area residents regarding a proposal for a 765 kV transmission line from the Wyoming substation in West Virginia, to Jackson Ferry, Virginia. This study of "cultural attachment" took place between September 22, 2001 and January 24, 2002. The study focused on the portions of Tazewell, Bland, and Wythe counties Virginia along the Proposed Corridor, see Map 1.

The report is organized to follow our study process. First, the Discovery Process™ was employed to assess the current conditions of culture in the study area and delineate human geographic boundaries. Second, cultural attachment indicators were employed to identify potential areas of cultural attachment for additional study. Third, site-specific assessments were made regarding the current strength of cultural attachment. Finally, the potential impact to cultural attachment by Alternative was assessed.

The Discovery Process¹ methodology used to study cultural attachment was developed by James Kent Associates (JKA). It closely resembles the concept social-psychologist, W.I. Thomas called ethnomethodology². Ethnomethodology is a qualitative process that is concerned with the common practices people employ to create a sense of order in their daily lives. Field workers listen to the conversation and stories of people in their own environment, where they are most comfortable and powerful. From these conversations, an understanding of how people participate in, value, and manage their environment is developed. The Discovery Process is used to examine cultural systems within a geographic context.

The phrase "cultural attachment" was not defined as a working concept in the sociological or anthropological literature reviewed. Therefore a working definition had to be created as part of the study process. The definition of cultural attachment used in this study is derived from field work in the study area, reference materials and JKA's experience in other cultural studies.

Definition. Cultural attachment is the cumulative effect over time of a collection of traditions, attitudes, practices, and stories that tie a person to the land, to physical place, and to kinship patterns.

It is critical that the reader understand the constraints of this report. Only findings and recommendations that relate to cultural attachment, as defined, are reported. Other types of attachments, such as attachment to views, rural lifestyle, property values, or other such phenomena are not included.

¹ Kent, James A., Richard J. Greiwe, James E. Freeman and John J. Ryan. Social Resource Management Guidelines: A Ten-Step Process for a Social Impact Assessment. USDA- Forest Service Surface Environment and Mining Division(SEAM), Ogden, Utah 1979..

² Turner, Jonathan H. The Structure of Sociological Theory, The Dorsey Press, 1978.

Cultural Attachment Technical Report James Kent Associates

The study team found a distinction between cultural attachment and other attachments--cultural attachment is non-transferable. By definition, this phenomenon is linked to specific land, physical place and kinship patterns. Therefore it cannot be transferred to another location with a similar view, rural lifestyle, or property value. As a final note, the fieldwork that supports this document is not based on a survey of public opinion about the subject.

SECTION 2: METHODOLOGY FOR DEFINING AND APPLYING CULTURAL ATTACHMENT TO THE STUDY AREA

JKA has developed methods (Discovery Process) for interacting with the formal and informal social systems in communities to access the social and cultural infrastructure of a geographic area. Discovery is a descriptive process for identifying various elements of a community. A describer's information comes from listening to people, not interviewing them, as they describe the community's geographic area, its networks, issues, history, and lifestyle. An outline of the methodology used for this project is presented to facilitate the understanding of project findings. Figure 1 depicts the study process from discovery to environmental consequences of alternatives.

The findings for this report are based on physical descriptions, citizen contacts, and reference materials.

Physical descriptions are site specific observations of geographic and man-made physical attributes of an area.

Citizen contacts are interactions with individuals or families in the study area or people outside the study area who have important information about the project. Citizen contacts include direct communication with individuals and anonymous interaction with individuals in gathering places. For this project, physical descriptions were obtained throughout the study area and a total of approximately 65 citizen contacts were made within the study area.

Reference materials included Appalachian studies books and articles, local history books, reports from area educational institutions, census and economic data. Books, publications and other written materials that were used are listed in Section 5: Bibliography.

Attempts were made to contact individuals in a community who serve one of the following informal roles: caretakers, communicators, and historians. These individuals are identified through a "nomination" process, whereby individuals direct field workers to persons who fulfill the roles described.

Caretakers are individuals within a community who implicitly or explicitly take care of people, help others take care of themselves, or have skills or knowledge which others seek out. Caretakers also serve as verifiers of information and issues in their networks. Communicators are individuals within informal networks who actively possess, express and share information. Historians are individuals who can paraphrase or record the history of an area.

Culture Descriptors Used To Define The Study Area

In the interest of streamlining data gathering, JKA describers concentrate on identifying certain classes of information. Seven cultural descriptors are used: **settlement patterns, work routines, support services, publics, networks, recreation activities, and geographic features** within human geographic boundaries established during the discovery phase.

A **settlement pattern** is the distribution of a population in a geographic area, including the historical cycles of development. Settlement patterns identify where a population resides and the type of settlement categorized by its land use style, permanence, and seasonal characteristics. It also describes the major historical growth/no growth cycles or benchmarks in settlement.

A **work routine** is the way in which people earn a living, including where, when, and how. The types of employment, skills needed, wage levels, and natural resources required in the process are used to generate a profile of a community's work routines. The opportunities for advancement, the business/land ownership patterns and stability of employment activities are also elements of work routines.

A **support service** is any arrangement people use for taking care of each other. Support services include institutions serving a community (formal) and people's individual caretaking activities (informal). Formal support services include commercial businesses, religious institutions, social welfare agencies, governmental organizations, and educational, medical, and municipal facilities. Informal support services center on the family, the neighborhood, and/or friendships. People use these informal support services on a day-to-day basis to satisfy their caretaking needs.

A **public** is a segment of the population or group of people having common characteristics, interests, lifestyle, or some recognized demographic feature (e.g. average age, income, or ethnicity). A public identifies a group of people who influence resource use locally or who live elsewhere and have an interest in the way resources are managed.

A **network** is made of people who support each other in predictable ways because of their commitment to a common purpose, their shared activities, or similar attitudes. Networks share information and ideas. Networks function at different levels: within a neighborhood or community, across several different communities, or throughout a region. There are two types of networks: formal and informal. A formal network is a group of people committed to an activity or purpose. Usually these groups are identified by the vertical structure of their organization and management systems. However, formal networks also refer to situations where several formal groups have banded together for a common goal or purpose. Informal networks are horizontal organizations of individuals operating without written operating rules or formal roles towards common social, family, or other goals.

A **recreation activity** is the way in which people spend their leisure time. Recreational activities include what recreational opportunities are available, the seasonability of these activities, the specialized equipment or resources used, and the money and time required to pursue the activities. The frequency of local/non-local users of recreational resources, the preferences of local/non-local users, and the location of the activities are also included.

A **geographic feature** is any significant physical or cultural feature that defines the extent of a community. Cultural and physical features generally separate the cultural identity and daily activities of a community from those living in other geographic areas. Cultural features are usually established by people or agencies over time and are based on historical, ethnic, or social events. Physical features include geologic, biologic, and climatic features, distances, or any other characteristics that distinguish one area from another. Examples include watershed, soil composition, and mountains.

Human Geographic Boundaries

Information from the cultural descriptors discussed in the previous section was organized into Human Resource Units (HRU) which are displayed graphically on a map of the study area (see Map 1). This map displays the cultural boundaries that distinguish the various human habitat areas. The names of the HRU's are as follows: (1) Tazewell (2) Bland (3) Wythe. These boundaries are similar to the county boundaries however, cultural boundaries do not commonly mirror jurisdictional lines. Each of these areas is characterized by unique relationships to the seven cultural descriptors discussed above.

The HRU boundaries are not constrained by county or other political boundaries. They are naturally occurring boundaries within which people who share similar beliefs, attitudes and lifestyles have their greatest strength and concern. This mapping of the social ecosystem provides the context within which the definition and assessment of the concept of cultural attachment took place.³ Narrative describing each HRU is not included in this document. The HRU designation is the method used by JKA to gain a comprehensive understanding of the culture in a specific geographic area. For the purpose of this report, the HRU designation serves as an interim step in the process to identify cultural areas of special concern.

Based upon the information obtained from the cultural descriptors and the insights gained from mapping the HRU's two areas of special concern showed cultural characteristics for further study. The geographic areas of special concern were: (1) Hicksville (2) Walker Creek.

³ Kent, James A. and Anthony K. Quinkert. The Technical Basis for Delineation of Human Geographic Units. Small Business Innovative Research Project, Grant Number: 85-SBIR-8-0069, United States Department of Agriculture, 1986.

Defining Cultural Attachment

Anthropologists have defined **culture** as a system of behaviors, values, ideologies and social arrangements that help human beings interpret their universe as well as deal with features of their environments— both natural and social.⁴ **Attachment** can be seen as a sense of rootedness and completion that is tied to a place. Ties exist which provide a deep link to the place in which culture is practiced which satisfy the individual's needs and create a sense of completeness. In his book, Space and Place Yi-Fu Tuan describes it as "incuriosity toward the outside world and as absence of desire for a change of scene." During a discussion, a local resident stated, "When I need to get away from it all I walk through that pasture and up the mountain to 'my rock' that overlooks the valley. You can see forever from up there. I just sit there until I'm ready to come back down and face the world again."⁵

Similarly, in this study **cultural attachment** has been defined as the cumulative effect over time of a collection of traditions, attitudes, practices, and stories that ties a person to the land, to physical place, and to kinship patterns. This definition evolved out of the field work where stories were gathered from local people about their lives, from a review of the literature about Appalachia, and from discussions with academicians, and other professionals who are familiar with the study area.

Cultural attachment is the result of having lived in an area - and having had your ancestors live in that area. Cultural attachment is the result of having made many everyday decisions within the context of **land, place, and kinship**. Cultural attachment requires the active (rather than passive) process of people attempting to preserve their natural and social environment.

During the field work for this study, three elements of cultural attachment became prominent, they were attachment to land, to physical place, and to kinship patterns.

People talked about their relationship to **land** in terms of self-sufficiency ("the land will provide water, food, fuel - a home"⁶), and stewardship ("This land isn't mine, I am just taking care of it for the next generation."⁷) In cultural attachment, land is not seen as a commodity to be sold but as a part of the family system that has a sacred quality.⁸ As Osha Gray Davidson observes in his book Broken Heartland (1996) "To fail several generations of relatives...to see yourself as the one weak link in a strong chain...is a terrible, and for some, and unbearable burden."

⁴ Wagner, Melinda Bollar, et.al., "Documentation of Certain Intangible Elements of Cultural Heritage, Folklife, and Living Culture: Cultural Attachment to Land in Craig County, Virginia", Appalachian Regional Studies Center and Department of Sociology and Anthropology, Radford University, March 1995, page 2.

⁵ Quote from field notes.

⁶ Quote from field notes.

⁷ Quote from field notes.

⁸ For a thorough discussion on the concept of Appalachian space see Hill, David, "Appalachian Heroes as an Indicator of Appalachian Space: Changes in the meaning of Appalachian Space and Time, 1858-1985", Proceedings of the Second Biennial Linear Parks Conference 1987, Appalachian Consortium Press, Boone, North Carolina, 1987.

Production on the land is geared to family use, sharing and other culturally-appropriate activities. Family members and neighbors may assist with planting or harvesting activities with shared labor or equipment. Often annual family or community rituals will accompany these peak work periods.

Many of these lands in the culturally attached areas have been in the same family for hundreds of years, while other families try to reassemble land parcels that their ancestors had as original holdings ("That is where I'll be buried. My great-great grandparents, my grandparents, and my daddy are buried there. That's where I'll be when my turn comes."⁹).

Talk about physical **place** related to geographic locations given special meaning through intimate knowledge and shared perceptions over a long period of time. Included are areas with special names such as Crackers Neck or The Slide. Connected to these places are stories and values that create a bond with one's home. "Our people are attached to the valleys and mountains all around us. It's been our home for generations. They have the land, the place...people offer us money for our land but we don't sell it. You just don't want to be cut off from the sacredness of your land".¹⁰

Or as Kent Ryden explained in *Mapping the Invisible Landscape* (1993), "locals understood themselves as historically and genealogically linked with the past as it transpired in that place- as the living end results of a historical process- and that they thus could not be fully understood or known without a knowledge of local history"¹¹

Place was also defined as intimate knowledge of the landscape, what happens in the landscape, what the landscape provides ("During the depression, the mountain took care of us", "if you take care of this place it will take care of you", "Those springs are our life line, they keep us healthy"¹¹). In culturally attached areas, place was spoken of as having a living interactive quality that preserved the relationship between people and their landscape.

The third element, **kinship patterns**, was commonly expressed in conversation with study area residents. In culturally attached areas, the household was the basic unit of production. Families had decided physical place and land were their dominant values and the family and kin work to support those values. Mutual cooperation, kinship gatherings, discussions of the genealogy of family and place were prominent.

In her book *Sense of Place*, Barbara Allen explains a tie between kinship and place, "a sense of place is inseparable from a sense of the network of relations, past and present, that bind people in an area together. They read the landscape as a historical record in which people are related

⁹ Quote from field notes.

¹⁰ Ibid. Page 104

¹¹ Quotes from field notes

both to each other and to the land itself through their homeplaces which simultaneously shelter and symbolize structured and stable family life.

In his book, Appalachian Valley, George Hicks focuses on kinship as the central organizing principle of social life.¹² Dwight Billings in a paper on preindustrial Appalachia states "exchange between familiesreveals a deep cultural attachment to kinship and neighborhood ties and to a spirit of mutual cooperation".¹³ It was in this element that the resilience of the culture could be seen. Family mechanisms were used to maintain participation and control over their environment. Minor changes that confront the family are often adsorbed and brought into the culture. This absorption mechanism allows for people to accommodate change without losing their culture. Major impacts from the outside disrupt these kinship patterns leading to the demise of cultural attachment.

While the reviewed literature had discussed these three elements as separate entities, it became apparent that they were intricately tied together in a dynamic bio-social ecosystem where cultural attachment existed. Where cultural attachment was weakened one or more of these elements had been intruded upon and participation and control over them had been eroded. If one of the elements such as place (outsiders buying property) is impacted or affected the other two elements are also affected (kinship patterns broken, land shifts from use to commodity). It was found, in people's talk, that there was constant attention to keeping these three elements in harmony. Figure 2 displays the functioning parts of this culturally attached bio-social ecosystem model.

The triangle represents the dynamic interaction of the three elements of land, physical place and kinship. In the middle of the triangle is the individual and family. In the circle are the cumulative affect over time of the traditions, attitudes, practices and stories.¹⁴ The outer boundary represents the ecosystem within which cultural attachment occurs.

Some of the most important characteristics of cultural attachment imply a long relationship to the land, a set of work routines and support mechanisms that rely on the help of neighbors and kin, and a common understanding within the community of the genealogy of neighbors and places. One must have other people like oneself to continue to practice daily living in a way that supports cultural attachment. That is not to say that cultural attachment is so fragile that newcomers cannot be absorbed.

This active rather than passive definition of culture attachment was used in the field to determine where different geographic areas would be placed on a continuum from low cultural attachment to high cultural attachment.

¹² Hicks, George L, Appalachian Valley, Holt, Rinehart, and Winston, New York, 1976

¹³ Billings, Dwight, et.al.; "Culture, Family, and Community in Preindustrial Appalachia", Appalachian Journal, Winter 1986, pages 154 to 170.

¹⁴ Jones, Loyal, Appalachian Values. The Jesse Stewart Foundation, Ashland, Kentucky, 1994.

Cultural Indicators Used To Assess Areas of Culture Attachment

“Cultural attachment indicators” were developed by JKA to identify areas where cultural attachment exists and to allow for a comparative assessment of cultural attachment in different geographic areas. Indicators are selected from within the study environment in order to provide a culturally sensitive measure of culture attachment. The indicators chosen for this project were developed as a result of describing the study area with the seven cultural descriptors. The most significant cultural descriptors in defining cultural attachment indicators were “settlement patterns”, “recreation activities”, and “work routines”.

Five cultural attachment indicators were developed to identify the areas in which cultural attachment was practiced and to assess its extent:

Kinship-- A person who is culturally attached has a primary commitment to his/her kin. This expresses itself through mutual support to provide needed services such as child care, agricultural support, and entertainment/recreation. This occurs within the context of a commitment to place. A person who is not culturally attached is more likely to purchase services and seek entertainment/recreation outside of their place. They are also likely to define their family as those with whom they share a residence.

Place/work orientation-- A person who is culturally attached has a primary commitment to place. The choice of employment is secondary and is often a method of supporting the primary commitment to place. In contrast people who are not culturally attached place primary emphasis on the choice of work and then select a place to live.

Relationship to land-- A person who is culturally attached has a relationship to land which is primarily based in non-economic values. Land is recognized as having intrinsic value which is more important than its economic value. A person who is not culturally attached has a relationship to land which is primarily based on its extrinsic or economic value.

Genealogy of homeplace-- A person who is culturally attached has an understanding and makes choices in his/her daily lives based on the genealogy of their homeplace. If one is a newcomer, he/she will have learned of the genealogy of the homeplace and adopted it.

Absorption-- People in areas which practice cultural attachment have developed a process for absorbing change in their environment. This informal system provides the basis for sustaining culture while dealing with new influences. In places where cultural attachment is not practiced, changes are based on whatever choices

individuals or political bodies make since there is little or no cultural attachment into which change can be absorbed.

Identified areas of cultural attachment studied are shown on Map 1. In some areas, the extent of cultural attachment is greater than in others. Areas were rated and placed in one of five categories: high, high/medium, medium, medium/low, or low. Areas with low cultural attachment were not reported out.

High--cultural attachment is the dominant culture. All five indicators show that without intrusion, the culture will have a long-term sustainability.

High/medium--cultural attachment is the dominant culture, however the culture has begun to face intrusion from internal or external forces. One or more indicators are showing a weakness that could affect sustainability.

Medium--cultural attachment coexists with other cultures and is not the dominant culture. It might exist in clusters of families but overall indicator strength is degenerating due to intrusions. Sustainability is in doubt.

Medium/low--cultural attachment exists in clusters that are not sustainable.

Low--cultural attachment is virtually non-existent.

Table 1 shows the rating by indicators and the cumulative rating for each area of cultural attachment studied.

Table 1: Rating of Cultural Attachment Study Areas by Cultural Attachment Indicator

Area of Study	Hicksville	Walker Creek
Kinship	High/Moderate	High/Moderate
Place/work	High/Moderate	Moderate
Relation to Land	Moderate	Moderate
Genealogy	Moderate	High/Moderate
Absorption	Moderate/Low	High/Moderate
Overall	Moderate	High/Moderate

FIGURE 1: CULTURAL ATTACHMENT STUDY PROCESS

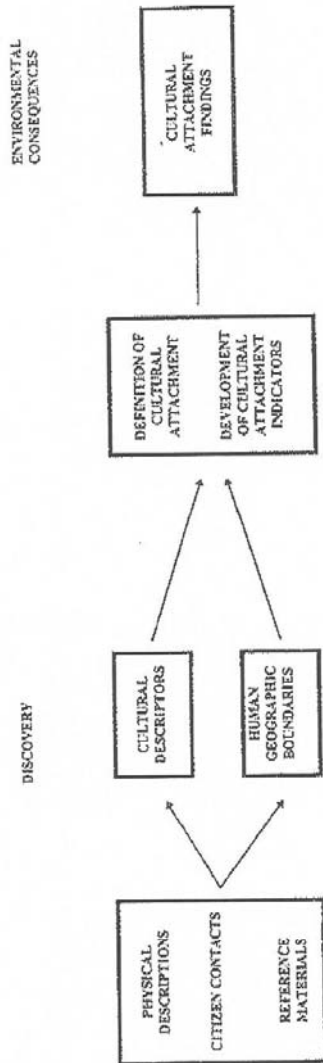
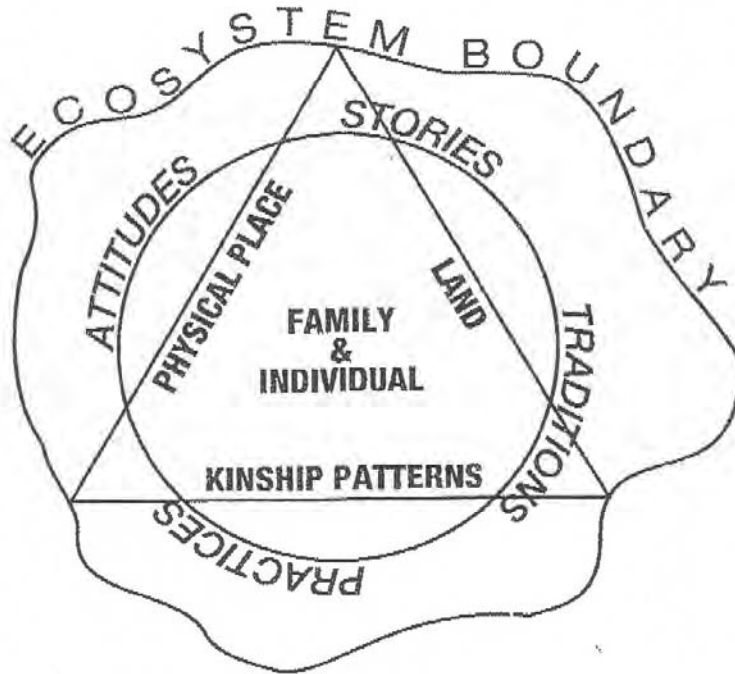


FIGURE 2: CULTURAL ATTACHMENT MODEL



SECTION 5: BIBLIOGRAPHY

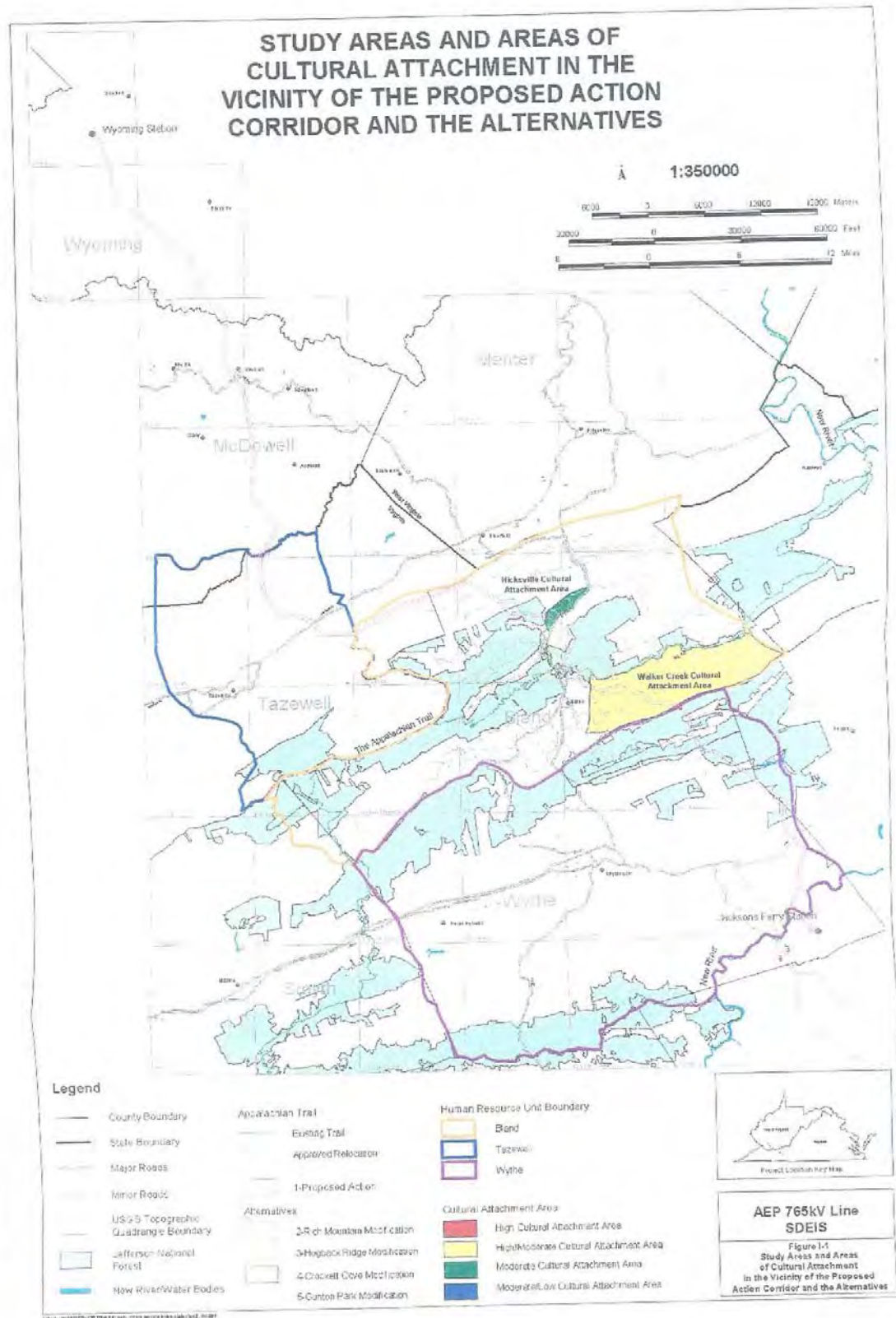
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Cultural Attachment Technical Report James Kent Associates

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Appendix C

Forest Supervisor Damon Letter to the
Virginia State Corporation Commission and the
West Virginia Public Service Commission
June 18, 1996

United States
Department of
Agriculture

Forest
Service

George Washington
and Jefferson
National Forests

5162 Valleypointe Parkway
Roanoke, VA 24019-3050

File Code: 1950

Date: June 18, 1996

Mr. Wayne Smith
Virginia State Corporation Commission
PO Box 1197
Richmond, VA 23209

Mr. Rick Hitt
West Virginia Public Service Commission
PO Box 812
Charleston, WV 25323

Dear Messrs. Smith and Hitt:

This letter concerns the Draft Environmental Impact Statement we will be releasing this week regarding AEP's proposal to cross federal lands with a 765,000-volt transmission line.

You will be receiving a copy of the five volumes which comprise the Draft EIS next week. I have enclosed a copy of the Volume 1, the Summary, with this letter. As a way of introducing our analysis, I will first provide you some important information regarding the federal decisionmaking process, the methodology used in our analysis, the federal agencies' authority in this matter, and my rationale for identifying the Agency Preferred Alternative.

In March of 1991 American Electric Power (AEP - then, the Appalachian Power Company) submitted an application to the Forest Service requesting authorization to construct, operate and maintain a 765 kV transmission line within a 200-foot-wide right-of-way (ROW). The corridor identified in AEP's application is 1000 feet wide and crosses approximately 12 miles of land administered by the Forest Service, National Park Service and US Army Corps of Engineers.

Before I, and the other federal decisionmakers, can make a decision on the AEP request we are required to identify and consider the potential effects of authorizing the proposed transmission line. As part of that evaluation we are also required to develop alternatives which respond to the purpose and need identified by the agencies and the significant issues identified through a public involvement process. The federal agencies' analysis is documented in the Draft Environmental Impact Statement. The federal agencies are conducting their analysis to determine whether AEP will be authorized to cross federally administered lands with a 765 kV transmission line, and if so, under what conditions that authorization will be granted.

The proposed and alternative corridors which cross federal jurisdictions were evaluated on a 1000-foot-wide basis in the Draft EIS. This allowed for flexibility in evaluating the resources present within a corridor somewhat wider than the corridor request so that sensitive resources or engineering consideration might be accommodated in the location of the requested right-of-way (ROW). The federal agencies recognize that their final decisions on the AEP proposal need to be made in the context of both federal and private land impacts, so the environmental effects of the entire 115 miles of the AEP proposal are considered by the federal agencies in this analysis.

The federal agencies are not deciding whether or where the proposed transmission line will cross private lands. The federal agencies do not have the authority to make those decisions. Due to this significant limitation, private land corridors were not identified in the federal agencies' analysis. Instead, one-mile-wide bands were developed which connect the federal land corridors to each other or connect the federal land corridors back to the corridor proposed by AEP. These connecting bands were developed along paths that appeared reasonably foreseeable and allowed the federal agencies to estimate the potential private land effects until, and if, a definitive private land route is approved by the States. These bands were not developed to represent the best private land corridor locations and the federal agencies are not advocating their use. Because there is limited federal involvement between Oceana and Athens, West Virginia, no mile-wide bands were developed for this segment of the AEP proposal.

We deviated from the one-mile-wide bands on private land in a couple of instances; for the alternatives located to the north of AEP's proposed corridor there are two 1000-foot-wide corridors identified on private land. These 1090-foot-wide corridors were identified through a siting study conducted for AEP and adopted by the federal agencies for their analysis.

The environmental effects for private lands discussed in our analysis are estimated and based on averages derived from an inventory of the entire one-mile-wide band. The averages were then applied to a 200-foot-wide ROW. While the location of this 200-foot-wide ROW is not specifically identified in our analysis, the information provided may be useful in generally identifying the resources present within the one-mile-wide bands.

Please note that the Draft EIS is not the agency decision document. The federal decision-makers will not make their decisions on the AEP proposal until the State Commissions have decided whether the proposed transmission line is needed and approve a private land corridor. The federal agencies will consider the information provided to them during the Draft EIS comment period, and the analysis conducted by the States. Using this information the federal agencies will prepare a Final EIS and issue their decisions on whether, where and under what conditions AEP will be authorized to utilize a 200-foot-wide ROW for the construction, operation and maintenance of a 765 kV transmission line across federal lands.

The federal agencies' analysis is not intended to constrain or dictate to the States the corridors or other options they should consider in their evaluation of the AEP proposal. The Draft EIS provides the federal agencies' assessment of the potential impacts that could result, principally, to federal land resources under various corridor alternatives if a transmission line were authorized to cross lands under federal jurisdiction.

The Draft EIS also provides useful information on the potential impacts to private lands along the route proposed by AEP, as well as the other private land routes that appeared reasonably foreseeable given the location of the federal land corridors.

The Draft EIS considers 14 alternatives in detail -- Twelve of the alternatives cross the National Forest, one avoids the National Forest, and a No Action Alternative. It is important to note that based on the analysis that has been conducted thus far, I identified the No Action Alternative as the Agency Preferred Alternative in the Draft EIS. The identification of this alternative would mean that a crossing of the National Forest, including the Appalachian Trail, would not be authorized. At this point in the analysis process, no final federal decision has been made regarding the transmission proposal.

Since you will determine if this transmission line is needed and where it could be located on non-federal lands, I believe that it is important that you have some understanding of the rationale which went into the identification of the Agency Preferred Alternative in our Draft EIS. The following is a summary of the key impacts of the various alternatives which led to our identification of the Agency Preferred Alternative. The alternative numbers cited are explained and depicted in the Summary.

Alternatives 1 through 6 (Alternative 1 is the corridor proposed by AEP)

These alternatives,

- Cross the New River within the Wild and Scenic River Study Area. Alternatives 1 and 2 cross the New River along a generally undisturbed stretch and Alternatives 3 through 6 cross the New River at the location of an existing 345kV transmission line. Both crossings of the New River were evaluated by the National Park Service and found to be inconsistent with the intent of the Wild and Scenic Rivers Act as it relates to the Study Status of the River.

- Cross the National Forest in areas where there are few existing linear disturbances. The construction of a transmission line and its associated access roads would substantially reduce the value of these areas for the remote recreation setting they afford and the wildlife habitat they provide. Black bear prefer large areas with limited access while certain migratory bird species require the large unfragmented forested blocks afforded by these generally unroaded and remote areas. Of the 13 action alternatives considered in our analysis, these alternatives resulted in the most severe impacts to wildlife habitat and the remote recreation experience.

-Cross several areas where Cultural Attachment, or the way people relate to their surroundings and interact with each other within the community, was pronounced. For the Cultural Attachment issue, Alternatives 1 through 6 would have the greatest impacts due to the effects on the Peters Mountain Area, where the effects of a transmission line were rated high. Additionally, the Waiteville and Sinking Creek Areas would also be affected by Alternatives 1 through 4. These Areas were considered to be moderately impacted by a transmission line. It is important to note that impacts to Cultural Attachment are not subject to mitigation.

-Cross key areas where visual quality would be affected including the Appalachian Trail, the Niday Shelter, the Sinking Creek Potential Rural Historic District, Carvin Cove Reservoir, and the Audie Murphy Monument in Alternatives 1 through 4. Alternatives 1-6 would also cross the Allegheny Trail, are near to and within the view of the Hanging Rock Observatory and affect a number of small intact valley communities that are generally unmodified by large transmission lines. The visual impacts of these Alternatives would be severe and long-lasting.

Alternatives 7 through 12

-Alternatives 7 through 12 affect the Upper Craig Creek Watershed. This watershed is considered sensitive due to erosive soils, steep gradients and the presence of the James spiny mussel, a federally listed endangered species. The large amount of road construction activities could accelerate soil erosion and landslides in this area which would increase the delivery of sediment to Craig Creek. This could degrade water quality for aquatic organisms (including the James spiny mussel), however, the application of erosion inhibiting mitigation should reduce the potential impacts to sensitive aquatic organisms to acceptable levels. Within the Upper Craig Creek Watershed, Alternatives 7, 9 and 11 have a relatively high risk of sedimentation in Craig Creek due to the length of transmission line in the watershed.

-Alternatives 9 and 10 would cross the Appalachian Trail in a relatively undisturbed area, though the crossing is designed to minimize impacts. While Alternative 9 has a short stretch of line which is parallel to an existing line, Alternative 10 has no sections which parallel existing lines on federal lands. These alternatives would have high impacts on cultural attachment in the Walker Valley" area. The visual impacts of these alternatives would be severe and long-lasting. Key areas where visual quality would be affected include McCoy Falls on the New River, Route 460 and the Pandapas Pond Recreation Area, Carvin Cove Reservoir and views from the Appalachian Trail in the Dismal Creek area and on Sinking Creek Mountain (particularly for Alternative 9).

-Alternatives 11 and 12 would cross the Appalachian Trail at an existing transmission line crossing though the line would have additive visual impacts: The visual impacts of this alternative would be severe and long-lasting. Key areas where visual quality would be affected include McCoy Falls on the New River, Route 460 and the Pandapas Pond Recreation Area, Carvin Cove Reservoir and views from the Appalachian Trail on Sinking Creek Mountain (particularly for Alternative 11).

-Alternatives 7 and 8 would cross the Appalachian Trail at an existing transmission line crossing and would parallel existing transmission lines for approximately 30 percent of their total length. While the visual impacts are less where the new powerline would parallel an existing powerline, it is important to recognize that there still would be significant additive impacts due to the size of the new transmission line towers and ROW. In addition, Alternatives 7 and 8 would require 7.4 and 6.2 miles of new crossings on federal lands, respectively, that would not parallel any existing transmission lines. Therefore, as is the case with the other alternatives discussed above, the visual impacts for Alternative 7 and 8 would be severe, long-lasting, and unacceptable to the Forest Service. Key areas where the visual quality would be affected for both Alternatives 7 and 8 include views at the Appalachian Trail transmission line crossing on Peters Mountain, Carvin Cove Reservoir, and the Newport Potential Rural Historic District. There would also be additional visual impacts on Alternative 7 where the views from the Appalachian Trail would include the powerline crossing of Sinking Creek Mountain.

Alternative 13

-Our analysis for Alternative 13 or the alternative that does not cross the National Forest, indicates that it is feasible to construct a transmission line which avoids the National Forest. We are required to explore this option when evaluating proposals which request the use of the National Forest. Our analysis also indicates that the adverse impacts of this alternative could be substantial, however, these impacts are based on average densities of resources within a reasonably foreseeable corridor location. An actual corridor may have substantially different impacts. Since I have no authority over the location of the transmission line on non-federal lands, I cannot recommend this alternative.

As discussed, Alternatives 1-12 would have varying levels of impacts, but all of them have one factor in common. The transmission line would have severe and long-lasting effects on the visual resources on federal lands and surrounding communities due to the height of the towers, the width of the cleared right of way, its location in relation to visually sensitive areas, and the expected duration of impact. While the impacts on many resources could be mitigated through the application of additional measures, visual resources could only be mitigated to a certain level. The towers and conductors would be seen and be visually dominant from some highly sensitive vantage points for the life of the transmission line.

Our Forest Land and Resource Management Plan contains a goal of protecting and enhancing the scenic value of the Forest. Management direction specifies that we are to manage the Forest to promote the long-term visual quality objective for the visual resource. It is clear, based on the analysis we have conducted, that authorizing this line to cross the National Forest would not comply with the direction in the Forest Plan.

Messrs. Smith and Hitt

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It is for these reasons, and the others more fully discussed in the Draft EIS, that I have identified the No Action Alternative as the Agency Preferred Alternative. The identification of this alternative was made after consideration of the environmental analysis and the information from the Virginia State Corporation Commission regarding the Hearing Examiners recommendation and the Commission's preliminary determination on the need for the transmission line in Virginia.

The Draft EIS is a complex document due to the nature of the decision to be made. If you would like to discuss the analysis please contact us and we will be glad to meet with you to answer any questions.

Sincerely,

WILLIAM E. DAMON, JR.
Forest Supervisor

Enclosures (Summary and 6/18/96 Press Release)

Appendix D:

Executive Order
September 15, 2015

“Using Behavioral Science Insights to Better Serve the American People”

Executive Order --

Using Behavioral Science Insights to Better Serve the American People

EXECUTIVE ORDER

USING BEHAVIORAL SCIENCE INSIGHTS TO

BETTER SERVE THE AMERICAN PEOPLE

A growing body of evidence demonstrates that behavioral science insights -- research findings from fields such as behavioral economics and psychology about how people make decisions and act on them -- can be used to design government policies to better serve the American people.

Where Federal policies have been designed to reflect behavioral science insights, they have substantially improved outcomes for the individuals, families, communities, and businesses those policies serve. For example, automatic enrollment and automatic escalation in retirement savings plans have made it easier to save for the future, and have helped Americans accumulate billions of dollars in additional retirement savings. Similarly, streamlining the application process for Federal financial aid has made college more financially accessible for millions of students.

To more fully realize the benefits of behavioral insights and deliver better results at a lower cost for the American people, the Federal Government should design its policies and programs to reflect our best understanding of how people engage with, participate in, use, and respond to those policies and programs. By improving the effectiveness and efficiency of Government, behavioral science insights can support a range of national priorities, including helping workers to find better jobs; enabling Americans to lead longer, healthier lives; improving access to educational opportunities and support for success in school; and accelerating the transition to a low-carbon economy.

NOW, THEREFORE, by the authority vested in me as President by the Constitution and the laws of the United States, I hereby direct the following:

Section 1. Behavioral Science Insights Policy Directive.

(a) Executive departments and agencies (agencies) are encouraged to:

(i) identify policies, programs, and operations where applying behavioral science insights may yield substantial improvements in public welfare, program outcomes, and program cost effectiveness;

(ii) develop strategies for applying behavioral science insights to programs and, where possible, rigorously test and evaluate the impact of these insights;

(iii) recruit behavioral science experts to join the Federal Government as necessary to achieve the goals of this directive; and

(iv) strengthen agency relationships with the research community to better use empirical findings from the behavioral sciences.

(b) In implementing the policy directives in section (a), agencies shall:

(i) identify opportunities to help qualifying individuals, families, communities, and businesses access public programs and benefits by, as appropriate, streamlining processes that may otherwise limit or delay participation -- for example, removing administrative hurdles, shortening wait times, and simplifying forms;

(ii) improve how information is presented to consumers, borrowers, program beneficiaries, and other individuals, whether as directly conveyed by the agency, or in setting standards for the presentation of information, by considering how the content, format, timing, and medium by which information is conveyed affects comprehension and action by individuals, as appropriate;

(iii) identify programs that offer choices and carefully consider how the presentation and structure of those choices, including the order, number, and arrangement of options, can most effectively promote public welfare, as appropriate, giving particular consideration to the selection and setting of default options; and

(iv) review elements of their policies and programs that are designed to encourage or make it easier for Americans to take specific actions, such as saving for retirement or completing education programs. In doing so, agencies shall consider how the timing, frequency, presentation, and labeling of benefits, taxes, subsidies, and other incentives can more effectively and efficiently promote those actions, as appropriate. Particular attention should be paid to opportunities to use nonfinancial incentives.

(c) For policies with a regulatory component, agencies are encouraged to combine this behavioral science insights policy directive with their ongoing review of existing significant regulations to identify and reduce regulatory burdens, as appropriate and consistent with Executive Order 13563 of January 18, 2011 (Improving Regulation and Regulatory Review), and Executive Order 13610 of May 10, 2012 (Identifying and Reducing Regulatory Burdens).

Sec. 2. Implementation of the Behavioral Science Insights Policy Directive. (a) The

Social and Behavioral Sciences Team (SBST), under the National Science and Technology Council (NSTC) and chaired by the Assistant to the President for Science and Technology, shall provide agencies with advice and policy guidance to help them execute the policy objectives outlined in section 1 of this order, as appropriate.

(b) The NSTC shall release a yearly report summarizing agency implementation of section 1 of this order each year until 2019. Member agencies of the SBST are expected to contribute to this report.

(c) To help execute the policy directive set forth in section 1 of this order, the Chair of the SBST shall, within 45 days of the date of this order and thereafter as necessary, issue guidance to assist agencies in implementing this order.

Sec. 3. General Provisions. (a) Nothing in this order shall be construed to impair or otherwise affect:

(i) the authority granted by law to a department or agency, or the head thereof; or

(ii) the functions of the Director of the Office of Management and Budget relating to budgetary, administrative, or legislative proposals.

(b) This order shall be implemented consistent with applicable law and subject to the availability of appropriations.

(c) Independent agencies are strongly encouraged to comply with the requirements of this order.

(d) This order is not intended to, and does not, create any right or benefit, substantive or procedural, enforceable at law or in equity by any party against the United States, its departments, agencies, or entities, its officers, employees, or agents, or any other person.

BARACK OBAMA

THE WHITE HOUSE,
September 15, 2015

Appendix E:
JKA Staff Resumes

JAMES A. KENT

**837 Steele Street
Denver, Colorado 81621**

**(970) 927-4424
jkent@jkagroup.com**

PROFESSIONAL SUMMARY

Global community organizer with extensive experience in successfully implementing economic redesign by crafting empowered partnerships between communities and governments. Expert in community-involved issue management and corporate responsibility. International social ecologist who has presented at hundreds of universities, policy forums, and conferences. Designed a Social Ecology Course for the International Right of Way Association’s 10,000 + members. Areas of expertise are:



PROFESSIONAL EXPERIENCE

- National Environmental Policy
- Cultural Attachment Assessments
- Policy Formation and Implementation
- Social Risk Assessments
- Our Town Planning
- Social License to Operate for Infrastructure Projects

JKA Group, Denver, CO

1988 to Present

World renowned experts in global-social culture analysis, human geographic issue management systems, culture-based strategic planning, cultural attachment assessments, and social ecology theory development.

President

Aligned public policy outcomes with responsive mix of citizen issues and agency interests.

- Generated enormous increase in profitability and productivity for construction company that was bogged down in bureaucracy by interviewing tenured production workers and project managers, listening for core culture, beliefs and traditions and reconnecting mission to grass roots workers.
- Stabilized Guam power grid by dismantling counter cultural impact of hierarchy, redesigning organizational structure to resemble local culture, and increasing power plant productivity from 15% to 85% in 18 months.
- Increased local earning power by over \$270 million and transformed lives from poverty to participation by working with 300 institutions of higher education to develop associate of arts accrediting programs for 40 new career pathways.
- Developed the first cultural attachment definition and study to access a 750kV power line and its impact on living culture and expanded culture attachment in other policy venues worldwide.

CENTER FOR SOCIAL ECOLOGY AND PUBLIC POLICY, Ashland, OR

2003 to Present

Non-profit organization specializing in creation of public policy through direct participation of citizens.

Co-Founder and Senior Analyst

Analyzes and interprets impact of emerging trends and their affect on social/political/economic systems.

- Avoided consumption of pole and wire raw materials for telecommunication infrastructure across China and India by analyzing social networks, distributing cell phones to cultural leaders, and leveraging resulting demand for mobile technology.
- Saved Oregon tax dollars by analyzing trends in recreational activity and realigning budgets.
- Established Field School in Social Ecology and public policy.

NATURAL BORDERS, Kona, Hawai'i

1998 to Present

Production company that prints and markets proprietary Human Geographic Maps depicting people and land as one unit based on cultural boundaries as distinguished from administrative.

Co-Founder and President

Revolutionized government decision making by creating system to recognize human geographic boundaries of cultural social systems in addition to administrative borders.

- Increased cultural acceptance of West Hawai'i development projects by aligning zoning units to historical ahupua'a watershed and communities instead of administrative boundaries.
- Reduced government spending and complexity by realigning National Forest Service territories to follow logical boundaries of Sangre de Cristo watershed and Four Corners Region instead of dividing arbitrarily across Colorado and New Mexico state lines.
- Reduced traffic fatalities between Glenwood Springs and Aspen, Colorado overriding arbitrary lines dividing three counties and integrating transportation system across Roaring Fork Valley.

EDUCATION

Juris Doctrate (J.D.) University of Denver, Administration of Justice

Master of Arts (M.A.), Kent State University, Ohio, Sociology

Graduate Work, University of Denver, Business Administration

Bachelor of Arts (B.A.), Salem College, West Virginia, Human Relations

BOARD POSITIONS

Center for Steinbeck Studies, San Jose State University, Advisory Board

Foundation for Urban and Neighborhood Development (FUND), Chairperson of the Board

FUND Pacific Associates, Chairperson of the Board

Aspen Institute Community Forum, Board Member

ACADEMIC APPOINTMENTS

University of Northern Colorado, Adjunct Professor, Environmental Studies Program

University of Hawai'i, Guest Lecturer, Department of Urban and Regional Planning

California State University, Monterey, Adjunct Faculty, Department of Social Science

Southern Oregon University, Co-Founder of Field School in Social Ecology and Public Policy

Bureau of Land Management National Training Center Social Ecology Instructor

AWARDS

Association of American Geographers Citation Award for Human Geographic Excellence - The Hawai`ian Wind Farm Project

The United States Forest Service 75 Anniversary Gifford Pinchot Award for Socially Responsive Management

Washington Association of Professional Anthropologists Honorary Praxis Award for the Issue-centered Approach to Social Impact Assessment

Voted Outstanding Alumni, Salem College, Salem, West Virginia 2013

SELECT PUBLICATIONS

- Selected as a columnist in June, 2009 to write a bi-monthly column on *Social Ecology, the Science of Community* for the International Right of Way Association Magazine (See our [Publications section](#) for all articles up through the January/February 2015 issue)
- *An Anthology, Social Ecology: The Science of Community*, book published in 2014 of the first 20 columns written for the International Right of Way Association
- *A Social License to Operate in the 21st Century: Overcoming the Clash of Two Cultures*, Oil and Gas Facilities Journal, August 2013
- *Learning Guide: Social Ecology: Listening to Community, Social Risk Management for Infrastructure Professionals: A Concept Course*, IRWA Course 225, IRWA Publications, 2015
- *Climate Change and the Language of Geographic Place*, Chapter 19, published in H.A. Karl, et. al. (eds.), *Restoring Lands-Coordinating Science, Politics and Action: 421 Complexities of Climate and Governance*, Springer Science + Business Media B.V. 2012.
- *Hawaii and Guam: Strategic Convergence Zones for the United States Forward Defense Strategy in the Pacific Rim*, Small Wars Journal, 2011
- *Relocating the Marine Corps: A populations surge would overwhelm any environment: Can chaos on Guam be avoided*, Right of Way Magazine, IRWA, May/June 2011.
- *The Obama Election: Reflections on a National Movement toward Heart and Soul Governance*, Op-Ed Article, The Denver Post 2009
- *The Use of Informal Networks and Gathering Places Allows Denver International Airport to be Built*, Op-Ed article, The Denver Post 2008
- *Cultural Based Management: Re-discovering and Mobilizing the Core Beliefs of the Company*, Aspen Earth Moving Company, Carbondale, CO, 2007
- *Citizen Participation in Designing O`oma Beachside Residential Village*, Kona, Hawai`i 2007
Reducing Complexity and Conflict in Decision Making: The Holy Cross Energy Experience—Building a Transmission Line and Sub-Station at Snowmass, Colorado. Published by: Rocky Mountain Electrical League, Denver, CO, 2006
- *The Pursuit of Goals Using a Social Capital Matrix with the Town of Basalt*, Basalt, CO, 2004

- *Using Social Ecology to Meet the Productive Harmony Intent of the National Environmental Policy Act*, Hastings West-Northwest Journal of Environmental Law and Policy, University of California, Hastings College of the Law, 2001

JAMES A. KENT (page 4)

(970) 927-4424

- *The Grand Valley: A Community Vision for the Year 2020*, The Valley Vision 20/20 Steering Committee, Grand Junction, Colorado, 2003
- *Environmental Justice Risks in the Petroleum Industry*: William and Mary Environmental Law and Policy Review, William and Mary School of Law.2002
- *Methods for the Development of Human Geographic Boundaries and Their Use*, Cooperative Agreement Report, U.S. Department of Interior, Bureau of Land Management, 1998
- *Notebook for the Office of the Regional Environmental Coordinator*: United States Marine Corps, Camp Pendleton, California, 1998
- *Community Story: The Power of Local Identity, and the Function of Information Flow*. Community Cultural Profiling Guide: Understanding a Community's Sense of Place. Washington, DC: Office of Sustainable Ecosystems and Communities, U.S. Environmental Protection Agency, 1998
- *Community Resources Summary and Recommendations Marine Corps Amphibious Training at Makua Beach*. Honolulu, HI: Marine Corps Base Hawai'i, 1997
- *Social Ecology: A New Pathway to Watershed Restoration*. Watershed Restoration: Principles and Practices, by Jack E. Williams, Michael P. Dombeck and Christopher A. Wood (eds.), Bethesda, MD: American Fisheries Society (with Kevin Preister), 1997
- *Field Report: Strategic Review of the Tanguisson Power Plant Operations*, Barrigada, Guam. HEI Power Corporation Guam, 1997
- *Mack and the Boys as Consultants*, Doc's Lab: Myths and Legends of Cannery Row, PBL Press, Monterey, California, 1995
- *Social Ecology in Ecosystem Restoration. The Role of Restoration in Ecosystem Management*, David L. Pearson & Charles V. Klimas (eds.), pp. 199-207, Madison, WI: Society for Ecological Restoration (with Kevin Preister), 1996
- *Culture Attachment: Assessment of Impacts to Living Culture (In the George Washington and Thomas Jefferson National Forests)*. Woodward-Clyde Consultants, APCo 765 kv Transmission Line EIS, 1995
- *Thinking beyond Our Borders: A Bio-social Ecosystem Approach to Resource Management on Public Land*. Anchorage, AK: National Military Fish and Wildlife (with Dan Baharov, Diane Drigot), 1994
- *Social Infrastructure Enhancement: Social/Cultural Assessment of Stapleton Airport Redevelopment and Master Planning*. Denver, CO: Mayor's Office of Economic Development.
- Over 200 articles published between 1967 and 1993 in the fields of education, health, sociology, planning and development, new urbanism, informal systems, John Steinbeck and miscellaneous areas.
- Over 20 learning curriculums designed with instruction manuals

KEVIN PREISTER, PH.D.

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PROFESSIONAL SUMMARY

Every community has a culture by which its beliefs, traditions and practices are practiced, communicated and passed on to others. Human change initiatives—projects, programs and policies of government or corporations—must fit within the culture of a geographic area, and offer social, economic and ecological benefits in order to be successful, effective and sustainable.

Improved linkages between informal community systems and the institutions that serve them assist in efforts to sustain human ecosystems. By entering the routines of a community (The Discovery Process), one can understand the kinds of people living there, how they communicate, what's important to them, and the existing cultural patterns of managing intrusion and absorption. This social/cultural information is a major resource in designing change programs, whether ecosystem management in the rural areas, low income housing and urban re-development in the cities, economic development, or programs to address climate change. Change programs work that “fit the culture” and fail if “cultural alignment” is not achieved. My areas of focus include:

- Community and Regional Assessments
- Issue Management Systems
- Policy Formation and Implementation
- Natural Resource Management
- Cultural Attachment Studies
- Socially-Responsive Design
- Innovative Governance

PROFESSIONAL EXPERIENCE

The Center for Social Ecology and Public Policy, Ashland, Oregon

Title: Executive Director

Mission: Creating public policy formation through direct citizen participation and culture-based design

Accomplishments:

- Organizes seminars for Social Ecology practitioners to summarize learning and challenges in this emerging professional field.
- Trains cohorts of social service agencies in strategies for poverty reduction based on cultural practices and aspirations of poor people.
- Conducts an annual Field School in Social Ecology and Public Policy, in conjunction with Southern Oregon University, in order to develop professional practitioners in Social Ecology.
- Conducts regional social assessments and opportunity structuring to support large scale change initiatives, including land use planning, forest management approaches, and innovative governance.

James Kent Associates, with offices in Basalt, Colorado; Ashland, Oregon and Kailua-Kona, Hawaii

Title: Senior Associate

Mission: Enhancing productive harmony between human and natural environments; optimizing social and economic benefits of development projects; fostering capacity to manage citizen issues in settings of rapid change

Accomplishments:

- Worked with the International Right of Way Association (IRWA) over the last four years to introduce and integrate a Social Ecology approach into project design within the right-of-way and infrastructure profession. Designed a two-day experiential workshop on understanding communities and a one-day concepts course for executives.

KEVIN PREISTER (PAGE TWO)

- A leader in the paradigm change within the Bureau of Land Management to community-based ecological stewardship. For over fifteen years, I have conducted training programs and provided direct services and troubleshooting to various BLM offices around the country, leading to policy changes in planning and management practices at the national level.
- Social Ecology Instructor, National Training Center, Bureau of Land Management. Developed and instructed for the Partnership Series suite of courses, covering topics: “Learning Community,” “Community-Based Ecosystem Stewardship,” “Community Economic Assessment.” These courses have brought us to over 50 different communities in the West, several times more than once, and have led to citizen-directed stewardship projects, new programs, and the formation of citizen-led stewardship groups.
- Created a GIS product for the Willamette National Forest in 2002 in the southern Willamette Valley (population: 800,000) with extensive community contact to identify trends, citizen issues, and opportunities. By making social and economic information visible through human geographic mapping, this information is now on equal terms with biophysical data in a manner that was not possible ten years ago, contributing to an expanding proactive management capacity.
- Our Human Geographic Mapping system has been adopted in land use plans in at least 15 different federal offices. In 2010, JKA’s Human Geographic Mapping System was adopted by the Spokane District of BLM as the basis of its upcoming land use planning process.
- Successfully fostered citizen-based design of several new development projects which improved the community-oriented elements of design and expedited the approval process.
- Engaged in many community-based planning projects which integrated agency concerns and citizen issues to produce successful outcomes.

Adjunct Faculty, Southern Oregon University, Department of Social Sciences, Policy and Culture.

SELECTED PROJECTS AND CLIENTS

- Launch program, “Social Ecology: The Science of Community” with the International Right of Way Association. Our first pilot, “The People Factor: Listening to Community” was held in Pablo, Montana in 2013 and the second in Caro, Michigan in 2014. In 2015, we designed a second course for executives entitled, “Social Risk Management for the Infrastructure Professional.”
- Training Session for National Adaptation Forum on Climate Change in Denver, Colorado. Title: “Using Social Ecology, the Science of Community, to Mobilize Citizens and Partnerships for Climate Change Adaptation,” April, 2013.
- Bridging underserved populations to expanding health care services, a case study in Gladstone, Oregon for the Real Life Training Group, Inc., and Family Care, Inc., 2013.
- Changing forestry practices to integrate ecological, social and economic elements, community forestry project. Josephine County Stewardship Group and multiple partners, 2011-15.
- Regional Social Assessment of Eastern Washington and the San Juan Islands for the Bureau of Land Management, Spokane District, 2010.
- Regional recreation assessment, Oregon Department of Forestry, 2009.
- Village planning with citizen support, Kailua-Kona, Hawaii, Midland Pacific Homes, Inc., 2008.
- The Ka`ū Listening Project, a community assessment of citizen issues regarding change and development, Office of the Mayor, County of Hawaii, 2008.
- The Discovery Process: Heart and Soul Planning that Mobilizes Residents, A Training Workshop and Project Development Support, Killingly, Connecticut, Orton Family Foundation, 2008.
- Social ecology of design for new subdivision, Kailua-Kona, Hawaii, Kona Heights, LLC, 2007.

KEVIN PREISTER (PAGE THREE)

- Oil and Gas Reform and Issue Scoping for a Revised Land Use Plan, Bureau of Land Management, Farmington, New Mexico, 2001.

AWARDS AND OFFICES HELD

Treasurer of the Board, National Association for the Practice of Anthropology (NAPA), 2013-15.

Keynote Address, The Oregon/Washington Leadership Forum of 2004 (Bureau of Land Management), held in Clarkston, Washington, May 11-13. Title: "Social Ecology: How do we engage the public?"

Lecture Series, University of Helsinki, Finland, The Theory and Management of Tourism, and Anthropological Contributions to Paradigm Shifts in Natural Resource Management, Renvall Institute, 2003.

Recipient, Rural Policy Fellowship, Woodrow Wilson National Fellowship Foundation. Title: "From Natural Resource Sectors to Trade and Services Sectors along South Oregon's Coast: A Case Study in Economic Transition", 1986.

Honorary Praxis Award by the Washington Association of Professional Anthropologists, Washington D.C. Title: "The Issue-Centered Approach to Social Impact Assessment", 1984.

EDUCATION

Doctor of Philosophy, University of California at Davis, Anthropology
Master of Science, Catholic University of America, Washington, D.C., Anthropology
Bachelor of Science Colorado State University, Ft. Collins, CO., Psychology

SELECTED PUBLICATIONS

"Using our Field Experiences to Build Theories of Applied Social Change—Why Do We Not Do More?," Journal of Northwest Anthropology, Volume 48, Number 1, Spring, 2014.

"The People Factor: IRWA's Social Ecology Course Shows How Community Engagement Works to Get Projects Built," International Right of Way Magazine, January/February, 2014, pgs. 32-34 (with James Kent).

"A Social License to Operate in the 21st Century: Overcoming the Clash of Two Cultures," Oil and Gas Facilities, August, 2013, pp. 30-33 (with James A. Kent).

"Climate Change and the Language of Geographic Place," In Restoring and Sustaining Lands—Coordinating Science, Politics, and Community for Action, Karl, H.A., P. Lynn Scarlett, Juan-Carlos Vargas Moreno, and Michael Flaxman (editors), Pp. 421-442. Springer Publications: New York, 2011 (with James A. Kent).

"Public Policy as Empowerment through Anthropological Practice: Beyond the Research Paradigm," Applied Anthropology Newsletter, pp. 24-27, February, 2010. <http://www.sfaa.net/newsletter/newsletter.html>.
"Social Ecology and Public Policy," on the website of the Society for Applied Anthropology, <http://www.sfaa.net/committees/policy/policy.html>, 2004.

KEVIN PREISTER (PAGE FOUR)

“A Human Geographic Issue Management System for Natural Resource Managers in the Willamette Valley, Oregon.” James Kent Associates (with L. Ibanez Dalponte, T. Keys, M. Gordon, K. Saylor, A. Arias, J. Kent), Willamette National Forest, October, 2002.

“Using Social Ecology to Meet the Productive Harmony Intent of the National Environmental Policy Act (NEPA),” Hastings West-Northwest Journal of Environmental Law and Policy, Volume 7, Issue 3, Spring, with James A. Kent. Berkeley, CA.: Hastings College of the Law, 2001.

“The Red-Cockaded Woodpecker as an Asset: Creating Community Benefits from Habitat Restoration,” a report and project for U.S. Army Environmental Center, U.S. Fish and Wildlife Service, and the U.S. Army at Fort Bragg, December, with Dave Schultz, Dick Merritt, Kris Komar, James A. Kent, 2000.

“Methods for the Development of Human Geographic Boundaries and Their Uses”, in partial completion of Cooperative Agreement No. 1422-P850-A8-0015 between James Kent Associates and the U.S. Department of the Interior, Bureau of Land Management (BLM), Task Order No. 001, 1999.

“Social Ecology: A New Pathway to Watershed Restoration.” In Watershed Restoration: Principles and Practices, by Jack E. Williams, Michael P. Dombeck and Christopher A. Wood, Editors. Pp. 28-48. Bethesda, Md.: The American Fisheries Society (with James A. Kent), 1997.

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- 2010 “Public Land Management for Community Health: How Far Do We Go?”, Presentation at the American Association for the Advancement of Science (AAAS), 91st Annual Meeting, Pacific Division, Ashland, Oregon, June 15, 2010.